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A descriptive grammar of Sumerian

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A Descriptive Grammar of Sumerian

Cover illustration: The Sumerian scribe Dudu (statuette dedicated to the god Ningirsu; Old Sumerian period; Iraq Museum, IM 55204)

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A descriptive grammar of Sumerian

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TABLE OF CONTENTS

Chapter overview

Preface and acknowledgements xv
Abbreviations and conventions for the examples xvii
1. Introduction 1
2. The writing system 15
3. Phonology 31
4. Words and word classes 69
5. The noun phrase and its parts 87
6. Nouns 101
7. The cases 137
8. Pronouns 207
9. Numerals 241
10. Adjectives 267
11. Verbs and verbal clauses 285
12. The verbal stem 309
13. The final person-prefixes 327
14. The person suffixes 343
15. The perfective and imperfective 359
16. The dimensional prefixes and initial person-prefixes 381
17. The dimensional prefixes: the indirect-object prefixes 399
18. The dimensional prefixes: the oblique-object prefixes 415
19. The dimensional prefixes: the prefixes {da}, {ta}, and {ši} 445
20. The dimensional prefixes: the local prefixes 465
21. The prefix {ba} as a middle marker 487
22. The ventive prefix {mu} 497
23. The prefix {nga} 513
24. The preformatives: the vocalic prefixes {ʔu}, {ʔi}, and {ʔa} 517
25. The preformatives: the modal and negative verbal forms 551
26. The preformatives: {ši} and non-negative {na} 577
27. The complex sentence 583
28. Non-finite verbal forms 627
29. Copular clauses 677
30. Nominal clauses 715
31. The nominalizing suffix {ʔa} 719
Bibliography 729
Appendix: Diagram of the finite verb 743

Detailed table of contents

Table of contents v
Preface and acknowledgements xv
Abbreviations and conventions for the examples xvii
1. Introduction 1
  1.1. History of the language and its speakers 1
  1.2. The Sumerian language 2

1.2.1. Genetic and areal relationships 2
1.2.2. Sources 4
1.2.3. Dialects 6
1.2.4. The death of Sumerian 9
1.2.5. Previous grammars 10
1.3. This grammar 11
1.3.1. Grammatical terminology 11
1.3.2. Notational conventions for the examples 12
2. The writing system 15
2.1. Introduction 15
2.2. An outline of Sumerian orthography 15
2.3. The early development of Sumerian writing 17
2.4. The spelling of syllable-final consonants 19
2.5. The spelling of vowel length 23
2.6. Spelling variation 26
2.7. The transliteration of the Sumerian script 27
3. Phonology 31
3.1. Introduction 31
3.2. The stops 34
3.2.1. General remarks 34
3.2.2. The voiceless aspirated stops /p/, /t/, and /k/ 35
3.2.3. The voiceless stops /b/, /d/, and /g/ 36
3.2.4. The glottal stop 38
3.3. The affricates 41
3.3.1. The /z/ 41
3.3.2. The /ř/ 43
3.4. The fricatives 45
3.4.1. The /s/ 45
3.4.2. The /š/ 47
3.4.3. The /ḫ/ 47
3.4.4. The /h/ 48
3.5. The nasals 49
3.5.1. General remarks 49
3.5.2. The /m/ 49
3.5.3. The /n/ 50
3.5.4. The /ĝ/ 50
3.6. The /l/ 51
3.7. The /r/ 52
3.8. The /j/ 53
3.9. Vowels 55
3.9.1. The short vowels 55
3.9.2. The long vowels 56
3.9.3. Old Sumerian vowel harmony 57
3.9.4. Vowel changes 60
3.10. Syllable structure 62
3.11. Stress 63
4. Words and word classes 69
4.1. Introduction 69

4.2. The Sumerological concept of 'Kettenbildung' 69
4.3. Phonological and grammatical words....71
4.3.1. Introduction....71
4.3.2. Orthographic word....72
4.3.3. Phonological word....72
4.3.4. Grammatical word....74
4.3.5. Conclusion....75
4.4. Basic structure of a Sumerian word....76
4.4.1. Introduction....76
4.4.2. Morphemes....76
4.4.3. Stems, affixes, and clitics....77
4.4.4. The relative order of the clitics....78
4.5. Word classes (parts of speech)....80
4.5.1. Introduction....80
4.5.2. The word classes and their main properties....81
4.5.3. The 'adverbs'....83
4.5.4. The ideophones....85
5. The noun phrase and its parts....87
5.1. Introduction....87
5.2. Basic structure of the noun phrase....88
5.3. Appositive noun phrases....92
5.4. Coordinate noun phrases....95
6. Nouns....101
6.1. Introduction....101
6.2. Gender....101
6.3. The plural marker {enē}....105
6.3.1. Introduction....105
6.3.2. Forms and spellings....106
6.3.3. Usage....109
6.4. Reduplication....113
6.5. Noun formation through compounding....116
6.5.1. Introduction....116
6.5.2. Noun-noun compounds....117
6.5.3. Adjective-noun and noun-adjective compounds....119
6.5.4. Noun-participle compounds....122
6.5.5. Compounds of a noun and a case marker....125
6.5.6. Coordinative compounds....125
6.5.7. Word-like phrases....126
6.6. Noun formation through conversion....127
6.6.1. Introduction....127
6.6.2. Deverbal nouns....127
6.6.3. De-adjectival nouns....130
6.7. Noun formation through derivation....130
6.8. Proper nouns....130
6.8.1. Introduction....130
6.8.2. Noun phrases as proper nouns....131
6.8.3. Clauses as proper nouns....133
6.8.4. Shortened proper nouns....134

7. The cases 137
7.1. Introduction 137
7.2. The genitive case 139
7.2.1. The genitive case marker {ak} 139
7.2.2. Spellings 144
7.2.3. Dependent use of a genitive 147
7.2.4. Headless genitives 152
7.3. The ergative case 154
7.4. The absolutive case 159
7.5. The dative case 161
7.5.1. The dative case marker {ra} 161
7.5.2. Uses 164
7.6. The directive case 165
7.6.1. The directive case marker {e} 165
7.6.2. Uses 169
7.7. The locative case 172
7.7.1. The locative case marker {ʔa} 172
7.7.2. Uses 176
7.8. The terminative case 180
7.8.1. The terminative case marker {še} 180
7.8.2. Uses 183
7.9. The adverbiative case 189
7.10. The ablative case 191
7.11. The comitative case 196
7.11.1. The comitative case marker {da} 196
7.11.2. Uses 200
7.12. The equative case 202
8. Pronouns 207
8.1. Introduction 207
8.2. Independent personal pronouns 207
8.3. Possessive pronouns 212
8.3.1. General remarks 212
8.3.2. First and second person {ĝu} ‘my’ and {zu} ‘your’ 213
8.3.3. Third person {ane} ‘his/her’ and {be} ‘its’ 214
8.3.4. The plural forms 217
8.4. Demonstratives 219
8.4.1. General remarks 219
8.4.2. Enclitic demonstratives 220
8.4.3. Independent demonstratives 225
8.5. Interrogative pronouns 228
8.6. Indefinite pronoun 231
8.7. Reflexive pronoun 234
9. Numerals 241
9.1. Introduction 241
9.2. Numeral system 241
9.3. Syntax of the cardinals 246
9.3.1. Attributive use: quantifying nouns 246
9.3.2. Attributive use: metrological expressions 251

9.3.3. Independent use of the cardinals....255
9.4. Ordinals....256
9.5. Fractions....260
9.5.1. Preliminaries....260
9.5.1. The phrase **igi-...-ĝál** 'one-...th'....260
9.5.1. The expression **šu-ru-*a*** 'one-half'....263
9.5.1. The ***ma-na*** system....264
10. Adjectives....267
10.1. Introduction....267
10.2. The adjectives as a distinct word class....268
10.3. Reduplication....270
10.4. Syntax....272
10.4.1. Attributive use....272
10.4.2. Predicative use....275
10.5. De-adjectival verbs....276
10.5.1. Overview....276
10.5.2. Intransitive statives....277
10.5.3. Forms with the nominalizing suffix {?a}....278
10.6. De-adjectival nouns....281
10.7. Comparison....283
11. Verbs and verbal clauses....285
11.1. Introduction....285
11.2. Morphology of the finite verb....285
11.2.1. General remarks....285
11.2.2. Basic structure of a finite verbal form....287
11.3. Semantic types of verbs....291
11.4. Basic clause structure....292
11.4.1. Introduction....292
11.4.2. The verb as the centre of the clause....293
11.4.3. Ergative and non-ergative patterns....295
11.4.4. Indirect and oblique objects; Adjuncts....296
11.4.5. Coreference....297
11.4.6. Word order....299
11.4.7. Clause types....301
11.5. Voice and valency-changing mechanisms....303
11.5.1. Introduction....303
11.5.2. Middle....303
11.5.3. Passives....303
11.5.4. Causatives....307
11.6. A note on grammatical terms in Sumerology....307
12. The verbal stem....309
12.1. Introduction....309
12.2. Verb formation....309
12.3. Imperfective stems....311
12.4. Verbal number....314
12.4.1. Introduction....314
12.4.2. Stem alternation....315
12.4.3. Reduplication....319

12.5. The plural suffix {en} 322
12.6. Stem modifications under inflection: the verb ak 'make' 323
13. The final person-prefixes 327
13.1. General remarks 327
13.2. Forms and spellings 329
13.2.1. General remarks 329
13.2.2. The final person-prefix {b} 329
13.2.3. The final person-prefix {n} 331
13.2.4. The final person-prefix {e} 334
13.2.5. The final person-prefix {ʔ} 337
13.3. Strategies for expressing plurality 339
13.3.1. Major strategies 339
13.3.2. The final person-prefix {nnē} 339
14. The person suffixes 343
14.1. Introduction 343
14.2. The first person singular suffix {en} 344
14.3. The second person singular suffix {en} 345
14.4. The third person singular or non-human suffix {Ø} 347
14.5. The third person singular or non-human suffix {e} 348
14.6. The first person plural suffix {enden} 349
14.7. The second person plural suffix {enzen} 350
14.8. The third person plural suffix {eš} 351
14.9. The third person plural suffix {enē} 353
14.10. Changes to the initial /e/ of the person suffixes 353
14.11 Spellings of the initial /e/ after consonants 356
15. The perfective and imperfective 359
15.1. Introduction 359
15.2. Subject and object marking in the finite verb 359
15.2.1. Overview 359
15.2.2. The perfective inflection 361
15.2.3. The imperfective inflection 361
15.2.4. Non-human direct-object marking in the imperfective inflection 363
15.2.5. The irregular verb **tùm** 366
15.3. Perfective and imperfective stem forms 367
15.3.1. Introduction 367
15.3.2. Forms and spellings of the suffix {ed} 369
15.3.3. The paradigm of the intransitive verb 370
15.4. Uses of the perfective and imperfective 372
15.4.1. Introduction 372
15.4.2. Main uses of the perfective 373
15.4.3. Main uses of the imperfective 376
16. The dimensional prefixes and initial person-prefixes 381
16.1. Introduction 381
16.2. Forms and spellings of the initial person-prefixes 382
16.2.1. The initial person-prefix {b} 382
16.2.2. The initial person-prefix {n} 384
16.2.3. The initial person-prefix {nnē} 385
16.2.4. The initial person-prefix {e} 387

16.2.5. The initial person-prefix {ʔ} 388
16.2.6. The initial person-prefix {mē} 389
16.3. Usage of the dimensional prefixes and initial person-prefixes 390
16.3.1. Dimensional prefixes and person prefixes 390
16.3.2. Dimensional prefixes and verbs 392
16.3.3. Dimensional prefixes and noun phrases 395
16.3.4. External possession constructions 396
17. The dimensional prefixes: the indirect-object prefixes 399
17.1. Introduction 399
17.2. Forms and spellings of the IO-prefixes 400
17.2.1. The prefix {ba} 400
17.2.2. The prefix {nna} 401
17.2.3. The prefixes {nnē} and {nnēʔa} 404
17.2.4. The prefix {ra} 405
17.2.5. The prefix {ma} 408
17.2.6. The prefixes {mē} and {mēʔa} 409
17.3. The indirect object 410
18. The dimensional prefixes: the oblique-object prefixes 415
18.1. Introduction 415
18.2. Forms and spellings of the OO-prefixes 416
18.2.1. General remarks 416
18.2.2. The prefixes {bi} and {b} 417
18.2.3. The prefixes {nni} and {n} 421
18.2.4. The prefixes {ri} and {e} 423
18.2.5. The prefixes {mu} and {ʔ} 425
18.2.6. The plural prefixes 426
18.2.7. A historical note on the OO-prefixes 428
18.3. The oblique object 428
18.3.1. Introduction 428
18.3.2. Causative constructions 429
18.3.3. The oblique object expressing ‘in(to) contact with’ 434
18.3.4. Human oblique object for non-human locational ‘on’ 439
18.4. Restrictions on co-occurrence with other prefixes 442
19. The dimensional prefixes: the prefixes {da}, {ta}, and {ši} 445
19.1. General remarks 445
19.2. The prefix {da} ‘(together) with’ 448
19.2.1. Forms and spellings 448
19.2.2. Usage 450
19.3. The prefix {ta} ‘from’ 454
19.3.1. Forms and spellings 454
19.3.2. Usage 456
19.4. The prefix {ši} ‘to’ 459
19.4.1. Forms and spellings 459
19.4.2. Usage 460
20. The dimensional prefixes: the local prefixes 465
20.1. Introduction 465
20.2. The local prefix {ni} ‘in’ 466
20.2.1. Forms and spellings 466

20.2.2. Usage....473
20.3. The local prefix {e} 'on'....476
20.3.1. Forms and spellings....476
20.3.2. Usage....482
21. The prefix {ba} as a middle marker....487
21.1. Introduction....487
21.2. Forms and spellings....487
21.3. The middle uses of {ba}....489
21.3.1. General remarks....489
21.3.2. Indirect reflexive....490
21.3.3. Change of state....493
21.3.4. Passive....494
22. The ventive prefix {mu}....497
22.1. Introduction....497
22.2. Forms and spellings....497
22.3. Meaning....504
22.4. Restrictions on co-occurrence with the person prefix {b}....509
23. The prefix {nga}....513
24. The preformatives: the vocalic prefixes {ʔu}, {ʔi}, and {ʔa}....517
24.1. Introduction....517
24.2. The relative-past prefix {ʔu}....517
24.2.1. Forms and spellings....517
24.2.2. Usage....521
24.3. Forms and spellings of the prefixes {ʔi} and {ʔa}....526
24.3.1. Loss in open syllables....526
24.3.2. Forms and spellings of the prefix {ʔi}....528
24.3.3. Forms and spellings of the prefix {ʔa}....532
24.4. Usage of the prefixes {ʔi} and {ʔa} in Southern Sumerian....535
24.4.1. General remarks....535
24.4.2. Usage in main clauses....535
24.4.3. Usage in subordinate clauses....537
24.4.4. Usage in forms with a single prefix....541
24.5. Usage of the prefixes {ʔi} and {ʔa} in Northern Sumerian....543
24.5.1. General remarks....543
24.5.2. Usage in perfective forms....543
24.5.3. Usage in imperfective forms....546
24.6. A brief history of {ʔi} and {ʔa}....548
25. The preformatives: the modal and negative verbal forms....551
25.1. Introduction....551
25.2. The negative proclitic {nu}....551
25.3. The imperative....556
25.4. The modal proclitic {ḫa}....558
25.4.1. Forms and spellings....558
25.4.2. Usage....561
25.5. The negative modal prefix {na(n)}....565
25.6. The modal prefix {ga}....569
25.7. The negative modal prefix {bara}....572
26. The preformatives: {ši} and non-negative {na}....577

26.1. Introduction....577
26.2. The preformative {ši}....577
26.3. Non-negative {na}....579
27. The complex sentence....583
27.1. Introduction....583
27.2. Coordinate clauses....583
27.3. Subordinate clauses: formal categories....585
27.3.1. Introduction....585
27.3.2. Clauses with subordinating conjunctions....585
27.3.3. Forms and spellings of the suffix {ʔa} in finite verbal forms....586
27.3.4. Nominalized clauses with the suffix {ʔa}....591
27.3.5. Nominalized clauses without the suffix {ʔa}....592
27.3.6. Nominalized clauses with the verb ak 'do, make'....593
27.4. Finite relative clauses....594
27.4.1. Relative clauses with an explicit head noun....594
27.4.2. Headless relative clauses....599
27.5. Finite complement clauses....600
27.5.1. Introduction....600
27.5.2. Finite complement clauses with verbs....601
27.5.3. Finite complement clauses with nouns....603
27.6. Finite adverbial clauses....606
27.6.1. Overview....606
27.6.2. Temporal clauses meaning 'when'....607
27.6.3. Temporal clauses meaning 'after' or 'since'....610
27.6.4. Temporal clauses meaning 'until' or 'before'....612
27.6.5. Reason clauses....614
27.6.6. Conditional clauses....617
27.6.7. Comparative clauses....622
27.6.8. Residual types....624
28. Non-finite verbal forms....627
28.1. Introduction....627
28.2. The present participle....630
28.2.1. Form and meaning....630
28.2.2. Use as a verbal adjective....631
28.2.3. Use as a verbal noun....634
28.2.4. Uses with the stative verbs zu 'know' and tuku 'have'....636
28.3. The past participle....638
28.3.1. Form and meaning....638
28.3.2. Form and spellings of the suffix {ʔa}....640
28.3.3. Use as a verbal adjective....643
28.3.4. Use as a verbal noun....650
28.3.5. Uses with the stative verbs zu 'know' and tuku 'have'....655
28.4. The imperfective participle....655
28.4.1. Form and meaning....655
28.4.2. Forms and spellings of the suffix {ed}....659
28.4.3. Use as a verbal adjective....662
28.4.4. Use as a verbal noun....665
28.5. The imperfective participle with the nominalizing suffix {ʔa}....671

28.6. The “pronominal conjugation” (a non-finite temporal clause)....672
28.7. The participles of the verb ak ‘do, make’....674
29. Copular clauses....677
29.1. Introduction....677
29.2. The copula....677
29.2.1. Introduction....677
29.2.2. The forms of the independent copula....678
29.2.3. The forms of the enclitic copula....681
29.3. The subject of a copular clause....687
29.4. The predicate of a copular clause....689
29.4.1. General remarks....689
29.4.2. Predicative nouns....690
29.4.3. Predicative numerals....694
29.4.4. Predicative pronouns....695
29.4.5. Predicative adjectives....696
29.4.6. Predicative present participles....696
29.4.7. Predicative past participles....697
29.4.8. Predicative imperfective participles....698
29.4.9. Predicative clauses....701
29.5. Adjuncts and other optional constituents....704
29.6. Subordinate copular clauses....705
29.6.1. Introduction....705
29.6.2. Relative clauses....706
29.6.3. Complement clauses....710
29.6.4. Adverbial clauses....710
29.7. The copula in highlighting constructions....712
30. Nominal clauses....715
30.1. Introduction....715
30.2. Proper nouns....715
30.3. Interrogative clauses....716
30.4. Negative declarative clauses....717
30.5. Other nominal clauses....718
31. The nominalizing suffix {ʔa}....719
31.1. Introduction....719
31.2. Form and spellings....719
31.3. Uses....721
31.3.1. Copula....721
31.3.2. De-adjectival verbs....721
31.3.3. Numerals....722
31.3.4. Non-finite verbal forms....723
31.3.5. Finite nominalized clauses....725
31.4. Conclusions....726
Bibliography....729
Appendix: Diagram of the finite verb....743
Samenvatting in het Nederlands....745
Curriculum vitae....749

PREFACE AND ACKNOWLEDGEMENTS

This grammar has been long in the making. After my graduation in 1988, I wanted to do a PhD on the grammar of the Old Sumerian texts from Lagash, with the aim to write a synchronic grammar of a single Sumerian dialect. Help came from many directions. Theo Krispijn shared with me his lists of verbal forms and his glossary of the Gudea texts. Gebhard Selz was most generous with manuscripts of Old Sumerian texts editions he was working on. In July 1990 the first meeting of the Sumerian Grammar Discussion Group took place, to which Jeremy Black and Joachim Krecher kindly invited me as an interested PhD student. This meeting and those of the following years were an excellent environment to confront my own developing ideas with those of scholars who had studied the various problems for dozens of years: Jeremy Black, Miguel Civil, Dietz Otto Edzard, Daniel Foxvog, Thorkild Jacobsen, Joachim Krecher, Piotr Michalowski, Claus Wilcke, and Mamoru Yoshikawa.

A first version of my grammar, a brief sketch of 61 pages, was discussed with Joachim Krecher, Annette Zgoll and Thomas Balke in the summer of 1990. Krecher's comments revealed so many shortcomings that I decided to start again from scratch. A second version (1991) fared somewhat better. Claus Wilcke kindly agreed to read it and provided several pages with comments, which led to several improvements. I also gave this second version to Gábor Zólyomi, which was the start of a long series of intense discussions during the 1990s, which led to numerous new analyses and refinements of old ones, especially in matters syntactic.

By the end of 1992, it became clear to me that I needed help from a linguist. I had been trained as a philologist with a focus on Semitic languages and was somewhat out of my depth with writing a grammar of a language that has an entirely different structure. A number of people suggested me to contact Frederik Kortlandt, who had already supervised PhD grammars on a wide range of languages. He kindly agreed to be my supervisor and I happily set out to write the third and "final" version. His comments led to several crucial improvements, especially in the phonology. It was also on his advice that I started glossing all the examples.

After writing a number of chapters, I realized that the Old Sumerian texts from Lagash were too limited a corpus to write a proper linguistic grammar on. Their spelling simply ignores too many case markers and verbal prefixes, so that my grammar would be riddled with examples containing invisible grammatical elements. It led to the decision to widen the corpus to include all Sumerian texts from the second half of the third millennium. In 1997 I began therefore writing a fourth version which, after a break from late 1999 to early 2005, I was able to finish this year.

I have received help from many persons in addition to those already mentioned. In the area of Ur III texts, the support of Remco de Maaijer has been invaluable. Hundreds of discussions with him have clarified for me many issues involving the content and background of these texts. In addition, his supply of atypical spellings and strange forms has been inexhaustible. Likewise, in their usual kindness, Marcel Sigrist, Natasha Koslova, and David Owen have shared numerous unpublished texts with me. Thanks are also due to the Trustees of the British Museum for allowing me to quote from unpublished texts from the British Museum. Natasha Koslova and Joachim Oelsner kindly collated a few crucial verbal forms for me.

Thanks are also due to Sabine Ecklin, who generously put her unpublished paper (Ecklin 2004/2005) on the verbal prefix {na} at my disposal and allowed me to use it in preparing chapter 26. Jan Keetman generously shared his list of Sumerian loanwords from Von Soden's Akkadisches Handwörterbuch with me. Thomas Balke made available to me many of his own manuscripts on matters Sumerian, whether published or unpublished. He and I also had many

pleasant and stimulating discussions during the 1990s.

Annette Zgoll read parts of the manuscript and brought an important discussion by Krecher on Sumerian appositions to my attention. Pascal Attinger, whose own grammatical study from 1993 has been invaluable in preparing the present grammar, read an almost complete version of the manuscript. His comments have saved me from several serious errors. Maarten Kossmann likewise provided me with several pages of very useful comments on the entire manuscript.

My utmost thanks are for my partner and best friend, Els Woestenburg, without whose loving support during dozens of years this grammar never could have been finished.

To all those named above go my sincere thanks for their help in making this book. None of them, however, is responsible for any of its shortcomings.

ABBREVIATIONS AND CONVENTIONS FOR THE EXAMPLES

See §1.3.2 for an explanation and overview of the more general notational conventions used in examples.

- In transliterations of Sumerian, word signs are in **bold** type and sound signs in ***bold italics*** (see §2.7 for a motivation).

- The morpheme {bi} consists of the phonemes /bi/, is written ***bí***, and is pronounced [bi].

Symbols and abbreviations used in the glosses:

-	Separates affixes or stems from other affixes or stems in a word
=	Separates clitics from the other parts of a word
:	Separates multiple glosses for a single element
.	Separates the parts of a single gloss
()	Enclose dropped vowels of basic morphemes
/	Separates alternative glosses for a single affix

1SG	First person singular human
2SG	Second person singular human
3SG	Third person singular human
1PL	First person plural human
2PL	Second person plural human
3PL	Third person plural human
3N	Third person non-human
A	Transitive subject (mnemonic: 'Agent')
ABL	Ablative case
ABS	Absolutive case
ADV	Adverbiative case
CAT.NEG	Categorical negation
COM	Comitative case
DAT	Dative case
DIR	Directive case
DO	Direct object
ERG	Ergative case
EQU	Equative case
FUT	Future
GEN	Genitive case
IO	Indirect object
IPFV	Imperfective
LOC	Locative case (marker {ʔa})
LOC2	Locative case (marker {ne})
MM	Middle marker
MOD	Modal
NEG	Negative
NFIN	Non-finite
NOM	Nominalizing suffix
OO	Oblique object
ORD	Ordinal
PFM	Preformative
PL	Plural (nominal number)
PLUR	Plural action or state (verbal number)
RDP	Reduplication
S	Intransitive Subject (mnemonic: 'Subject')
SING	Non-plural action or state (verbal number)
TERM	Terminative case
VENT	Ventive
VP	Vocalic prefix

abbreviations of sources:

AAICAB	J.-P. Grégoire, *Archives administratives et inscriptions cunéiformes de l'Ashmolean Museum et de la Bodleian Collection d'Oxford*, I/1-4 (Paris 1996-2002).
AAS	J.-P. Grégoire, *Archives administratives sumériennes* (Paris, 1970).
AfO	*Archiv für Orientforschung* (Berlin/Graz/Horn 1923ff.).
Amherst	T.G. Pinches,*The Amherst tablets* (London 1908).
Angim	Edition: J.S. Cooper, *The return of Ninurta to Nippur* (Roma 1978).
AnOr	*Analecta Orientalia* (Rome 1931ff.).
AOAT	*Alter Orient und Altes Testament* (Neukirchen-Vluyn 1969ff.). 22: H.A. Hoffner (ed.), *Orient and Occident* (1973). 25: B. Eichler (ed.), *Kramer anniversary volume* (1976). 240: M. Dietrich (ed.), *Vom Alten Orient zum Alten Testament* (1995). 274: G.J. Selz (ed.), *Festschrift für Burkhart Kienast* (2003).
AoF	*Altorientalische Forschungen* (Berlin 1974ff.).
ARET	*Archivi Reali di Ebla, Testi* (Roma 1985ff.).
ASJ	*Acta Sumerologica* (Hiroshima 1979ff.).
AUCT	*Andrews University Cuneiform Texts* (Berrien Springs, Mich. (1984ff.).
AuOr	*Aula Orientalis* (Barcelona 1983ff.).
AWAS	G.J. Selz, *Altsumerische Wirtschaftsurkunden aus amerikanischen Sammlungen* (FAOS 15,2) (Stuttgart 1993).
Ax of Nergal	Edition: H. Behrens in: E. Leichty (ed.), *A scientific humanist* (Philadelphia 1988) pp. 27-32.
BAOM	*Bulletin of the Ancient Orient Museum* (Tokio 1979ff.).
BBVO	*Berliner Beiträge zum Vorderen Orient* (Berlin 1982ff.). 11: R.L. Zettler, *The Ur III temple of Inanna at Nippur* (Berlin 1992).
BCT	Ph. J. Watson, *Catalogue of cuneiform tablets in Birmingham City Museum*, Vol. 1-2 (Warminster 1986-1993).
BE	*The Babylonian Expedition of the University of Pennsylvania. Series A: Cuneiform Texts* (Philadelphia 1893ff.).
Bedale STU	C.L. Bedale, *Sumerian tablets from Umma in the John Rylands Library, Manchester* (Manchester 1915).
Berens	T.G. Pinches, *The Babylonian Tablets of the Berens Collection* (Asiatic Society Monographs 16) (London 1915).
BIN	*Babylonian Inscriptions in the Collection of James B. Nies, Yale University* (New Haven 1917ff.).
BM	British Museum (London), museum signature.
BM 3	R.D. Biggs, *Inscriptions from Al-Hiba–Lagash, The first and second seasons* (Malibu 1976).
BPOA	*Biblioteca del próximo oriente antiguo* (Madrid 2006ff.).
Bridges Mesag	S.J. Bridges, *The Mesag Archive: a study of Sargonic society and economy*. Dissertation Yale university (1981)
BRM	*Babylonian records in the library of J. Pierpont Morgan* (New Haven 1912-1923).
CHEU	G. Contenau, *Contribution à l'histoire économique d'Umma* (Paris 1915).

Civil FI	M. Civil, *The Farmer's Instructions. A Sumerian agricultural manual* (Barcelona 1994).
CLAM	M.E. Cohen, *The canonical lamentations of ancient Mesopotamia* (Potomac 1988).
CM 26	T.M. Sharlach, *Provincial taxation and the Ur III state* (Cuneiform monographs 26) (Leiden 2004).
CST	T. Fish, *Catalogue of Sumerian tablets in the John Rylands Library* (Manchester 1932).
CT	*Cuneiform texts from Babylonian tablets in the British Museum* (London 1986ff.).
CTMMA I	I. Spar (ed.), *Cuneiform texts in the Metropolitan Museum of Art*, Volume I (New York 1988).
CTNMC	Th. Jacobsen, *Cuneiform texts in the National Museum, Copenhagen* (Leiden 1939).
Curse of Agade	Edition: J.S. Cooper, *The curse of Agade* (Baltimore 1983).
CUSAS	*Cornell University studies in Assyrioloy and Sumerology* (Bethesda 2007ff.).
Cyl	Inscriptions of Gudea on cylinders. Edition: D.O. Edzard, *Gudea and his dynasty* (RIM E3/1) (Toronto 1997).
DAS	B. Lafont, *Documents administratifs sumériens provenant du site de Tello et conservés au Musée du Louvre* (Paris 1985).
DC	E. de Sarzec, *Découvertes en Chaldée* (Paris 1884-1912).
DI	Dumuzi-Inanna songs. Edition: Y. Sefati, Love songs in Sumerian literature (Ramat Gan 1998).
DP	F.-M. Allotte de la Fuÿe, *Documents présargoniques* (Paris 1908-1920).
DTBM	J. Politi - L. Verderame, *The Drehem texts in the British Museum* (Nisaba 8) (Messina 2005).
DTCR	M. Sigrist, *Documents from tablet collections in Rochester, New York* (Bethesda 1991).
Dumuzi's Dream	Edition: B. Alster, *Dumuzi's dream* (Copenhagen 1972).
Ean.	Inscriptions of Eannatum. Edition: H. Steible, *Die altsumerischen Bau- und Weihinschriften* (FAOS 5/1) (Wiesbaden 1982), pp.120-181.
ECTJ	A. Westenholz, *Early cuneiform texts in Jena* (Kobenhavn 1975).
Ed B	Edubba B. Edition: Å.W. Sjöberg, 'Der Vater und sein missratener Sohn', *Journal of cuneiform studies* 25 (1973) pp.105-169.
EEs	Edition: A. Berlin, *Enmerkar and Ensuḫkešdanna* (Philadelphia 1979).
ELA	Enmerkar and the Lord of Aratta. Edition: C. Mittelmayer, *Enmerkara und der Herr von Arata* (Fribourg/Göttingen 2009).
En. I	Inscriptions of Enannatum I. Edition: H. Steible, *Die altsumerischen Bau- und Weihinschriften* (FAOS 5/1) (Wiesbaden 1982), pp.182-210.
ENam	Edition: M. Civil, Enlil and Namzitarra, *Archiv für Orientforschung* 25 (1974-1977) pp.65-71.
ENh	Edition: P. Attinger, Enki et Ninḫursaĝa, *Zeitschrift für Assyriologie und vorderasiatische Archäologie* 74 (1984) pp.1-52.
Enlil and Ninlil	Edition: H. Behrens, *Enlil und Ninlil. Ein sumerischer Mythos aus Nippur* (Roma 1973).
Ent.	Inscriptions of Enmetena. Edition: H. Steible, *Die altsumerischen Bau- und Weihinschriften* (FAOS 5/1) (Wiesbaden 1982), pp.211-272.

ErH	Enki's journey to Nibru. Edition: A.A. Al-Fouadi, *Enki's journey to Nippur*, Dissertation University of Pennsylvania (1969).
EWO	Edition: C.A. Benito: *"Enki and Ninmah" and "Enki and the World Order"*, Dissertation University of Pennsylvania (1969).
FAOS	*Freiburger altorientalische Studien* (Wiesbaden/Stuttgart 1975ff.). 5/2: H. Steible, *Die altsumerischen Bau- und Weihinschriften*, Teil II (1982). 7: I.J. Gelb - B. Kienast, *Die altakkadischen Königsinschriften des Dritten Jahrtausends v. Chr.* (1990). 9: H. Steible, *Die neusumerischen Bau- und Weihinschriften* (1991). 12: M.J. Geller, *Forerunners to Udug-hul* (1985). 17: P. Steinkeller, *Sale documents of the Ur-III-period* (1989). 19: B. Kienast - K. Volk, *Die sumerischen und akkadischen Briefe des III. Jahrtausends* (1995).
FI	Farmer's Instructions. Edition: M. Civil, *The Farmer's Instructions. A Sumerian agricultural manual* (Barcelona 1994).
FS A	Elegy on the death of Nannaya. Edition: ÅW. Sjöberg, 'The first Pushkin Museum elegy and new texts' *Journal of the American Oriental Society* 103 (1983) pp.315-320.
GA	Edition: W.H.Ph. Römer, *Das sumerische Kurzepos 'Bilgameš und Akka'* (Neukirchen-Vluyn 1980).
Genava	*Genava. Bulletin du Musée d'Art et d'Histoire de Genève* (Genève 1923ff).
GH A	Edition: D.O. Edzard, 'Gilgameš und Huwawa A', 'I. Teil' *Zeitschrift für Assyriologie* 80 (1990) pp.165-203. 'II. Teil' *Zeitschrift für Assyriologie* 81 (1991) pp.165-223.
GH B	Edition: D.O. Edzard, *'Gilgameš und Huwawa'. Zwei Versionen der sumerischen Zedernwaldepisode nebst einer Edition von Version 'B'* (Sitzungberichte der Bayerischen Akademie der Wissenschaften. Philosophisch-historische Klasse 4) (München 1993).
HAV	*Hilprecht Anniversary Volume* (Leipzig 1909).
Hirose	T. Gomi, *Neo-Sumerian administrative texts of the Hirose Collection* (Potomac 1990).
HLC	G.A. Barton, *Haverford Library collection of cuneiform tablets or documents from the temple archives of Telloh* (Philadelphia 1905-1914).
HSS 4	M.I. Hussey, *Sumerian tablets in the Harvard Semitic Museum, Part II: From the time of the Dynasty of Ur* (Cambridge 1915).
HUCA	*Hebrew Union College Annual* (Cincinatti, Ohio 1924ff.).
Iddin-Dagan A	Edition: D. Reisman, 'Iddin-Dagan's Sacred Marriage Hymn', *Journal of Cuneiform Studies* 25 (1973) pp.185-202.
IE	Edition: G. Farber-Flügge, *Der Mythos 'Inanna und Enki' unter besonderer Berücksichtigung der Liste der m e* (Rome 1973).
Inanna B	Edition: A. Zgoll, *Der Rechtsfall der En-hedu-Ana im Lied nin-me-šara* (Münster 1997).
Inanna E	Edition: A. Falkenstein, *Zeitschrift für Assyriologie* 48 (1944) pp.105-113.
Inanna C	Edition: Å.W. Sjöberg, 'in-nin šà-gur4-ra: a hymn to the goddess Inanna by the en-Priestess Enḫeduanna', *Zeitschrift für Assyriologie* 65 (1975)

	pp.161-253.
Inanna's Descent	Edition: W.R. Sladek, *Inanna's descent to the Netherworld*, Dissertation The Johns Hopkins University (1974).
Instr.Shur.	The Instructions of Šuruppak. Edition: B. Alster, *The wisdom of ancient Sumer* (Bethesda 2005) pp.31-220.
Iraq	*Iraq* (London: British School of Archaeology in Iraq, 1934ff.).
ISET	İstanbul Arkeologji Müzelerinde bulunan Sumer edebî tablet ve parçaları (Ankara 1969-1976) 1: M. Çiğ - H. Kızılyay - S.N. Kramer (1969) 2: S.N. Kramer (1976).
Ishme-Dagan J	Edition: J. Klein, 'The sweet chant of the churn: a revised edition of Išmedagan J'. In: M. Dietrich - O. Loretz (eds.), *dubsar anta-men. Studien zur Altorientalistik: Festschrift für Willem H.Ph. Römer* (Münster 1998) pp.205-202.
ITT	*Inventaire des tablettes de Tello conservées au Musée Impérial Ottoman* I-V (Paris 1910-1921).
JAOS	*Journal of the American Oriental Society* (New Haven etc. 1849ff.).
JCS	*Journal of Cuneiform Studies* (New Haven etc. 1947ff.).
Jean SA	C.-F. Jean, *Šumer et Akkad* (Paris 1923).
LAK	A. Deimel, *Liste der archaischen Keilschriftzeichen* (Leipzig 1922).
LB	Tablets from the Collection de Liagre Böhl, Nederlands Instituut voor het Nabije Oosten (Leiden), museum signature.
Letter A	Edition: F.A. Ali, *Sumerian letters. Two collections from the Old Babylonian schools*, Dissertation University of Pennsylvania (1964).
LfEM	P. Michalowski, *Letters from early Mesopotamia* (Atlanta 1993).
Limet Documents	H. Limet, *Etude de documents de la période d'Agadé appartenant à l'Université de Liège* (Paris 1973).
Lipit-Eštar D	Edition: W.H.Ph. Römer, *Sumerische 'Königshymnen' der Isin-Zeit* (Leiden 1965) pp.6-9.
LSU	Edition: P. Michalowski, *The lamentation over the destruction of Sumer and Ur* (Winona Lake 1989).
LU	Edition: W.H.Ph. Römer, *Die Klage über die Zerstörung von Ur* (Münster 2004).
Lugalbanda I	Partial edition: C. Wilcke, *Das Lugalbandaepos* (Wiesbaden 1969) pp.81-84, etc.
Lugalbanda II	Edition: C. Wilcke, *Das Lugalbandaepos* (Wiesbaden 1969).
Lugal-e	Edition: J. van Dijk, *LUGAL UD ME-LÁM-bi NIR-ĜÁL* (Leiden 1983).
LW	Edition: M.W. Green, 'The Uruk lament', *Journal of the American Oriental Society* 104 (1984) pp.253-279.
MAD	I.J. Gelb, *Materials for the Assyrian Dictionary* (Chicago 1957ff.).
MBI	G.A. Barton, *Miscellaneous Babylonian inscriptions, Part I: Sumerian religious texts* (New Haven 1918).
MCS	*Manchester cuneiform studies* (Manchester 1915ff.).
MDP	*Mémoires de la Délégation en Perse* (Paris 1900ff.). 28: V. Scheil, *Mélanges épigraphiques* (1939) 57: R. Labat - D.O. Edzard, *Textes littéraires de Suse* (1974).
MEE	*Materiali epigrafici di Ebla* (Roma 1979ff.).
Mesopotamia	*Mesopotamia, rivista di archeologia, epigrafia e storia orientale antica*

	(Firenze 1966ff).
MSL	*Materialien zum sumerischen Lexikon* (Roma 1937ff.).
MTBM	M. Sigrist, *Messenger texts from the British Museum* (Potomac 1990).
MVAG	*Mitteilungen der Vorderasiatischen Gesellschaft* (Berlin 1896ff.).
MVN	*Materiali per il vocabolario neosumerico* (Roma 1974ff.).
Nanshe hymn	Edition: W. Heimpel, 'The Nanshe Hymn', *Journal of Cuneiform Studies* 33 (1981) pp.65-139.
NATN	D.I. Owen, *Neo-Sumerian archival texts primarily from Nippur* (Winona Lake 1982).
NATU	*Neo-Sumerian administrative texts from Umma kept in the British Museum* (Messina 2005ff). 1: F. ar-Rawi - F. D'Agostino (Nisaba 6) (2005). 3: F.N.H. al-Rawi - L. Verderame (Nisaba 23) (2009).
Nebraska	N.W. Forde, *Nebraska cuneiform texts of the Sumerian Ur III dynasty* (Lawrence 1972).
NFT	G. Cros, *Nouvelles fouilles de Tello* (Paris 1910).
NG	A. Falkenstein, *Die neusumerischen Gerichtsurkunden* (München 1956-1957).
Nik 1	M.V. Nikol'skij, *Documenty chozjajstvennoj otčetnosti drevnejšej epochi Chaldei iz sobranija N.P. Lichačeva* (St. Petersburg 1908).
Nik 2	M.V. Nikol'skij, *Documenty chozjajstvennoj otčetnosti drevnej Chaldei iz sobranija N.P. Lichačeva*, II (Moskva 1915).
NinTu	Edition: B. Alster, 'Ninurta and the Turtle', *Journal of Cuneiform Studies* 24 (1971/72) pp.120-125.
Nisaba	*Nisaba. Studi assiriologici Messinesi* (Messina 2002ff.).
NRVN 1	M. Çığ - H. Kızılyay, *Neusumerische Rechts- und Verwaltungsurkunden aus Nippur* I (Ankara 1965).
OECT	*Oxford editions of cuneiform texts* (Oxford 1923ff.).
OIP	*Oriental Institute Publications* (Chicago 1924ff.).
OrNS	*Orientalia Nova Series* (Roma 1932ff.).
OrSP	*Orientalia Series Prior* (Roma 1920-1930).
OSP	A. Westenholz, *Old Sumerian and Old Akkadian Texts in Philadelphia*, 1: *Literary and lexical texts and the earliest administrative documents from Nippur* (Malibu 1975). 2: *The 'Akkadian' texts, the Enlilmaba texts, and the onion archive* (Copenhagen 1987).
PBS	*Publications of the Babylonian Section, University of Pennsylvania* (Philadelphia 1911ff.).
PDT	*Die Puzriš-Dagan-Texte der Istanbuler Archäologischen Museen*. 1: M. Çığ - H. Kızılyay - A. Salonen (Helsinki 1954). 2: F. Yıldız - T. Gomi (Wiesbaden 1988).
Pettinato L'uomo	G. Pettinato, *L'uomo cominciò a scrivere* (Milano 1997).
PIOL 19	H. Sauren, *Les tablettes cunéiformes de l'époque d'Ur des collections de la New York Public Library* (Louvain-la-Neuve 1978).
PPAC	Yang Zhi, *Sargonic inscriptions from Adab* (Changchun 1989).
PRAK	H. de Genouillac, *Premières recherches archéologiques à Kich* (Paris 1924-1925).
Proverb Collection	Edition: B. Alster, *Proverbs of ancient Sumer* (Bethesda 1997).

PSD	Å.W. Sjöberg (ed.), *The Sumerian dictionary of the University Museum of the University of Pennsylvania* (Philadelphia 1984ff).
RA	*Revue d'assyriologie et d'archéologie orientale* (Paris 1884ff.).
RIAA	L. Speleers, *Recueil des inscriptions de l'Asie antérieure des Musées Royaux du Cinquantenaire à Bruxelles* (Brussel 1925).
RIM E	*The royal inscriptions of Mesopotamia. Early periods* (Toronto 1987ff.). 2: D.R. Frayne, *Sargonic and Gutian periods* (1993). 3/2: D.R. Frayne, *Ur III period* (1997). 4: D.R. Frayne, *Old Babylonian period* (1990).
RTC	F. Thureau-Dangin, *Recueil de tablettes chaldéennes* (Paris 1903).
SACT 1	Sh.T. Kang, *Sumerian economic texts from the Drehem archive* (Urbana 1972).
SACT 2	Sh.T. Kang, *Sumerian economic texts from the Umma archive* (Urbana 1973).
SANTAG 6	N. Koslova, *Ur III-Texte der St. Petersburger Eremitage* (Wiesbaden 2000).
SAT	M. Sigrist, *Sumerian Archival Texts* (Bethesda 1993ff.).
SEL	*Studi epigrafici e linguistici sul Vicino Oriente Antico* (Verona 1984ff.).
SET	T.B. Jones - J.W. Snyder, *Sumerian economic texts from the Third Ur Dynasty* (Minneapolis 1961).
Shukaletuda	Edition: K. Volk, *Inanna und Šukaletuda* (Wiesbaden 1995).
Shulgi A	Edition: J. Klein, *Three Šulgi hymns* (Ramat-Gan 1981).
Shulgi B	Edition: unpublished manuscript Geerd de Haayer.
Shulgi D	Edition: J. Klein, *Three Šulgi hymns* (Ramat-Gan 1981).
Shulgi G	Edition: J. Klein, 'The coronation and consecration of Šulgi in the Ekur (Šulgi G)'. In: M. Cogan (ed.), *Ah, Assyria. Studies in Assyrian history and ancient Near Eastern historiography presented to Hayim Tadmor* (Jerusalem 1991) pp.292-313.
Shulgi P	Edition: J. Klein, *The royal hymns of Shulgi, king of Ur: man's quest for immortal fame* (Philadelphia 1981).
Shulgi R	Edition: J. Klein, 'Šulgi and Išmedagan', in: J. Klein - A. Skaist (eds.), *Bar-Ilan studies in assyriology dedicated to Pinhas Artzi* (Ramat-Gan 1990) pp.65-136.
Shulgi X	Edition: J. Klein, *Three Šulgi hymns* (Ramat-Gan 1981).
SLTNi	S.N. Kramer, *Sumerian literary texts from Nippur in the Museum of the Ancient Orient at Istanbul* (1944).
Smith College	C.H. Gordon, *Smith College Tablets* (Northampton 1952).
SNAT	T. Gomi - S. Sato, *Selected Neo-Sumerian administrative texts from the British Museum* (Abiko 1990).
SRU	D.O. Edzard, *Sumerische Rechtsurkunden des III. Jahrtausends aus der Zeit vor der III. Dynastie von Ur* (München 1968).
St	Inscriptions of Gudea on statues. Edition: D.O. Edzard, *Gudea and his dynasty* (RIM E3/1) (Toronto 1997)..
STA	E. Chiera, *Selected temple accounts from Telloh, Yokha and Drehem* (Philadelphia 1922).
STH 1	M.I. Hussey, *Sumerian tablets in the Harvard Semitic Museum, Part I, Chiefly from the reigns of Lugalanda and Urukagina of Lagash* (Cambridge 1912).

StOr	*Studia Orientalia* (Helsinki 1925ff.).
STTIAM	V. Donbaz - B. R. Foster, *Sargonic Texts from Telloh in the Istanbul Archaeological Museums* (Philadelphia 1982).
STVC	E. Chiera, *Sumerian texts of varied contents* (Chicago 1934).
Studies Borger	S.M. Maul (ed.), *Festschrift für Rykle Borger zu seinem 65. Geburtstag am 24.Mai 1994* (Groningen 1998).
Studies Finkelstein	M. de Jong Ellis (ed.), *Essays on the Ancient Near East in memory of Jacob Joel Finkelstein* (Hamden 1977).
Studies Greenfield	S. Gitin et al. (eds.), *Solving riddles and untying knots: biblical, epigraphic, and Semitic studies in honor of Jonas C. Greenfield* (Winona Lake 1995).
Studies Pettinato	H. Waetzoldt (ed.), *Von Sumer nach Ebla und zurück. Festschrift Giovanni Pettinato* (Heidelberg 2004).
Studies Sigrist	P. Michalowski (ed.), *On the third dynasty of Ur. Studies in honor of Marcel Sigrist* (Boston 2008).
Studies Veenhof	W. van Soldt (ed.), *Veenhof anniversary volume* (Leiden 2001).
TAD	St.H. Langdon, *Tablets from the archives of Drehem* (Paris 1911).
TCABI	F. Pomponio et al., *Le tavolette cuneiformi di Adab delle collezioni della Banca d'Italia* (Roma 2006).
TCL	*Textes cunéiformes, Musée du Louvre* (Paris 1910ff.).
TCND	A. Archi - F. Pomponio, *Testi cuneiformi neo-sumerici da Drehem* (Milano 1990).
TCNU	A. Archi - F. Pomponio - G. Bergamini, *Testi cuneiformi neo-sumerici da Umma* (Torino 1995).
TCS 1	E. Sollberger, *The business and admnistrative correspondence under the kings of Ur* (Locust Valley 1966).
TCTI	B. Lafont - F. Yıldız, *Tablettes cunéiformes de Tello au Musée d'Istanbul datant de l'époque de la III^{e} dynastie d'Ur* (Leiden 1989ff.).
TCVPBI	F. Pomponio et al., *Tavolette cuneiformi di varia provenienza delle collezioni della Banca d'Italia* (Roma 2006).
TENS	M. Sigrist, *Textes économiques néo-sumériens de l'Université de Syracuse* (Paris 1983).
TIM 9	J. van Dijk, *Cuneiform texts. Texts of varying content* (Texts in the Iraq Museum IX) (Leiden 1976).
TJAMC	É. Szlechter, *Tablettes juridiques et administratives de la III^{e} dynastie d'Ur et de la I^{re} dynastie de Babylone* (Paris 1963).
TLB 3	W.W. Hallo, *Sumerian archival texts* (Leiden 1963).
TMHC	*Texte und Materialien der Frau Professor Hilprecht Collection of Babylonian Antiquities im Eigentum der Universität Jena*. NF 1/2: A. Pohl, *Rechts- und Verwaltungsurkunden der III. Dynastie von Ur* (Leipzig 1937). NF 4: S.N. Kramer - I. Bernhardt, *Sumerische literarische Texte aus Nippur*, Band II (Berlin 1967). 6: J.J.A. van Dijk - M.J. Geller, *Ur III incantations* (Wiesbaden 2003).
TMTIM	P. Steinkeller - J.N. Postgate, *Third-Millennium legal and administrative texts in the Iraq Museum, Baghdad* (Winona Lake 1992).
Touzalin Aleppo	M. Touzalin, *L'administration palatiale à l'époque de la troisième dynastie d'Ur: Textes inédits du Musée d'Alep*. Thèse de doctorat de

	troisième cycle, université de Tours (1982).
TPTS 1	M. Sigrist, *Tablettes du Princeton Theological Seminary, Époque d'Ur III* (Philadelphia 1990).
TrD	H. de Genouillac, *La trouvaille de Dréhem* (Paris 1911).
TROM 2	M. Sigrist, *Neo-Sumerian Texts from the Royal Ontario Museum*, II, (Bethesda 2004).
TRU	L. Legrain, *Le temps des rois d'Ur* (Paris 1912).
TSA	H. de Genouillac, *Tablettes sumériennes archaiques* (Paris 1909).
TSDU	H. Limet, *Textes sumériens de la III^e^ Dynastie d'Ur* (Brussel 1976).
TSŠ	R.R. Jestin, *Tablettes sumériennes de Šuruppak conservées au Musée de Stamboul* (Paris 1937).
TuT	G. Reisner, *Tempelurkunden aus Telloh* (Berlin 1901).
UDT	J.B. Nies, *Ur dynasty tablets* (Leipzig 1920).
UDU	G. Contenau, *Umma sous la dynastie d'Ur* (Paris 1916).
UET	*Ur Excavations, Texts* (London 1928ff.).
Ukg.	Inscriptions of Urukagina. Edition: H. Steible, *Die altsumerischen Bau- und Weihinschriften* (FAOS 5/1) (Wiesbaden 1982), pp.278-358.
UMTBM 2	M.E. Milone - G. Spada, *Umma messenger texts in the British Museum, Part two* (Nisaba 3) (Messina 2003).
UNT	H. Waetzoldt, *Untersuchungen zur neusumerischen Textilindustrie* (Roma 1972).
Urn.	Inscriptions of Ur-Nanshe. Edition: H. Steible, *Die altsumerischen Bau- und Weihinschriften* (FAOS 5/1) (Wiesbaden 1982), pp.79-117.
USP	B. R. Foster, *Umma in the Sargonic period* (Hamden 1982).
UTAMI	*Die Umma-Texte aus den archäologischen Museen zu Istanbul*, III-VI (Bethesda 1993-2001).
VO	Vicino Oriente (Roma 1978ff.).
VS	*Vorderasiatische Schriftdenkmäler der Königlichen/Staatlichen Museen zu Berlin* (1907ff.). 2: H. Zimmern, *Sumerische Kultlieder aus altbabylonischer Zeit. Erste Reihe* (Leipzig 1912). 10: H. Zimmern, *Sumerische Kultlieder aus altbabylonischer Zeit. Zweite Reihe* (Leipzig 1913). 14: W. Förtsch, *Altbabylonische Wirtschaftstexte aus der Zeit Lugalanda's und Urukagina's* (Leipzig 1916). 25: J. Marzahn, *Altsumerische Verwaltungstexte aus Girsu/Lagaš* (Berlin 1991). 27: J. Marzahn, *Altsumerische Verwaltungstexte und ein Brief aus Girsu/Lagaš* (Mainz 1996).
WdO	*Die Welt des Orients* (Göttingen 1947ff.).
YNER	*Yale Near Eastern Researches* (New Haven 1967ff.). 6: R. Kutscher, *Oh angry sea (a-ab-ba hu-luh-ha)* (1975). 8: D.C. Snell, *Ledgers and prices* (1982).
YOS	*Yale oriental series, Babylonian texts* (New Haven 1915ff.).
ZA	*Zeitschrift für Assyriologie und vorderasiatische Archäologie* (Berlin 1886ff.).
Zinbun	*Zinbun. Memoirs of the Research Institute for Humanistic Studies, Kyoto University* (Kyoto 1957ff.).

1. INTRODUCTION

1.1. History of the language and its speakers

Sumerian is an ancient Near Eastern language spoken more than four thousand years ago in southern Mesopotamia. It is documented as a living language from the late fourth millennium, the date of the earliest cuneiform documents, until the early second millennium. Though no longer spoken, Sumerian continued to be used as a language of scholarship and cult until the end of the first millennium BCE.

Sumerian is a language isolate with no known relatives. Its position in a remote corner of the Near East shows it to be a last remnant of the languages that preceded the arrival of Semitic languages in the area. In this sense, its position is much like that of Basque in Europe, which is a remnant of what existed there before the arrival of the Indo-European languages.

The name Sumerian comes from the Akkadian *šumeru* 'Sumerian', of unknown origin. The Sumerians themselves called their language **eme-gi$_7$.r**, which contains the noun **eme** 'tongue, language' and a stem **gi$_7$.r** of uncertain meaning, perhaps 'native'.

The Sumerians lived in what is now southern Iraq, in the plain of the Euphrates and Tigris rivers, in the area by the Persian Gulf. In the time of the Sumerians, the geography of this area differed radically from that of today. The shoreline of the Persian Gulf was about 200 km further inland from its current location. Also, the Euphrates and Tigris rivers did not follow their modern channels but flowed much closer to each other and discharged separately into the Persian Gulf.

The southern alluvial plain where the Sumerians lived is by itself hardly a hospitable region. The climate is hot and dry. The amount of rainfall is so small that agriculture is only possible through irrigation. The region lacks metals and other minerals. Even wood and stone are scarce. The flatness of the plain makes that the rivers overflow their banks easily and are prone to shift their courses. Moreover, the seasonal flood of the rivers comes at harvest time, too late for irrigation purposes and potentially even harmful because of the flooding risk. Nevertheless, once the water flow is controlled by an irrigation system, agriculture can sustain a large population.

The economy of the Sumerians was based on agriculture. Their main crops were barley and, to a lesser extent, wheat. They also grew pulses such as beans, peas, and lentils, in addition to onions, garlic, leek, cucumber, and other vegetables. Sesame was their oil crop. They had vineyards, date palm plantations, and orchards with various fruit trees. In addition, the Sumerians kept sheep, goats, pigs, and cattle for their wool, meat, leather, and various milk products. Oxen and donkeys were used as draught animals, for ploughing as well as for drawing wagons and chariots. A further source of foodstuffs was fishery. Fishermen were either specialized in catching fresh water fish in rivers and canals, or in fishing along the sea coast.

Agricultural production was large enough to make trade possible. In exchange for wool and barley, the Sumerians could obtain the metals, minerals, wood, and stone which they lacked in their own environment. Particularly important was the tin and copper trade because those metals were essential for the production of bronze which was at the time (the Bronze Age) a prominent raw material for making tools. Certain types of wood (cedar, for instance) and natural stone were imported as building materials for large constructions like temples, supplementing the mudbrick that was always the chief building material. Precious metals and stones were imported for making jewellery. Silver was also used as a means for measuring or storing value but only rarely as a means of payment. Usually goods were bartered or paid for with barley.

The Sumerians also practiced a variety of crafts. To mention only a few, there were potters, leatherworkers, carpenters, and smiths. Special craftsmen produced basketry and mats from reeds. Milling, spinning, and weaving were female occupations.

The rivers and canals were not only used for irrigation and fishery but were also the main ways of communication between localities. In fact, the principal form of transport was the boat. Boats transported goods and people between settlements and farmland, and did so much faster and much more easily than was possible by land. Consequently, people did not have to live close to the land they tilled. This excellent transport system and the high agricultural productivity laid at the basis of the highly urbanized character of Sumerian society. Perhaps as many as two-thirds of the population dwelled in towns. The more important of them were Nippur, Shuruppak, Isin, Uruk, Larsa, and Ur along the Euphrates, as well as Adab, Umma, Girsu, and Lagash, more to the east and closer to the Tigris.

Thus, Sumerian society knew a high level of urbanization and an extensive division of labour. Both came about together with a third important trait of ancient Mesopotamia: it was the home of early states, which arose well before the third millennium. As a result, Sumerian society was anything but egalitarian. The economy was dominated by the palace and the temples, and these were controlled by a small number of families, with the king and the royal family at the top. Together they controlled most of the economic resources, including arable land, livestock, labour, and water. And they managed these resources by means of a meticulous administration and accounting system. It was, in fact, precisely for this purpose that the Sumerian cuneiform script was invented at all.

Most of the third millennium, southern Mesopotamia was divided into several small states, each based on a major city with its surrounding area. Depending on the circumstances, these states had friendly or less friendly relations. We are relatively well documented about the quarrels between Umma and Lagash. These two states had a border conflict about land and water, which led to three military conflicts within a century. Such periods of political fragmentation alternated, however, with attempts at unification. The best-known of these attempts are the Akkad and Ur III empires. The Akkad empire existed during the 23rd century BCE and was established by Sargon, a king from the Semitic North. It was followed by another period of political fragmentation. During the 21st century BCE another empire came into existence, this time established from the South, under the so-called Third Dynasty of Ur. At the turn of the century, it also disintegrated again into a number of smaller states.[1]

1.2. The Sumerian language

1.2.1. Genetic and areal relationships

Sumerian is a language isolate and it is highly unlikely that we will ever find a language related to it. Nearly all of the six thousand or so languages known to us today are separated from Sumerian by a time gap of thousands of years, which is all but impossible to bridge with the methods of historical and comparative linguistics. More crucially, the linguistic landscape of which Sumerian was a part is largely unknown and has long since disappeared, mostly without

[1] Postgate (1992) is still the best overview of Mesopotamian society from ca. 3000-1500 BCE. Pollock (1999) is a highly influential analysis that pays more attention to prehistoric developments, treating the period 5000-2100 BCE. Historical overviews with a wider scope are Edzard (2004) and Van de Mieroop (2004). The fundamental survey of ancient settlement and land use is Adams (1981).

a trace. Linguistically, modern Iraq is three language shifts removed from Sumerian: from Sumerian to Akkadian to Aramaic to Arabic. Similar language shifts have happened in neighbouring Iran, Turkey, and the rest of the Middle East. Any traces of related languages have thus been obliterated thousands of years ago.

In the third millennium BCE, Sumerian was surrounded by unrelated languages. In Mesopotamia itself, Sumerian was spoken in the area closest to the Persian Gulf, while the Semitic language Akkadian was at home in the neighbouring area more upstream on the Euphrates and Tigris. Farther away, in northern Syria, we find other Semitic languages, Eblaite and Amorite. Since the Semitic languages belong to the Afro-Asiatic language family, their ultimate origin lies in Africa, but they spread into the Middle East very early. By 2600 BCE, they had expanded so far into Syria and Mesopotamia that Akkadian was already used in parts of southern Mesopotamia, steadily reducing the area where Sumerian was spoken. This process of language shift in Mesopotamia did not only lead to the death of the Sumerian language itself, but most probably also obliterated its closest relatives (Michalowski 2000: 180).

The most important neighbour of Sumerian outside Mesopotamia was Elamite (Stolper 2004), at home in present-day Iran. The earliest documents date from about 3100 BCE but are written in an as yet undeciphered script, so that their linguistic assignment to Elamite is uncertain. The oldest unambiguously Elamite texts date to about 2300 BCE. Although the language is still poorly understood, enough is known to make language comparison possible. Elamite seems to be related to the Dravidian languages. The language became extinct in the late first millennium BCE, being replaced by Iranian languages. Although there were trade relations and wars between Elamite and Sumerian speaking areas, Elamite seems to have had hardly any linguistic impact on Sumerian: no Elamite loanwords have as yet been identified in Sumerian.

Elamite was not the only language spoken in the neighbouring areas of Iran in Sumerian times, but very little is known about the others (Rubio 2005: 316-7). A people called the Gutians are attested from about 2300 BCE onwards, but of their language we know little more than a few proper names. Coming from the modern area of Iran, the Kassites first turn up in Babylonia during the second millennium BCE. Of their language we know a few dozen words and proper names. Both Gutian and Kassite, as well as any other ancient pre-Indo-European language from Iran, became extinct thousands of years ago.

Directing our attention further west, we find traces of two more ancient Near Eastern languages from Sumerian times: Hurrian (Wilhelm 2004) and Hattic (Klinger 1996). The former was spoken in present-day northern Iraq, northern Syria and southeast Turkey from at least the later third millennium BCE until the end of the second millennium BCE. Hurrian is closely related to Urartian, which is another ancient Near Eastern language and which was in use during the first millennium BCE in the area from the Caucasus to northeastern Iraq. Some scholars have argued for a genetic relationship between Urarto-Hurrian and Northeast Caucasian, but others remain unconvinced.

Hattic is a language indigenous to Anatolia. It became extinct in the early second millennium, being replaced by the Indo-European language Hittite. Hattic is mainly known from loanwords into Hittite and from some Hittite sources which document the use of Hattic in a cultic context. For Hattic, too, genetic links with Caucasian languages have been proposed but without decisive proof.

There is little or no evidence of linguistic contact between any of these ancient Near Eastern languages and Sumerian, with one important exception. Sumerian and Akkadian were not only neighbouring languages but there was also extensive linguistic contact between the two, so extensive in fact that we can speak of a Sumero-Akkadian linguistic area in Mesopotamia (Edzard 2000; 2003: 173-8). In a general situation of widespread bilingualism and language

shift, the two languages greatly influenced each other in their phonology, grammar, and lexicon. Under Sumerian influence, Akkadian, for instance, acquired a ventive, lost several typically Semitic consonants, shifted to a verb-final word order, and borrowed many words from Sumerian. Sumerian likewise converged with Akkadian in a number of ways. Its phoneme inventory, for example, was reduced at the expense of phonemes unknown to Akkadian. It also shifted to the general word order noun – adjective under Akkadian influence (cf. §10.4.1). Sumerian, too, borrowed many lexical items from Akkadian.

Such lexical borrowing occurred already quite early. Sumerian actually shows several layers of loanwords borrowed from Akkadian during the third millennium. The most recent layer consists of nouns like ***za-ba-lum*** (a tree) (Cyl A 12:5; L; 22) from Akkadian *supālum*. They show the Akkadian nominative suffix *-um*. An earlier layer consists of nouns like ***damḫa-ra*** 'battle' (Ent. 28 1:26; L; 25) from Akkadian *tamḫārum*. They have a suffix ***-a***. Loanwords that are not nouns lack these suffixes ***-um*** and ***-a***: e.g., **silim** 'whole' (Nik 1:287 2:2; L; 24) from Old Akkadian **śalim*. An even older layer of endingless forms has been proposed, but remains unproven (Civil 2007; Sommerfeld 2006).

Nothing firm is known about the linguistic landscape of Mesopotamia before the third millennium. Attempts to identify a pre-Sumerian substratum have failed so far (Rubio 1999). As it is, many of the Mesopotamian place names lack a plausible etymology. This is not really surprising, though, because the main settlements may already have been established as early as the sixth millennium BCE. We have, of course, no way of knowing which language their occupants actually spoke. But even if they spoke a language that was a direct ancestor of Sumerian and gave their settlements perfectly transparent names in this language, both this language and its place names would have changed beyond recognition during the following millennia. What we do know about these early place names, however, is that similar ones are found across the entire area of Mesopotamia. Place names with final *-ar* or *-ur* are found in both northern Mesopotamia (Nagar, Assur, Gasur) and in the south (Sippar, Nippur). This suggests some homogeneity in the earlier linguistic landscape.

1.2.2. Sources

We have written sources for Sumerian from a three thousand year long period beginning ca. 3200 BCE. This grammar is based on only a large subset of them, those dating to the second half of the third millennium BCE. Earlier texts are written in a script which is so defective that grammatical research is all but impossible. Most (if not all) later texts have been produced by scribes for whom Sumerian was not their mother tongue but only a language which they had learned during their scribal education.

The earliest texts, about 6000 in number, date to the Uruk III and Uruk IV periods (ca. 3200-3000 BCE) and are written in a somewhat rudimentary script called proto-cuneiform. They are so difficult to decipher that Englund (2004: 101; 2009: note 18) still sees no definitive evidence identifying the language of these texts. But most scholars are not so sceptic and see clear proof that they are written in Sumerian (Wilcke 2005). Four centuries later, the archaic texts from Ur (ca. 2800 BCE) provide the first unambiguous spellings of grammatical elements, so that it is beyond any doubt that they are in Sumerian. All these early texts are of an administrative nature, except for a few sign lists (Englund 1998).

The Fara period (ca. 2600 BCE) has yielded a much wider range of texts, with the sites of Fara (ancient Shuruppak) and Abu Salabikh providing the main text finds. In addition to the usual administrative texts, there are not only sign lists but also legal documents, incantations and numerous literary texts (Krebernik 1998). The spelling of grammatical elements has

become more common, making these texts much more comprehensible than the earlier ones. But such spellings also remain to a large degree optional and for this reason I have excluded them from the corpus on which this grammar is based.

The earliest texts included in our corpus date from the Old Sumerian period and more specifically from the reign of Eannatum of Lagash and his contemporaries (ca. 2470 BCE) until the unification of the entire country under the kings of Akkad (ca. 2340 BCE). There are about 2200 published Sumerian texts from this period, which include administrative texts, royal and dedicatory inscriptions, a few letters and legal documents, as well as a small number of mostly fragmentary literary texts (Bauer 1998: 432-3). The majority of these sources come from a very small number of sites:

- Girsu and Lagash: well over one hundred inscriptions (ca. 2470-2350 BCE) on a variety of objects excavated from various temples and a group of more than 1700 administrative texts (ca. 2380-2350 BCE) concerning the estate of the queen of Lagash, probably excavated from the palace in Girsu.
- Nippur: about 220 inscriptions and administrative texts with a variety of backgrounds.
- Zabalam: an earlier group of about 50 administrative texts (ca. 2430 BCE) and a later group of about 100 administrative texts from the Inanna temple (ca. 2350 BCE).
- Adab: about 100 inscriptions and administrative texts.

Several other sites have yielded small numbers of texts from this period, including Ur, Umma, and Isin. It is clear, however, that most sources for the Old Sumerian period come from Girsu and Lagash, in fact almost 87 per cent of the total.

During the Old Akkadian period (ca. 2340-2200 BCE), Mesopotamia was politically unified under the kings of Akkad. This period has so far supplied about 3000 published texts in Sumerian, primarily administrative, but also a few legal documents, letters and inscriptions, with the largest groups coming from the following sites (Westenholz 1984: 17-24):

- Lagash: about 1000 mostly administrative texts from the palace archives. They record among other things the governor's dealings with the king and the management of land, livestock, and personnel in the province of Lagash.
- Nippur: a few hundred administrative texts belonging to several different groups, including about 100 of the so-called 'onion archive' and two dozen from the Enlilemaba archive.
- Umma: 500-600 administrative texts from the palace archives.
- Adab: 500-600 administrative texts from the palace archives.

For the early Neo-Sumerian period (ca. 2200-2113 BCE) we need to distinguish between Lagash and the rest of the country. Outside Lagash we speak of the Guti-period, which has yielded only a few royal inscriptions. For Lagash, however, the picture is quite different. After the Old Akkadian period, the so-called second dynasty of Lagash was in power there (Lagash II, for short). This dynasty and especially its principal ruler, Gudea, has provided us with a set of royal inscriptions that has so far been the single most important text group for Sumerian grammatical studies. Apart from over two hundred regular royal and dedicatory inscriptions, this group contains 26 inscriptions on statues, including a few very substantial ones, and, above all, two clay cylinders with over 1300 lines of narrative text.

During the later Neo-Sumerian or Ur III period (ca. 2112-2004 BCE), Mesopotamia was again politically unified, this time under the Third dynasty of Ur. It was a time when the king and his representatives relied more than ever before on written documents in their management of their resources. This period has yielded over 60,000 published Sumerian texts, mostly administrative but also including about two hundred royal inscriptions, three hundred court

decisions, hundreds of letters, a few dozen incantations, and some literary texts. Most of these sources derive from a few sites and archives (Sallaberger 1999):

- Umma: over 25,000 texts from the palace archives.
- Lagash: over 13,000 texts from the palace archives.
- Drehem: over 12,000 texts from different royal archives, mostly dealing with livestock but also with treasure.
- Ur: about 3500 texts originally mostly from the royal archives but excavated from secondary contexts where they had been discarded in antiquity.
- Nippur: about 2500 texts from smaller archives, including one of the Inanna temple and those of various individuals.
- Garshana: about 1500 texts from the archives of a member of the royal family.

The latest group of texts to be included in the corpus consists of the over 900 administrative texts from the Isin craft archive (ca. 2014-1982 BCE), which show the same spelling as the texts from the Ur III period and which overlap with them in time.

The early Old Babylonian period (ca. 2017-1722 BCE) is the last to produce unilingual Sumerian texts, most of them dating to the 18th century. It has yielded a great many administrative and legal documents in Sumerian, but most of all it has been the source of thousands of literary texts and fragments which have made it possible to piece together hundreds and hundreds of literary compositions, among them myths, epics, hymns, and wisdom literature. In addition it has provided us with numerous lexical texts, which are far more comprehensive and informative than ever before. But it is also the period when Akkadian had become the primary language of the scribes. That we have all these wonderful literary and lexical texts is only thanks to their efforts to learn proper Sumerian. They are the products of a scribal education (§1.2.4). Because these texts were produced by scribes who were not native speakers of Sumerian, I have generally excluded them from my corpus.

After the early Old Babylonian period, scribes continue to produce Sumerian texts until the late first millennium BCE but with interlinear Akkadian translations added. Sumerian had become a language of scholarship and cult. These later texts are primarily lexical lists, literary texts, incantations, and cult songs.

1.2.3. Dialects

Sumerian was spoken during a long period and over a large area, in many different states, towns, and villages. It comes therefore as no surprise that it had dialects, distinct varieties of the language spoken in specific geographic areas. Unfortunately we know preciously little about them. Dialects were primarily a feature of the spoken language, whereas the written language tended to be quite uniform. Yet, in the earlier periods, when political unification was still the exception, local scribal traditions were stronger and those usually reflected traits of the local dialects.

Legal and illegal excavations have yielded texts from a limited number of larger towns. Many regions are poorly documented. On the available evidence we can identify two main dialects during the second half of the third millennium BCE. In this grammar we will call them Northern and Southern Sumerian, following an old tradition to call the downstream area closer to the Arabian Gulf ‘South’ and the upstream area ‘North’. Strictly looking at the compass, we could just as easily call them Western and Eastern Sumerian. The relationship between these two main dialects changes across time and so do the linguistic properties in which they differ.

In the Old Sumerian period, the two dialects have at least two distinct linguistic properties. In contrast with Northern Sumerian, Southern Sumerian follows a rule of vowel harmony, whereby certain verbal prefixes have two different forms, one with the vowel /e/ and the other with /i/ (see §3.9.3 for details). The second difference between the two dialects lies in their passive verbal forms. Northern Sumerian uses the prefix {ʔa} as its passive marker and Southern Sumerian {ba} (see §11.5.3 for details). On the basis of these two criteria, we can assign the general area of Lagash, Umma, Ur, and Uruk to Southern Sumerian, while Nippur, Adab, and Isin turn out to belong to Northern Sumerian.

After the early Old Akkadian period, the Southern Sumerian rule of vowel harmony ceases to operate and from then onwards the Southern dialect behaves in this respect in exactly the same way as the Northern. At the same time, however, the other distinctive property becomes even more marked. Both dialects continue to use their own distinctive passive markers, but in addition the verbal prefix {ʔa} all but disappears from Southern Sumerian in its other, non-passive uses. Only the allomorph /al/ is retained and even that form only survives in subordinate clauses (see §24.4 for details). Thus, from the Old Akkadian period onwards, the main difference between the two dialects lies in their use or non-use of the verbal prefix {ʔa}. (See chapter 24 for a full discussion of this development.) At the same time, a new but less prominent dialectal difference arises: the phoneme /ř/ becomes /r/ in Southern but /d/ in Northern Sumerian (see §3.3.2).

In the earlier periods, the two dialects were also the written norm in each of the two areas where they were spoken. This reflects the political fragmentation of the times. By the end of the third millennium this changes. During the Ur III period, when all of Sumer (and much more) was part of a single empire, the written language became also much more uniform than before. Most texts were written in what could be called standard Neo-Sumerian, which was linguistically a variety of Southern Sumerian. It used {ba} as a passive marker and had all but lost the verbal prefix {ʔa}. Texts written in standard Neo-Sumerian are also found outside the area where Southern Sumerian was indigenous. All texts from Drehem are in that dialect and so are many texts from Nippur. The latter city, however, has also yielded many Ur III texts with Northern Sumerian or mixed features.

The dialectal differences mentioned thus far are certainly not exhaustive. They just happen to be rather frequent features that are prominently present in our texts. That the rather uniform scribal traditions hide a great deal more from us is obvious from occasional slips into non-standard spellings. Thus, the verb normally written **se$_{12}$** 'live (said of more than one person or animal)' occurs in an Umma text written as ***zé*** (SANTAG 6:154 obv 9; U; 21) but in Nippur texts as ***še*** (e.g. ECTJ 81 3; N; 24). Such differences in pronunciation must have been common but are only rarely reflected in the written language.

While the dominant written language during the Ur III period was a variety of Southern Sumerian, this changes during the subsequent, Old Babylonian period. The first centuries of the second millennium have yielded a great many unilingual Sumerian texts. Not only administrative and legal documents, but also a wealth of literary texts. They, too, reflect different dialects, including standard Neo-Sumerian. However, the dominant written language of these later texts differs from standard Neo-Sumerian in a number of important ways.

One crucial difference lies in the behaviour of the two vocalic prefixes {ʔi} and {ʔa}, treated in chapter 24. In standard Neo-Sumerian, they are lost before the form /ni/ of the local prefix {ni} 'in' (§20.2.1), before the prefix {ra} (§17.2.4), and before the prefix {ri} (§18.2.4). In the Sumerian texts from the Old Babylonian period and later, they are retained before these three prefixes.

The second main difference has to do with the person prefix {e} for the second person singular human (§13.2.4 and §16.2.4). In standard Neo-Sumerian it contracts with a preceding vowel, lengthening that vowel. But in most of the Sumerian texts from the Old Babylonian period and later, the result of the contraction is always /ē/, regardless of which vowel precedes.

Such differences between the dominant written language of the Ur III period and the one of the Old Babylonian period cannot be explained from linguistic change across time. Prefixes are not lost in one period and then restored again in the next. What we observe as different dialects across time must also be different dialects across space. The dominant *written* variety of Old Babylonian Sumerian is based on a *spoken* dialect that differs from the one on which standard Neo-Sumerian is based. And that different *spoken* dialect never lost these prefixes. This shift in the written norm may reflect the shift in power from the southern town of Ur, the capital during the Ur III period, to the northern town of Isin, the capital during the early Old Babylonian period.

A discussion of Sumerian dialects is not complete without mentioning Emesal. This is the Sumerian name (**eme-sal** 'thin tongue') of a dialect documented in certain literary and cultic texts dating from the Old Babylonian period or later. Some texts are fully in Emesal, among them the texts used by lamentation priests. Other texts display a shift between Emesal and standard Sumerian sections. In such texts, it is primarily the direct speech of goddesses that is in Emesal.

Emesal differs from standard Sumerian in vocabulary, pronunciation, and morphology. Not counting compounds, we have about fifty Emesal stems along with a few grammatical morphemes. These do, however, often differ markedly from their standard Sumerian counterparts, as the following selection makes clear (see Schretter (1990) for a full listing with detailed discussion):

Emesal	*standard Sumerian*	*translation*
áĝ	**níĝ**	'thing'
da	***ga***	(a modal prefix, §25.6)
e-zé	**udu**	'ram'
i-bí	**igi**	'eye'
ka-na-áĝ	**kalam (< *kanam**, §3.5.3)	'country'
ma-al	**ĝál**	'be there'
me-e	**ĝe$_{26}$**	'I'
mu	**ĝiš**	'wood'
ta	***a-na***	'what?'
zé-eb	**du$_{10}$.g**	'sweet'
zé-èĝ	**šúm**	'give'

Most of the Emesal and standard Sumerian forms are obviously cognates, but how they exactly relate to each other is less clear. Many involve a shift from a labial to a velar consonant or vice versa. But with only fifty or so items it is not easy to establish the rules behind the various sound correspondences. A complicating factor is that the Emesal we have is not a living language but only the product of a scribal tradition which may include artificial forms constructed by the scribes themselves. What we call a text in Emesal is in practice a standard Sumerian text containing a larger or smaller number of Emesal morphemes.

Nevertheless, Emesal is rooted in actually spoken language. This is proven by the Akkadian loanwords *akkullu* 'hatchet' (cf. Sumerian **níĝ-gul**) and *mukānu* '(part of a loom)' (cf. **ĝiš-*ge-***

na), which reflect the Emesal stems ***áĝ*** 'thing' and ***mu*** 'wood'. A third loanword, *bukānu* '(wooden) pestle' (cf. **ĝiš-gan**), contains a morpheme /bu/ 'wood' which may be a cognate of Emesal **mu**.

Although we have no Emesal texts dating from before the early Old Babylonian period, we can be sure that Emesal was part of the third millennium linguistic landscape. In the loanwords just mentioned, Akkadian /k/ corresponds to Sumerian /g/. This proves that these words were borrowed into Akkadian already in the third millennium (§3.2.3).

1.2.4. The death of Sumerian

In the third millennium, the Sumerian speaking area had already been reduced to the southernmost part of Mesopotamia, the area from Nippur to the Persian Gulf. As early as ca. 2600 BCE, we find many scribes with Akkadian names in Abu Salabikh, a site slightly to the north of Nippur. But the process of language shift to Akkadian did not stop there or then and eventually Sumerian ceased to be a living language. The details of this shift, however, still largely elude us and are subject to much debate.

Proponents of an early demise view the reign of the kings of Akkad (ca. 2340-2200 BCE) as the decisive impetus for a language shift in the Sumerian south. These kings and their representatives were Akkadians and conducted their affairs primarily in Akkadian. As a result, Sumerian had become an only written language by the Ur III period (ca. 2112-2004 BCE) (Michalowski 2000: 102; Rubio 2006). Others see a much longer period of bilingualism, during which Sumerian and Akkadian influenced each other through intense language contact (Edzard 2000). Nobody, however, dates the death of Sumerian after the 18th century, after which no more unilingual Sumerian texts were written (§1.2.2).

We will of course never know when the last native speaker of Sumerian died. Nor do we know anything about language usage in remote villages in the marshes of southern Mesopotamia. Our only sources for language usage are written documents produced by scribes belonging to the social elite. Yet, these texts provide us with much data illuminating the process of language shift in the Sumerian south. Although we have written sources for only a few sites and for only intermittent periods, it is still possible to trace language usage broadly across time, space, and communicative situation. The most thorough study so far to do so is Sallaberger (2004). He investigates the linguistic composition of personnel lists as well as language use in non-formulaic documents like letters. He concludes that Nippur and the area to its south were predominantly Sumerian-speaking during the second half of the third millennium, but that it included a significant Akkadian-speaking minority and that there must therefore have been some degree of bilingualism. During the 20th century, however, only Nippur provides clear evidence for a continued usage of Sumerian as a living language. By the 19th century, Sumerian had become a written language only.

That Sumerian was still a living language during the Ur III period is confirmed by additional linguistic evidence not used by Sallaberger. At this time, Akkadian lacked the Sumerian phonemic contrast between /s/ and /š/ (§3.4.1) and we see Akkadian scribes struggle with keeping these sounds apart when they write in Sumerian. Thus, in Nippur and Ur we find the occasional ***in-si-*sa$_{10}$** instead of ***in-ši-*sa$_{10}$** and in Garshana the verbal suffix {eš} is often written with an /s/, all clear akkadianisms.[2] Yet, the phonemic contrast between /s/ and /š/ survives in

[2] E.g.: ***in-si-*sa$_{10}$** (NRVN 1:216 6; N; 21), ***in-si-sà*** (NRVN 1:221 6; N; 21), ***in-si-*sa$_{10}$** (Nisaba 5 p.31 nr. 169; Ur; 21), ***in-*gíd-*sa-a*** (e.g. CUSAS 3:255 5; Garshana; 21), ***i-re-sa-a*** (CUSAS 3:529 3; Garshana; 21), and so on.

Sumerian into the Old Babylonian period, when Akkadian itself acquired this contrast again. This could not have happened without native speakers keeping the contrast alive. If Sumerian had been a dead language in the Ur III period, Sumerian /s/ and /š/ would have fallen together just as in Akkadian.

As the occasional confusion of /s/ and /š/ proves, some scribes in Nippur were native speakers of Akkadian. But there were also scribes that had the local Sumerian dialect as their native language. A hypercorrect form like ***ba-an-da*-tuku** can only be explained as linguistic interference from the local Sumerian dialect in standard written Sumerian. It is the product of a scribe speaking Nippurean Sumerian but trying to write standard Sumerian (§24.5.2).

Thus, Sumerian was without doubt still a living language until the early Old Babylonian period. What exactly caused its rapid demise during the following century remains unclear. One factor must have been the spread of bilingualism during the Ur III period itself, stimulated by the fact that Akkadian was the primary language in the empire as a whole and at the royal court. The latter fact is not only shown by the way king Shulgi boasts about his proficiency in Sumerian (Rubio 2006) but also by the fact that the only Akkadian text from the huge Umma archives is a letter by the king to the local governor (TCS 1:369; U; 21).

Another major factor must have been the rapid decline of the old Sumerian centres Umma and Lagash. Both had been provinces of the Ur III empire and Lagash may even have been the most important province of the entire empire. But after the Ur III period, Lagash and Umma all but disappear from the historical record and lead a marginal existence never to regain their former prominence again. Their sudden decline is not yet fully understood, but it may have been caused by a major shift in the course of the Tigris, depriving the area of irrigation water (Sallaberger 2004: 134).

Thus, Sumerian had ceased to be a living language by the 19th century. Yet, the scribes in Nippur and elsewhere in the south made every effort for a continued proficiency in Sumerian, even though they had to learn the language during their scribal education. The result was a flourishing of unilingual literary and lexical texts in Sumerian until the 18th century (Sallaberger 2004: 136-7). Then, this tradition, too, came to an abrupt end when, for reasons unknown, the main population centres of the south were abandoned one by one during the reign of the Babylonian king Samsu-iluna (1749-1712 BCE).

Yet, Akkadian scribes continued to write Sumerian texts for many more centuries, but now with Akkadian translations added. By the end of the first millennium BCE, Sumerian became also extinct as a written language, when both Akkadian and the cuneiform script were finally given up in favour of Aramaic and its alphabetic script.

1.2.5. Previous grammars

The modern study of Sumerian began in the 1850s with the discovery of the royal libraries in Niniveh. Excavations there yielded a large number of bilingual tablets and fragments that contained an until then unknown language. These documents not only included texts with Akkadian translations but also lexical lists giving the readings and meanings of many Sumerian words and phrases. From 1877 onwards, excavations in Tello (ancient Girsu, the capital of the state Lagash) added large numbers of unilingual Sumerian texts, thus broadening the basis for research significantly.

The early period of grammatical research into Sumerian was concluded in 1923 with Arno Poebel's magnificent *Grundzüge der sumerischen Grammatik*, which has remained an authoritative work to this very day. However out-of-date it may be in some respects, no later grammar has been able to supplant it in clarity or scope.

Firmly in Poebel's tradition but also departing from it in significant ways is Adam Falkenstein's *Grammatik der Sprache Gudeas von Lagaš*, published in two volumes in 1949-1950. Whereas Poebel had described all known Sumerian regardless of date or origin, Falkenstein limited himself to one homogeneous group of contemporary texts from a single location. Compared with Poebel, Falkenstein's approach was more philological and less linguistic. He also had different views on some grammatical issues, especially about verbal morphology.

Falkenstein was the central figure in Sumerian studies during the 1950s and 1960s and it was he who trained almost an entire generation of Sumerologists. His views on Sumerian grammar dominated the field until the 1980s. His grammar is without doubt the most authoritative work after Poebel.

During the 1970s, it became increasingly clear that the existing grammars did not account for the data in a fully satisfactory way. This was partly the result of a huge increase in published Sumerian texts, especially literary ones. But it was also partly caused by fresh input from linguistics. It was, for instance, realized that Sumerian was an ergative language. And that its basic verb forms did perhaps not express tenses but rather aspects. It led to a long series of studies, many linguistically informed.

The new developments were reflected in Marie-Louise Thomsen's *The Sumerian language*, published in 1984. It is a work firmly in the Falkensteinian tradition, but with modernizations on the basis of more recent literature. As a more up-to-date grammar was badly needed, its publication was widely welcomed and her grammar has remained in use as a textbook for more than two decades. It is not an authoritative reference grammar, though. Its value lies in the fact that it gives an excellent overview of the state of Sumerian grammatical studies in the early 1980s. Where it gives original analyses, as for instance in the chapter on the non-finite verbal forms, its impact on the field has been negligible.

A work that received less attention than it deserved is Pascal Attinger's monumental *Eléments de linguistique sumérienne* (1993). Although it purports to be a comprehensive study of the grammatical and semantic properties of a single verb only, it actually contains an entire Sumerian grammar disguised as a supplement to Thomsen's grammar. It is full of shrewd observations and new analyses, but its compact and technical style make it somewhat inaccessible to the uninitiated.

The last decade has seen a surge in the publication of concise Sumerian grammars, the most important being Dietz Otto Edzard's *Sumerian grammar* (2003) and Daniel A. Foxvog's *Introduction to Sumerian grammar*, the latter published on the internet in 2009. Recent brief grammars are Michalowski (2004), Zólyomi (2005a), and Rubio (2007). A recent more traditional grammar is Römer (1999), which also contains a very good bibliography for each individual topic.

1.3. This grammar

1.3.1. Grammatical terminology

This grammar generally uses the same labels for grammatical categories as earlier grammars of Sumerian, but there are some exceptions. Some particularly opaque terms have been replaced by more meaningful terms. Also, where the traditional terminology is not uniform itself, a choice had to be made. Finally, this grammar introduces a few new categories, which obviously needed new labels as well.

The single most important respect where the present grammar deviates from earlier grammars is in its systematic separation of verbal from nominal categories. Sumerology has a long

standing tradition of using nominal case marking terminology for verbal affixes and syntactic categories as well. This grammar breaks with that tradition. To give just one example, the term 'dative' is here only used to refer to a certain case, not to a certain syntactic function or to a certain verbal prefix as well. Those are called 'indirect object' and 'indirect-object prefix' instead. See §11.6 for a more detailed discussion and justification.

The two basic Sumerian verbal forms have had several different labels over time. Until the late 1960s they were usually called the 'preterit' and the 'present-future'. Then, these terms were generally replaced by two completely opaque terms taken from Akkadian: *ḫamṭu* and *marû*. This grammar follows the recent trend to call them 'perfective' and 'imperfective' (see §15.1). Note, however, that their usage differs strongly from their namesakes in the Slavic languages.

Two terms are used in a potentially confusing way in this grammar: 'oblique object' and 'participle'. The former is the normal linguistic term for any object which is not a direct or indirect object. This grammar uses it in a much more restricted way, for a very specific grammatical category with clearly defined formal properties (see §18.1).

The second potentially confusing term is 'participle', which I use in the newly coined labels 'present participle', 'past participle', and 'imperfective participle' for three basic Sumerian non-finite verbal forms. However, all 'participles' are not only used as verbal adjectives but also as verbal nouns. To call them 'participles' emphasizes the former function at the expense of the latter. That I nevertheless do so is only as a label of convenience (see §28.1).

1.3.2. Notational conventions for the examples

The examples in this grammar follow a few uncommon conventions that need a word of explanation. They concern the transliteration system, the glossing rules, and the references to sources.

In contrast with the transliteration systems for all other languages written in the cuneiform script, the traditional system for Sumerian does not distinguish typographically between word signs and sound signs. As a result, this system is unsuitable for linguistic studies. This grammar therefore prints Sumerian word signs in **bold** type and Sumerian sound signs in ***bold italics***. See §2.7 for a more detailed discussion.

Most examples in this grammar are fully glossed and consist of four different lines each. E.g.:

(1) **tir-*ba mu*-ĝál**
tir =be=ʔa Ø-mu -n(i)-ĝál -Ø
forest=its=LOC VP-VENT-in -be.there-3N.S/DO
'This (wood) is in its forest.' (DP 431 3:3; L; 24)

The first line is the transliterated Sumerian as it occurs in the source. Since Sumerian spelling often ignores syllable-final consonants, this may cause discrepancies with the second line, which gives a full morpheme-by-morpheme analysis of the example.[3] In this particular ex-

[3] Thus, in contrast with established linguistic usage, neither the first nor the second line gives a *phonological* representation of the example. The first is simply a transposition of the Sumerian spelling into our script, while the second gives a *morphological* representation. Although a phonological representation would have been preferable by far, it is impossible to achieve without a great many arbitrary decisions. The pronunciation of the word signs is only partly known: we read and transliterate them according to Akkadian word lists dating from

ample, the scribe did not write the syllable-final /n/ in the verbal form. The third line provides glosses for each of the morphemes in the line above. The fourth line, finally, contains a translation of the entire example and a reference to its source.

In the morphemic analysis and glosses, morphemes are separated by a hyphen, except clitics, which are separated from other morphemes by the equal sign (=). The morphemic analysis gives the basic form of each morpheme, which is not necessarily the phonological form found in the actual example. Assimilations and contractions affecting these basic forms are ignored. Thus, ***ba*** in the example above is actually the result of a contraction affecting two morphemes. Vowel loss, however, is explicitly indicated, with round brackets. Thus, the basic form of the prefix {ni} 'in' is /ni/, but in this particular example it has a reduced form /n/. The symbol Ø is used for zero-morphemes, to indicate that the absence of an overt element has a specific meaning (see §4.4.2).

The morphemic glosses in the third line aim to translate the same morpheme always with the same gloss. The functions of grammatical morphemes are indicated with abbreviations that can be found in the list of abbreviations and conventions above (p. xvii). Where one Sumerian morpheme must be translated with more than one gloss element, a period is used to separate them, as in 'be.there' for **ĝál**. Where one morpheme can have two alternative functions, a forward slash is used to separate them. Thus, '3N.S/DO' indicates that the zero-morpheme expresses either a third person non-human subject or a third person non-human direct object.

To save space, perfective verbal forms are never explicitly glossed as such, while imperfectives always are. Accordingly, the verbal form in the example above is perfective.

The references to sources are generally followed by an indication of provenance: A (Adab), D (Drehem), I (Isin), L (Lagash), N (Nippur), U (Umma), Ur (Ur), and ? (provenance unknown). The abbreviation of the provenance is followed by a rough indication of the date of the source, in centuries BCE, e.g., 21 (the Ur III period), 22 (the reign of Gudea), 23 (the Old Akkadian period), 24 or 25 (the Old Sumerian period), and 26 (Fara period).

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many centuries later. (See §12.6 for an example of how large the discrepancy between spelling and pronunciation can be in the case of word signs.) Even the pronunciation of sound signs is often far from certain because of conservative spellings which reflect an earlier pronunciation or because of morphophonemic spellings whereby a morpheme is always written with the same sound sign, regardless of its actual pronunciation (§3.1). These uncertainties rule out a reliable phonological interpretation of the Sumerian examples.

2. THE WRITING SYSTEM

2.1. Introduction

There are no more speakers of Sumerian. The language ceased to be spoken about four thousand years ago. What remains are written documents and a few loanwords in modern languages. Lacking native speakers, our only direct source for the Sumerian language consists of the texts written by Sumerian scribes. The script that they used acts therefore as an intermediary between the Sumerian language and ourselves. The Sumerian language is only accessible through the Sumerian script.

Unfortunately, this script is a highly imperfect intermediary. It represents the Sumerian language in such a way as to make linguistic analysis far from easy. This is not surprising. The Sumerians invented their script (called 'cuneiform') in the late fourth millennium BCE (ca. 3200 BCE), so that it is the oldest script known and, accordingly, reflects an early stage in the development of writing in general. Moreover, as a writing system it was meant for use by scribes who knew not only the language but also the general social and cultural background of the texts. They needed for a correct interpretation of a text less information than we do.

Since the Sumerian script acts as an intermediary, a grammar of the Sumerian language must begin with a discussion of this script. It must be determined how the script represents the Sumerian language, making clear what kind of linguistic information the script gives and, especially, what kind of information it does not give. Also, it must be clarified which textual phenomena have a linguistic background and which reflect only scribal habits. The present grammar will therefore often discuss orthographical questions that have a bearing on linguistic issues. While later chapters will discuss in detail how the writing system represents particular phonemes and grammatical morphemes, this chapter will focus on the general properties of the Sumerian writing system.

2.2. An outline of Sumerian orthography

In its fully developed form, the Sumerian script is based on a mixture of logographic and phonographic writing. There are basically two types of signs: word signs, or logograms, and sound signs, or phonograms. Logograms express words (i.e. lexemes). They stand for linguistic units with a meaning. Phonograms represent a sequence of phonemes.[1] Standard Sumerological transliterations do not distinguish between logograms and phonograms, but the present grammar transliterates phonograms with italics (cf. §2.7 below).

Many signs have more than one usage. The sign KA, for instance, is used as a logogram for the words **ka** 'mouth', **zú** 'tooth', **kiri$_3$** 'nose', **du$_{11}$.g** 'speak', or **inim** 'word'. The same sign is also used as a phonogram with the value ***ka***.[2] Another example of a multifunctional sign is NI.

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[1] Sumerologists generally use the terms 'syllabic' and 'syllabogram' instead of 'phonographic' and 'phonogram'. The latter two terms are preferred here because they refer unambiguously to the function of writing sounds, whereas the terms 'syllabic' and 'syllabogram' suggest a function of writing syllables, a function that does not really apply. Note that the term 'phonogram' is common in Egyptology (Gardiner 1957: §6).

[2] In Sumerological transliterations the accents and numerical subscripts distinguish between signs: **du** is a value of the sign DU, **dú** ('**du** two') one of the sign TU, and **dù** ('**du** three') one of the sign GAG, and so on, but from four upwards, values are indicated with numerical subscripts instead of accents. The value **du$_{11}$** ('**du** eleven') belongs to the sign KA.

It is used as a logogram for the words **ì** 'oil, fat' and **zal** '(of time) to pass', and also occurs as a phonogram with the values ***ì***, ***ni***, ***né***, and ***lí***.

In order to disambiguate spellings, some logograms and phonograms are used as auxiliary signs. They are transliterated in superscript. Auxiliary logograms are called determinatives. They identify the following or preceding word as belonging to a specific semantic class. The logogram **diĝir** 'god', for instance, is used as a determinative before the names of gods: ^{d}**inanna** '(the goddess) Inanna', ^{d}**en-líl** '(the god) Enlil'. Other logograms commonly used as a determinatives are **ki** 'place' after town names, and **ĝiš** 'wood' before the names of wooden objects: e.g., **umma**^{ki} '(the city) Umma', ^{ĝiš}**apin** 'plough'.

Auxiliary phonograms are called phonetic complements. They give information about the phonemic make-up of what other signs express. (The term '*phonetic* complement' predates the now common distinction between *phonetic* and *phonemic*.) Phonetic complements have two uses. First, they can be employed as a part of a cuneiform sign in order to create a new, specialized logogram. The word sign for **eme** 'tongue', for instance, is a ligature of the sign KA and the sound sign ***me***. Further instances are the logogram for **ama** 'mother' (a ligature of the sign GÁ and the sound sign ***am$_6$***), the logogram for **alim** 'bison' (a ligature of the sign GIRI3 and the sound sign ***lim***), and the logogram for **lagas** (the signs ŠIR.BUR with the sound sign ***la***). Such sound signs are an integral part of a cuneiform sign and are obligatory. The second use of phonetic complements is optional. Sometimes a sound sign is added to another sign in order to specify the precise value of that sign. For example: ^{d}**nin-gilin**$^{gi4\text{-}lí}$***-na*** (Ukg. 4 5:4; L; 24), ***mar***^{ar}***-ḫa-ši***^{ki} (MVN 15:199 10; D; 21), ***in-ni-***^{ĝá}**ĝar**^{ar} (NG 46 4; L; 21), ***ba-an-***šub^{ub} (NG 202 4; U; 21).

The Sumerian script does not indicate word boundaries, but neither does it string together undivided series of signs into complete texts. Every text is divided into small groups of signs that are clearly separated from each other. At first, all written surfaces (usually clay tablets) were divided into narrow columns consisting of larger and smaller cases. From the later Old Akkadian period onwards, texts were increasingly divided into lines instead of cases, while the use of columns was restricted to large texts. These cases and lines split up the text into semantic units of various sizes. Generally speaking, the earlier system of cases works with smaller units than the later system of lines. A case minimally contains a single full word, but quite often includes a larger unit such as a phrase or even a complete clause. This is also true of the later system of lines, but this does not split up phrases to the same extent as the earlier system. E.g.: **bara$_2$-*nam*-tar-*ra* / dam lugal-an-*da* / ensi$_2$ / lagas**^{ki} 'Baranamtarra, / the wife of Lugalanda, / the ruler / of Lagash' (RTC 61 13:2-5; L; 24); **bala** ^{d}**šara$_2$-*kam* ensi$_2$ ĝír-su**^{ki} 'the turn-of-duty of Sharakam, the ruler of Girsu' (AUCT 2:263 7; D; 21). Here (and elsewhere in the present grammar) the forward slash ('/') indicates the presence of a dividing line between cases or lines.

After its invention in the late fourth millennium BCE, the Sumerian script developed from a purely logographic writing system to a script based on a mixture of logographic and phonographic writing. Phonographic writing arose in the first half of the third millennium (§2.3). During the second half of that millennium, phonographic writing evolved from a highly defective tool to one that could be used to write any sound sequence. The crucial steps were the development of VC-signs for writing syllable-final consonants (§2.4) and the evolution of V-signs for writing vowel length (§2.5). Having thus covered the major changes in the Sumerian writing system across time, the chapter continues with a section on other kinds of spelling variation within the Sumerian script (§2.6). The chapter closes with a discussion of how the Sumerian script is commonly transliterated and how this has influenced research on the Sumerian language (§2.7).

2.3. The early development of Sumerian writing

The Sumerian script evolved from a purely logographic script (ca. 3200 BCE) to one based on a mixture of logographic and phonographic writing (ca. 2500 BCE). How did this come about? Although the earliest stages of cuneiform are still poorly understood, the crucial spelling principles can be inferred from later stages of the script and from what is known of other early scripts.[3] As we shall see presently, sound signs developed step by step from word signs.

As already stated, the Sumerian script was in origin purely logographic. At first all signs were logograms and, accordingly, represented words. Many logograms were in origin pictures of those objects the words which they represented. Thus, the word sign for **saĝ** 'head' was a drawing of a head, the sign for **mušen** 'bird' was a drawing of a bird, the one for **ku$_6$** 'fish' a fish, and so on. Other logograms were only partial pictures of objects. Thus, the word sign for **áb** 'cow' was a drawing of the head of a cow, while the signs for **nita$_2$** 'man' and **munus** 'woman' were drawings of the male and female genitals respectively. Finally, there were logograms that did not have a clear pictorial background but represented words with more abstract symbols. The sign for **udu** 'sheep', for instance, consisted of a circle divided by two lines into four equal parts, hardly a symbol that by itself brings the word for sheep into mind. The number signs also belonged to this category of more abstract symbols.

The Sumerian script never had a separate sign for every separate word. Many words have meanings that are not suitable for depiction. Moreover, the number of different signs necessary to represent every individual word would have been impossible to memorize. These problems were solved by making logograms multivalent: from early on, one sign could represent two or more different words. Logograms could acquire new values along two paths, which arose from the very nature of logographic writing itself. An existing logogram always represented a word, that is a unit of sound and meaning. Accordingly, a logogram representing a given word could acquire a new logographic value either through association with the meaning of this word or through association with its pronunciation.

Through meaning association an existing word sign could come to be used also for another word with a different pronunciation but a related meaning. Thus, the logogram for the word **ka** 'mouth' also became the word sign for **zú** 'tooth', **kiri$_3$** 'nose', **inim** 'word', and **du$_{11}$.g** 'speak', because all these words are in some way conceptually associated with the word **ka** 'mouth'. Conceptual association caused the words **tar** 'split', **ku$_5$.ř** 'cut', and **ḫaš** 'break' to be written with the same word sign. In the same way, **du** 'go', **ĝen** 'go', and **ře$_6$** 'bring' came to share a single sign. The word sign for **apin** 'plough' also came to represent **uru$_4$** 'plough', **engar** 'farmer', and **absin$_3$** 'furrow'. And so on.

Through sound association an existing logogram could come to be used also for another word with a different meaning but a similar pronunciation. The logogram for the word **zú** 'tooth' also acquired the value **zuḫ** 'steal', because that word sounded similarly to **zú** 'tooth'. It was sound association that caused the words **si** 'horn', **si** 'fill', and **si.g** 'put into' to be written with the same word sign. In the same way, the sign for **ti** 'arrow' came also to be used for **ti.l** 'live', the sign for **sar** 'garden' for **sar** 'write', and the sign for **šúm** 'garlic' also for **šúm** 'give'.

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[3] For my description of the development of the Sumerian script, I have greatly benefited from Edzard (1971a: 166f), Green (1989), Krebernik and Nissen (1994: 283-286), and Krebernik (1998: 271-2) on early cuneiform, Boltz (1994, 1996) on early Chinese writing, and Coe (1994) on the Maya script.

Thus, through semantic and phonemic association, existing word signs became multivalent, being used as logograms for two or more words. Nevertheless, they still were logograms and the script was as logographic as it would have been without multivalency. Yet, the first step to the development of sound signs had been taken. The creation of new logographic values through sound association brought the pronunciation of a word into play while ignoring its meaning. A further step was taken through the introduction of sound indicators in composite signs.

Making existing word signs multivalent was not the only method used to write a large number of words with a limited set of signs. Another method was to combine two or more existing signs into a single composite sign in order to create a new logogram. Here, too, the double-sidedness of the word as a unit of sound and meaning came into play. For many composite signs only the word meanings of the constituting signs are relevant. Their pronunciation plays no role whatsoever in the final result. Thus, the composite sign for the word **naĝ** 'drink' is made up from the simple signs for **ka** 'mouth' and **a** 'water'. Similarly, the composite signs **urdu$_2$.d** 'male slave' and **geme$_2$** 'slave woman' consist of the signs **nita$_2$** 'man' and **kur** 'mountains' and the signs **munus** 'woman' and **kur** 'mountains' respectively. Composite signs such as these were not the only type, though. There were also composite signs in which the pronunciation of some constituting word signs played a crucial role. They arose through the invention of auxiliary signs.

Multivalency had solved the problem of how to represent a huge set of words with a manageable set of signs, but it had created a new problem. Many signs had become ambiguous. In order to lessen ambiguity, auxiliary signs were introduced. Certain logograms came to be used as semantic or as phonemic indicators. Semantic indicators (called 'determinatives', see §2.2 above) indicated the semantic class of the preceding or following logogram, while phonemic indicators (called 'phonetic complements', see §2.2 above) gave a clue as to the pronunciation of the preceding or following logogram. In either usage, the logogram was stripped of a part of its original value.Thus, used as a determinative the sign for **diĝir** 'god' expressed merely the concept 'god', while the sound part **diĝir** of its original value played no role. Thus, **^{d}EN.LÍL** became the logographic spelling of the word **en-líl**, the name of a deity, while **EN.LÍL^{ki}** (with the logogram **ki** 'place' used as a determinative) came to represent **nibru**, the name of a city.

While determinatives were in origin word signs stripped of a pronunciation, phonetic complements were logograms stripped of a meaning. Take, for instance, the sign for **ĝiš** 'wood'. Used as a determinative, it merely expressed the concept 'wood', as in the spelling **^{ĝiš}apin** 'plough', but used as a phonetic complement, it only represented the sound sequence /ĝiš/, while the concept 'wood' played no role whatsoever. The word **ĝeštug** 'ear' could, for instance, be written with the word sign PI only, but spellings with phonetic complements became the norm: ***$^{ĝiš\text{-}túg}$*PI** or ***^{ĝiš}*PI*^{túg}***. In these two spellings, the logograms for the words **ĝiš** 'wood' and **túg** 'cloth' are only used to represent their pronunciation and have thus become sound signs. Nevertheless, composite signs containing phonetic complements are still word signs and the script as a whole remained logographic. Yet, with the introduction of phonetic complements a further step had been taken in the development of phonographic writing. The next step came with an extension in usage of phonetic complements.

At this stage cuneiform was still a logographic writing system, in which every simple or composite sign stood for a word. No attempt was made to distinguish between the different grammatical forms of a single word. A logogram represented every possible grammatical form of a word. In order to reduce the ambiguity resulting from this practice, phonetic complements were extended in usage. Earlier, they had only been used to make clear which particular word was represented by a multivalent and therefore ambiguous logogram. Now, they were increas-

ingly added to logograms to help in identifying the intended grammatical form of the word expressed by the logogram. This extended usage of phonetic complements is already attested in the archaic texts from Ur (ca. 2800 BCE). E.g.: **gíd**^{a} (e.g., UET 2:104 4:5; Ur; 28) representing the participial form /gid?a/ 'surveyed' of the verb **gíd** 'survey (land)'. The final stage of this spelling system can be found in the inscriptions of Ur-Nanshe of Lagash (ca. 2520 BCE). The verbal form /munnandu?/ 'he built it for him' is then written ^{mu}**řú** (Urn. 41 7; L; 26).

Such phonetic complements distinguishing between word forms became more and more obligatory parts of the spelling. That led in the end to a major change in the writing system. By the time of Eannatum of Lagash (ca. 2470 BCE), the use of phonetic complements had progressed to a point where a logogram was no longer seen as representing any form of a given word but only as representing the stem of that word. Sound signs stopped to be merely auxiliary signs and became obligatory for expressing grammatical morphemes. The Sumerian script had developed into a script which wrote most stems with logograms but all other morphemes with phonograms.

Thus, phonograms arose from logograms. Their properties reflect this origin. While all signs can be used as logograms, only some of them can also be used as phonograms. Moreover, a sound sign usually represents a sound sequence which is derived from the pronunciation of a word represented by that same sign as a logogram. Thus, the word sign for **dam** 'husband, wife' can be used as the sound sign for ***dam***. The word sign for **ga** 'milk' is the sound sign for ***ga***. And so on.

Many phonograms represent a sound sequence which is only a partial derivation from a logographic value. Often they stand only for the sound sequence corresponding to the initial part of a word's pronunciation. Thus, the word sign for **kid** 'mat' (probably pronounced with /e/ at the time) became the sound sign for ***ke$_4$***. Similarly, the word signs for **bíl** 'burn', **e.g** 'dike', and **gabu$_2$** 'left' became the sound signs for ***bí***, ***e***, and ***gáb*** respectively. Rarely, a sign derived its phonographic value from the final part of its logographic value. The word sign for **iri** 'town', for instance, became the sound sign for ***rí***.

Phonographic values could also be derived from existing phonographic values. Thus, a sound sign could acquire an additional value if the new sound sequence was sufficiently similar in pronunciation to a sound sequence which that sign could already represent. Thus, the sound sign for ***an*** (a value derived from its usage as the word sign for **an** 'heaven') also came to be used for ***am$_6$***. The sign for ***mu*** (from **mu** 'year' and **mu** 'name') also represented ***ĝu$_{10}$***. The sign for ***ĝi$_6$*** (from **ĝi$_6$** 'night') also stood for ***mi***. Similarly, a single sound sign stood for both ***ni*** and ***né***, another one for both ***rí*** and ***ré***. And so on.

With the obligatory usage of sound signs for writing grammatical morphemes, phonographic writing had become a crucial part of the Sumerian writing system. Yet, at this stage phonographic spelling was still a highly imperfect tool. It took, for instance, almost five centuries before all syllable-final consonants could be written. The verbal form /munnandim/ 'he fashioned it for him' was written ***mu-na*-dím** for centuries (e.g., En. I 18 13; L; 25). The full spelling ***mu-un-na-an*-dím** is not found before the Old Babylonian period (e.g., in the year name Gungunum 11). How this development in the spelling of syllable-final consonants took place will be the topic of the following section.

2.4. The spelling of syllable-final consonants

From the time of Eannatum of Lagash (ca. 2470 BCE) onwards, grammatical morphemes were only written with sound signs. At this stage phonographic writing was still a highly imperfect tool though. The incomplete development of phonographic writing is shown particularly

clearly by the almost complete lack of means for writing a syllable-final consonant. This situation was the inevitable result of how phonographic writing arose in the first place.

As we saw in the previous section, sound signs are word signs stripped of meaning. As a result, the possible set of sound signs is very much dictated by the available set of word signs and, therefore, by the available set of Sumerian words. Now, less than eighty CV-signs suffice for writing all possible open syllables of Sumerian. But for all possible closed syllables, several hundreds of CVC-signs are needed. The words and word signs that could serve as a basis for all these sound signs simply did not exist. Only the set of needed CV-signs was available at an early stage. As a consequence, the Sumerian writing system at first generally lacked the sound signs for writing closed syllables. Indeed, it took several centuries before the Sumerian script had evolved to a stage where all possible closed syllables could be written with sound signs. How, then, did this come about?

At first, Sumerian orthography entirely depended on the use of CVC-signs such as ***kam***, ***nam***, ***dam***, ***dab$_6$***, ***gáb***, ***lam***, etc., for writing syllable-final consonants. However, the small number of available CVC-signs severely restricted the number of closed syllables that could be written in this way. Whenever no suitable CVC-sign was available, this method was useless. The spelling problem that resulted was solved by simply ignoring the syllable-final consonant. Thus, in the absence of a suitable CVC-sign, a closed syllable was written as if it were an open syllable. This spelling rule implies that wherever a CV-sign represents a complete syllable, we may actually be dealing with a closed syllable and not simply with an open one. Take, for instance, the CV-signs ***ba*** and ***mu***. They are not only used for writing the open syllables /ba/ and /mu/ but are also found representing closed syllables such as /bab/, /ban/, or /mun/, with the spelling ignoring the final consonant. Clearly, this spelling rule has great consequences for linguistic analysis. Hence, the present grammar will time and again refer to it.

During the second half of the third millennium, the dominant trend in Sumerian spelling is to ignore most syllable-final consonants. Yet, alternative methods are also attested. They seem to surface first among scribes applying the cuneiform script to languages other than Sumerian. Perhaps it was the spelling of foreign names and languages that posed the challenge that eventually led to new methods for writing syllable-final consonants.

One such alternative method is attested in the Syrian town of Ebla (24th century BCE). There, many closed syllables are written with *two* CV-signs. That is to say, a closed syllable CVC is represented as CVCV by adding graphically a non-existent vowel after the syllable-final consonant. Thus, the Eblaite word *buqlum* is written *bù-qù-lum*, while *bukru* is represented by *bù-kà-ru$_{12}$* (Krebernik 1982: 224-6). This method, however, is not really attested outside Ebla and seems to have been no more than a short-lived and perhaps only local experiment.

A second method is attested in Mesopotamia proper and eventually won the day. From the late Old Sumerian period onwards syllable-final consonants are increasingly written with newly invented VC-signs, spelling CVC as CV-VC by repeating the vowel. Compare, for instance, the following Old Sumerian spellings with more recent ones: ***bí*-du$_{11}$** '"(...)", he said' (DP 472 4:3; L; 24) and ***bí-in*-du$_{11}$** (NG 32 4; L; 21); **nin-*ab-gu*** 'it has made the lady great' (a proper name) (DP 112 8:4; L; 24) and **nin-*íb-gu-ul*** (MVN 2:176 2:33; L; 21); ***su-si*** 'fellmonger' (Nik 1:137 1:3; L; 24) and ***su-si-ig*** (MVN 3:147 4; D; 21); ***áb-ki*** (an agricultural term) (DP 394 6:5; L; 25) and ***áb-ki-iz*** (FI 59; OB); **ki-sur-*ra-ĝu$_{10}$*** 'it is my border (**ki-sur-*ra***)' (Ukg. 6 4:8'; L; 24) and **urdu$_2$-*ĝu$_{10}$-um*** 'he is my slave' (NG 212 7; U; 21); **mu-*bé*** 'this is its name' (Ukg. 57 4; L; 24) and **mu-*bé-em*** (FAOS 9/2 Amarsuen 3 1:12; Ur; 21). The differences between all these spellings reflect only a difference in spelling, not one in grammar or pronunciation.

The set of VC-signs developed gradually. All of them seem to have been CVC-signs in origin. The most important (perhaps even the only) source of VC-signs was the set of CVC-signs with a glottal stop as their initial consonant. This is strongly suggested by the background of the VC-signs which are used for writing some common grammatical morphemes. In the remainder of this section, an outline will be given of how and when these particular VC-signs came into use.

One of the earliest VC-signs is the sign ŠÈ. Its value ***éš*** as the VC-sign for the sound sequence /eš/ came from its value as a logogram for the word **éš** 'rope'. Already in the Old Sumerian texts from Lagash, it occurs in unambiguous CV-VC-writings for expressing CVC: ***bé*-ĝar-*ré*-*éš*** 'they put it on it' (Ukg. 4 4:1; L; 24). However, its use was optional. The spelling ***ba*-su$_8$-*ge*-*éš*** 'they serve it' (STH 1:24 4:16; L; 24) alternates with ***ba*-su$_8$-*ge*** (Nik 1:2 13:6; L; 24), and ***ba*-ug$_7$-*ge*-*éš*** 'they died' (Nik 1:7 1:4; L; 24) alternates with ***ba*-ug$_7$-*ge***, even in the same text (Nik 1:7 3:2; L; 24). Its use remained optional until the end of the second millennium.

The sign AB became the VC-sign for /ab/. It acquired this value in addition to its older value as a CVC-sign for /ʔab/. In the Old Sumerian texts from Lagash, the sign AB is only used as a CVC-sign for the sequence /ʔab/ (transliterated as ***ab***). This is obvious from the fact that it is used only in word-initial position. The attested forms are: ***ab*-ř**ú-***a*** (DP 454 2:4; L; 24); ***ab*-*e*** in the proper names **diĝir-*gen$_7$*-*ab*-*e*** (CT 50:46 1:1; L; 24), **^{d}lama$_3$-*ab*-*e*** (ITT 2/2:80 1:3; L; 24), and **lugal-*ĝá*-*ab*-*e*** (DP 623 7:2; L; 24); ***ab*-*gu*** in the proper name **nin-*ab*-*gu*** (TSA 10 7:8; L; 24); ***ab*-tuku** in the proper name **saĝ-*ĝu$_{10}$*-*ab*-tuku** (TSA 16 6:12; L; 24); ***ab*-ús-*sa*** (Ukg. 4 11:34; L; 24); ***ab*-*da*-tuš-*a*** (RTC 70 5:6; L; 24); ***ab*-*da*-tuš-*ša$_4$*-*a*** (VS 27:24 8:2; L; 24); ***ab*-*ta*-UL$_4$-*a*** (Ean. 62 4:5'; L; 25); ***ab*-*ta*-gu$_7$-*a*** (Ent. 34 15; L; 25).

The use of the sign AB as a VC-sign for /ab/ (also transliterated as ***ab***) is attested from the late Old Sumerian period onwards: ***a*-*ba*-*mu*-*na*-*ab*-dím** (BIN 8:63 2:2; U; 24); ***ba*-*ab*-daḫ** (ITT 1:1053 12; L; 23), etc. From then on, the sign AB can represent both /ʔab/ (as a CVC-sign) and /ab/ (as a VC-sign). E.g.: ***ab*-*ši*-ĝar** (NATN 121 3; N; 21) and ***ḫé*-*na*-*ab*-šúm-*mu*** (TCS 1:275 7; N; 21).

The sign AN became the VC-sign for /an/. This value came from its use as a CVC-sign for /ʔan/, which in turn was derived from its value as the logogram for the word **an** 'heaven'. In the Old Sumerian texts from Lagash, the sign AN is used nearly always as a CVC-sign for the sequence /ʔan/. It is used with this value in word-initial position. E.g.: ***an*-dab$_5$** in the proper names **inim-^{d}en-líl-*lá*-*an*-dab$_5$** (Nik 1:111 3:3; L; 24) and **inim-du$_{11}$-du$_{11}$-*ga*-*né*-*an*-dab$_5$** (VS 25:58 1:3; L; 24); ***an*-ř**ú (Ean. 1 obv 17:12; L; 25); ***an*-ĝál** (Ean. 1 obv 17:13; L; 25); ***an*-gu$_7$** (Ean. 1 rev 1:40; L; 25); ***an*-su** in the proper name **NIN-*e*-*an*-su** (Nik 1:9 10:13; L; 24); ***an*-tuku** in the proper name **saĝ-*an*-tuku** (CT 50:32 3:1); ***an*-*da*-ĝál** in the proper names **nir-*an*-*da*-ĝál** (DP 114 8:7; L; 24) and **zi-*ĝu$_{10}$*-*an*-*da*-ĝál** (MVN 3:2 10:14; L; 24); ***an*-*da*-ĝál-*la*-*am$_6$*** (DP 341 3:1; L; 24); ***an*-*da*-SIG$_7$-*a*-*am$_6$*** (BM 3:18 3:4; L; 25); ***an*-*da*-ti-*e*** (CT 50:34 13:17; L; 24); ***an*-*da*-ti-*la*** (DP 143 2:2; L; 24); ***an*-*na*-daḫ-*ḫa*** (En. I 30 2:6; L; 25); ***an*-*na*-áĝ-*ĝá*-*da*** (Ean. 2 6:1; L; 25); ***an*-*na*-áĝ-*ĝá*-*ni*** (Ent. 28 5:14; L; 25); ***an*-*na*-GAM.GAM** in the proper name ***nam*-nin-*e*-*an*-*na*-GAM.GAM** (Nik 1:18 8:5; L; 24); ***an*-*na*-íl-*a*-*né*** (Ukg. 11 32; L; 24); ***an*-*na*-sa$_6$** in the proper name **gub-*ba*-*né*-*an*-*na*-sa$_6$** (VS 25:37 5:8; L; 24); ***an*-*na*-*ta*-íl-*a*-*né*** (Ukg. 8 2':4'; L; 24); ***an*-*šè*-ĝál** in the proper name **igi-*ĝu$_{10}$*-*an*-*šè*-ĝál** (Nik 1:2 7:12; L; 24).

Already in the Old Sumerian period, the sign AN is occasionally used as a VC-sign for ***an*** in CV-VC-spellings: ***e*-*ma*-*an*-dím** (En. I 28 2:6; L; 25), ***mu*-*na*-*a*[*n*-šúm ...]** (Ent. 32 1:8"; L; 25). This use becomes more and more frequent in later periods.

The sign combination A.AN (***àm***) eventually became the VC-sign for /am/. In the Old Sumerian period, the sign AN is also used as a CVC-sign for the phonemic sequence /ʔam/ and

is then transliterated as ***am₆***: ***am₆-da*-kúš** (Ukg. 45:1; L; 24); ***am₆-ma*-řú-*da*** (TIM 9:94 2:9'; L; 24); ***am₆-ta*-bala-*e-da*** (Ent. 28 6:16; L; 25). This value /ʔam/ occurs particularly frequently as a spelling of the enclitic copula ***-am₆*** (§29.2.3). From the Old Akkadian period onwards, the sequence /ʔam/ is written with the signs A.AN, transliterated as ***àm***. This applies to the enclitic copula (§29.2.3) as well as to other forms: ***àm*-du** (TCS 1:125 8; N; 21). From the time of Gudea onwards, A.AN is also used in Sumerian texts as a VC-sign for /am/: ***ga-àm*-BU-*re*** (MVN 7:126 obv 1; L; 22); ***ḫa-àm-ta*-su** (ASJ 2, 159 AUAM 73 1425 4:4; ?; 21); ***ga-àm-ta*-è** (BE 3/1:4 5; N; 21); ***ḫa-àm*-ĝen** (TCS 1:113 7; L; 21). At the same time, however, the sign AM is attested as a VC-sign for /am/: ***a-am-ma-da*-du-*a*** (NATN 322 4; N; 21). Its value /am/ comes, without doubt, ultimately from its value as the logogram for **am** 'wild bull'.

The sign TUM became the VC-sign for both /ib/ and /eb/. These two values came from its use as the CVC-sign for both /ʔib/ and /ʔeb/, which in turn were derived from its value as the logogram for the word **íb** 'hip'. In the Old Sumerian texts from Lagash, the sign TUM stood for the sequence /ʔeb/ (transliterated ***éb***) as well as for /ʔib/ (transliterated as ***íb***). It is only found in word-initial position: ***éb-ta-ni*-è** (Ent. 28 2:3; L; 25), also in the proper name **lugal-*éb-ta-ni*-è** (Nik 1:317 4:11; L; 24); furthermore, in the nouns ***íb*-řú** (BIN 8:388 4:2; L; 24) and ***íb*-lá** (DP 77 1:5; L; 24). In the Old Akkadian period, ***íb*** is also frequently used in word-initial position for /ʔib/: e.g., ***íb-ta*-zi** (MAD 4:39 16; U; 23); ***íb*-šu₄** (RTC 133 rev 5; L; 23); ***íb*-gu₇** (OSP 2:120 11; N; 23).

The earliest attestations of the sign TUM for /ib/ (transliterated as ***íb***) in CV-VC spellings are found in the Gudea texts, where such spellings occur quite often (about twenty attestations): e.g., ***im-ma-ni-íb*-ĝar** (Cyl A 9:12; L; 22). The earliest use of TUM for /eb/ (transliterated as ***éb***) is found in about the same period: ***ḫé-éb*-ḫúl-*le*** (JCS 10 p. 27 17; A; 22?). During the Ur III period, though, the sign IB came into use as the VC-sign for /eb/. This value came from its use as the logogram for the word **ib** (actually **eb**?) 'niche, shrine'. Although TUM is still occasionally used in Ur III texts with the reading ***éb***, it usually has the value ***íb***, while the sign IB is used for ***eb***. Compare, for instance, the spellings ***ḫé-eb*-til-*le*** (FAOS 9/2 Amarsuen 12 49; Ur; 21), ***bí-íb*-ùr-*re-a*** (ibidem 41), and ***nu-ub-ši-íb*-gi₄-gi₄-*a*** (ibidem 44).

The sign IN became the VC-sign for /in/. It acquired this value in addition to its older value as a CVC-sign for /ʔin/. In the Old Sumerian texts from Lagash, the sign IN is attested once and is then used for the sequence /ʔin/ (transliterated as ***in***): ***in-ši*-túm-*a-am₆*** (Ukg. 16 8:4; L; 24). Elsewhere it is found with the same value: ***in*-šum** (TMTIM 9 2:2; ?; 24) and in the same text: ***in-na*-šúm** (TMTIM 9 3:8; ?; 24). In the Old Akkadian period, ***in*** occurs frequently but only in word-initial position with the value /ʔin/: e.g. ***in*-řú-*a*** (ECTJ 76 13; N; 23); ***in-pa*** (BIN 8:164 obv 4; N?; 23); ***in-na-ni*-ku₄** (OSP 1:131 6:3; N; 23); ***in-da*-zàḫ** (ECTJ 50 4; N; 23).

The earliest attestations of the sign IN for /in/ (transliterated as ***in***) in CV-VC spellings occur in the Gudea texts but are quite rare. Only two forms are found: ***ba-ni-in*-du₁₁** (Cyl B 13:8; L; 22) and ***ḫu-rí-in*** (Cyl A 25:6; L; 22). Such spellings become more frequent in the Ur III period.

Until the Ur III period, there was no sound sign for the phonemic sequence /en/. In that period, though, no fewer than three signs for writing /en/ are attested. Firstly, the sign IN (transliterated as ***en₆***): e.g., ***ba-ra-a-da-ab-bé-en₆*** (NG 20 8; L; 21); ***nu-un*-ku₄-*re-en₆*** (MVN 11:168 9; U; 21). This value ***en₆*** comes, without doubt, from its already established value ***in***. Secondly, the sign LI (transliterated as ***èn***): e.g., ***nu-ù-me-èn*** (NG 32 3; L; 21); ***ba-ra-ab-bé-èn*** (NRVN 1:179 10; N; 21). Thirdly, the sign EN (transliterated as ***en***): e.g. ***ḫé-en*-ĝar** (FAOS 9/2 Amarsuen 12 46; Ur; 21). This last sign derived its value as a VC-sign for /en/ from its use as the logogram for the word **en** 'high-priest'. After the Ur-III period, the sign EN becomes the normal sign for writing /en/.

The sign IM became the VC-sign for /im/. It acquired this value in addition to its value as a CVC-sign for /ʔim/, which in turn came from its use as the logogram for the word **im** 'wind'. From the Old Akkadian period onwards, the sign IM is attested for /ʔim/ (transliterated as ***im***): e.g. ***im-mi*-sá-*a*** (PBS 9/1:25; N; 23); ***im-mi*-ús** (MAD 4:114 6; U; 23); ***im-ta*-e$_{11}$-*da*** (OSP 2:100 8:6'; N; 23); ***im*-ĝen-*n*[*a-a*]** (OSP 2:170 6; N; 23). From the same period onwards, the sign IM is also used as the VC-sign for /im/ (transliterated as ***im***): e.g., ***ì-im*-ĝen-*na-a*** (OSP 2:135 5; N; 23).

The sign IM came to be used as the VC-sign for /em/ too. This value was derived from its use for /im/. It is attested for the first time in the Gudea texts: ***mu-ru-bé-em*** (Cyl A 30:16; L; 22). From then on, it retained this value: e.g., ***ḫé-em*-ús-*e*** (TCS 1:136 15; ?; 21).

The sign UB became the VC-sign for /ub/. It acquired this value in addition to its value as a CVC-sign for /ʔub/, which in turn had been derived from its use as the logogram for the word **ub** 'corner'. It occurs already in the Old Sumerian period as a CVC-sign for the sequence /ʔub/ (transliterated as ***ub***): e.g. ***ub-bi***$^{\text{mušen}}$ (ITT 5:9230 rev 3':3'; L; 24). The earliest use of the sign UB for /ub/ (transliterated as ***ub***) in CV-VC spellings is attested in Ur III period: e.g. ***nu-ub*-tuku** (MVN 3:233 1; D; 21); ***nu-ub-da-ab*-kúr-*re-a*** (FAOS 9/2 Amarsuen 12 37; Ur 21); ***nu-ù-ub*-kúr-*ne-a*** (NG 99 45; L; 21).

The sign UN is the VC-sign for /un/ as well as the CVC-sign for /ʔun/. These values were derived from its use as the logogram for the word **ùĝ** 'people'. Both values are attested quite late for writing Sumerian. From the Ur III period onwards, the sign UN is used for /un/ (transliterated as ***un***) in CV-VC spellings: e.g. ***nu-un*-lá-*eš*** (NRVN 1:50 7; N; 21), ***mu-un-ti-il*** (NG 214 28; U; 21); ***nu-un-ti-la-à*[*m*]** (FAOS 9/2 Amarsuen 6 18; ?; 21). The use of **un** in such spellings is very rare. The earliest occurrence of UN as a CVC-sign for /ʔun/ is from the same period: ***un*-pà** (NRVN 1:232 4; N; 21).

The sign UM became the VC-sign for /um/. It acquired this value in addition to its value as a CVC-sign for /ʔum/. In the Old Sumerian texts from Lagash, the sign UM occurs as a CVC-sign for the sequence /ʔum/ (transliterated as ***um***): e.g. ***um-ma* ér** (DP 159 1:3; L; 24); ***um-mi-a*** (DP 158 10:2; L; 24). From the time of Gudea onwards, the sign UM is also attested as a VC-sign for /um/ (transliterated as ***um***): e.g. ***nu-um*-íl** (Cyl A 9:25; L; 22); ***nu-um*-ku$_4$-ku$_4$** (Cyl A 17:8; L; 22); **udu-*ĝu$_{10}$-um*** (NG 120a 9; U; 21).

In conclusion of this discussion, two remarks are called for. First, the list above gives the 'earliest attestation' of each VC-sign. However, the existence of such an attestation is very sensitive to the accidents of preservation and archaeological discovery. New texts can easily provide earlier occurrences. The chronological information given above should, therefore, only be taken as meaning 'not later than'. This is especially true, because many VC-signs are attested earlier in Akkadian than in Sumerian texts. Take, for instance, the sign UN. As stated above, its earliest attestation as the VC-sign for /un/ in Sumerian dates from the Ur III period. In Akkadian texts, this usage is already frequently found in the Old Akkadian period, two centuries earlier. Hence, either the Sumerians were rather late in applying this new value or the absence of earlier attestations is completely accidental.

Secondly, until the Old Babylonian period the use of all these VC-signs remains optional. Only then, writing closed syllables with CV-VC-spellings becomes the norm. Earlier, the alternative CV-spellings without the final consonants still tended to be the preferred spelling.

2.5. The spelling of vowel length

The Sumerian writing system generally ignores vowel length. As a rule, the same sound signs are used to write vowels which only differ in length. This property is, of course, quite common

for scripts. Even the far more recent orthographies based on the Roman alphabet started to distinguish systematically between long and short vowels only a few centuries ago.

Yet, Sumerian spelling did not ignore vowel length altogether. In the same way as with syllable-final consonants (§2.4), the script at first could only spell out long vowels by using specialized signs. But this possibility seems to have been exploited to a very limited degree only. Owing to an almost complete lack of previous research into this particular matter, I can offer no more than a few examples.

Two sound signs differing only in vowel length are ***né*** (/ne/) and ***ne*** (/nē/). They are never used in free variation in any environment and even provide a minimal pair: ***e-né-ĝar*** /ʔennenĝar/ 'he placed it on him' (VS 14:125 3:1; L; 24) and ***e-ne-ĝar*** /ʔennēnĝar/ 'he placed it on them' (DP 557 3:5; L; 24). That the values of the two signs only differ in vowel length can be proven with the following forms:

(1) **en-en-*né-ne-šè***
en -en =enē=še
lord-lord=PL =TERM
'for the lords' (DP 77 4:1; L; 24)

(2) **dumu-*né***
dumu=ane
child =her
'her child' (NG 82 2; L; 21)

(3) **ka dumu-*ne-ne-ka***
ka.g dumu=ane=enē=ak =ʔa
mouth child =her =PL =GEN=LOC
'in the mouth of her children' (NG 171 5; L; 21)

As the examples (1) and (2) show, the first /e/ of the plural marker {enē} and the final /e/ of {ane} are both written with the sound sign ***né***. A sequence (contraction) of the two (example 3) is written ***ne***, though. Since two times the vowel of ***né*** gives the vowel of ***ne***, ***ne*** must therefore represent the long version of the vowel represented by ***né***. The consistent spelling ***ne-ge-bu-um*** (not ****né-ge-bu-um***), a loan from Akkadian *nēkepum*, provides additional evidence. However, there is also some evidence to the contrary. When the verbal stem **e** 'say, do' contracts with the initial vowel of the person suffix {eš}, we expect a long vowel /ē/ as a result, written ***-ne-*** together with a preceding /n/. Such spellings are indeed attested: e.g., ***in-na-ne-eš*** 'they said to him' (Studies Greenfield p. 618 BM 19102 3; L; 21). But spellings with ***-né-*** are actually more common: e.g., ***bí-né-eš*** 'they said' (Studies Greenfield p. 618 BM 19102 5; L; 21), ***e-na-né-éš-a*** '(when) they said it to him' (FAOS 5/2 Enšak. 1 7; N; 24). Does this variation in spelling reflect a difference in pronunciation?

Another possible pair of sound signs whose values differ only in vowel length consists of the pair ***ḫe*** (/ḫe/) and ***ḫé*** (/ḫē/). The latter sign is primarily used to write the proclitic {ḫa} where it has contracted with following /ʔi/ or /ʔe/ (§25.4.1).

A third pair may be ***ù*** (/ʔu/) and ***ú*** (/ʔū/). The Sumerian scribes consistently keep the two signs apart. The spelling ***ù***, for instance, is always used for the word ***ù*** 'and', a loanword from Akkadian *ʔu* 'and' (with a short vowel in Akkadian), while ***ú*** occurs, for example, in ***^{d}ba-ú*** '(the goddess) Bau' and ***ú-rum*** 'own'. Unfortunately, there is no evidence whatsoever that could tell us whether the words with the spelling ***ú*** contain a long or a short /u/. However, some early Old Akkadian spellings are suggestive: ***ù*** = *ʔu* 'and' (FAOS 7 Rīmuš C 1 75) and ***ú-má*** = *ʔūma* 'I swore' (FAOS 7 Rīmuš C 1 77; cf. von Soden 1995: §106o). In Akkadian

spelling, such a distinction in vowel length between the signs ***ù*** and ***ú*** would only be valid for the earlier periods, though. Later the Babylonian scribes use ***ú*** indiscriminately as the sound sign for both long and short /u/.

At the end of the third millennium, the scribes invent a more flexible method for writing long vowels explicitly. It involves using a so-called 'plene' writing, with an additional V-sign repeating the long vowel. Especially the Gudea and Ur III texts contain many such spellings. The four V-signs used are A (***a***), NI (***i***), E (***e***), and Ù (***ù***). All four are in origin CV-signs with an initial glottal stop.

Two phenomena clearly show that V-signs repeating the preceding vowel represent long vowels. First, such spellings occur in loanwords from Akkadian where the original Akkadian has a long vowel. A clear example is the spelling ***ge-e-en$_6$*** (NG 145 9'; L; 21), a loan from Akkadian *kēn*. Second, plene writings are often found where one expects a long vowel as a result of a contraction. The ergative case marker {e}, for example, contracts with a preceding vowel (§7.3). The Gudea and Ur III texts often have plene writings in such ergative forms, e.g., **ama-*a*** (Cyl A 13:3; L; 22), **dumu-*ù*** (Cyl A 13:4; L; 22), and **^{d}nanše-*e*** (Cyl A 7:11; L; 22).

V-signs duplicating the following vowel also represent long vowels. That this is true is not obvious at first sight. Consider, for instance, the spellings ***ab*-si** (OSP 2:55 17; N; 23) and ***a-ab*-si** (MVN 3:330 6; N; 21) for the same verbal form meaning 'it has been put on it'. On the basis of such pairs, one could easily argue that ***a-ab*** merely is an alternative CV-VC-spelling for ***ab***, both representing /ʔab/. Indeed, Von Soden (1995: §23d) has suggested such an explanation for similar spellings in Old Babylonian Akkadian. Yet, for the overwhelming majority of Sumerian attestations, this explanation cannot be correct.[4] In the texts from the Ur III period, the V-VC-spellings and VC-spellings tend to occur in different forms and are often associated with a difference in meaning. Hence, they cannot be mere alternative spellings of the same thing. They must somehow reflect a difference in the language itself.

In the Ur III texts from Nippur, for instance, all ***a-ab***-spellings in verbal forms represent the same type of form: the vocalic prefix {ʔa} (chapter 24) followed by a local prefix (§20.3.1). E.g.: ***a-ab*-si** 'it has been put on it' (MVN 3:330 6; N; 21), ***a-ab*-tab** 'it was clutched to ("on") it' (NATN 761 4; N; 21), ***a-ab*-gub** 'it stands on it' (TCS 1:280 4; N; 21). The spellings with ***ab*** occur in other forms, representing the prefix {ʔa} followed by a final or initial person prefix (§13.2.2 and §16.2.1). E.g.: ***ab*-ús-*sa*** 'which follows it' (e.g., NATN 416 16; N; 21), ***ab-ši*-ĝar** 'it was placed instead of ("for") it' (e.g., CST 36 4; N; 21).

The same pattern of usage applies to the plene spellings with ***ì***. Again, the distinction between the plene and non-plene spellings corresponds to a difference in meaning. While the spellings ***íb-*** and ***in-*** represent the vocalic prefix {ʔi} (chapter 24) followed by a final person prefix (§13.2.2 and §13.2.3) or by an initial person prefix (§16.2.1 and §16.2.2), the spellings ***ì-íb-*** and ***ì-in-*** stand for {ʔi} followed by a local prefix (§20.2.1 and §20.3.1). E.g.: ***ì-in*-ku$_4$-*ra-a*** 'when he entered "into" it' (MVN 8:122 10; D; 21) and ***ì-íb-ù*** 'he sails on it' (MVN 16:845 obv 3; U; 21).

Thus, the use of V-VC-writings is restricted to the spelling of specific combinations of prefixes. Hence, they cannot possibly be a mere alternative for a CVC-spelling. Their usage is simply too regular in following grammatical rules. Since the difference in spelling between, for instance, ***ì-in-*** and ***in-*** is associated with a clear difference in meaning, this difference in

[4] And it is not correct for Old Babylonian either. Knudsen (1980: 11, 1984-86: 234-5) and Kouwenberg (2003-04) have convincingly argued that in Old Babylonian initial plene writings represent long vowels.

spelling must somehow reflect a difference in pronunciation. Then, what is that difference in pronunciation?

Generally speaking, the V-VC-spellings occur from the Ur III period onwards.[5] Earlier, the same forms were written with CVC- or CV- signs with an initial glottal stop. Thus, the form ***a-ab*-si** 'it has been put on it' (MVN 3:330 6; N; 21) is written earlier ***ab*-si** (OSP 2:55 17; N; 23). The form ***ì-in*-ĝál** 'it is in it' (BCT 2:123 10; U; 21) is written earlier ***ì*-ĝál** (MAD 4:39 17; U; 23). The early spellings clearly stand for just one closed syllable each (cf. §2.3). Hence, the V-VC-spellings also represent single closed syllables. Yet, in the Ur III period, plene spellings such as ***a-ab*** and ***ì-in*** clearly contrast with non-plene spellings such as ***ab*** and ***in***. If both plene and non-plene spellings represent single closed syllables, either of them must stand for a different kind of closed syllable. The most likely explanation is then that the plene spellings explicitly represent a long vowel, while the non-plene spellings do not.

In conclusion of this section, it must be stressed again that plene spellings of long vowels never became the norm. As a rule, long and short vowels were spelled in the same way. The syllable /nūb/ (< nuʔib, §25.2), for instance, is more than two hundred times written ***nu-ub*** in the Ur III texts (e.g., AUCT 1:580 6; ?; 21), but only a few times ***nu-ù-ub*** (e.g., NG 99 45; L; 21). Only, in those verbal forms where vowel length is highly distinctive, the plene spellings occur quite regularly.

2.6. Spelling variation

The preceding sections have discussed the general principles of how the Sumerian writing system represents the Sumerian language, as well as how these principles have changed across time. This section will shift the attention from the general to the particular and focus on variation in spelling which does not affect the script as a whole but only parts of it. Such spelling variation is due to the numerous small changes across time, but also to spelling differences between regions. In addition, there is what could be called 'free variation', a variation in spelling which is due to the freedom allowed by the spelling rules.

A major source of spelling variation across time is change in the set of signs. New signs are added, signs become obsolete, values are rearranged between signs. The phonographic spelling ***ga-àr***, for instance, replaces the earlier logogram for 'cheese' (LAK 490). The verb 'enter' is written in Old Sumerian with the sign DU (transliterated as $\mathbf{ku_x}$), which expresses several other verbs of movement too. Subsequently, 'enter' is written as $\mathbf{ku_4}$, first with the signs LIL and ŠE.ŠU, ultimately with the sign TU. The phonemic sequence /ʔam/ is in Old Sumerian expressed with the sign AN (transliterated as $\boldsymbol{am_6}$), later with the sign group A.AN (transliterated as ***àm***). Another instance of change across time involves the spellings for /re/ and /ri/ in Lagash. In the Old Sumerian texts from Lagash, both these values are written with the sign URU: **diĝir-*ré-ne-ka*** (DP 184 3:1; L; 24) and **lugal-mu-*da-rí*** (DP 120 5:4; L; 24). In the time of Gudea and the Ur III period, these two values are spelled with different signs: **diĝir-*re-ne-ka*** (Cyl A 26:17; L; 22) and ***da-rí*** (FAOS 9/1 Gudea 11 3; L; 22).

Apart from changes across time, the Sumerian writing system displays some regional variation in scribal conventions. One example for such regional variation is the use of the signs BI and PI for /be/. In the Old Sumerian texts from Lagash, the sign BI is the normal sign for /be/ (transliterated as ***bé***). In Ur and Nippur the sign PI is the normal sign for /be/ ($\boldsymbol{be_6}$) until the Old Akkadian period. Compare **ĝiš $\boldsymbol{be_6}$-tag** 'he sacrificed it' (AuOr 6 [1988] p. 106 U.4390 obv 5; Ur; 24) with **ĝiš *bé*-tag** (VS 14:5 1:6; L; 24), or **ki-lá-$\boldsymbol{be_6}$** 'its weight' (ECTJ 150 obv 2;

[5] The spelling ***ì-im-*** occurs already as early as the Old Akkadian period (§22.2).

N; 23) with **ki-lá-*bé*** (VS 14:176 1:5; L; 24). A second example for regional variation is the spelling of the expression **máš da ři-*a***. In the Ur III period, this is spelled everywhere with the sign RI, except in Umma, where it is written with the sign DU: e.g., **máš da ře$_6$-*a*** (TPTS 1:290 2; U; 21).

Sumerian spelling rules were not so fixed as those of, for instance, modern English. Of course, at a given time and place the set of cuneiform signs and their values were more or less fixed. However, the rules allowed the scribes enough room to adjust the spelling of individual word forms to their own needs and capabilities. As a result, the same words and expressions are sometimes found written in more than one way.

One spelling rule is that word stems are written with word signs. There are some systematic exceptions, though. Loan words, for instance, are often written with sound signs. E.g.: ***dam-ḫa-ra*** 'battle' (from Akkadian *tamḫāru*) (Ent. 28 1:26; L; 25), ***be$_6$-lu$_5$-da*** 'customs' (from Akkadian *bēlūtu*) (Ukg. 4 7:26; L; 24), ***sa-dú*** 'mountain' (from Akkadian *šadû*) (Cyl A 22:3; L; 22), ***ḫa-za-núm*** 'mayor' (from Akkadian *ḫazannum*) (SNAT 334 rev 6; U; 21). Other words that are always written with sound signs are, for example, ***zú-lum*** 'dates', ^{kuš}***a-ĝá-lá*** 'bag', ***a-gù*** 'top', and ***en-nu.ĝ*** 'guard'. Some words can be written with both types of spellings, with logograms or with sound signs. E.g.: **ĝanun** 'storage room' (BE 3/1:129 14; N; 21) and ***ĝá-nun*** (MVN 17:133 14; L; 21), **gurdub** 'reed basket' (VS 14:143 1:3; L; 24) and ^{gi}***gur-dub*** (MVN 16:1172 obv 1; U; 21). The existence of such alternative spellings is usually due to differences in scribal conventions between regions or periods.

In so far as phonographic spellings of word stems are systematic, they reflect spelling rules. However, there are also numerous instances of such spellings that are less regular. Especially when they are found more than once, they are clear examples of free variation. The stem of the verb **ĝar** 'place', for instance, is usually written with a word sign, but the Ur III texts also contain dozens of attestations where it is written ***ĝá-ar*** (e.g., AUCT 1:552 7; D; 21). The expression **du$_8$-*ta* gi$_4$-*a*** (e.g., UTAMI 3:2063 4; U; 21) also occurs as ***dú-ta* gi$_4$-*a*** (MVN 13:846 2 & SAT 2:96 3; U; 21).

Phonographic writing also displays some free variation. The use of sound signs is to some extent optional in certain environments. As a result, the same expression may be spelled differently in different texts. In the Old Sumerian texts from Lagash, the spelling **saĝ apin-*ke$_4$*** is, for example, attested twenty-two times, against only three times the more complete spelling **saĝ apin-*na-ke$_4$***. Both writings stand for /saĝ ʔapinake/ 'chief ploughman (lit. "head of the plough", in the ergative case)'. Another instance is the spelling of /šu banti/ 'he received it' in Ur III texts. This expression is nearly always written **šu *ba*-ti**, whereas **šu *ba-an*-ti** only occurs in perhaps ten per cent of the cases. There are numerous examples of such variation between full, or plene, spellings and less full, or defective, spellings.

Another kind of free variation involves the spellings of grammatical morphemes after a stem written with a word sign. If a grammatical morpheme with an initial vowel follows a stem with a final consonant, that morpheme is often written with a sound sign that also expresses the preceding stem consonant. The word form /engarenē/, for instance, consists of the stem /engar/ 'farmer' followed by the plural marker /enē/. It can be written **engar-*re-ne*** (MVN 9:97 19; L; 21) or **engar-*e-ne*** (MVN 11:44 2; L; 21). The variation in the spellings of grammatical morphemes is discussed in the sections of this grammar that treat those morphemes.

2.7. The transliteration of the Sumerian script

Clearly, logograms and phonograms do not give the same kind of linguistic information. Logograms express lexemes, phonograms render phonemes. This is basically what Civil

(1973: 21-2) already pointed out long ago and is nowadays not controversial anymore. But in the same article Civil also identified an earlier and quite different view, which in some respects remains very influential even today. It goes back to Poebel (1923: §12): 'Das sumerische Schriftsystem, ..., trägt einen durchaus phonetischen Charakter, indem jedem Zeichen oder einer bestimmten Zeichengruppe ein bestimmter ein- bis viersilbiger Lautwert zukommt. Dieser phonetische Charakter ... [wird nicht] dadurch [berührt], dass die übliche Orthographie für die Schreibung gewisser Wortstämme, Silben usw. die Verwendung bestimmter Zeichen fordert, wie diese durch die geschichtliche Entwicklung der Schrift bestimmt worden ist.' In this view, logograms are special-purpose sound signs.

Poebel's view on Sumerian orthography has left its mark on modern Sumerology. Its most important reflection is probably the transliteration system, which does not distinguish between word signs and sound signs. Both are transliterated as sound signs, whereas the transliteration systems for other languages in cuneiform script carefully keep word signs and sound signs apart. In Akkadian texts, for example, logograms are transliterated as Sumerian, usually with a different typography. For instance, the three signs transliterated as É.GAL-*im* stand for the Akkadian wordform *ekallim* 'of the palace'. In a Sumerian text, a similar spelling is transliterated as **é-gal-la** and not as **É.GAL-la**, which would be more in agreement with the conventions for the transliteration of, for instance, Akkadian.

Treating word signs as sound signs has had its effects on the study of the Sumerian language as well. Take, for example, Poebel (1923: §51): 'Schärfung [i.e., gemination, B.J.] des auslautenden Wurzelkonsonanten nach kurzem Wurzelvokal findet sich häufig beim Antritt vokalisch anlautender Bildungselemente. Vgl. kur-kurr-e (geschr. kur-kur-rí) ...'. Falkenstein (1978a: 20) has a different view of such forms: 'Wenn die Schrift in der archaischen, alt- und neusumerischen Zeit solche Doppelschreibungen anwendet, liegt wohl nur in seltenen Fälle - falls überhaupt - wirkliche Gemination vor.' Both scholars, however, assume that in forms such as **kur-kur-*ré*** the orthography expresses a double consonant. This is, however, not the case: The three signs of the wordform **kur-kur-*ré*** include, apart from the logogram **kur**, only one sound sign, viz. ***ré***. The 'Doppelschreibung von Konsonanten' exists in such forms only in the transliteration, not in the orthography of the text itself.

Another example: The view that word signs are basically sound signs has also influenced the traditional treatment of the genitive marker {ak}. Falkenstein (1978a: 84) states: 'Nach vokalischem Auslaut verliert die Genetivpostposition in der Sprache Gudeas fast ausnahmslos das anlautende -a-. Für sich stehen die Fälle, in denen das Genetivzeichen an die Possessivsuffixe des Singulars antritt.' However, most of the attestations he lists of a lost /a/ involve word signs. But spellings such as **sipa anše-*ka-né* '**his donkey shepherd (lit. "his shepherd of donkeys")', **kisal é-ninnu-*ka*** 'in the courtyard of the Eninnu', etc., do not tell us that the /a/ of the genitive case marker is simply lost, because **anše** 'donkey' and **é-ninnu** are written with word signs and give as such no phonological information. Such spellings only reveal to us that the /a/ of the genitive case marker is not spelled out in such forms. However, the enclitic possessive pronouns ('die Possessivsuffixe' which '[f]ür sich stehen') are written with sound signs. If they are followed by the genitive postposition, various contractions take place. If, for instance, the case marker /ak/ follows the pronoun /ĝu/ 'my', the result is /ĝak/ 'of my ...'. With /zu/ 'your' the result is /zak/ 'of your ...', with /ane/ /anak/ 'of his ...', and so on (§8.3). It is difficult to imagine that contractions are restricted to precisely those morphemes that are always written with sound signs. It seems much more likely that similar contractions occur with morphemes written with word signs but that the spelling does not show the result of these contractions.

Thus, the Sumerological convention of transliterating word signs and sound signs in exactly the same way has its origin in a erroneous theory of Sumerian orthography, viz. that word signs are sound signs with a specialized usage. This erroneous theory has not only left its mark on the way Sumerian is commonly transliterated but has also hampered research on the Sumerian language. Because word signs and sound signs give completely different kinds of linguistic information, making a clear distinction between the two is crucial for any kind of research on the Sumerian language. It is for this reason that in the present grammar sound signs are always transliterated with italics and word signs never (e.g., **é-gal-*la***), even though this distinction in the transliteration does not correspond to any existing convention in Sumerology.

3. PHONOLOGY

3.1. Introduction

Since Sumerian is a dead language, an analysis of the Sumerian sound system must be based entirely on data from written documents. As we saw in the preceding chapter, Sumerian texts are written in a spelling that uses a mixture of word and sound signs. Of these two types of signs, only the sound signs give phonological information. Unfortunately, this information cannot always be taken at face value. As in most phonographic writing systems, the written language can deviate in a number of ways from the spoken language.

First, different forms of the same morpheme can be spelled in the same way through the use of so-called morphophonemic spellings. An example from German is the word *Pferd*, which is spelled with a *d* instead of a *t* because of the plural *Pferde*. An example from Sumerian is the spelling of the terminative case marker. It is usually spelled ***šè***, also after a vowel, where the final /e/ is lost (§7.8.1). Compare, for instance, the morphophonemic spelling ***a-řá* 2-*kam-ma-šè*** (BE 3/1:14 rev 8'; N; 21) with the phonemic spelling ***a-řá* 2-*kam-ma-aš*** (RA 71 p. 126 1:10; N; 21). Similar morphophonemic spellings occur for other grammatical morphemes.

Second, spelling systems tend to be conservative and can for centuries reflect an older, no longer existing pronunciation. We spell English words, for instance, according to a pronunciation of many centuries ago. Conservative spellings are attested for Sumerian too. Take, for example, the spelling of the phoneme /ř/. Before the Ur III period, this phoneme had become /r/ in certain environments (§3.3.2). In the spelling the distinction between the two sounds is mostly retained, though. The name of the second month of the Lagash calendar is, for instance, nearly always written **gu$_4$-*řá*-izi-mú-mú** and only exceptionally **gu$_4$-*ra*-izi-mú-mú** (e.g., Amherst 53 7; L; 21).

Third, not every change in pronunciation leads to a change in spelling. The Greek sounds written β, δ, and γ, for example, were pronounced as voiced stops in classical Greek but have become voiced fricatives in modern Greek, without any change in the spelling. Something similar happened with the stops of Akkadian and Sumerian (§3.2.2 and §3.2.3).

A fourth source of discrepancies between spelling and pronunciation is due to the fact that not all Sumerian texts were written by Sumerian scribes. If a Sumerian text was written by a less than fully competent Akkadian scribe, his phonographic spellings could be influenced by his own native language. A clear example is the spelling **níĝ-sám-*ma-ga-ni*** 'her price' (NRVN 1:216 3; N; 21). The proper sound sign would have been ***ka*** instead of ***ga***. Sumerian /k/ and /g/ are different phonemes and Sumerian scribes write them with different sound signs. But the distinction between Sumerian /k/ and /g/ does not exist in Akkadian, so that an untrained Akkadian hears both sounds as his own voiceless /k/ (§3.2.2 and §3.2.3). When followed by the vowel /a/, this Akkadian /k/ is always written ***ga***, never ***ka***. The same text also offers the spelling ***in-si*-sa$_{10}$** 'he bought her from him' (NRVN 1:216 6; N; 21) instead of correct Sumerian ***in-ši*-sa$_{10}$**. At the time of this document, the sounds /s/ and /š/ had merged in Akkadian while remaining distinct in Sumerian (§3.4.1 and §3.4.2). This confusion of foreign sounds is comparable to the difficulties that Germans or Dutchmen have in keeping English *th* apart from *t* or *s*, or in distinguishing English *bad* from *bed*.

It is not only the Sumerian writing system that stands between us and the Sumerian sound system. Much of what we know about Sumerian comes from the word and sign lists of Akkadian scribes. We transliterate most Sumerian sound and word signs according to glosses given by Akkadian scribes. As a consequence, we see Sumerian largely through Akkadian eyes. This complicates an analysis of the Sumerian sound system in a number of ways.

First of all, Akkadian is itself a dead language, so that its sound system must also be reconstructed.

Second, there is a risk of linguistic interference from Akkadian, in the same way as with Sumerian texts written by Akkadian scribes (see above). For the Akkadian scribes Sumerian was not their native language and they may have adapted Sumerian to their own language. This risk is particularly great where the Sumerian sound system differed from that of Akkadian. Such adaptations between sound systems are extremely common. A random example from modern times can be found in the Italian phrase *i testi bilingui cattico-ittiti* (German: 'die ḫattisch-hethitischen Bilinguen'), in which Italian lacks the initial /h/ of Hittite and has replaced the initial velar fricative [x] of Hattic by a velar stop. These adaptations are due to the absence of the sounds [x] and [h] from the Italian sound system.

Third, the word and sign lists on which we base most of our transliterations do not always agree. The same word or sound sign may be glossed differently in different texts. Under such circumstances it is far from clear how to determine which gloss can be trusted. Broadly speaking, Sumerologists seem to prefer older glosses over later ones.

Fourth, the bulk of the glosses are found in texts from the Old Babylonian and following periods, and are therefore from a later period than the texts in our corpus. As a result, our transliterations largely reflect the sound system of Sumerian as it existed in the Old Babylonian period and afterwards, that is, after Sumerian became extinct.

Because of such complications, we will largely ignore the evidence from the word and sign lists for our analysis of the Sumerian sound system. In particular, we will not use evidence from words that are only written with logograms, because of the many difficulties in establishing the precise phonemic make-up of such words.

For identifying Sumerian phonemes and their approximate pronunciation, we will use the following types of data: (1) systematic distinctions in the spelling with sound signs in Sumerian texts written by Sumerian scribes, (2) spelling variants, (3) sound changes, (4) Akkadian loanwords in Sumerian, and Sumerian loanwords in Akkadian and other languages, (5) the values of sound signs in the spelling systems of other languages, and (6) the Graeco-Babyloniaca, a small number of exercise tablets from the Hellenistic period – dating from perhaps the first century BCE or CE – on which pupils wrote the pronunciation of their Akkadian and Sumerian exercises in Greek characters.[1]

In the following sections, we will discuss the various phonemes that can be reconstructed for Sumerian as it was spoken in the second half of the third millennium BCE. In that period, Sumerian had at least the following consonants:

[1] For the Graeco-Babyloniaca see Geller (2008) and Westenholz (2007), with earlier literature.

	Labial	*Dental/Alveolar*	*Palatal*	*Velar*	*Glottal*
Voiceless stop	**b** [p]	**d** [t]		**g** [k]	**–** [ʔ]
Voiceless aspirated stop	**p** [p^h]	**t** [t^h]		**k** [k^h]	
Voiceless affricate		**z** [ts]			
Voiceless aspirated affricate		**ř** [ts^h]			
Voiceless fricative		**s** [s]	**š** [ʃ]	**ḫ** [x]	**–** [h]
Nasal	**m** [m]	**n** [n]		**ĝ** [ŋ]	
Lateral		**l** [l]			
Tap		**r** [r]			
Semivowel			**–** [j]		

This table contains for each Sumerian consonant two symbols: first, in bold typeface, the consonants as they are usually transliterated, with the symbol "**–**" representing those consonants that are generally ignored in transliterations (/ʔ/, /h/, and /j/); second, between square brackets, their third millennium pronunciation in the International Phonetic Alphabet.

Sumerian has no phoneme /w/, which explains why the cuneiform script at first lacked special sound signs for writing Akkadian /w/. Instead the scribes used the signs for other labial consonants. Eventually the sign PI became the standard CV-sign for /w/ followed by any vowel, but at first the spelling fluctuated. Thus, the Akkadian proper name *Aḫu-waqar* could be written *a-ḫu*-PI-*gàr* (e.g. BIN 3:118 2; D; 21), *a-ḫu-ba-gàr* (e.g. AUCT 1:560 4; D; 21), and even *a-ḫu-a-gàr*, ignoring the /w/ altogether (e.g. MTBM 187 2; L; 21).

Consonant length was phonemic in Sumerian but only in word-medial position, that is to say, between vowels. Proof is provided by the contrast between the oblique-object prefix {nni} (§18.2.3) and the local prefix {ni} (§20.2). The corpus does not contain a minimal pair, but the following verbal forms come close:

(1) **inim *in-ni-*^{ĝá}ĝar^{ar}**
inim=Ø ʔi -nni -n -ĝar -Ø
word=ABS VP-3SG.OO-3SG.A-place-3N.S/DO
'She claimed her (lit. "placed a word on her").' (NG 46 4; L; 21)

(2) **á-*ba* níĝ-ka$_9$ *i-ni*-ak**
á =be=ʔa níĝ.ka$_9$=Ø ʔu -ni-n -ʔak -Ø
labour=its=LOC account=ABS REL.PAST-in -3SG.A-make-3N.S/DO
'after he has made an account with (lit. "in") their labour' (TCS 1:173 7; L; 21)

In the second half of the third millennium BCE, Sumerian had the following vowels:

	Front	*Back*
High	**i ī**	**u ū**
Low	**e ē**	**a ā**

Vowel length was phonemic in Sumerian and each vowel occurs in a short and a long version.

This grammar posits only those consonants and vowels as phonemes for which the Sumerian scribes use separate sound signs. For instance, /d/ and /t/ are taken to be phonemes because

there are two different sound signs ***da*** and ***ta***. And /a/ and /e/ are different phonemes because ***da*** and ***dè*** are different sound signs. And /a/ and /ā/ are different phonemes because Sumerian scribes distinguish between the spellings ***da*** and ***da-a***. Using other and more ambiguous kinds of evidence, some sumerologists have tried to prove the existence of additional consonant and vowel phonemes in Sumerian, but none of these attempts has had results that are beyond doubt.[2]

3.2. The stops

3.2.1. General remarks

Sumerian has two series of stops (Gelb 1961: 28-40; Krecher 1969; Keetman 2004). The stops of one series are transliterated as voiced stops (/b/, /d/, /g/) and those of the other series as voiceless stops (/p/, /t/, /k/). Their actual pronunciation is difficult to determine. The available evidence largely comes from Akkadian loanwords in Sumerian, Sumerian loanwords in Akkadian, and the relation between the Sumerian and Akkadian spellings. As a consequence, what we know about the pronunciation of Sumerian stops crucially depends on what we know about the Akkadian stops. We will therefore first discuss the Akkadian stops.

Like other Semitic languages, Akkadian has three series of stops: voiced, voiceless, and so-called 'emphatic' stops. Being a dead language, Akkadian is only known from written documents, so that the pronunciation of the Akkadian stops must be reconstructed. Here, the evidence from related languages plays an important role. The three series of stops are not pronounced in the same way in all Semitic languages. They are realized as voiced, voiceless, and pharyngealized (or velarized) stops in Arabic (Kästner 1981: 33-6; Ladefoged and Maddieson 1996: 365), but as voiced, voiceless aspirated, and ejective stops in the Ethiopic (Leslau 1995: 5-6) and modern South Arabian languages (Johnstone 1975: 3-4, 6). In comparative Semitics, the Arabic pronunciation used to be taken as the more original one, while the Ethiopic pronunciation was assumed to be due to language contact with Cushitic languages, in which ejectives are common. The new evidence from the modern South Arabian languages has changed this picture. These languages are spoken in an area where language contact with Cushitic languages plays no role, so that there is no compelling reason any more to take the Ethiopic pronunciation as secondary.

Indeed, in the Hellenistic period, the Akkadian stops were pronounced as in the Ethiopic and modern South Arabian languages, viz. as voiced, voiceless aspirated, and ejective stops. This is shown by how the Akkadian stops are written in the Greek script and, conversely, how the Greek stops are written in Akkadian cuneiform. With few exceptions, the Akkadian voiceless stops (/k/, /p/, and /t/) are written with the signs for the Greek voiceless aspirated stops (χ, φ, and θ), while the Akkadian emphatic stops (/q/ and /ṭ/) are expressed by the signs for the Greek plain voiceless stops (κ, τ) (Maul 1991). Conversely, in the spellings of Greek names in Akkadian texts, the Greek voiceless aspirated stops are usually written with the signs for Akkadian /p/, /t/, and /k/, while the Greek plain voiceless stop /k/ is usually written with the sign for the Akkadian emphatic stop /q/. Greek /t/ is often written with an Akkadian sign for /t/ but can also be written with signs for emphatic /ṭ/ (Röllig 1960: 377-81; Streck 1994: 284-5). This pattern can be compared with the patterns found in Old Georgian and Ethiopic (Ge'ez). In those two languages, the Greek voiceless aspirated stops are reflected as voiceless aspirated

[2] Black (1990), Keetman (2007), and Smith (2007) are recent overviews and discussions of the various proposals.

stops while the Greek plain voiceless stops are represented by ejective stops (Fähnrich 1994: 250; Dillmann 1899: 49).

The pronunciation of the Akkadian emphatic stops as ejectives must be old. The operation of Geers' Law in Akkadian shows this. According to this law, no Akkadian word can contain two different emphatic stops, while two identical ones are allowed. However, as Knudsen (1961) has shown, the second part of this law is only partly true. He documents a tendency for /q/ to dissimilate to /k/ when a word contains a second /q/. Such constraints on co-occurrence in a single word are common with ejectives (Salmon 1993: 33). Moreover, for some of the Akkadian emphatic consonants, a glottalized pronunciation has already been proven beyond any doubt for the early second millennium BCE (Kouwenberg 2003). In fact, the glottalized pronunciation of the Akkadian emphatic stops probably goes back all the way to Proto-Semitic (Faber 1990: 629; Kouwenberg 2003: 75).

3.2.2. The voiceless aspirated stops /p/, /t/, and /k/

One of the two Sumerian series of stops is transliterated as voiceless (/p/, /t/, and /k/). Sumerian orthography shows that /p/, /t/, and /k/ were separate phonemes. It uses different sound signs for writing these three stops in combination with other sounds. There are, for example, three different sound signs for writing /p/, /t/, or /k/ with a following /a/: ***pa***, ***ta***, and ***ka***. In writing other sequences of sounds, these three stops are kept apart similarly.

Sumerian /p/, /t/, and /k/ were pronounced as voiceless aspirated stops (Gelb 1961: 33). The evidence for this (loanwords and spelling phenomena) is somewhat complex though, due to a sound change in Akkadian. Around 2000 BCE the Akkadian voiceless stops changed in pronunciation from plain voiceless to voiceless aspirated. Before this change Akkadian /p/, /t/, and /k/ were pronounced like Sumerian /b/, /d/, and /g/ (§3.2.3) but after the change like Sumerian /p/, /t/, and /k/.

Before this sound change in Akkadian, the Sumerian voiceless aspirated stops /p/, /t/, and /k/ were different from all three series of stops in Akkadian, viz. the voiced, plain voiceless, and ejective stops. As all Akkadian stops were unaspirated, Sumerians perceived the stops from all three series as their own plain voiceless, unaspirated stops. Early Akkadian loanwords in Sumerian show this: e.g., ***be$_6$-lu$_5$-da*** 'customs' (Akkadian *bēlūtu*), ***dam-gara$_3$*** 'merchant' (Akkadian *tamkāru*), ***dím-ma*** 'decision' (Akkadian *ṭēmu*), **libir** 'of old' (Akkadian *labiru*), ***mas-dara$_3$*** 'inscription' (Akkadian *mašṭaru*), ***na-gada*** 'shepherd' (Akkadian *nāqidu*), and ***ra-gaba*** 'rider' (Akkadian *rākibu*). The script shows the same pattern. For writing all three series of Akkadian stops, Sumerian and Akkadian scribes only use the sound signs for Sumerian /b/, /d/, and /g/, never those for the Sumerian aspirated stops /p/, /t/, and /k/. The Sumerian sound sign ***da***, for example, can have the values *da*, *tá*, and *ṭa* in Old Akkadian, while the Sumerian sound sign ***ta*** is never used to write Old Akkadian /ta/.

Although in the third millennium the Sumerian voiceless aspirated stops were clearly different from all Akkadian stops, they were nevertheless perceived by Akkadians to be more similar to their own voiceless stops than to their voiced or ejective stops. In early Sumerian loanwords in Akkadian, Sumerian /p/, /t/, and /k/ are always represented by Akkadian /p/, /t/, and /k/: e.g., *pišannu* 'basket' (Sumerian **pisaĝ**), *temennu* 'foundation' (Sumerian **temen**), *kutallu* 'back' (Sumerian **gú-tál**), *išši'akku* 'ruler' (Sumerian **ensi$_2$.k**), *kāru* 'quay' (Sumerian **kar**), and *kiškanû* (a tree) (Sumerian **ĝiš-kín**).

Subsequently, around 2000 BCE, the Akkadian voiceless stops changed in pronunciation from plain voiceless to voiceless aspirated. From then on, they were pronounced like the Sumerian voiceless aspirated stops. This change in pronunciation led to a change in spelling.

From the 20th century onwards, Akkadian /p/, /t/, and /k/ were written with the sound signs for Sumerian /p/, /t/, and /k/. Sound signs such as ***ta*** were now also used for writing Akkadian /ta/, whereas earlier they had been used for Sumerian /ta/ only.

After this change in Akkadian, both Akkadian and Sumerian /p/, /t/, and /k/ were pronounced as voiceless aspirated stops. Greek spellings from the Hellenistic period show this. Generally speaking, Akkadian /p/, /t/, and /k/) are written in the Greek script as voiceless aspirated stops (φ, θ, and χ), while the Greek voiceless aspirated stops are written in the cuneiform script with the signs for Akkadian /p/, /t/, and /k/ (§3.2.1). The same is true for Sumerian /p/, /t/, and /k/. They are written as Greek aspirated stops, too: e.g., φα σειθ = **pa$_5$ šita** (ZA 97 p. 263), χειθ = **ki-*ta*** (Iraq 24 p. 65), λεφες = **lipiš** (Iraq 24 p. 66f), and ναμονχουχωτ = ***nam-ba*-ku$_4$-[ku$_4$-*dè*]** (Iraq 24 p. 69f).

Reviewing the evidence, we arrive at the following approximate descriptions of Sumerian /p/, /t/, and /k/: Sumerian /p/ was a voiceless aspirated bilabial stop, /t/ a voiceless aspirated dental or alveolar stop, and /k/ a voiceless aspirated velar stop.

The voiceless aspirated stops were generally lost in syllable-final position.[3] There is no Sumerian morpheme with a /t/ or a /p/ in that position and only a few with a /k/ (cf. Attinger 2005: 47f): **ak** 'do, make', **lu$_5$.k** 'live', **ka.k** 'mouth', **ensi$_2$.k** 'ruler', and the genitive case marker {ak}. In addition, the noun **gakkul$_2$** 'fermenting vat' has a medial cluster /kk/. The final /k/ of most of these morphemes was unstable, though. The /k/ of the genitive case marker {ak}, for example, had been lost in syllable-final position by the Ur III period, possibly with /h/ as an intermediate stage (§7.2.1). The /k/ of the verb **ak** was also lost in syllable-final position, as is shown by several spellings with sound signs: e.g., ***ba-ni-a*** for ***ba-ni*-ak** (Cyl A 26 19; L; 22) and ***bí-in-na*** for ***bí-in*-ak** (TCS 1:148 14; U; 21). The final /k/ of **lu$_5$.k** later became /g/. A few Ur III spellings already show this later form: the proper noun ***ḫa-ba*-lu$_5$-*ke$_4$*** is sometimes written ***ḫa-ba*-lu$_5$-*ge*** (NATN 267 9 and 573 9; N; 21). The same applies to the final /k/ of **ka.k**. For this stem, too, we have Ur III spellings with /g/: e.g. **ka-*ga-na*** 'in his mouth' (NG 205 24; L; 21).

In the time of Gudea at the latest, the /t/ of the dimensional prefix {ta} became /r/ between vowels (§19.3.1).[4] In the Ur III period, the verbal form ***ba-ta*-zal** (e.g., MVN 13:275 3; D; 21) is, for example, often written ***ba-ra*-zal** (TRU 77 3; D; 21). Further examples of the prefix {ta} written /ra/ are ***mu-ne-ra*-è** (NG 51 15; U; 21) and ***im-ma-na-ra*-túm** (NATN 174 6; N; 21). The Gudea texts provide an example where the sign ***ra*** is written beside ***ta*** as a gloss: ***ma-ra-da-^{ra}ta*-è** (Cyl A 5:20; L; 22).

3.2.3. The voiceless stops /b/, /d/, and /g/

The second series of Sumerian stops is transliterated as voiced (/b/, /d/, and /g/). The Sumerian writing system consistently uses different sound signs for writing either /b/, /d/, or /g/ and thus shows that they were separate phonemes in Sumerian. The sound signs for each one of these stops with a following /a/ are, e.g., ***ba***, ***da***, and ***ga***. In sound signs for other sequences of stops and vowels, these three stops are similarly kept apart.

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[3] Note that the voiceless aspirated affricate /ř/ was likewise lost in syllable-final position (§3.3.2).

[4] It is to be expected that /t/ also became /r/ elsewhere in the same environment, but there is as yet no evidence in support of a more general rule. The /t/ of the cognate ablative case marker {ta} (§7.10) does not change after a vowel. There are also several stems with an intervocalic /t/: e.g., **iti.d** 'month', **šita$_2$** 'mace', and **utu** '(the sungod) Utu'.

The transliteration of /b/, /d/, and /g/ as voiced stops only partly agrees with their actual pronunciation. In the third millennium BCE, they were pronounced as plain voiceless stops but around 2000 BCE they underwent a sound change whereby they became voiced in most environments, while remaining voiceless elsewhere. The evidence for this sound change (primarily loanwords and spelling phenomena) is complex due to sound changes in Sumerian as well as in Akkadian.

In the third millennium BCE, the Sumerian stops /b/, /d/, and /g/ were pronounced as plain voiceless stops, like the Akkadian stops /p/, /t/, and /k/. Early Sumerian loanwords in Akkadian show that Akkadians heard Sumerian /b/, /d/, and /g/ as their own /p/, /t/, and /k/: e.g., *ekallu* 'palace' (Sumerian **é-gal**), *laputtû* 'overseer' (Sumerian ***nu*-banda$_3$**), *pattû* (a container) (Sumerian ***ba-an*-du$_8$**), *kitû* 'linen' (Sumerian **gada**), *tukkannu* 'bag' (Sumerian **du$_{10}$-gan**), and *utukku* 'demon' (Sumerian **ú-du$_{11}$.g**).

Conversely, early Akkadian loanwords in Sumerian show that Sumerians likewise heard Akkadian /p/, /t/, and /k/ as their own /b/, /d/, and /g/: e.g., ***bur-šu-ma*** 'old person' (Akkadian *puršumu*), ***ì-bí-la*** 'heir' (Akkadian *aplu*), ***si-im-da*** 'mark' (Akkadian *šimtu*), ***šer$_7$-da*** 'crime' (Akkadian *šērtu*), ***ma-da*** 'country' (Akkadian *mâtu*), ***dam-gara$_3$*** 'merchant' (Akkadian *tamkāru*), and ***ma-al-ga*** 'counsel' (Akkadian *milku*).

Subsequently, around 2000 BCE, Sumerian /b/, /d/, and /g/ became voiced in most environments. Sumerian loanwords borrowed after this sound change show this new pronunciation. Sumerian /b/, /d/, and /g/ are from then on reflected by the Akkadian voiced stops instead of the voiceless stops as earlier. E.g., *agubbû* 'holy water' (Sumerian **a-gúb-*ba***), *gegunû* 'temple tower' (Sumerian **ge-gun$_4$-*na***), *zagindurû* (a kind of lapis lazuli) (Sumerian **za-gìn-duru$_5$**), *banduddû* 'bucket' (Sumerian ***ba-an*-du$_8$-du$_8$**), and *guzalû* 'throne-bearer' (Sumerian ***gu-za*-lá**).

In some environments, however, Sumerian /b/, /d/, and /g/ retained their old pronunciation as plain voiceless. One such environment was word-final position. As already noted by Ungnad (1923), word-final Sumerian /g/ is written with the Greek letter κ in the Hellenistic period: φα σεκ = **pa$_5$ sig** (Iraq 24 p. 65).

The voiceless pronunciation of word-final /b/, /d/, and /g/ is also reflected in Akkadian loanwords but there the situation is more complicated due to a sound change in Akkadian. Around 2000 BCE, the pronunciation of the Akkadian voiceless stops changed from plain voiceless to voiceless aspirated (§3.2.2). This change caused the pronunciation of the voiceless Akkadian stops /p/, /t/, and /k/ to become different from that of Sumerian voiceless /b/, /d/, and /g/ because the latter lacked the aspiration of the former. From this sound change in Akkadian onwards, Sumerian voiceless /d/ and /g/ could be reflected in Akkadian by the ejective stops /ṭ/ and /q/ (there was no ejective /p/ in Akkadian). These Sumerian and Akkadian sounds were now similar in so far as both of them were voiceless and unaspirated. A similar phenomenon is found in Georgian and Amharic, two languages with three series of stops, one voiced, one voiceless aspirated, and one ejective. In these two languages, the plain voiceless stops of other languages are represented by ejective stops. The voiceless pronunciation of Sumerian /d/ and /g/ is, for example, reflected in the following Akkadian loanwords from Sumerian: *luṭṭu* (a small bowl) (Sumerian **lud**), *abriqqu* (a priest) (Sumerian **abrig**), and *guqqû* (an offering) (Sumerian **gug**)[5]. It is similarly reflected in sign names like *iq-qu* (Sumerian **ig**) and *ba-aṭ-ṭu* (Sumerian **bad**) (Gong 2000: 137, 104).

[5] The evidence for Akkadian ejective stops reflecting Sumerian stops is presented by Krecher (1969).

Although Sumerian voiceless /d/ and /g/ were pronounced similarly to Akkadian /ṭ/ and /q/ in so far as both of them were voiceless and unaspirated, they were also pronounced differently, because Sumerian /d/ and /g/ never were ejective stops. In this respect they remained more similar to Akkadian /t/ and /k/. As a consequence, in later Akkadian loanwords, Sumerian voiceless /d/ and /g/ can also be reflected by Akkadian /t/ and /k/: e.g., *unnedukku* 'letter' (Sumerian ***ù-na-a*-du$_{11}$.g**).

As for Sumerian voiceless /b/, one would expect it to be reflected by Akkadian /p/ throughout, because Akkadian had no ejective /p/. I have not been able to find unambiguous examples of Sumerian loanwords with word-final /b/ because Akkadian /p/ is often written with the same signs as Akkadian /b/. The dictionaries list, for example, the loanword *zabardabbu* 'cupbearer' (Sumerian **zabar-dab$_5$**) but the listed spellings also allow a reading *zabardappu*.

Sumerian /b/, /d/, and /g/ also remained voiceless in a cluster of two voiceless consonants, including a cluster of two identical consonants. Compare, for instance, the following late Sumerian loanwords in Akkadian: *gišṭu* '(writing) board' (Sumerian **ĝiš-da** = /ĝišda/), *gešṭû* 'leader' (Sumerian **igi-du** = /igišdu/), *giṭṭû* 'long tablet' (Sumerian **gíd-*da*** = /gidda/), *gerseqqû* 'personnel' (Sumerian **ĝìr-sè-*ga*** = /ĝirsegga/), *tuduqqû* 'spell' (Sumerian **tu$_6$-du$_{11}$-*ga*** = /tudugga/). Note that the last three Sumerian words contain the suffix {ʔa} with its initial glottal stop assimilated to the preceding consonant (§28.3.2).

Reviewing the evidence, we arrive at the following approximate descriptions of Sumerian /b/, /d/, and /g/. In the third millennium, /b/ was a plain voiceless bilabial stop, /d/ a plain voiceless dental or alveolar stop, and /g/ a plain voiceless velar stop. From about 2000 BCE onwards, these three stops had apparently two allophones. They seem to have been voiced word-initially and between voiced sounds and to have been voiceless elsewhere. The precise details of this later pronunciation are still to be sorted out, though.

There is some evidence that /d/ and /g/ were reduced or perhaps even lost in word-final position. From the Old Akkadian period onwards, words with a final /d/ or /g/ could be spelled as if there were no final consonant. The verbal form ***ba*-pà(d)** (MAD 5:112 5; L; 23), for instance, could then be written ***ba-pa*** (Limet Documents 37 PUL 28 3; L; 23), ignoring the final /d/. A similar spelling is ***al-pa*** for ***al*-pà(d)** (NATN 190 8; N; 21). The verbal form ***bí-in*-du$_{11}$(g)** can be written ***bí-in-du*** (FAOS 17:44 8; N; 21), ignoring the final /g/. The noun **šeg$_{12}$** 'brick' likewise occurs written ***še*** (Hirose 317 rev 1; U; 21). Such spellings suggest a reduction or loss of word-final /d/ and /g/. There seems to be no evidence for a similar loss of word-final /b/. In the Old Sumerian period, syllable-final /b/, /d/, and /g/ were still preserved as consonants. The spellings of the case markers {da} (§7.11.1) and {ra} (§7.5.1) show this. After a word with a final /b/, /d/, or /g/, these case markers are always written ***da*** and ***ra***, which is the form they only have after a consonant: e.g., **ašgab-*ra*** (Nik 1:228 2:1; L; 24), **sipa(d)-*da*** (VS 14:8 2:3; L; 24), and **agrig-*da*** (DP 116 12:8; L; 24).

3.2.4. The glottal stop

In addition to the six stops discussed in the two preceding sections, Sumerian had a phonemic glottal stop (/ʔ/). In the second half of the third millennium, however, the glottal stop was progressively lost in more and more environments, so that by the Ur III period at the latest, it had lost its status as an independent phoneme. Since the Sumerological transliteration system is based on Sumerian in its Old Babylonian or later form, the glottal stop is generally ignored in transliterations.

It is the Sumerian script that shows most clearly that the glottal stop was at one time phonemic in Sumerian. The value of a sound sign is, as a rule, derived from the value of that same

sign as a word sign. The sign KA, for example, is used as a sound sign for ***zú*** in the noun ***zú-lum*** 'date'. This value as a sound sign comes from its value as a word sign for **zú** 'tooth'. In this way, the values of the sound signs reflect the phonemic make-up of existing words. Now, in the Old Sumerian period, the Sumerian script generally lacked sound signs for values with an initial vowel. This suggests that Sumerian had no words with an initial vowel.

Most later sound signs for VC-values had in the Old Sumerian period a value CVC with an initial glottal stop (§2.4). The sound signs ***an***, ***ab***, and ***íb***, for example, were in the Old Sumerian period used almost exclusively at the beginning of a word as CVC-signs, expressing respectively /ʔan/, /ʔab/, and /ʔib/ or /ʔeb/. The Sumerian words written with these same signs must have had an initial glottal stop too: **an** /ʔan/ 'heaven', **ab** /ʔab/ 'window', and **íb** /ʔib/ 'hip'. What is true for such VC-signs, also holds for the vowel signs. They too had originally values with an initial glottal stop. The sign A, for instance, is a word sign for **a** 'water' (actually /ʔaj/, see §3.8). In the Old Sumerian period, it was as a sound sign only used for /ʔa/ and it acquired only later the additional value /a/.

Thus, we can infer an initial glottal stop in words such as **an** 'heaven' and **a** 'water'. Furthermore, some grammatical morphemes can be shown to have had an initial glottal stop, viz. the nominalizing suffix {ʔa} (§31.2), the form {ʔam} of the enclitic copula (§29.2.3), and the locative case marker {ʔa} (§7.7.1).

In addition, several morphemes can be shown to have had a final glottal stop. One such morpheme, for instance, is the noun **má** 'boat'. In the Old Sumerian texts from Lagash, the comitative case marker is only written ***da*** after a consonant (§7.11.1), so that the following example shows that **má** 'boat' must have a final consonant:

(3) **má-*da* tuš-*a***
má =da tuš-Ø -ʔa
boat=COM sit -NFIN-NOM
'who remains with the boat' (DP 602 3:10; L; 24)

Moreover, in the Old Akkadian syllabary, the sign MÁ can be used as a CVC-sign for /maʔ/ or /maʕ/ (Hasselbach 2005: 64). These two values are obviously derived from the use of MÁ as a word sign for Sumerian **má** /maʔ/.

The noun **gala** 'lamentation priest' may likewise have had a final glottal stop. The vowel /e/ of the plural marker {ene} and of the ergative case marker {e} are retained after **gala**, whereas they contract with a preceding vowel: e.g., **gala-*e-ne*** (DP 220 4:2'; L; 24) and **gala-*e*** (Nik 1:297 1:3; L; 24). Such spellings show that **gala** had a final consonant. Whether this consonant was a glottal stop or rather an /h/ cannot be determined as yet.

Another candidate is the noun **bala** 'turn of duty'. It has forms like **bala-*e*** (NATU 3:26 rev 29; U; 21), containing an uncontracted directive case marker {e}, and **bala-*a-ka*** (OrSP 47/49 233 4; U; 21), with an uncontracted genitive case marker {ak}. Both forms presume a final stem consonant, a glottal stop or possibly an /h/.

A last example is the verb **ba** 'portion out', which also may have had a final glottal stop. The suffix {e} of the imperfect always contracts with a preceding vowel. The Old Sumerian verbal form ***e-né*-ba-*e*** (VS 14:173 1:4; L; 24) shows that the suffix {e} is retained after **ba** and that **ba** therefore must have a final consonant. This final consonant may have been a glottal stop or alternatively an /h/.

During the second half of the third millennium, the glottal stop was gradually lost. Some of the steps in this development can be documented. Before the various changes are discussed, however, one preliminary point must be stressed. During the same period Sumerian also lost the consonant /h/ (§3.4.4). There are as yet few criteria for distinguishing between a lost glottal

stop and a lost /h/. The following examples may therefore inadvertently include instances where the lost consonant was actually an /h/ instead of a glottal stop.

Already in the Old Sumerian period, the glottal stop completely assimilated to a preceding consonant. This change seems to have occurred after most if not all consonants. The spelling generally does not show this change, though, especially where word signs are used.

One example of a complete assimilation of the glottal stop to a preceding consonant comes from the introductory formula of letters:[6]

(4) ***na-e-a***
(a.)na=Ø ʔa-b -ʔe -e -ʔa
what =ABS VP-3N.OO-say:IPFV-3SG.A:IPFV-NOM
'what he says' (e.g., Nik 1:177 2:3; L; 24)

In the Old Akkadian period, this form is generally written ***na-bé-a*** /nabbeʔa/ (e.g., ITT 2:5758 2; L; 23), ignoring the syllable-final /b/ in the spelling. In the Ur III period, the spelling ***na-ab-bé-a*** is found (TCS 1:1 2; U; 21). The oldest spellings showing an assimilation to a preceding /b/ already date from the Old Sumerian period: ***ḫé-na-bé*** /ḫennabbe/ from /ḫennabʔe/ (FAOS 5/2 Luzag. 1 3:18; N; 24) and ***ḫé-na-bé-a-ka*** /ḫennabbeʔaka/ from /ḫennabʔeʔaka/ (Ukg. 6 4:4'; L; 24).

The oldest spellings showing an assimilation to a preceding /n/ also date from the Old Sumerian period:

(5) ***e-na-né-éš-a*** /ʔennanneš ʔa/
ʔi -nna -n -ʔe -eš -ʔa
VP-3SG.IO-3SG.A-say:PLUR-3PL-NOM
'when they had said this to him' (FAOS 5/2 Enšak. 1 7; N; 24)

The following are further spellings showing an assimilation of the glottal stop to a preceding /n/: ***in-na*** for ***in*-ak** (BM 18962=CT 10: pl.44 24; L; 21), ***bí-in-na*** for ***bí-in*-ak** (TCS 1:148 13-14; U; 21), **^{d}nin-líl-*e-ma-an-na*-áĝ** for ***...-ma-an*-áĝ** (BCT 1:63 3; D; 21), and ***im-mi-nu*-ús** for ***im-mi-in*-ús** (AUCT 2:7; D; 21).

The spellings of the nominalizing suffix {ʔa} (§31.2), the enclitic copula {ʔam}, (§29.2.3) and the locative case marker {ʔa} (§7.7.1) provide many instances of assimilations, not only after /b/ and /n/, but also after basically all other consonants.

A variety of contractions are found where the glottal stop was between two vowels. For a number of reasons, it is as yet impossible to formulate precise rules. Firstly, the amount of data is quite small. Secondly, it is generally not known which vowels were long and which were short. Finally, the Sumerian rules of accentuation are largely unknown. The following must therefore remain a preliminary list of attested phenomena.

The sequence /aʔe/ could become /ā/ or /ē/. The verb **er** /ʔer/ 'go' provides examples of the contraction of /aʔe/ to /ā/:

(6) **mu ...** ***mu-da-a-re-e-ša-a-šè*** /mundāreššaʔše/
mu Ø -mu -n -da -ʔer-eš -ʔa =ak =še
name VP-VENT-3SG-with-go -3PL.S/DO-NOM=GEN=TERM
'because of ... who came with him' (HUCA 29 p. 75:4 8-9; D; 21)

A similar form of the verb **er** 'go' is ***ba-a-re-éš-a-ne*** /bārešʔane/ from /baʔerešʔanē/ (AUCT 2:105 3; D; 21). The verb **ba** /baʔ/ 'portion out', however, shows a contraction of /aʔe/ to /ē/:

[6] See §8.5 for more details on this particular verbal form.

(7) ***in-be$_6$-e-éš*** /ʔinbēš/
ʔi -n -baʔ -eš
VP-3SG.A-portion.out-3PL
'They took this as their portions.' (MVN 13:672 7; D; 21)

Another instance of /aʔe/ becoming /ē/ involves the modal proclitic {ḫa}. Already in the Old Sumerian period, {ḫa} contracts with a following /ʔe/ to /ḫē/ and is then written ***ḫé*** (§25.4.1).

In the Old Sumerian period, a glottal stop was still retained between /a/ and /a/. The spellings of the enclitic copula {ʔam} show this (§29.2.3). E.g.:

(8) **udu gu$_7$-*a-am$_6$***
udu gu$_7$-Ø -ʔa -ʔam
sheep eat -NFIN-NOM-be:3N.S
'These are consumed sheep.' (DP 246 3:2; L; 24)

From the Old Akkadian period onwards, however, explicit spellings such as ***-a-am$_6$*** do not occur anymore. Instead the sign sequence A.AN, which had previously been used for writing ***-a-am$_6$***, has now acquired the value ***àm***. This change in spelling is obviously due to a contraction of /aʔam/ to /ām/.

There is little evidence for what happened to the glottal stop after other vowels than /a/. The forms of the enclitic copula suggest that /ʔ/ was lost early there. The enclitic copula of the third person singular has the form /ʔam/ after the vowel /a/ but was simply /m/ after the vowels /e/, /i/, and /u/ (§29.2.3). Some forms of the noun **lú** */luʔ/ 'man, person' are also suggestive. In the Old Sumerian period, the genitive of this noun is found as **lú-*a*** (Ean. 1 rev 10:25; L; 25), representing /luʔak/ with retention of the glottal stop between /u/ and /a/. At the same time, the ergative is written **lú** (Ean. 1 9:3; L; 25), representing /lū/, the contracted form of */luʔe/. Note that in later periods the ergative of **lú** can be written **lú-*ù*** (e.g., Cyl A 13:11; L; 22).

A special case is the contraction of /eʔi/ across word borders, which occurs in some proper nouns made up from finite clauses. Examples are **šul-^{d}en-líl-*le*-su** from **šul ^{d}en-líl-*le* *ì*-su** (see §6.8.3), **mu-*né*-maḫ** from **mu-*né* *ì*-maḫ** (see §10.5.2), and **ku$_4$-*ra-né*-sa$_6$** (Amherst 119 tablet 5; L; 21) from **ku$_4$-*ra-né* *ì*-sa$_6$** (TCTI 2:L.3965 case 3 = tablet 4; L; 21).

A contraction involving an intervocalic glottal stop is also attested involving the nominalizing suffix {ʔa}, when it occurs between a vowel and the locative case marker {ʔa}. It remains unclear, however, whether it contracts with the preceding vowel or with the following case marker. See §27.3.3 and the end of §28.3.2 for examples and more details.

3.3. The affricates

3.3.1. The /z/

The Sumerian writing system has several signs for writing the consonant /z/ in combination with other sounds, e.g., ***za***, ***zé***, and ***zú***. This consonant was pronounced as [ts], that is, as a voiceless dental or alveolar affricate. The evidence for such a pronunciation comes from loanwords and the values of certain sound signs in Sumerian and Akkadian orthography. However, this evidence is complex due to sound changes in Sumerian as well as in Akkadian.

Loanwords from the Old Akkadian and earlier periods show that Sumerian /z/ was pronounced like Akkadian /s/. Sumerian /z/ was then borrowed into Akkadian as /s/: e.g., *apsû* 'underground ocean' (Sumerian **abzu**), *assammu* (a vessel) (Sumerian ***an-za-am***), *asû* 'physician' (Sumerian **a-zu**), *simmanû* 'travel provisions' (Sumerian **zì-munu$_4$**), *pursītu* (a bowl)

(Sumerian **bur-zi.d**), and *sammû* 'lyre' (Sumerian **zà-mí**). In the same period, Akkadian /s/ is borrowed into Sumerian as /z/: e.g., ***ar-za-na*** (a kind of groats) (Akkadian *arsānu*), ***ba-za*** 'cripple' (Akkadian *pessû*), and ***za-ba-lum*** (a tree) (Akkadian *supālum*).

The Sumerian and Old Akkadian scribes wrote the three Old Akkadian consonants /z/, /s/, and /ṣ/ with the sound signs for Sumerian /z/. For instance, when the Sumerian sound sign ***za*** is used in an Old Akkadian word, it can have three values, *za*, *sà*, and *ṣa*. This kind of multivalence is similar to what is found with the signs for Sumerian /b/, /d/, and /g/, which are used for respectively Old Akkadian /b/ and /p/, Old Akkadian /d/, /t/, and /ṭ/, and Old Akkadian /g/, /k/, and /q/ (§3.2.2). The explanation is also similar. Sumerian lacked the Old Akkadian sounds /z/ and /ṣ/, so that the Sumerian writing system lacked sound signs for writing those Old Akkadian sounds. This problem was solved by using the sound signs for Sumerian /z/ not only for the Old Akkadian sound /s/ (which was pronounced like Sumerian /z/) but also for the Old Akkadian sounds /z/ and /ṣ/ (which were phonetically similar to Old Akkadian /s/).

Old Akkadian /z/, /s/, and /ṣ/ reflect respectively Proto-Semitic *z, *s, and *ṣ. As is increasingly acknowledged, either series, the Old Akkadian as well as the Proto-Semitic, consisted of affricates (Faber 1985; Sommerfeld 1995: 35-36; Hasselbach 2005: 137; Streck 2006). The forms and spellings of the Old Akkadian suffixes with an initial /ś/ (*-śu* 'his', *-śunu* 'their', etc.) provide crucial evidence. As we will see below (§3.4.1), Old Akkadian /ś/ was pronounced as [s]. Now, the initial /ś/ of these suffixes contracts with a preceding /z/ or /d/, /s/ or /t/, /ṣ/ or /ṭ/ to /ss/. Compare, e.g., the Old Akkadian form DAM-*sú* = *aššassu* 'his wife' of the noun *aššatum* 'wife' with the form DUMU-*śu* = *mārūśu* 'his children' of the noun *māru* 'son, child' (MAD 1:246 2-3 and 5-6). Furthermore, if the /ś/ of the suffix is preceded by a /d/, /t/, or /ṭ/, the contracted form shows sometimes a spelling V*t-s*V or the like, instead of the normal spelling with only /s/: e.g., *à-wa-at-sú* = *hawāssu* 'his matter' (FAOS 19 p. 116 Gir 3) of the noun (*h*)*awātum* 'word, matter'. Evidence such as this shows that Old Akkadian /s/ was pronounced as [ts], /z/ as [dz], and /ṣ/ as [ts']. Since Sumerian /z/ was pronounced like Old Akkadian /s/, it too must have been pronounced as [ts].

At the end of the third millennium, Sumerian /z/ underwent a sound change and became voiced in certain environments, so that it came to be pronounced as [dz] instead of [ts]. This happened in the same period when the originally also voiceless Sumerian consonants /b/, /d/, and /g/ became voiced in most environments (§3.2.3). Sumerian /z/ seems to have become voiced in exactly the same environments, but we do not have sufficient data to verify that for all environments. But like /b/, /d/, and /g/, it remained voiceless in word-final position. This is shown by the late Akkadian loanword *engiṣu* 'temple cook' (Sumerian **engiz**).

After the pronunciation of Sumerian /z/ had changed from [ts] to [dz], Sumerian /z/ was not pronounced like Akkadian /s/ anymore but rather like Akkadian /z/. Later loanwords, from after the sound change, certify this: e.g., *burzigallu* (a large bowl) (Sumerian **bur-zi-gal**; cf. the early loanword *pursītu* from Sumerian **bur-zi.d**), *guzalû* 'throne bearer' (Sumerian ***gu-za*-lá**; cf. the early loanword *kussi'um* 'throne' from Sumerian ***gu-za***), *zammukku* 'New Year' (Sumerian **zà-mu.k**), and *zadimmu* 'stone cutter' (Sumerian **zadim**).

During the Old Babylonian period, Akkadian /s/ was de-affricated from [ts] to [s] in stages (Sommerfeld 1995: 35-36; Streck 2006). This change is shown by a change in spelling. De-affricated Akkadian /s/ is written with the signs for Sumerian /s/, while affricated Akkadian /s/ is, as before, written with the signs for Sumerian /z/. After the Old Babylonian period, Akkadian /s/ had become de-affricated in all environments and from then on it is in all environments written with the signs for Sumerian /s/.

Akkadian /ṣ/ seems to have remained an affricate (as /ṣ/ in Hebrew did). In a Neo-Babylonian list with Egyptian names, Egyptian ḏ (which was probably an affricate) is written in the

cuneiform script with the signs for Akkadian /ṣ/ (Bongenaar and Haring 1994). Also, the /ṣ/ of the Babylonian name *Nabū-kudurri-uṣur* is rendered in the Old Persian script with the sign for /c/, an affricate pronounced as [tš] (Kent 1953: 193). Finally, note that /ṣ/ has phonetic properties which favour the retention of an affricated pronunciation (Steiner 1982: 84-89).

It is still unclear whether Akkadian /z/ was also de-affricated, like Akkadian /s/, or whether it remained an affricate, like Akkadian /ṣ/. Its spelling, however, did not change and it continued to be written with the signs for Sumerian /z/, just like Akkadian /ṣ/. Yet, this does not necessarily prove a retained affricate pronunciation because the writing system lacked separate signs for writing [z] instead of [dz] anyway. The scribes did not have any choice.

In the Hellenistic period, both Akkadian /z/ and Sumerian /z/ were written with the letter ζ in the Greek script (Maul 1991: 106), while the Greek sound ζ was represented in the cuneiform script with the signs for Akkadian /z/ (Röllig 1960: 382). Berossos (3rd century BCE), however, provides us with the unique spelling Ξισουθρος for the Sumerian name **zi-u$_4$-sù-*ř́á***. Here, the use of Greek /ks/ for Sumerian /z/ clearly points to a retention of the old Sumerian pronunciation as an affricate.

3.3.2. The /ř/

The Sumerian writing system uses the sign DU as a specialized sound sign with the values ***ř́á*** and ***ře$_6$*** for writing the consonant /ř/ with a following /a/ and /e/.[7] This consonant was probably pronounced as [ts^h], that is, as a voiceless aspirated dental or alveolar affricate. It gradually lost its status as an independent phoneme during the second half of the third millennium, merging with /d/ or /r/, or being reduced to zero (Jagersma 2000). Original /ř/ continued, however, to be written in certain words until the end of the cuneiform script, although not consistently. From the Ur III period onwards but perhaps even earlier, spellings with /ř/ are nothing more than conservative spellings and do not reflect any linguistic reality anymore.

As the consonant /ř/ did not exist as such anymore in the Old Babylonian period, the lexical lists generally ignore this sound and thus leave us in the dark as to which logographically written words used to contain /ř/. As a result, only the use of the sound signs ***ř́á*** and ***ře$_6$*** indicates the presence of /ř/. In this way some words with earlier /ř/ have been identified (Bauer 1975-76; Krecher 1993): e.g., **bař$_4$** 'open', **bu.ř** 'tear out', **du$_6$.ř** 'hill', **du$_7$.ř** 'be perfect', **enku.ř** 'inspector of fisheries', **gu$_4$.ř** 'bull', **kešе$_2$.ř** 'bind', **ki-en-ge.ř** 'Sumer', **ku$_5$.ř** 'cut', ***níĝ-ř́á*.n** 'rod (a unit of length)', **ře$_6$** 'bring', **sù.ř** 'be far', **sukud** = /sukuř/ 'high', **šu-ku$_6$.ř** 'fisherman', **šuku.ř** 'prebendal land', ***u$_4$-ř́á-bu*** (a bird), **udu** = /uřa/ 'sheep', and **uku$_2$.ř** 'poor (person)'. There must have been many more that have not yet been recognized as such through a lack of evidence.

The Akkadians perceived Sumerian /ř/ as Akkadian /s/, that is, as [ts] (§3.3.1). Early loanwords prove this (Wiggermann 1992: 175): *šukūsu* 'subsistence (field)' (Sumerian **šuku.ř**), *usābu* (or perhaps *usāpu*) (a bird) (Sumerian ***u$_4$-ř́á-bu***), *kusarikku* 'bison' (Sumerian **gu$_4$.ř-alim**), *nikkassu* 'acount' (Sumerian **níĝ-ka$_9$.ř**),[8] and probably *lamassu* 'tutelary deity' (Sumerian **lama$_3$**).[9] However, the Akkadians perceived also Sumerian /z/ as Akkadian /s/

[7] The symbol /ř/ is conventional. It is simply a convenient way to distinguish /ř/ from /r/ in the transliteration system.

[8] Note the locative **níĝ-ka$_9$-*ř́á*** (RA 9 p. 158 obv 10; U; 21).

[9] An /ř/ as the final consonant of **lama$_3$** can as yet not be proven with an explicit spelling with the sign DU, but is strongly suggested by the alternation between zero and /r/ for its final consonant. E.g.: **ur-^{d}lama$_3$-*ra-ke$_4$***, which includes **lama$_3$.r** followed by the genitive case

(§3.3.1). Sumerian had therefore two different sounds, viz. /z/ and /ř/, that the Akkadians interpreted as Akkadian /s/. At the same time, the Sumerians heard Akkadian /s/ as Sumerian /z/ (§3.3.1). Since Akkadian /s/ and Sumerian /z/ had roughly the same pronunciation, viz. [ts] (§3.3.1), Sumerian /ř/ must have been a different sound from Akkadian /s/, even though it sounded like [ts] to the Akkadian ear. This relation of Sumerian /z/ and /ř/ to Akkadian /s/ is parallel to how the Sumerian plain voiceless stops (/b/, /d/, and /g/) and voiceless aspirated stops (/p/, /t/, and /k/) relate to the Akkadian voiceless stops (§3.2.2 and §3.2.3). By analogy we can infer that Sumerian /ř/ was pronounced as [ts^{h}] and must have been a voiceless aspirated dental or alveolar affricate. Thus, /ř/ was the aspirated counterpart of /z/.

The close relationship between Sumerian /z/ and /ř/ is confirmed by the reflex of /ř/ in Emesal Sumerian (§1.2.3). Consider the word **udu** 'ram, sheep', which had an earlier form /uřa/, containing the phoneme /ř/.[10] Although Emesal normally has a /d/ for standard Sumerian /d/, **udu** /uřa/ has ***e-zé*** as its Emesal cognate. A few other Emesal words show a similar correspondence of Emesal /z/ with standard Sumerian /d/, but in those cases we lack the evidence to prove that the /d/ comes from an earlier /ř/: e.g., **du$_{10}$.g** 'sweet' (Emesal ***zé-eb***), **dugud** 'heavy' (Emesal ***zé-bé.d***), and so on (Keetman 2007: 42).

Through a number of sound changes, /ř/ disappeared as an independent phoneme from the Sumerian sound system. The first change was its complete loss in syllable-final position, a fate it shared with the aspirated stops (§3.2.2). This development can be illustrated with the verb **šu bař$_4$** = ***ba.ř*** = (later) **bar** = ***ba.r*** 'release (lit. "open one's hand")'. As early as the Old Sumerian period, the stem of this verb is often written ***ba***, ignoring the final consonant, e.g., **šu *e-ma-né-ba*** 'he released them (two doves) therein to it' (Ean. 1 obv 19:16; L; 25). Later such spellings remain frequent, e.g., **šu *im-ma-ba*** 'he released (its donkey stallions on the mares)' (St F 4:11; L; 22), **šu *ba-an-ba*** 'he was released' (e.g., Touzalin Aleppo 275 6; U; 21), **šu *bí-ba*** 'he released this' (NG 213 32; L; 21), and so on. Such spellings alternate with forms where the stem is written **bař$_4$** or **bar**. The frequency of spellings with mere ***ba***, however, shows that word-final /ř/ had already been lost by the middle of the third millennium.

In syllable-initial position, that is, before a vowel, /ř/ was not reduced to zero, but changed to /r/ in one geographical area but to /d/ in another. Thus, what happened with /ř/ before a vowel differed according to dialect. It became /r/ in standard Neo-Sumerian and in the dialects of Lagash and Umma, but it became /d/ in the dialects of Nippur, Isin, Ur, and Garshana. This change took place after the Old Akkadian period and is first attested in the texts of Gudea.

The reflex /r/ of /ř/ is the only one found in the texts from Lagash and Umma. Thus, we find ***ḫé*-bu-*re-ne*** (St K 3':19'; L; 22) as against earlier ***ba-ra*-bu$_x$-*ře$_6$*** (Ean. 1 rev. 1:23; L; 25), **šu *ba-ba-ra-da*** (Cyl B 15:7; L; 22) as against earlier **šu bař$_4$-*řá*** (e.g. RTC 35 4:2; L; 23), ***ḫé*-sù-*re*** (CT 3 pl.35-39 BM 21335 104; L; 21) as against archaic ***ḫé*-sù-*ře$_6$*** (e.g., MVN 6:64 obv. 2; L; 21), **kešе$_2$-*re-dè*** (ITT 3:6126 6; L; 21) as against archaic **kešе$_2$-*ře$_6$-dè*** (e.g., TENS 216 5; U; 21), **kešе$_2$-*ra*** (e.g., UTAMI 3:1772 9; U; 21) as against archaic **kešе$_2$-*řá*** (e.g. MVN 4:21 8; U; 21), and **šu *ba-re*** (TPTS 1:419 4; U; 21) as against earlier **šu *ba-ře$_6$*** (MAD 4:132 10; U; 23).

The reflex /d/ of /ř/ is only found in Nippur, Isin, Ur, and Garshana: e.g., ***ba-ab-dè*** (TMHC NF 1/2:69 15; N; 21) as against ***ba-ab*-ře$_6$** (e.g. UET 3:993 6; Ur; 21), **kešе$_2$-*dè-dè*** (e.g. BIN

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marker {ak} (AuOr 17-18,228:40 1; L; 21) and **^{d}lama$_3$-*a-né***, with **lama$_3$** followed by the possessive pronoun {ane} (FAOS 9/2 Šulgi 26 4:25; L; 21).

[10] The evidence for an earlier form /uřa/ is the alternative spelling "***udu*"-*bu*** for ***u$_4$-řá-bu*** (PSD A/2 p. 125) and the form **udu-*a*** (MVN 18:367 7; U; 21), which shows a contraction of the ergative case marker {e} with the preceding /a/.

9:470 8; I; 20) (UET 3:873 4; Ur; 21) as against archaic **keše$_2$-*ře$_6$-dè*** (e.g., BIN 9:332 3; I; 21), ***mu-un-dì*** (CUSAS 3:1049 6; Garshana; 21) for ***mu-un*-ře$_6$** (Sallaberger 2005b: 560f) (for the /i/ in ***dì***, see §3.9.1 below), **keše$_2$-*da*** (CUSAS 3:1379 7'; Garshana; 21) as against archaic **keše$_2$-*řá*** (ibid. 4').

Because /ř/ became /r/ in standard Neo-Sumerian, /r/ is found all over the country as a reflex of earlier /ř/; not only in Lagash and Umma, but also in the areas where /ř/ had become /d/. Thus, in Nippur we do not only find the dialectal form ***ba-ab-dè*** for ***ba-ab*-ře$_6$**, but also the form ***ba-ab-re*** (NRVN 1:180 9; N; 21), which belongs to standard Neo-Sumerian, the dominant written dialect of the Ur III period. And in Ur we do not only find the dialectal form **keše$_2$-*dè-dè*** but also the form **keše$_2$-*re-dè*** (UET 3:1531 3; Ur; 21), which likewise belongs to standard Neo-Sumerian.

In texts from the Old Babylonian and later periods, /ř/ is often reflected by /d/ where the Ur III texts have /r/. Take, for instance, the ergative case of **gu$_4$.ř** 'bull'. In Old Sumerian, this is usually written **gu$_4$-*ře$_6$*** (e.g., VS 14:39 2:3; L; 24) but **gu$_4$-*e*** is also possible (e.g., VS 14:184 3:5; L; 24). Both spellings represent the old form /guře/. In the known Ur III texts, the ergative case is consistently spelled **gu$_4$-re** (e.g., STA 27 7:4; L; 21), a spelling which represents the new form /gure/. In the literary texts from the Old Babylonian period, however, we find the form /gude/, which is always written **gu$_4$-*dè*** (e.g., Id A 138). Clearly, these two forms /gure/ and /gude/ reflect two different dialects. Most texts from the Ur III period are written in a Southern Sumerian dialect, in which /ř/ became /r/, whereas most texts from the Old Babylonian period are written in a Northern Sumerian dialect, in which /ř/ had become /d/ (cf. §1.2.3).

3.4. The fricatives

Sumerian had four fricative consonants. Only three of these fricatives are explicitly indicated in transliterations, viz. /s/ (§3.4.1), /š/ (§3.4.2), and /ḫ/ (§3.4.3). These three consonants are kept apart by the writing system. There are, for instance, three separate sound signs for each of them followed by the vowel /a/: ***sa***, ***ša***, and ***ḫa***. The fourth fricative in Sumerian, /h/ (§3.4.4), is ignored in transliterations and its presence as a phoneme can be documented for only a few words. This meagre documentation for /h/ in Sumerian is due to the early loss of /h/ from the Sumerian sound system, a loss which had been completed by the Ur III period at the latest.

3.4.1. The /s/

The Sumerian writing system has separate signs for writing the consonant /s/ in combination with other sounds, e.g., ***sa***, ***si***, ***su***, and ***sù***. This proves /s/ to be a phoneme. Sumerian /s/ was pronounced as [s], a voiceless dental or alveolar sibilant. This pronunciation as [s] is, however, not easy to demonstrate, as the evidence is rather complex due to several sound changes in Akkadian. In order to sort out these Akkadian sound changes, the evidence for the Old Akkadian and later periods must be discussed separately.

There are two different systems for transliterating Old Akkadian. Their various advantages and disadvantages do not have to concern us here. What matters is that one system (the so-called 'von Soden system') uses a different symbol for each Old Akkadian phoneme. I will use these symbols for labeling Old Akkadian sounds.

Sumerian /s/ must have been pronounced like Old Akkadian /ś/ because both Sumerian and Akkadian scribes used the same set of sound signs for writing Sumerian /s/ and Old Akkadian /ś/. Now, Old Akkadian /ś/ merged with /š/ during the Old Akkadian period and became /š/ (Sommerfeld 1995: 36). This can be seen from spelling variants whereby /ś/ is ever more often

written with the signs for /š/. From the Old Babylonian period onwards, the orthography does not distinguish between Old Akkadian /ś/ and /š/ anymore (Streck 2006: 247). The Old Akkadian suffix *-śunu* 'their', for instance, has then become *-šunu*.

Before the merger of /ś/ and /š/ into /š/ took place in Akkadian, that language borrowed several Sumerian words with an /s/. In these early loanwords, this Sumerian /s/ was borrowed into Old Akkadian as /ś/ but, due to the sound change of /ś/ to /š/, became subsequently /š/. The /s/ of the Sumerian noun **bar-si.g** 'sash', for example, is reflected by /ś/ in the Old Akkadian form *pá-ar-śi-gu-um* (MDP 28 526) but as /š/ in the Old Babylonian form *pa-ar-ši-ga* (AbB 2:142 rev 13'). The following are further instances of early Sumerian loanwords in Akkadian where the Akkadian form contains a /š/ coming from an earlier Akkadian /ś/ that reflects Sumerian /s/: *išši'akku* 'ruler' (Sumerian **ensi$_2$.k**), *pišannu* 'basket' (Sumerian **pisaĝ**), *šamaškillu* 'onion' (Sumerian **šúm-sikil**), *šangû* 'temple administrator' (Sumerian **saĝĝa**), *šušikku* 'fellmonger' (Sumerian ***su-si-ig***), and *ṭupšarru* 'scribe' (Sumerian **dub-sar**).

Before the merger of /ś/ and /š/ took place in Akkadian, Sumerian borrowed several Akkadian words with an /ś/. In all such early loanwords, Akkadian /ś/ was borrowed into Sumerian as /s/: e.g., ***sa-dú*** 'mountain' (later Akkadian *šadû*), **silim** 'healthy, intact' (later Akkadian *šalmu*), ***si-im-da*** 'mark' (later Akkadian *šimtu*). In all such instances, the etymology or older spellings show an earlier /ś/ for the /š/ in these Akkadian words. Since Sumerian /s/ did not undergo a subsequent sound change, the original Akkadian pronunciation as [s] is retained in Sumerian in such early loanwords.

Now, Old Akkadian /ś/ reflects Proto-Semitic *š. Until recently, that sound was usually seen as having the pronunciation [š] but nowadays it is increasingly described as [s] (Faber 1990: 626-7; Hasselbach 2005: 136; *pace* Keetman 2008: 111-2). One argument for a pronunciation [s] of Old Akkadian /ś/ (and of Proto-Semitic *š) is that Proto-Semitic *š corresponds to *s in other Afroasiatic languages. Compare, e.g., the Old Akkadian suffix *-śunu* 'their' with Old Egyptian *-sn* 'their' (the Egyptian script does not indicate vowels). The merger of Old Akkadian /ś/ and /š/ took place in stages (Sommerfeld 1995: 36; Hasselbach 2005: 143). They first merged in the environment of the high vowel /i/, then in the environment of the high vowel /u/, and only later elsewhere. Thus, the /ś/ first became /š/ in precisely those environments where its phonetic realization was already the most similar to that of /š/.

After the merger of /ś/ and /š/ in Akkadian, that language continued to borrow words from Sumerian but such later loanwords show correspondences that differ from those of the early loanwords. In the later loanwords, Sumerian /s/ is reflected as Akkadian /s/: e.g.: *agasalikku* (an axe) (Sumerian **aga-silig**), *igisû* (a payment) (Sumerian **igi-sá**), *ensû* 'dream interpreter' (Sumerian **ensi**), *kisû* 'supporting wall' (Sumerian **ki-sá**), and *kisikkû* 'funerary offering' (Sumerian **ki-sì-*ga***). When Akkadian borrowed these Sumerian words, the pronunciation of Akkadian /s/ had become [s] because of a sound change that occurred after the merger of /ś/ with /š/ (§3.3.1).

In the Hellenistic period, both Sumerian /s/ and Akkadian /s/ were written with a σ in the Greek script (Maul 1991: 105), while Greek /s/ is written in cuneiform texts with the same signs that are used for Akkadian /s/ (Röllig 1960: passim). Thus /s/ was then pronounced similarly to Greek /s/, which was 'a sibilant sound not unlike that of English alveolar *s*' (Allen 1987: 45).

In summary, Sumerian /s/ was pronounced as [s] throughout but was reflected in two different periods by two different Akkadian sounds, first by one reflecting Proto-Semitic *š, later by one reflecting Proto-Semitic *s. Either of these two Akkadian sounds was pronounced as [s] in the period when it reflected Sumerian /s/ in loanwords.

3.4.2. The /š/

The Sumerian writing system uses for the consonant /š/ specialized sound signs, e.g., ***ša***, ***ši***, ***šè***, ***éš***, and ***aš***. This proves /š/ to be a separate phoneme. It was pronounced as [š] (IPA [ʃ]), a voiceless post-alveolar sibilant.

Sumerian /š/ was pronounced like Akkadian /š/. Loanwords from Sumerian in Old Akkadian show that Akkadians heard Sumerian /š/ as their own /š/: e.g., *iškaru* 'task' (Sumerian **éš-gàr**), *kiškattû* 'craftsman' (Sumerian **ĝiš-kíĝ-ti**), and *šukūsu* 'subsistence (field)' (Sumerian **šuku.ř**). Loanwords from Old Akkadian in Sumerian show that Sumerians likewise heard Old Akkadian /š/ as their own /š/: ***bur-šu-ma*** 'old person' (Akkadian *puršumu*), **šer$_7$-da** 'crime' (Akkadian *šērtu*), **šú-ša-na** 'one-third' (Akkadian *šušš*ā*n*), and **ša-na-bi** 'two-thirds' (Akkadian *šinipu*). Also, Sumerian and Old Akkadian scribes used the same sound signs to write the /š/ of either language.

In the Hellenistic period, both Sumerian and Akkadian /š/ are written with a σ in the Greek script. This same letter σ is also used to write Sumerian and Akkadian /s/ (Maul 1991: 105), while Greek /s/ is written in cuneiform texts with the same signs that are used for Akkadian /s/ (Röllig 1960: passim). Thus /š/ was then pronounced similarly to, yet differently from Greek /s/, which was 'a sibilant sound not unlike that of English alveolar *s*' (Allen 1987: 45). According to Von Soden (1995: §30a), Akkadian /š/ was pronounced as 'deutsch *sch*'. All this points to a pronunciation [š] of Sumerian /š/.

There is also internal Sumerian evidence for such a pronunciation [š]. In the Ur III period, the noun **maš** or **máš** 'kid' with the case marker {e} is normally written **maš-*e*** or **máš-*e***, but there are a few irregular spellings. In two instances, the case marker is written with a CV-sign, in combination with the preceding /š/, viz. **maš-še$_6$** (MVN 14:330 obv. 6; U; 21) and **maš-*šè-e*** (NATN 333 7; N; 21). In addition, there are two spellings which include a palatal glide between the /š/ and the /e/. The first is **máš-*è*** (ITT 3:5255 9; L; 21). As ***è*** is a sound sign for /je/ (§3.8), this spelling stands for a form /mašje/. The second is **máš-*i-e*** (NATN 318 10; N; 21), which similarly stands for /mašje/. Both spellings point to a pronunciation of /š/ as [š].

Old Akkadian /š/ reflects Proto-Semitic *t̲, which is generally assumed to have been a voiceless interdental fricative, as its Arabic reflex. Accordingly, Old Akkadian /š/ is often described as a voiceless interdental fricative. In my view, the Sumerian evidence and the merger in Old Akkadian of /ś/ with /š/ (§3.4.1) do not support such a view of Old Akkadian /š/ but rather point to a pronunciation of Old Akkadian /š/ as [š], too. This is still an open question, though. Streck (2006: 241-251), for instance, considers it more likely that Akkadian /š/ was pronounced as a voiceless lateral affricate or fricative.

3.4.3. The /ḫ/

The Sumerian writing system has several sound signs with values that include the consonant /ḫ/, e.g., ***ḫa***, ***ḫe***, ***ḫé***, and ***ḫu***. This proves /ḫ/ to be a separate phoneme. As loanwords and other evidence show, Sumerian /ḫ/ was pronounced like Akkadian /ḫ/. Sumerians and Akkadians perceived each other's /ḫ/ as their own /ḫ/: e.g., Sumerian ***dam-ḫa-ra*** 'battle' (a loan from Akkadian *tamḫāru*), and Akkadian *ḫuršānu* 'mountain' (from Sumerian **ḫur-saĝ**), *kalamāḫu* 'chief lamentation priest' (from **gala-maḫ**), *nuḫatimmu* 'cook' (from **muḫaldim**), and *tuḫḫu* 'waste' (from **duḫ**). Also, Sumerian and Akkadian scribes used the same sound signs to express the /ḫ/ of either language.

On the basis of comparative evidence from the other Semitic languages, Akkadian /ḫ/ can be defined as a voiceless velar fricative. Sumerian /ḫ/ must, accordingly, have been a voiceless velar fricative, too.

3.4.4. The /h/

As in Akkadian, the consonant /h/ was lost in Sumerian as an independent phoneme by the Ur III period at the latest. As Sumerian is transliterated according to its pronunciation in the Old Babylonian period or later, the phoneme /h/ is never indicated in our transliterations. Nevertheless, it can be shown to have been an independent phoneme in earlier Sumerian and its presence can be established in a few morphemes (*pace* Keetman 2006).

In the late third millennium, the Sumerian writing system had at least one sound sign for writing the consonant /h/ in combination with a following vowel. In Old Akkadian, the sign Á can be used as a sound sign for the value /ha/ (Westenholz 1996: 120). In Sumerian spelling, it is also attested with this value: ***á-mi*** for **é-mí** */hajmi/ (see below) 'women's quarters' (Cyl B 2:23 & Cyl B 5:10 & Cyl B 5:17; L; 22) (BM 12364 rev 2 = ZA 60 p. 74 = MVN 17:129 [read ***á-mi-a***, collated] & RA 62 p. 4:3 3 & TuT 128 rev 3:19; L; 21) and probably also in the following clause:

(9) **má zíd-*da ù* má túg gada-*á ĝá-ĝá-dè***
má zíd =ak ù má túg gada.h=ak =Ø ĝar:RDP-ed =e
boat flour=GEN and boat cloth linen =GEN=ABS place:IPFV-IPFV=DIR
'in order to load (?) a flour boat and a boat for ("of") woollen cloth and linen' (TCTI 2:L. 3440 5; L; 21)

Only a few words can be proven to have contained the consonant /h/. One of these words is the noun **á** 'arm'. The word sign for Sumerian **á** 'arm' is also used as a sound sign for the sequence /ha/ (see above). Its value /ha/ must have been derived from the phonemic form of **á** 'arm'. Thus the Sumerian word for 'arm' must have been /ha/. Our transliteration of this word as **á** reflects a later form, which resulted from a loss of the initial /h/.

A second word that originally contained the consonant /h/ is the noun **é** 'house'. We can reconstruct for this noun an older form /haj/, which subsequently became /ʔē/ through loss of the initial /h/ and a later contraction of /aj/ to /ē/ (§3.8). The evidence for such an older form /haj/ is as follows (Edzard 2003: 19; 2007: 175). First, there is the compound **é-gal** 'palace (lit. "big house")', which is reflected in various loanwords: Ugaritic *hkl*, Syriac *hajkal*, Hebrew *hēkal*, and Arabic *hajkal*. The forms of these loanwords are best understood by positing a phonemic form /hajkal/ for Sumerian **é-gal**. Second, in Ebla and Old Akkadian orthography, the sign used as a word sign for Sumerian **é** 'house' can also be used as a sound sign and then has the values /ha/ or /ḥa/. These values must come from the phonemic form of **é**, i.e., /haj/ 'house'. Third, spelling variants in Sumerian texts show that at one time the word for 'house' contained the vowel /a/ instead of /ē/. The word **é-mí** 'women's quarters', e.g., can be written ***á-mi*** (see above). This spelling stands for /ha(j)mi/, ignoring the syllable-final /j/. Fourth, the word **é** 'house' can be shown to have had a final consonant. The initial vowel /a/ of the enclitic possessive {ane} 'his' contracts with a preceding vowel but is retained after a consonant (§8.3.3). A form such as **é-*a-né*** 'his house' (St B 7:15; L; 22) shows, therefore, the presence of a final consonant in the word **é** /haj/ 'house'. Its final /j/ is also confirmed by the Akkadian loanword *ajjakku* (< **hajjakku* < **hajjanku* < **hajjanaku*, via a series of well-known Akkadian phonological changes) from Sumerian **é an-*na.k*** /haj ʔanak/ (Cavigneaux 1998).

An initial /h/ may also have been present in the noun **íd** 'river', if this Sumerian word is indeed reflected in Arabic *Hīt* and the first part of Hebrew *Ḥiddeqel* 'Tigris' (Gelb 1961: 26; Edzard 2003: 19). More certain is the presence of an initial /h/ in the noun **áb** 'cow', because the sign ÁB is used in Ebla as a CVC-sign with the values /haB/ or /ḥaB/ (Krebernik 1988: 16). An intervocalic /h/ may be present in an earlier form of the noun **amar** 'calf', which an Ebla text represents as *ma-ha*(É)-*ru*$_{11}$-*um*, with the Semitic nominative ending *-um* (Krebernik 1984: 141). This spelling points to an earlier form */ʔamahar/, with the Ebla spelling showing a loss of initial /ʔa/ (cf. §3.9.4). A syllable-final /h/ may have been present in the verb **lá** /lah/ 'hang' (cf. §3.6), the noun **gada** /gadah/ 'linen' (see ex. 9 above), and perhaps in a reduced form */ah/ of the genitive case marker {ak} (see §7.2.1).

Sumerian /h/ was pronounced as a glottal fricative, as is shown by loanwords like *hajkal* and *hēkal* (see above), and by the values with /h/ of some cuneiform signs in the Ebla and Old Akkadian orthographies (see above).

Dating the loss of /h/ in Sumerian is not easy. The available evidence seems to be limited to spellings where the sign **é** is replaced by ***a***. Such spellings are relatively frequent in the Ur III period. The Umma monthname **é-iti-6** 'Six-months-house' can, for instance, be written as ***a*-iti-6** (e.g., AUCT 1:719 6; U; 21). The word **é-ri-*a*** 'pasture land' occurs as ***a*-ri-*a*** (e.g., TAD 48 18; D; 21), ^{ĝiš}**é-da** 'box' also as ^{ĝiš}***a*-da** (e.g., UET 3:272 5:40; Ur; 21). Now, elsewhere the spelling ***a*** stands for /(ʔ)a/ and not for /ha/. Thus these spellings show that by the Ur III period initial /h/ had been lost and that the word for house had become /(ʔ)aj/ (the contraction to /ē/ took place later, see §3.8). It remains unclear, however, when exactly before the Ur III period initial /h/ was lost. One spelling of ***a*** for **é** dates already to the Old Sumerian period: The name **é-gi$_{16}$-sa** occurs once as ***a*-gi$_{16}$-sa** (STH 1:21 11:5; L; 24) (Selz 1993a: 234).

3.5. The nasals

3.5.1. General remarks

Sumerian had three nasal consonants, which are commonly transliterated as **m**, **n**, and **ĝ**. These three nasals are kept apart by the writing system. There are, for instance, three separate sound signs for a nasal followed by the vowel /a/: ***ma***, ***na***, and ***ĝá***. Yet, a few sound signs for writing nasals are ambiguous. The sign MU, for example, can be used for ***mu*** as well as for ***ĝu$_{10}$***. Such ambiguities have nothing to do with the Sumerian sound system but are due to the general properties of the Sumerian writing system, in which signs typically have several values (§2.2).

3.5.2. The /m/

In order to write the consonant /m/ the scribes used sound signs like ***ma***, ***me***, ***mi***, ***mu***, ***kam***, ***dam***, ***nam***, ***am$_6$***, and ***àm***. It was pronounced roughly as in Akkadian. Akkadian loanwords in Sumerian show that Sumerians heard Akkadian /m/ as their own /m/: e.g., ***dam-gara$_3$*** 'merchant' (Akkadian *tamkāru*), ***ma-da*** 'country' (Akkadian *mâtu*), and ***si-im-da*** 'mark' (Akkadian *šimtu*). Sumerian loanwords in Akkadian show that Akkadians likewise heard Sumerian /m/ as their own /m/: e.g., *simmanû* 'travel provisions' (Sumerian **zíd-munu$_4$**), *kalamāḫu* 'chief lamentation priest' (Sumerian **gala-maḫ**), *kutimmu* 'silversmith' (Sumerian **kù-dím**), and *šamaškillu* 'onion' (Sumerian **šúm-sikil**). Comparative evidence from the other Semitic languages suggests that the Akkadian /m/ was a voiced bilabial nasal. Such a pronunciation can be assumed for Sumerian /m/ too.

3.5.3. The /n/

The consonant /n/ was written with sound signs like ***na***, ***ne***, ***né***, ***ni***, ***nu***, and ***nam***. It was also pronounced roughly as in Akkadian. Loanwords from Akkadian in Sumerian and vice versa show this: e.g., ***ar-za-na*** (a kind of groats) (from Akkadian *arsānu*), ***mas-gana$_2$*** 'settlement' (Akkadian *maškānu*), ***na-gada*** 'shepherd' (Akkadian *nāqidu*), *ēnu* 'highpriest' (from Sumerian **en**), *tupšinnu* 'treasury box' (Sumerian **dub-šen**), and *unnedukku* 'letter' (Sumerian ***ù-na-a*-du$_{11}$.g**). In the Hellenistic period, both Akkadian and Sumerian /n/ were written with a ν in the Greek script (Maul 1991: 105), and were evidently perceived as similar to Greek /n/. Likewise, Greek /n/ was written in cuneiform texts with the signs for Akkadian /n/ (Röllig 1960: passim).

According to Von Soden (1995: §33), Akkadian /n/ was a dental nasal. The /n/ of Attic Greek was also a dental nasal (Allen 1987: 33). This suggests that the Sumerian /n/ also was a dental nasal, but it is more prudent to define it as a voiced dental or alveolar nasal.

The possessive pronoun {ane} 'his, her' is sometimes written without the /n/, viz. as ***Ca-e*** together with the preceding consonant, as ***a-e***, or even as ***e*** (see §8.3.3). These spellings suggest an intervocalic loss of /n/ before the front vowel /e/. However, the available evidence for such a loss is restricted to this morpheme only.[11] And even here it surfaces only rarely, through irregular spellings. These spellings with ***(C)a-e*** may represent /(C)anje/ or /(C)aje/ (§8.3.3), with a palatalization of the /n/ by the following /e/ (Peust 2007).

In many languages the /n/ assimilates in place of articulation to a following consonant. This also applies to Sumerian /n/, although the available evidence is meagre. In one Ur III text, the verbal form ***in*-pà** is written irregularly ***im*-pà** (NRVN 1:239 6; N; 21), with the /n/ assimilated to the following bilabial stop.

Word-initial /n/ becomes /l/ in the environment /nubV/.[12] This change is attested for the negative proclitic {nu}, which becomes /la/ before the prefix /ba/ and changes to /li/ before the prefix /bi/ (§25.2). The same change can be assumed for the initial /n/ of ***nu*-banda$_3$** 'overseer' because this word was borrowed into Akkadian as *laputtû* (from earlier **lapatta?u*). The change from /n/ to /l/ may have taken place in other environments as well if the noun **kalam** 'the land (of Sumer)' belongs here (probably from *kanam, given that its Emesal counterpart is ***ka-na-áĝ***). This conditioned change of /n/ to /l/ dates from the early Old Akkadian period at the latest, as the form /la/ of the proclitic {nu} is written explicitly ***la*** from that period onwards. A change of /n/ to /l/ under the influence of a neighbouring labial is attested in other languages as well. Examples are Hittite *lāman* 'name' (compare Latin *nomen*), German *Himmel* 'heaven' (from Germanic **himena-*, compare Gothic *himins*), and German *sammeln* 'collect' (from Middle High German *samenen*, compare German *zusammen*).

3.5.4. The /ĝ/

The consonant /ĝ/ (Krecher 1978a) was lost in Sumerian during or after the Old Babylonian period, that is, after Sumerian became extinct as a spoken language. Its presence in the Sumerian sound system is beyond doubt though, because up to the Old Babylonian period /ĝ/ was spelled differently from other consonants. The scribes used the sound signs ***ĝá***, ***ĝe$_{26}$***, ***ĝi$_6$***, and ***ĝu$_{10}$*** to write it.

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[11] Often adduced verbal forms like ***nu-un-da-ge-ša***, ***in-ge-ša***, and ***ba-ge-ša*** do not document a loss of /n/ but are to be read ***nu-un-da-ge-en$_8$***, ***in-ge-en$_8$***, and ***ba-ge-en$_8$***.

[12] See for a detailed discussion of this change Edzard (1961: 100-101).

In Sumerian loanwords in Akkadian, word-initial Sumerian /ĝ/ is reflected as /g/ or /k/: *gušūru* 'beam (of wood)' (Sumerian **ĝiš-ùr**), *kiškanû* (a tree) (Sumerian **ĝiš-kín**), and *kiškattû* 'craftsmen' (Sumerian **ĝiš-kíĝ-ti**). Word-final /ĝ/ is reflected as /n/: *abšānu* 'yoke, harness' (Sumerian **áb-saĝ**), *ḫuršānu* 'mountain' (Sumerian **ḫur-saĝ**), *pišannu* 'basket' (Sumerian **pisaĝ**), and *uršānu* 'hero' (Sumerian **ur-saĝ**). Sumerian /ĝ/ between vowels is reflected as /ng/: *šangû* 'temple administrator' (Sumerian **saĝĝa** = /saĝa/). Thus, Akkadians perceived Sumerian /ĝ/ as similar to their dental nasal and their velar stops. We can therefore say with reasonable certainty that Sumerian /ĝ/ was pronounced as a voiced velar nasal. As Akkadian lacked such a sound, Akkadians interpreted the Sumerian /ĝ/ as those Akkadian sounds that were closest to it in pronunciation.

3.6. The /l/

Sumerian had one lateral. The writing system includes several sound signs for writing it, e.g., ***la***, ***le***, ***lí***, and ***lam***. This lateral was pronounced roughly like Akkadian /l/. Loanwords show that Akkadians heard Sumerian /l/ as their own /l/: e.g., *akkullu* 'hammer' (Sumerian **níĝ-gul**), *ekallu* 'palace' (Sumerian **é-gal**), and *kalû* 'lamentation priest' (Sumerian **gala**). Sumerians, likewise, heard Akkadian /l/ as their own /l/: e.g., ***be$_6$-lu$_5$-da*** 'customs' (Akkadian *bēlūtu*), ***ma-al-ga*** 'counsel' (Akkadian *milku*), and **libir** 'of old' (Akkadian *labiru*). Also, Akkadian and Sumerian scribes used the same sound signs for writing the /l/ of either language.

In the Hellenistic period, both Akkadian and Sumerian /l/ were written with a λ in the Greek script (Maul 1991: 104), and were evidently perceived as similar to Greek /l/. Likewise, Greek /l/ was written in cuneiform texts with the same signs as Akkadian /l/ (Röllig 1960: passim).

According to Von Soden (1995: §34a), Akkadian '*l* wird wie im Deutschen gesprochen.' The /l/ of Attic Greek was 'probably a 'clear' [l] in all contexts, and so more similar to that of French than of English' (Allen 1987: 40). Thus the available evidence suggests that Sumerian /l/ was pronounced as a voiced dental or alveolar lateral.

Some Sumerologists have suggested the existence of a second lateral. The crucial evidence for such a lateral is provided by two forms of the word **^{d}en-líl** 'Enlil'. In the Old Sumerian texts from Lagash, the genitive case of **^{d}en-líl** is written **^{d}en-líl-*lá*** 'of Enlil' (e.g., Ent. 28 5:23; L; 25) and the dative case **^{d}en-líl-*la*** 'for Enlil' (e.g., Ent. 23 1:21; L; 25). Other words with a final /l/ that occur in these texts show different forms. Their genitive case marker is written with the sound sign ***la*** instead of ***lá***, e.g., **kisal-*la*** 'of the courtyard' (VS 14:74 12:1; L; 24) and **lugal-*la*** 'of the king' (BM 3:10 11:4; L; 25). Also, their dative case marker is written with the sound sign ***ra*** instead of ***la***, e.g., **lugal-*ra*** in the proper noun **lugal-*ra-mu*-gi$_4$** (e.g., Nik 1:17 6:8; L; 24). The irregular behaviour of the final /l/ of **^{d}en-líl** is often explained by assuming that this /l/ differs from the final /l/ of, e.g., **kisal** 'courtyard' and **lugal** 'king'.

However, the two forms of **^{d}en-líl** are clearly singular. It is only in the form **^{d}en-líl-*la*** 'for Enlil' that the /r/ of the dative case marker /ra/ is assimilated to a preceding lateral. Moreover, even that form is only found in the Old Sumerian texts. In later texts the regular form **^{d}en-líl-*ra*** occurs (e.g., Cyl B 19:20; L; 22). As for the spelling with ***lá*** in the form **^{d}en-líl-*lá***, that spelling remains in use over the centuries but is restricted to the genitive case of this one word only.

Thus, the anomalous forms are restricted to a single word, **^{d}en-líl**. This word is the name of the most important god in the Sumerian pantheon. In my view, the special spellings of the word **^{d}en-líl** are due to the special status of Enlil as a god and are merely conservative spellings which apply to this particular word only.

What, then, do the spellings **^{d}en-líl-*lá*** and **^{d}en-líl-*la*** stand for? The latter form obviously reflects an assimilation of /r/ to the preceding lateral. Since **^{d}en-líl-*la*** is a conservative spelling,

this assimilation must have happened at a time before the texts of our corpus. Because of forms like **lugal-*ra*** and since the spelling **^{d}en-líl-*la*** was later replaced by **^{d}en-líl-*ra***, we can safely assume that the /r/ of the dative case marker /ra/ was restored after /l/ by analogy of the form /ra/ after other consonants. Summarizing, the conservative spelling **^{d}en-líl-la** reflects an older form of the dative case after the consonant /l/. This spelling was retained longer for the word **^{d}en-líl** than for other words with a final /l/.

The spelling **^{d}en-líl-*lá*** does not reflect an older and different form but only an older and different spelling. Even though ***lá*** is always transliterated as a CV-sign standing for /la/, this sign is, in my opinion, actually a CVC-sign standing for the sounds /la/ followed by some consonant. This is supported by several pieces of evidence. First, the value of the sound sign ***lá*** comes from its value as a word sign for the verb **lá**. The stem of this verb ends in a consonant, as can be seen from verbal forms such as ***ba-ab*-lá-*e*** (Cyl B 2:2; L; 22) and ***la-ba-ni*-lá-*e*** (St F 9:12; L; 22). These verbal forms preserve the person suffix {e}, which always contracts with a preceding vowel (§14.10). Second, in Old Sumerian, the form **^{d}en-líl-*lá*** also has a final consonant. In the Old Sumerian texts from Lagash, the dative case marker is never written if it follows a vowel, but after **^{d}en-líl-*lá*** it is always present, e.g.:

(10) **ur-saĝ ^{d}en-líl-*lá-ra***
ur.saĝ en.líl=ak =ra
warrior Enlil =GEN=DAT
'for Enlil's warrior' (e.g., Ent. 22 2; L; 25)

Now, the full form of the genitive case marker is /ak/. The /k/ of the genitive is only retained before a vowel but is lost elsewhere. However, this loss of a syllable-final /k/ was the result of a long process which had not been completed in the Old Sumerian period (§3.2.2). The final consonant of ***lá*** must, therefore, be the final consonant of the genitive case marker as it was pronounced in Old Sumerian.

The final consonant of **lá** was probably the glottal fricative /h/. Civil (1984) pointed out the spelling ***sa-la-*⌜*à*⌝** for Sumerian **su-lá** (ARET 5:23 2:5; Ebla; 24). In Ebla the sound sign ***à*** stands for the vowel /a/ preceded by a consonant that reflects either Semitic /h/ or Semitic /ḥ/, i.e., either a glottal or pharyngeal fricative (Krebernik 1982: 219). Also, Ebla texts commonly use CV-CV spellings to express CVC (Krebernik 1982: 224-6). Since Sumerian has no /ḥ/, the Ebla spelling ***la-à*** for **lá** points to a value /lah/ for **lá**.

In summary, the sign ***lá*** in **^{d}en-líl-*lá*** is an old CVC-spelling, probably for /lah/. The genitive case marker is elsewhere written with the sign ***la***, which stands for /la/ and lacks the final consonant.

In conclusion, Sumerian had only one lateral, which was pronounced as a voiced dental or alveolar lateral.

3.7. The /r/

The Sumerian writing system uses special sound signs for writing the consonant /r/: e.g., ***ra***, ***re***, ***rí***, ***ru$_{12}$***, ***ar***, and ***er***. Thus, it keeps /r/ apart from other sounds, showing /r/ to be a separate phoneme. It was pronounced similarly to Akkadian /r/. Sumerian and Akkadian scribes used the same signs to write the /r/ of either language. Also, Sumerians interpreted Akkadian /r/ as their own /r/ in loanwords: e.g., ***bur-šu-ma*** 'old person' (Akkadian *puršumu*), ***dam-gara$_3$*** 'merchant' (Akkadian *tamkāru*), **libir** 'of old' (Akkadian *labiru*), and ***ra-gaba*** 'rider' (Akkadian *rākibu*). Akkadians likewise heard Sumerian /r/ as their own /r/: e.g., *appāru* 'marsh'

(Sumerian **abbar**), *kirû* 'orchard' (Sumerian **kiri$_6$**), *paruššu* (a sharp stick) (Sumerian **bar-ús**), *paššūru* 'table' (Sumerian **bansur**), and *ṭupšarru* 'scribe' (Sumerian **dub-sar**).

In the Hellenistic period, both Sumerian and Akkadian /r/ were written with the letter ρ in the Greek script (Maul 1991: 105), while Greek ρ was represented in the cuneiform script with the signs for Akkadian /r/ (Röllig 1960: 382). In that period Greek and Akkadian /r/ were obviously pronounced similarly. Greek /r/ was 'a trilled, alveolar [r] sound, as e.g. in Italian' (Allen 1987: 41).

Akkadian /r/ can be geminated. Such a contrast between long /r/ and non-geminated /r/ can only be realized phonetically by pronouncing the long /r/ as a trill and the short /r/ as a shorter trill or a simple tap. Hence, Akkadian /r/ must have been a trill in at least its geminated form.

Sumerian /r/, however, must have been a tap, having a single short closure (as e.g. /r/ in Spanish *pero* 'but'). Three pieces of evidence show that its pronunciation was similar to that of the stops /t/ and /d/, which also consist of a single closure. Firstly, there is a sound change that took place in Sumerian in the time of Gudea or before. Then the consonant /t/ became /r/ between vowels (§3.2.2). Such a sound change can best be understood if we assume /r/ to have been a tap. Then the sound change is phonetically as follows: the /t/ is pronounced by touching the alveolar ridge once; the change involves intervocalic voicing and a briefer contact between the tongue and the alveolar ridge. The change is thus a case of lenition.

Secondly, and perhaps related to this sound change, the Ur III texts contain some spellings where /ra/ is written with a sound sign for /ta/. In the following forms, the verb **ra** 'impress (a seal)' is written ***ta***: e.g., **kišib *ta-ta-dam*** 'a seal is to be rolled over this' (TCTI 2:4061 7; L; 21), **kišib *nu-ù-ub-ta*** 'no seal was rolled over this' (TRU 6 7; ?; 21), **kišib ur-^{d}lama$_3$ *íb-ta*** 'Ur-Lama's seal was rolled over this' (BM 20876a 12; L; 21), **kišib PN / *íb-ta*** 'PN's seal was rolled over this' (ITT 2:4136 8-9; L; 21). They probably are hypercorrect spellings. The scribes often write ***ta*** for phonemic /ra/ where /ra/ comes from /ta/ (§3.2.2 and §19.3.1). They may have extended this habit to cases like ***íb-ta*** where phonemic /ra/ does not come from /ta/. In any case, this confusion of /ra/ with /ta/ again suggests a similar pronunciation of /r/ and /t/.

Thirdly, also from the time of Gudea onwards, we find occasionally a written /r/ where a /d/ is expected. All such cases involve a confusion of the post-vocalic form /r/ of the dative case marker {ra} with the post-vocalic form /d/ of the comitative case marker {da}. Syllable-final /r/ and /d/ must have been pronounced alike. Here a single example will suffice (see §7.11.1 for more):

(11) **(...) / PN ses-gal-*né-er* / [d]i *in-da-an*-du$_{11}$**
PN ses.gal =ane=d(a) di.d =Ø ʔi -n -da -n -du$_{11}$.g-Ø
PN elder.brother=his =COM judgement=ABS VP-3SG-with-3SG.A-say -3N.S/DO
'He went to trial with PN, his elder brother.' (NG 101 7-8; L; 21)

3.8. The /j/

The consonant /j/ was progressively lost in Sumerian and had completely disappeared as an independent phoneme by the end of the Ur III period. Since the Sumerological transliteration system is based on Sumerian in its Old Babylonian and later form, the phoneme /j/ is generally ignored in transliterations. Nevertheless, the /j/ can be shown to have been a phoneme in earlier Sumerian and its presence can be established in a few morphemes.

In the late third millennium, the Sumerian writing system had at least one sound sign for writing the consonant /j/ in combination with other sounds. In Old Akkadian, the sign È can be used as a sound sign for the value /je/ (Westenholz 1978: 161, 168). In Sumerian, too, it is

sometimes attested with that value. The ergative case of the noun **a** 'water' (actually /ʔaj/, see below) is normally written **a-*e*** but occurs twice as **a-*è*** (NRVN 1:179 8; N; 21 & UTAMI 4:2368 2; U; 21). Either spelling stands for the form /ʔaje/. Similarly, the normal spelling **máš-*e*** is once replaced by **máš-*è*** (ITT 3:5255 9; L; 21), and once by **máš-*i*-*e*** (NATN 318 10; N; 21). Each of these three spellings represents the form /maše/ but the latter two spell it as /mašje/ (§3.4.2). The existence of this specialized sound sign for /je/ shows that /j/ was an independent phoneme in earlier Sumerian.

A few words can be shown to have contained the consonant /j/. One such word is the noun **é** 'house' which had an older form /haj/ (see §3.4.4). Another noun with /j/ is **a** 'water', actually /ʔaj/, as can be deduced from the following evidence. After the noun **a** 'water', the ergative case marker has the form which it only has after a consonant, e.g., **a-*e* gu$_7$-*a*** 'eroded by water' (VS 14:100 3:2; L; 24). This case marker is even written twice with the sound sign for /je/: **a-*è*** (see the previous paragraph). Also, in the Old Babylonian period, the Sumerian word for 'water' is /ʔē/, a form which can be explained from the sound change /aj/ > /ē/ (see below).

The Old Akkadian and Ebla syllabaries contain several sound signs for writing a /j/ in combination with other sounds.[13] The phonographic values of such signs are often derived from the logographic values of these signs in Sumerian. As noticed above, the sign È, for instance, can have the value /je/ in Old Akkadian. This value must come from the use of the sign È as a word sign for Sumerian **è** 'go out'. The older form of that verb must therefore have been /je/. A similar line of reasoning can be applied to other signs. The sign I can have the value /ji/. The Sumerian word **i** 'five' may, accordingly, have been /ji/. The sign U is used for /ju/. Sumerian **u** 'ten' may therefore have been /ju/. The sign ÍL has the value /jil/ in Ebla. Hence, presumably Sumerian **íl** 'lift' was originally /jil/. And so on. Edzard (2007: 177-178) similarly reconstructs an original initial /j/ for the Sumerian **en** 'lord, highpriest'.

As stated above, the /j/ was progressively lost in Sumerian. Some stages of this process can be documented. To begin with, word-initial /j/ was lost before /i/ in the Ur III period at the latest. Then, some proper names show spellings with ***i***, originally /ji/, for etymological /ʔi/. The proper name ***i*-*ta*-è-*a***, for instance, consists of a verbal form with the vocalic prefix {ʔi} that is usually written with ***ì*** instead of ***i***. From the Old Babylonian period onwards, the spelling ***i*** also becomes the norm for verbal forms outside names. This change in spelling from ***ì*** to ***i*** presupposes a loss of word-initial /j/ before /i/.

A similar loss of /j/ can be documented before the vowels /u/ and /e/. The words **u** 'ten' and **è** 'go out', earlier /ju/ and /je/ (see above), have the forms /ʔu/ and /ʔe/ according to Old Babylonian lexical lists and phonographic spellings. The loss of /j/ before /e/ can already be recorded from an Ur III text, which shows a highly unusual spelling for the verb **è**: ***íb-ta-an-é***$^{!}$(SA) and ***íb-ta-é***$^{!}$**-[*a*]** (NG 204 31, 42; L; 21). This spelling ***é*** for **è** must represent a form /ʔe/, as **é** never had an initial /j/ (§3.4.4). Similarly, the spelling ***a-ba-in-da-ne*** (NATN 368 1; N; 21) of the proper name ***a-ba-in-da-an*-è** (FAOS 17:121 3; U; 21) seems to show the well-known assimilation of a glottal stop to a preceding /n/ (§3.2.4).

All in all, Sumerian initial /j/ seems to have undergone the same change as initial /j/ in contemporary Akkadian (von Soden 1995: §22c). This may even be true of initial /j/ before the vowel /a/. There, the Akkadian development was from /ja/ to /ʔi/ over /ji/. This may have happened in Sumerian, too. For the Sumerian word for 'five', both the forms /ja/ and /ʔi/ are recorded in later texts (§9.2). If we try to reconcile these two forms with each other as well as with the earlier form /ji/, we could reconstruct an original form /ja/ 'five' which became word-initially first /ji/ and then /ʔi/, while remaining /ja/ in certain numeral compounds.

[13] For an overview see Krebernik (1985: 57).

In Old Assyrian and several Old-Akkadian dialects the diphthong /ai/ (/aj/) became /ē/ (von Soden 1995: §11a; Gelb 1961: 126). In the same way, Sumerian syllable-final /aj/ became /ē/, a change that can be documented for two words.[14] The Sumerian word for 'house' was /haj/ (§3.4.4) but subsequently became /ʔē/, as can be seen from the Old Babylonian gloss ***e*** for **é** 'house' (MSL 14 p. 40 Proto-Ea 221). For the noun **a** (earlier /ʔaj/, see above) 'water', we also have an Old Babylonian gloss **e** (e.g., VS 17:33 4). Accordingly, the word **a** 'water' is sometimes transliterated as $\mathbf{e_4}$. The change of /aj/ to /ē/ also took place already before the Old Babylonian period. The Ur III spelling ***é*** for **è** cited above presupposes already a form /ʔē/ of **é** instead of the earlier /haj/.

In transliterations and glosses, this grammar will represent earlier /j/ generally as a glottal stop. Although this does not correspond to how these words were pronounced in the earlier periods of the corpus, it is closest to how they are commonly transliterated. Anyway, most if not all stems are transliterated according to their Old Babylonian or later pronunciation, so that discrepancies between transliteration and pronunciation are hardly restricted to this particular sound alone.

3.9. Vowels

3.9.1. The short vowels

Sumerian had four vowel phonemes, viz. /a/, /e/, /i/, and /u/. The writing system shows this conclusively, as it keeps these four vowels apart by using separate sound signs. In the Ur III period, the script has, for instance, four different signs for /m/ with a following vowel: ***ma***, ***me***, ***mi***, and ***mu***. Similar series exist for other consonants: e.g., ***da***, ***dè***, ***dì***, and ***dú***; ***ga***, ***ge***, ***gi₄***, and ***gu***; ***la***, ***le***, ***lí***, and ***lu***; ***ra***, ***re***, ***rí***, and ***ru***; and ***a***, ***e***, ***ì***, and ***ù***. This last series is used for a vowel preceded by a glottal stop, as well as for an isolated vowel. The existence of such series of sound signs decisively proves that each of these four vowels was an independent phoneme.

There is little evidence for how the vowels were pronounced. The Southern dialect of Old Sumerian had a rule of vowel harmony that divides the vowels into two groups, one consisting of /a/ and /e/, and the other of /i/ and /u/ (§3.9.3). Basing ourselves on this dichotomy, we arrive at the following approximate phonetic description. Both /i/ and /u/ were high vowels, /i/ a high front vowel and /u/ a high rounded back vowel. Both /e/ and /a/ were low unrounded vowels, /e/ a low front vowel, /a/ a low back vowel.

Sumerian /a/, /i/, and /u/ were pronounced like Akkadian /a/, /i/, and /u/. This is shown by Sumerian loanwords in Akkadian: e.g., *apkallu* 'wise man' (Sumerian **abgal**), *paruššu* (a sharp stick) (Sumerian **bar-ús**), *šušikku* 'fellmonger' (Sumerian ***su-si-ig***), and *ṭupšarru* 'scribe' (Sumerian **dub-sar**). This is likewise shown by Akkadian loanwords in Sumerian, but less clearly so, because in Sumerian the vowels of polysyllabic morphemes often assimilate to each other (§3.9.4): e.g., ***ba-da-ra*** 'prod' (Akkadian *patarru*), ***bur-šu-ma*** 'old person' (Akkadian *puršumu*), **libir** 'of old' (Akkadian *labir*), ***si-im-da*** 'mark' (Akkadian *šimtu*), ***ù*** 'and' (Akkadian *u*). Also, Sumerian and Old Akkadian scribes used the same vowel signs to write the sounds of either language.

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[14] That this change resulted in a long vowel is not only suggested by the parallel change in Akkadian, but is also to be expected when the source of the change is a sequence of two phonemes. We have direct evidence for the long /ē/ in the late Greek spelling ηδορ (Geller 1997: 74) for Sumerian **eduru** (AxA), where the initial η (= ē) reflects an earlier /aj/.

Sumerian /e/ is a different matter, though. In the Akkadian sound system, the short vowel /e/ was a marginal phoneme at best. According to von Soden (1995: §8b), /e/ is never phonemic in Akkadian. Hasselbach (2005: 107) considers it unlikely that /e/ was an independent phoneme in Old Akkadian. Early loanwords show that Akkadians not only perceived Sumerian /i/ as their own /i/ (see above), but also Sumerian /e/: e.g., *ikkaru* 'farmer, ploughman' (Sumerian **engar**), *iškaru* 'task' (Sumerian **éš-gàr**), *išši'akku* 'ruler' (Sumerian **ensi$_2$.k**), and *ka'iššu* 'travelling merchant' (Sumerian **gaeš$_2$**).

Akkadian scribes often had difficulties in keeping Sumerian /i/ and /e/ apart because the phonemic distinction between the two did not exist in Akkadian. Clear examples of this are found in the texts of the Garshana archive. These contain many spellings with /i/ where Sumerian has an /e/: e.g., ***mu-un-dì*** for ***mu-un-*ře$_6$** (CUSAS 3:1049 6; Garshana; 21) (cf. §3.3.2), ***ì-le-dì*** for **íl-*dè*** (e.g. CUSAS 3:31 24; Garshana; 21), **šà-*gi$_4$*-dab$_6$** for **šà-*ge*-dab$_6$** (e.g. CUSAS 3:590 2; Garshana; 21). All such spellings with /i/ are Akkadianisms. The Akkadian scribe or scribes failed to keep the two Sumerian phonemes /e/ and /i/ apart because the sound system of their own language did not distinguish between the two.

The difficulties of the Akkadian scribes are in a way also our own. Since most Sumerian stems are written with word signs, we usually know their pronunciation only thanks to lexical lists produced by Akkadian scribes. As a consequence, our transliterations of word signs may contain phonological Akkadianisms and show a vowel /i/ where Sumerian actually had the vowel /e/.

3.9.2. The long vowels

Vocalic length was phonemic in Sumerian (Edzard 2003: 13-4). The four vowels /a/, /e/, /i/, and /u/ do not only occur as short but also as long vowels. This is not only shown by the writing system but also by Sumerian loanwords in Akkadian.

The Sumerian writing system generally ignores vowel length but not completely so. As we saw in §2.5, it sometimes explicitly indicates that a certain vowel is long, either by using a specialized sound sign or by using a plene spelling. The first spelling method is already used in Old Sumerian and involves, for instance, the use of signs like ***né*** for /nĕ/ and ***ne*** for /nē/. The number of such specialized signs is quite small, though. The second method involves the use of an additional vowel-sign repeating the preceding vowel. An example is ***ge-e-en$_6$***, a loan from Akkadian *kēn*. This second spelling method only came into use at the end of the third millennium.

These two spelling methods are restricted to sound signs and even there are not used consistently. More often than not, we do not know which vowels were long and which were short. As always, this is particularly true for everything written with word signs. Sometimes loanwords give valuable information, though. Some vowels are reflected by long vowels in Sumerian loanwords in Akkadian but others by short vowels: e.g., *kāru* 'quay' (Sumerian **kar** /kār/), *nāru* 'musician' (Sumerian **nar** /nār/), *marru* 'shovel, spade' (Sumerian **mar** /măr/),and *tarru* (a bird) (Sumerian **tar** /tăr/). Such differences in the quantity of the Akkadian vowels can only be explained from a difference in the quantity of the borrowed Sumerian vowels.

Like Sumerian, Akkadian had four long vowel phonemes /ā/, /ē/, /ī/, and /ū/. They were written with the same signs as their Sumerian counterparts and must therefore have been pronounced more or less like them as well. This is confirmed by the evidence from the loanwords, which mostly show the same vowels as in the source language: e.g., *appāru* 'marsh' (from Sumerian **abbar**), *ēnu* 'highpriest' (Sumerian **en** (Edzard 2007: 177)), *ḫuršānu* 'mountain(s)' (Sumerian **ḫur-saĝ**), *paššūru* 'table' (Sumerian **bansur**), *pursītu* '(offering) bowl' (Sumerian

bur-zi.d), ***be$_6$-lu$_5$-da*** 'customs' (Akkadian *bēlūtu*), ***dam-gara$_3$*** 'merchant' (Akkadian *tamkāru*), ***sa-dú*** 'mountain' (Akkadian *šadû*), and ***šer$_7$-da*** 'crime' (Akkadian *šērtu*).

There is one exception, though. A long Sumerian /ē/ is usually borrowed into Akkadian as /ī/, in the same way as a short /e/ is borrowed as /i/ (§3.9.1) and for much the same reason: /ē/ was a marginal phoneme in Akkadian. Examples are *īku* 'dyke, ditch' (from Sumerian **e.g**) and *kītu* 'mat' (from Sumerian **ked**).

Sumerian vowels may become long secondarily through the contraction of two short vowels or through compensatory lengthening. The latter process is attested for the vocalic prefixes {ʔu}, {ʔa}, and {ʔi}, which are lengthened immediately before the shortened forms /n/ of the local prefix {ni} (§20.2.1), /b/ of the local prefix {e} (§20.3.1), and /m/ of the ventive prefix {mu} (§22.2).

Long vowels may also arise from the contraction of two short vowels. Such contracted vowels are, for instance, attested for the plural marker {enē} (§6.3.2), the ergative case marker {e} (§7.3), the directive case marker {e} (§7.6.1), the person prefix {e} (§13.2.4 and §16.2.4), the local prefix {e} (§20.3.1), the proclitic {nu} (§25.2), the proclitic {ḫa} (§25.4.1), and for certain forms of the enclitic copula (§29.2.3).

3.9.3. Old Sumerian vowel harmony

During the Old Sumerian period, a sound change took place that gave rise to the Old Sumerian rule of vowel harmony. According to this rule, the vowel of certain verbal prefixes differs depending on the vowel in the following syllable. These prefixes have the vowel /e/ before a syllable with a low vowel, that is, before one with /e/ or /a/. And they have the vowel /i/ before a syllable with a high vowel, that is, before one with /i/ or /u/. This rule was worked out by Poebel (1931) and Kramer (1936b) on the basis of the Old Sumerian texts from Lagash.

The rule of vowel harmony applies to nearly all prefixes with the vowel /i/ or /e/ and more specifically to the following ones (see for more details the sections referred to):

- the vocalic prefix {ʔi}, which is written ***e*** or ***i*** (§24.3.2): e.g., ***e-ma-ta*-bala** 'he crossed it hither' (Ent. 28 3:4; L; 25), ***e-ne*-šúm** 'he gave this to them' (Nik 1:208 4:5; L; 24), and ***i*-dú-*da-a*** 'when she had given birth to her' (DP 218 6:2; L; 24).
- the dimensional prefix {ši} 'to', which is written ***šè*** or ***ši*** (§19.4): e.g., ***e-šè*-sa$_{10}$** 'she bought him from him' (RTC 17 2:3; L; 24), **lú *ḫé-ši*-gi$_4$-gi$_4$-*a-ka*** 'when he would send someone to him' (Ukg. 6 4:2'; L; 24), and ***ḫé-na-ši*-gub** 'may he stand for this (on duty) for him!' (Ent. 29 6:20; L; 25).
- the forms /bi/ and /mi/ of the local prefix {e} 'on' (§20.3.1) and of the third person non-human oblique-object prefix (§18.2.2). These forms are written ***bé*** or ***bí*** and ***me*** or ***mi***: ***bé*-ak** 'he did it at it' (DP 32 7:11; L; 24), ***bé*-ĝar** 'he put this thereon' (DP 346 2:5; L; 24), ***bí*-gi$_4$** 'he 'returned' this thereon' (BIN 8:346 3:6; L; 24), ***bí*-dub** 'he heaped them up' (Ean. 1 obv 11:15; L; 25), ***e-me*-ĝar** 'he put this thereon (hither)' (DP 365 2:1; L; 24), ***e-me*-sar--sar** 'he inscribed them thereon (hither)' (Ent. 28 2:5; L; 25), **sá *i-mi*-du$_{11}$-du$_{11}$** 'he let this reach it' (Ent. 26 30; L; 25), ***i-mi*-si-*a*** 'when he had filled it with it' (En. I 29 7:6; L; 25).
- the third person singular human oblique-object prefix {nni} (§18.2.3). This prefix has an ambiguous spelling, because the same sign NI is used not only for writing ***né*** but also for writing ***ni***. Fortunately there are forms where the vowel before {nni} shows that the rule of harmony applies to {nni} as well: e.g., ***e-né*-ĝar** 'he let him put this (thereon)' (VS 14:121 3:3; L; 24), **mu *e-né*-pà-*da-a*** 'when he had chosen him' (Ent. 26 18; L; 25), ***i-ni*-gi$_4$** 'he let her 'reverse' this' (DP 103 4:1; L; 24), ***i-ni*-mú** 'he let him 'grow' it' (Ukg. 14 3':6'; L; 24).

- the second person singular human oblique-object prefix {ri} (§18.2.4). This prefix also has an ambiguous spelling because the same sign URU is used to write both ***ré*** and ***rí***. In this case, however, we unfortunately lack forms with a preceding prefix, so that we cannot prove that it was subject to vowel harmony. It is likely, though, that it did and thus showed the same behaviour as the other oblique-object prefixes.
- the local prefix {ni} 'in' (§20.2.1). This is a likewise uncertain case because of the ambiguity of the sign NI, which represents both ***né*** and ***ni***. Sumerologists generally assume that it showed vowel harmony in the same way as the prefix {nni} (see above), but there is no actual proof for this.
- the rare preformative {ši} with unknown meaning (§26.2): e.g., ***šè-ma-*****si** (Ukg. 15 1:6; L; 24).

The rule of vowel harmony does not apply to the vowel of the person prefix {nnē} (§16.2.3). This prefix always has the same form, regardless of which vowel occurs in the following syllable: e.g., ***e-ne-*****ĝar** 'he let them put this (thereon)' (RTC 42 3:3; L; 24), ***mu-ne-řú*** 'he built it for them' (En. I 29 5:2; L; 25).

The Old Sumerian rule of vowel harmony was only valid during a relatively short period and represents an intermediate stage in a sound change of /e/ to /i/ in certain environments. This is clearly shown by the etymology of the relevant prefixes and by the chronological evidence from Lagash.

The prefixes showing vowel harmony have an /e/ as their original vowel. The prefix {ši}, for instance, is cognate with the case marker {še} (§7.8.1), the /i/ of the oblique-object prefixes is cognate with the local prefix {e} and with the directive case marker {e} (§7.6.1), and the local prefix {ni} is cognate with the archaic locative case marker {nē} (§28.6). Only for the vocalic prefix {ʔi} and the preformative {ši} such cognates with /e/ are lacking, but they too can be shown to have had an earlier form /ʔe/ and /še/.

In Lagash, the rule of vowel harmony applies in the texts dating from the reign of Eannatum (ca. 2470 BCE) onwards up to and including the reign of Irikagena (ca. 2350 BCE). In the earlier texts from the reign of Ur-Nanshe (ca. 2520 BCE), only forms with the vowel /e/ are found (Krispijn 2000: 156), also before high vowels: e.g., ***bé-*****gu$_7$** (Urn. 34 3:10; L; 26), ***e-*****íl** (Urn. 49 4:4; L; 26), and ***šè-*****šub** (Urn. 49 3:7; L; 26). The last two forms involve the vocalic prefix {ʔi} and the preformative {ši}. In the later texts, from after the reign of Irikagena, only forms with the vowel /i/ are found, also before low vowels.

Clearly, we are dealing with a gradual change of /e/ to /i/ in these prefixes. The point of departure is represented by the Ur-Nanshe texts. At this stage all of these prefixes had the vowel /e/ throughout. Subsequently, their /e/ became /i/ before a high vowel in the following syllable, a clear instance of an assimilation in height. This change resulted in the rule of vowel harmony. About one century later, their /e/ also became /i/ before a low vowel, so that from then onwards all of these prefixes had the vowel /i/ throughout.

The environment conditioning this change is not so easy to define, though. As we saw above, the long vowel of the person prefix {nnē} did not change. Nor did the change affect the vowels of the case markers {še} (§7.8.1) and {e} (§7.3 and §7.6.1). The change was therefore certainly not global but limited to a difficult to define environment. It may have applied to unstressed short vowels /e/ only, or to a subset of them.

The change was not limited to Lagash, but it was in Lagash and its neighbouring areas that it occurred last. The rule of vowel harmony is restricted to Old Sumerian and early Old Akkadian texts from the South, and is attested for texts from Lagash, Umma, Ur, and Uruk (Alberti and Pomponio 1986: 3-4). It is not operative in the contemporary texts from Northern towns like Nippur, Adab, Shuruppak, and Isin, because there the change had already been completed

by the middle of the third millennium. Only the much earlier texts from the Northern towns of Shuruppak and Abu Salabikh show an alternation between forms with /e/ and /i/ (Krispijn 2000: 156-7), well before the change in the Lagash area even began. By the time that the sources from Lagash and its neighbours show an alternation between prefixes with /e/ and /i/, the texts from the North have only prefixes with /i/.

Thus, the sound change began in the North and only subsequently spread to the South. In other words, the change began in the area closest to the area where Akkadian was the dominant language. As noted above (§3.9.1), Akkadian lacks a phonemic contrast between /e/ and /i/, having only a vowel /i/. The observed change of /e/ to /i/ in Sumerian is therefore most probably a partial adaptation of the Sumerian vowel system to the Akkadian one. It did not remove the phoneme /e/ from the Sumerian sound inventory, but it certainly relegated the /e/ to a more marginal position.

Although most of the verbal forms in the Old Sumerian texts from Lagash fit the rule of vowel harmony, a few show exceptional behaviour. Some of them are only apparent exceptions. Thus, the forms ***e*-gin** and ***e*-díb** that troubled Poebel (1931: 5-6) are now generally read ***e*-ĝen** and ***e*-dab$_5$** and therefore do not violate the rule in any way. A further group of apparent exceptions is likewise due to a misreading of the Sumerian forms: ***ì-ḫa-lam***, ***ì*-gaz**, ***ì*-ĝar**, and ***ì*-bala-*e*** are actually to be read ***né-ḫa-lam***, ***né*-gaz**, ***né*-ĝar** (see §20.2.1), and ***né*-bala-*e*** (see §20.2.2).

Still other exceptions are clear violations of normal scribal practices, as for example ***ì-da*-gu$_7$** (Nik 1:130 1:3; L; 24) and ***ì-da*-tuš-*a*** (DP 545 5:4; L; 24) against hundreds of instances with the prefixes ***e-da-***. Two similar cases are ***e-mi*-sa$_4$** (Ean. 63 2:17; L; 25) and ***e-mi*-šid** (VS 14:177 3:3; L; 24) against either ***e-me-*** or ***ì-mi-*** in all other forms. A final example is ***ì-na*-dé** (DP 270 3:1; L; 24) against ***e-na-*** elsewhere. These are simple scribal mistakes.

Finally, as Keetman (2005: 4) has shown, the forms of some verbs show consistent or almost consistent exceptional behaviour, a few verbs with the stem vowel /e/ and a few with /u/. E.g.:

- The verb **dé** 'pour' is attested only once with an /e/ prefix: ***e*-dé** (RTC 63 2:4; L; 24), while there are sixteen attestations with /i/: ***ì*-dé** (e.g., DP 276 3:5; L; 24), ***ì-ni*-dé** (Ukg. 6 2:22'; L; 24), ***nam-mi*-dé** (Ean. 1 obv 6:7; L; 25).
- The verb **e** 'say' only occurs with /i/ prefixes: ***ši*-e** (Ean. 1 rev. 10:25; L; 25), ***ì*-e** (Ukg. 6 2:14'; L; 24), also in the proper noun ***a-ba*-di-*ì*-e** (DP 622 6:8=VS 25:95 5:2; L; 24), and with a different spelling ***ì-bé*** in ***a-ba*-di-*ì-bé*** (DP 195 8:1'; L; 24).
- The verb **è** 'go out' is attested twice with /i/, ***ì-mi*-è** (Ent. 28 2:35 and 4:10; L; 25), while unambiguous forms with /e/ do not occur. As the stem of this verb was /je/ (§3.8), the initial /j/ may have caused an early change of /e/ to /i/ in the forms of this verb.
- The verb **keše$_2$.ř** 'bind' occurs only once with an /e/ prefix, ***e*-keše$_2$** (AWAS 66 8:5'; L; 24), but thirteen times with /i/: ***ì*-keše$_2$** (DP 341 (2x) and DP 437 (9x); L; 24), ***ì*-keše$_2$-*řá-a*** (BIN 8:364 6:4 and Nik 1:273 5:4; L; 24).
- The phrasal verb **a—ru** 'dedicate' has one form with /i/, **a *mu-na-ši*-ru** (AnLag. 29 4; L; 25/24), but five forms with /e/: **a *mu-na-šè*-ru** (En. I 19 12; L; 25), (AnLag. 4 2'; L; 25/24), and **a *bé*-ru** (DP 69 4:4, DP 70 4:4, DP 71 4:7; L; 24).
- The verb **ur$_4$** 'pluck' always has /e/ prefixes: ***e*-ur$_4$** (CST 1 4:1 & DP 88 5:7 & DP 258 (3x) & RTC 40 (2x) & VS 14:73 5:4 & VS 25:55 3:4; L; 24).

Some scholars have tried to account for such systematic exceptions by positing two additional mid vowels, viz. a second, more closed /e/ and an /o/ (Poebel 1931; Keetman 2005, 2007; Smith 2007). This hypothesis cannot be correct. The sound change behind the rule of vowel harmony involves a merger of the *low* vowel /e/ with the *high* vowel /i/ in certain environ-

ments. Such a change precludes the existence of a vowel phoneme in the space between them. If it had existed, the merger could simply not have taken place. In my view it is far more likely that such exceptions are only artifacts of our transliterations. All these stems are written with word signs, which we transliterate on the basis of data from many centuries later. We probably simply misread the stem vowel of some of these verbs. In those cases where a stem vowel /e/ is involved, this /e/ may itself also have been influenced by the sound change of /e/ to /i/.

3.9.4. Vowel changes

In addition to the change of /e/ to /i/ discussed in the previous section, several other phonetic changes can be documented for Sumerian vowels. They include assimilations and outright loss. We will begin with the former.

Sumerian displays many instances of vowels that assimilate completely to the vowel of the following or preceding syllable. They occur in polysyllabic stems and in verbal affixes. Assimilations in verbal affixes follow a clear rule: prefixes may assimilate to following vowels, while suffixes may assimilate to preceding vowels.

In an open syllable, the short vowel of the following verbal prefixes may completely assimilate to the vowel of the following syllable (see for details and examples the sections referred to):

- the prefix {da} '(together) with' (§19.2.1);
- the ventive prefix {mu} (§22.2);
- the prefix {nga} (chapter 23);
- the vocalic prefix {ʔu} (§24.2.1);
- the negative proclitic {nu} (§25.2);
- the modal proclitic {ḫa} (§25.4.1);
- the modal prefix {ga} (§25.6);
- the preformative {ši} (§26.2).

In an open or closed syllable, the short vowel /e/ of the verbal person suffixes (see §14.10) and of the imperfective suffix {ed} (see §15.3.2) may completely assimilate to the vowel /u/ or /i/ in the preceding syllable.

In polysyllabic stems, the short vowel of one stem syllable may completely assimilate to the vowel of the preceding or following stem syllable. The precise rules governing these assimilations still elude us, but vowel length is certainly one of the conditioning factors. That much is clear from how the vowels of some Akkadian loanwords in Sumerian behave. In the nouns ***ì-bí-la*** 'heir' (from earlier ***apila** from Akkadian *ap(i)lu*) and ***za-ba-lum*** (a tree) (from earlier ***zubālum** from Akkadian *supālum*), the first vowel assimilates to the second. This pattern differs from the nouns ***na-gada*** 'shepherd' (from earlier ***nāgida** from Akkadian *nāqidu*) and ***ra-gaba*** 'rider' (from earlier ***rāgiba** from Akkadian *rākibu*), where it is the second vowel that assimilates. In ***be$_6$-lu$_5$-da*** 'customs' (from Akkadian *bēlūtu*) and ***a-bul$_5$-la*** (**abulla**) 'city-gate' (related to Akkadian *abullu*) no assimilation takes place. It seems, therefore, that only short vowels assimilate but not all of them.

Usually the vowel of the first syllable assimilates to the vowel of the second syllable. Thus, ***ḫa-luḫ*** 'be afraid' (Cyl A 12:13; L; 22) has become ***ḫu-luḫ*** in Old Babylonian sources. The noun **du$_{10}$-gan** 'pouch' is written once ^{da}**du$_{10}$-gan** (RA 32 p. 130 4; U; 21). Other examples are **silim** 'be intact' (from earlier ***salim** from Akkadian *šal(i)mu*), **libir** 'of old' (from earlier ***labir** from Akkadian *lab(i)ru*), **gada** 'linen garment' (from earlier ***gida**, borrowed into Akkadian as *kitû*), **suḫur** (a building) (from earlier ***saḫur**, borrowed into Akkadian as *šaḫūru*), **munu$_4$** 'malt' (from earlier ***manu**, compare the compound **zíd-munu$_4$**, borrowed

into Akkadian as *simmanû*), and ***ù*-šub** 'brick mold' (Cyl A 19:3; L; 22) from ***ì*-šub** (e.g. MVN 14:555 rev 2; U; 21). Less certain are **zabar** 'bronze', which may come from earlier ***zubar** (**zabar** is actually written **UD**$^{\text{zú-bar}}$), and **šagan** 'jar' from earlier ***šugan** (**šagan** is actually written ***šu*$_4$*-gan***). Finally there is the trisyllabic noun **uruda** 'copper', which in Old Sumerian still had the form ***a-ru*$_{12}$*-da***.

An assimilation of the second to the first vowel is attested in **udu** 'ram, sheep' (from earlier ***uřa**, see §3.3.2). Its first vowel may have been long, as in the Akkadian loanwords discussed above, but we simply do not know. A second example is ***a-gù*** 'top', which occurs once written ***aga*$_3$** (RA 12 p. 20:4 4; U; 21). But this unique form does not carry much weight because from the Old Babylonian period onwards, this noun is consistently written **ugu** (or with an alternative transliteration: ***u-gù***) (cf. MSL 14 p. 44 Proto-Ea 310 U.KA = ***ú-gu***), with an assimilation of the first vowel to the second.

All examples so far involve vowels in open syllables. Being in an open syllable may therefore be a further condition for a vowel to assimilate. The only possible counter-example known to me is the noun ***ma-al-ga*** 'counsel' (e.g., VS 14:173 2:6; L; 24). This noun is commonly taken as a loan from Akkadian *milku* (Bauer 1972: 239) and would thus come from earlier ***milga**. But taking it as a loan from Akkadian *malku* 'counsel' is much more plausible and makes it unnecessary to posit an unusual assimilation.

Vowel loss may affect initial, medial, or final vowels in open syllables. An initial vowel may be lost in a word of three or more syllables, that is to say, initial vowels in stressed or pretonic syllables are never lost (§3.11): e.g., ***dè-na*** 'of the plain' (e.g., Nik 2:133 3; U; 21), a variant spelling for **eden-*na***; ***ti-da*** 'of the month' in the proper name **lugal-*ti-da*** (e.g., NG 22 2; L; 21), a variant spelling for **lugal-iti-*da***; ***ma-šè*** 'to the ... of the mother' in the proper name **lú-$^{\text{d}}$igi-*ma-šè*** (e.g., NG 210 4:7; L; 21), a variant spelling for **lú-$^{\text{d}}$igi-ama-*šè***; ***ma-sá*** 'of the sheepfold' in the proper name **ur-*ma-sá*** (YOS 4:45 seal line 1; N; 21), a variant spelling of **ur-amaš-*a*** (ibid. tablet line 4; N; 21); ***ga-rí-na*** 'of the **agarin**' (MVN 13:299 12; U; 21), a variant spelling for **aga$_3$-*rí-na***; **a *rí-na*** 'madder water' (SANTAG 6:41 4:14; U; 21), a variant spelling for **a *ì-rí-na***; ***ke*$_4$*-dè*** 'in order to make' (e.g., CUSAS 3:33 23; Garshana; 21), a variant spelling for **ak-*dè***; ***ma-ar-gi*$_8$** 'freedom' (NG 77 10'; L; 21), a variant spelling for **ama-*ar*-gi$_4$**. Initial vowel loss also affected the verbal prefixes {ʔi} and {ʔa} (see §24.3.1). Finally, a loss of an initial vowel is found in the form ***na-ab-bé-a*** 'what (s)he says', which is a fusion of the pronoun ***a-na*** with the verbal form ***ab-bé-a*** or ***íb-bé-a*** (see §8.5).

Loss of a medial vowel is attested in, for instance, ***nam-ḫa-né*** (e.g., MVN 7:578 obv 3; L; 22), a variant spelling for ***nam*-maḫ-*né*** (e.g., RTC 187 8; L; 23) and ***nam*-maḫ-*ḫa-né*** (UNT p. 261:88 3:18; L; 21). A further example is ***in-ke*$_4$*-eš-ša-a*** (PDT 1:528 19; D; 21), a variant spelling for ***in*-ak-*eš-ša-a***. Loss of a medial vowel also occurs with the initial /e/ of the person suffixes (§14.10). Finally, it is attested with the verbal prefixes {mu} (see §22.2), {ni} (see §20.2.1), and {bi} (see §18.2.2 and §20.3.1) and may there be accompanied by compensatory lengthening of the vowel in the preceding syllable.

In finite verbal forms, the loss of initial and medial vowels has taken place in a particular chronological order, which can still be reconstructed in part:

- loss of the medial vowel in the prefix {ni} in the sequence VniCV (§20.2.1);
- loss of the medial vowel in the prefix {mu} in the sequence VmuCV (§22.2);
- loss of the initial vowel of the prefixes {ʔi} and {ʔa} in open syllables (§24.3.1).

Only this sequence of events can account for verbal forms like ***mu-un*-taka$_4$*-a*** (TCS 1:307 5; U; 21) from earlier *ʔi-mu-ni-taka$_4$-Ø and ***ì-im*-ĝen-*na-a*** (AUCT 1:276 19; D; 21) from earlier *ʔi-mu-ĝen-Ø-ʔa=ʔa (see §22.2 for these examples).

Loss of a final vowel is attested for the case markers {ra} (§7.5.1), {da} (§7.1.1), and {še} (§7.8.1), which become /r/, /d/, and /š/ after a vowel. See the sections referred to for examples and details. The stem-vowel /e/ of the verb **me** 'be' was lost word-finally in certain forms before the 25th century BCE (see §29.2.2 and §29.2.3). Finally, the Old Sumerian ordinal suffix {kamma} became {kam} in word-final position. This change occurred before the time of Gudea (§9.4).

In some instances, /u/ becomes /i/ after /r/. In the Old Sumerian texts from Lagash, the phrase **amar** ***ru-ga*** 'removed calves' occurs once as **amar** ***rig*****$_7$** (Nik 1:198 2:3; L; 24). Similarly, many earlier spellings with ***ru*** are later replaced by ones with ***ri***: e.g., **bara$_2$**—***ru*** 'set up a dais' (Ent. 28 2:39; L; 25), later **bara$_2$**—***ri*** (PSD B p. 136f); **im-*ru-a*** 'family' (Cyl A 14:16; L; 22), later **im-*ri-a*** (NG 201 12; U; 21).

As in Akkadian, /i/ may become /e/ before the consonant /r/: **a** ***e-rí-na*** 'madder water' (e.g., SAT 2:237 1; U; 21) instead of the more frequent **a** ***ì-rí-na*** (e.g., SAT 3:1599 2; U; 21).

3.10. Syllable structure

All Sumerian syllables have the structure CV or CVC, the vowel being either long or short (§3.9.2). Several Sumerian words are transliterated as if they had an initial vowel, but such words actually have an initial glottal stop (§3.2.4), an initial /h/ (§3.4.4), or an initial /j/ (§3.8). Since every stem can make up a complete word on its own (§4.4.3), all stems begin with a consonant.

How do we know that all words had an initial consonant? For individual words, there can be a large variety of clues, but there are two indications with a general application. One is the writing system. In origin it had no sound signs for values with an initial vowel. As all phonographic values of signs come from the logographic values of those same signs, the absence of sound signs for initial vowels suggests that Sumerian had no words with an initial vowel. The second indication is related to the first one. Sumerian had a phonemic glottal stop. Languages with a phonemic glottal stop generally have a rule that words must begin with a consonant.

Words and therefore also syllables could have either a final vowel or a final consonant. This is, for instance, shown by the behaviour of the enclitic case markers that have a different form according to whether the preceding word has a final vowel or a final consonant. These case markers are the ergative (§7.3), the dative (§7.5.1), the directive (§7.6.1), the terminative (§7.8.1), and the comitative (§7.11.1).

As syllables have either the form CV or CVC, consonant clusters are only found between two vowels, and even there only clusters of two consonants. Such medial consonant clusters are, for instance, attested in ***ab-sín*** 'furrow', **agrig** 'steward', **muḫaldim** 'cook', **ninda** 'bread', **engar** 'farmer', **ensi** 'dream interpretess', **anše** 'donkey', **ašgab** 'leather worker', **ḫašḫur** 'apple (tree)', **eštub** 'carp', and **azlag$_3$** 'fuller'.

At least one stem has a final consonant cluster, viz. the numeral /ĝešd/ 'sixty' (see §9.2), but the final /d/ is so far only attested in forms with a following vowel. Elsewhere the numeral shows a reduced form /ĝeš/. Nonetheless, the full form /ĝešd/ suggests that a syllable-final consonant cluster /šd/ may have existed in an earlier form of Sumerian.

Sequences of two vowels do not occur. Where our transliterations suggest them, we are in fact dealing with defective spellings of the Sumerian scribes or with defective transliterations of modern scholars. Thus, the form ***na-e-a*** (example 4 above) actually represents the form /nabbeʔa/.

All Sumerian consonants can occur in word- and syllable-initial position, but there are some restrictions in word- and syllable-final position. In this connection, Sumerologists have often

referred to what could be called the thesis of the 'amissible' consonants. Kramer (1936a: 19) formulated this thesis as follows: 'All final consonants in Sumerian are amissible'. Falkenstein (1960: 305) phrased it somewhat differently: 'Im Wort- und Silbenauslaut können alle Konsonanten schwinden, wobei aber der Schwund anscheinend nicht alle Konsonanten im demselben Masse betrifft'.

During the last decades it has become clear that many instances of such a 'lost' syllable-final consonant are simply due to the limitations of the Sumerian writing system, which often does not express syllable-final consonants. Indeed, in the Old Sumerian texts from Lagash, everything points to a preservation of syllable-final consonants. Especially the behaviour of the comitative and dative case markers {da} and {ra} is informative because they have a different form depending on whether they are attached to a syllable with a final vowel or to a syllable with a final consonant. Regardless of which consonant precedes, these two case markers invariably have their post-consonantal form: e.g., **má(ʔ)-*da*** (DP 602 3:10; L; 24), **ašgab-*ra*** (Nik 1:228 2:1; L; 24), **unu$_3$(d)-*da*** (Nik 1:219 3:3; L; 24), **agrig-*da*** (DP 116 12:8; L; 24), **ur-saĝ-*da*** (VS 14:107 3:2; L; 24), **igi-*nu*-du$_8$(h̲)-*da*** (DP 231 16:3'; L; 24), **ensi$_2$(k)-*ra*** (Nik 1:218 1:4; L; 24), **sukkal-*da*** (VS 25:14 8:5; L; 24), ***a-ga-am-da*** (DP 230 16:12'; L; 24), ***gáb*-dan$_6$-*da*** (STH 26 7:16; L; 24), **dub-sar-*da*** (STH 1:43 3:1; L; 24), **gu$_4$(ř)-*da*** (Nik 1:133 1:4; L; 24), **aga$_3$-ús-*da*** (BIN 8:377 1:3; L; 24), **gaeš$_2$-*ra*** (DP 518 2:6; L; 24). I have not been able to find attestations of a comitative or dative case marker after a word with a final /j/, /h/, or /z/.

Thus, we see that syllable-final consonants are generally preserved in Old Sumerian. Nevertheless, we can say that some consonants never or hardly ever occur in syllable-final position. This is particularly true of the aspirated consonants. The voiceless aspirated stops /t/ and /p/ are not attested at all in syllable-final position and /k/ only rarely. Also, where /k/ is found in this position, it tends to be lost (§3.2.2). The voiceless aspirated affricate /ř/ did occur in syllable-final position but was lost there well before the end of the third millennium (§3.3.2). Finally, the plain voiceless stops /b/, /d/, and /g/ occur frequently in syllable-final position but there is some evidence that /d/ and /g/ are reduced in that position (§3.2.3).

In conclusion, one further point must be made about the thesis of the 'amissible' consonants. Although this view on syllable-final consonants is clearly out-of-date, it has had a profound influence on our transliteration system. Many logograms are transliterated with a final vowel although the stems they represent in fact had a final consonant. This causes a discrepancy between our transliterations and the actual form of Sumerian stems. In this grammar the final consonant has been added where relevant, as, for instance, in **sipa.d** (or **sipa(d)**), **gudu$_4$.g**, **uru$_{16}$.n**, and **du$_{11}$.g**.

3.11. Stress

Sumerian is generally assumed to have had a strong stress-accent. In the first systematic study of stress in Sumerian, Falkenstein (1959b: 97) states this as follows: 'Als feststehend kann gelten, daß das Sumerische einen starken exspiratorischen Akzent besessen hat.' Ten years later, in a detailed study of (among other things) stress in Old Babylonian Sumerian, Krecher (1969: 164) concurs: 'Das Sumerische und das Akkadische haben beide einen starken Iktusakzent besessen. Dies ist seit langem bekannt, (...).'

Falkenstein does not explicitly state why he considers Sumerian to have had a strong stress-accent, but his reasons can be guessed from the rest of his article. One property of a strong

stress-accent is that it tends to cause a reduction of unstressed vowels and syllables.[15] German and Russian, for instance, are typical languages with a strong stress-accent. Now, in his study of Sumerian stress rules, Falkenstein bases himself largely upon spellings and etymologies that suggest the loss of some syllable. In other words, Falkenstein noted several instances of syllable-reduction in Sumerian, and considered them stress-related. His views on Sumerian stress follow from this.

Syllable and vowel loss are not restricted to languages with a strong stress-accent but are also found in languages with other types of accent, even in tone languages. These processes merely occur on a much larger scale and more systematically in languages with a strong stress-accent. In such languages, the stressed syllables are made prominent at the expense of the unstressed syllables (van Coetsem, Hendricks and McCormick 1981: 298). In German, for instance, the unstressed vowels of simple words have generally become schwa as a consequence. In Russian, similarly, the vowels are only pronounced all differently when stressed. In unstressed position, several distinctions are lost. Sumerian does not show such phenomena. Any Sumerian syllable can contain any Sumerian vowel.

Still, there are clear instances of syllable loss in Sumerian. Also, some of these are almost certainly stress-related (see below for some examples). It is therefore quite likely that Sumerian did in fact have a stress-accent, although perhaps not such a strong one as in German, but rather one as in Italian or Spanish, languages which lack a systematic reduction of unstressed syllables.

Having said that, we must address the problem of the Sumerian stress rules. The Sumerian writing system does not indicate which syllables are accented and which are not. The Sumerian rules of stress placement must therefore be reconstructed from associated phenomena.

One stress-related phenomenon is syllable loss. As we saw above, Falkenstein bases his study of Sumerian stress largely on instances of this phenomenon. Such an approach is not without problems, though. Strictly speaking, syllable loss only shows which syllable was unstressed at the time of this loss. Falkenstein cites, for example, the loanword **šabra**, which he derives from Akkadian *šāpir-um*, as proof for stress on the first syllable. However, a change from an earlier form ***šabira** to **šabra** only shows that the second syllable of ***šabira** was unstressed and lost. It does not make clear whether **šabra** was stressed on the first or on the last syllable.[16]

Partly because of such problems, Krecher (1969: 164-5) takes a different approach. His point of departure is the assumption that stress-accent is always weight-sensitive. As he states it himself: 'Bedeutsam ist (...) die vielfache gegenseitige Bedingtheit von Tonstelle und Silbenlänge, die in der Natur des Iktusakzents begründet ist.' In other words, he assumes that stress in Sumerian was associated with heavy syllables, that is, with closed syllables or syllables containing a long vowel. He then goes on to claim that certain spellings of long vowels and closed syllables in texts in non-standard orthography reflect the presence of stress. These spellings include (1) certain plene writings of vowels (i.e., a spelling as CV-V instead of CV), and (2) certain writings of consonants as geminated (i.e., a spelling as VC-CV instead of V-CV). In his view, a syllable was probably stressed if its vowel was optionally written plene, or if the con-

[15] Van Coetsem, Hendricks and McCormick (1981: 295-315) discuss the linguistic properties associated with a strong stress-accent and with other accent types.

[16] Note, incidently, that taking Sumerian **šabra** as a loanword from Akkadian *šāpir-um* is also difficult. One would expect a Sumerian form ***sābira > *sābara** (from Old Akkadian *śāpiru*). Compare ***na-gada*** 'shepherd' (from Akkadian *nāqidu*) and ***ra-gaba*** (from Akkadian *rākibu*).

sonant following this vowel was optionally written geminated. Especially if a plene writing of the vowel alternates with a writing of the following consonant as geminated, the syllable may, in his view, be assumed to have been stressed. In Krecher's own words (1969: 177): 'Der Wechsel vor allem zwischen Geminierung des Konsonanten und Dehnung des ihm vorangehenden Vokals ist m.E. ein Beweis für das Vorliegen einer bestimmter *Silben*qualität bzw. -quantität (: betonte Silbe), nicht bestimmter einzelner *Phoneme*.'

Using criteria such as these, Krecher identified stress rules for several types of words and phrases. In his view, these stress rules are valid 'für das Sumerische der altbabylonischen, wahrscheinlich schon der neusumerischen Zeit.' (Krecher 1969: 194). However, there are two crucial problems with his approach. Most importantly, his central assumption is incorrect. In contrast with what Krecher assumed, stress-accent is not necessarily weight-sensitive. Weight-sensitive stress is only one possible stress system and it actually occurs less frequently than fixed stress systems, where stress is always located on the same syllable in each word (Goedemans and van der Hulst 2005: 62, 66).

The second problem lies in the very sources he used. As stated above, Krecher based himself largely on certain spellings in texts in non-standard orthography. Now, these texts were written by Akkadian scribes with a rather imperfect knowledge of Sumerian, not by Sumerian scribes writing their own native language. It is to be expected that these texts contain many Akkadianisms. This is all the more likely because Sumerian had become extinct as a spoken language by the Old Babylonian period. In such circumstances we may expect far-reaching adjustments of the rules for Sumerian to those of Babylonian. In other words, if the stress rules identified by Krecher have any validity at all, they may in fact more faithfully reflect Akkadian stress rules than anything else.

What, then were the stress rules of Sumerian when it was still a living language? The key to an answer lies in the following observation: all Sumerian loanwords in Akkadian are stressed on the last syllable of the Sumerian word (Keetman 2005: 2 note 7). This suggests that all Sumerian words were stressed on the last syllable, which would put Sumerian among the circa 10 per cent of the world's languages that have fixed stress on the last syllable in each word (Goedemans & van der Hulst 2005: 62). Let us therefore review the relevant evidence, beginning with the early loanwords from before the Old Babylonian period. These loanwords from Sumerian in Akkadian can be divided into three groups according to their final phonemes.

The first group consists of Sumerian words with a final consonant preceded by a short vowel. In the Akkadian loanword this consonant is always geminated, regardless of the number of syllables of the Sumerian word. The following are examples of monosyllabic words: *kallu* (from **gal** 'bowl'), *tuḫḫu* 'waste' (from **duḫ**), *uppu* 'drum' (from **ùb**), *uššu* 'foundation' (from **ús**), and *tuppu* 'tablet' (from **dub**). Bisyllabic words are, e.g., *makurru* 'ship' (from **má-gur$_8$**), *parakku* 'dais' (from **bara$_2$.g**), *kutimmu* 'silversmith' (from **kù-dím**), *akkullu* 'hammer' (from **níĝ-gul**), *tupšinnu* 'treasury box' (from **dub-šen**), and *pišannu* 'basket' (from **pisaĝ**). Trisyllabic words are, e.g., *šamaškillu* 'onion' (from **šúm-sikil**) and *nuḫatimmu* 'cook' (from **muḫaldim**). The loanwords from this first group have penultimate stress in Akkadian.

The second group also consists of Sumerian words with a final consonant, but with one preceded by a long vowel. In the Akkadian loanwords from this group, the final consonant is not geminated: e.g., *ēnu* 'highpriest' (from **en**), *īku* 'dike' (from **e.g**), *kāru* 'quay' (from **kar**), *kīru* 'oven' (from **gir$_4$**), *appāru* 'marsh' (from **abbar**), *uršānu* 'hero' (from **ur-saĝ**), *paššūru* 'table' (from **bansur**), *pursītu* (a bowl) (from **bur-zi.d**), and *kalamāḫu* 'chief lamentation priest' (from **gala-maḫ**). The loanwords of this second group also have penultimate stress in Akkadian.

The third group contains Sumerian words with a final vowel. In the Akkadian loanwords, this vowel subsequently contracts with the Akkadian nominative suffix *-u*, e.g., *asû* 'physician' (from **a-zu**), *kalû* 'lamentation priest' (from **gala**), *kitû* 'linen garment' (from **gada**), *laputtû* 'overseer' (from ***nu*-banda$_3$**), and *sammû* 'lyre' (from **zà-mí**). The loanwords from this third group are stressed on the final *-û* in Akkadian.

In all early Akkadian loanwords from Sumerian, the stress in Akkadian falls on the syllable that was the final syllable in the original Sumerian word. Why would that be so? I can see only one explanation: The original Sumerian word was stressed on the final syllable and this stress was retained in the Akkadian loanword. Only in this way can we explain the differences between the three groups above. In Akkadian, stress placement depended on syllable weight. In the second and third group, the syllable structure of the Akkadian loanword was such that the stress was automatically on the 'right' syllable. In the first group, however, the syllable structure of the Akkadian loanword had to be adapted so as to make the penultimate syllable heavy in order that the original Sumerian accentuation could be retained in Akkadian.

These early loanwords do not only show that Sumerian words were stressed on the final syllable, but also prove that syllable weight played no role in the placement of Sumerian stress. The loanwords from the third group demonstrate that also Sumerian words with a final vowel were stressed on the final syllable, even though the final vowel of most if not all of these Sumerian words was short.

The loanwords discussed above only involve stems and do not include inflected forms. One unique loanword, however, suggests that inflected forms were also stressed on the final syllable: *unnedukku* 'letter' (from Sumerian ***ù*-*na*-*a*-du$_{11}$.g**, a lexicalized finite verbal form, §6.6.2). This loanword fits the pattern of the first group discussed above. It has penultimate stress in Akkadian, again with stress on the final syllable of the Sumerian word.

Forms with clitics were apparently also stressed on the final syllable. If a clitic is attached to the right of a word, the accent shifts to the clitic. The evidence for this comes from forms showing vowel loss.

If the genitive case marker {ak} is attached to a word, the stress position shifts from the stem to the case marker. This is clear from the loss of the initial vowel in some bisyllabic nouns. For instance, the genitive case of **eden** /edén/ 'plain' is usually written **eden-*na*** 'of the plain' but can also be written ***dè*-*na*** /denáˀ/ with loss of the initial vowel. E.g., **gú *dè*-*na*** 'Edge of the plain' (e.g., Nik 2:133 3; U; 21), **íd *dè*-*na*** 'Canal of the plain' (e.g., Nik 2:158 3; U; 21). Similarly, the genitive case of **iti.d** /itíd/ 'month' is usually written **iti-*da***, but can als occur as ***ti*-*da*** /tidáˀ/, e.g., **lugal-*ti*-*da*** (NG 208 9; U; 21). This type of vowel loss only occurs in words of three or more syllables (§3.9.4) and, in these particular forms, it involves a reduction process due to a shift to the right of the stress position.

The same phenomenon occurs with other case markers as well. E.g.:

- with the directive case marker {e}: ***ke*$_4$-*dè*** for **ak-*dè*** (e.g., CUSAS 3:33 23; Garshana; 21);
- with the terminative case marker {še}: ***ma*-*šè*** for **ama-*šè*** (e.g., NG 210 4:7; L; 21);
- with the ablative case marker {ta}: ***na*-*ta*** for **an-*na*-*ta*** (NFT 207 3:4; L; OB);
- with the locative case marker {ʔa}: ***zi*-*a*** for ***izi-*a*** (CLAM II p. 546 PRAK C 52 16; Kish; OB)

The enclitic possessive pronoun {ane} 'his, her' also attracts the accent. This is shown by spellings of the proper name /nammaḫ+ane/ 'His greatness'. The following spellings are found: ***nam*-maḫ-*né*** (e.g., RTC 187 8; L; 23), ***nam*-maḫ-*ḫa*-*né*** (UNT p. 261:88 3:18; L; 21), and ***nam*-*ḫa*-*né*** (e.g., MVN 7:578 obv 3; L; 22). The last spelling, which is particularly common in the Ur III period, shows the loss of the final syllable of ***nam*-maḫ**, caused, in my view, by a shift of the accent to the enclitic pronoun.

A similar shift of stress is attested for a noun compound which is in origin a participial construction (§6.5.4):

(12) **ama-*ar*-gi$_4$**
ama =r(a) gi$_4$ -Ø
mother=DAT turn-NFIN
'freedom (lit. "sending back to mother")' (e.g., NG 186 18'; L; 21)

In the Ur III period, this compound is written a few times without its first syllable, e.g., ***ma-ar-gi$_8$*** (NG 30 2; U; 21). In my view, this is another example of initial syllable loss due to a shift of accent, in this case from /amár/ to /amargí/ (§3.9.4).

All this evidence suffices to prove that the stress may shift to the right if a syllable is added to the right of a word. It is not sufficient, however, to prove that this happened in every single case with every single suffix or clitic. Some clitics, for instance, may have remained unstressed throughout. As we saw in §3.9.4, the final vowels of a few case markers and of the ordinal suffix are lost in certain forms. That would be impossible if they had been stressed. These vowels must therefore have been unstressed at the time when they were lost.

4. WORDS AND WORD CLASSES

4.1. Introduction

The word is perhaps the most basic unit of grammar. Each of the two traditional subfields of grammar somehow centres around the word. Morphology deals with the internal structure of words, while syntax is concerned with how words are put together into larger units – phrases, clauses, and sentences. The word is therefore the obvious starting point for our discussion of Sumerian grammar.

There is much more to be said about the word in Sumerian than can be handled in a single chapter. The present chapter is therefore only an introductory one and limits itself to a few basic issues. Section 4.3 deals with the difficult question of how to identify Sumerian words, given the fact that the Sumerian script does not indicate word boundaries. Section 4.4 defines the basic concepts used in describing the make-up of Sumerian words and serves as an introduction to Sumerian morphology. The final section (§4.5) is concerned with the division of Sumerian words into word classes or parts of speech. It briefly defines them, listing their most typical grammatical properties. It concludes with more comprehensive discussions of two specific word classes, one that Sumerian lacks (adverbs) and one that Sumerian has (ideophones).

But before we can address these issues, we first need to have a look at an older view on Sumerian grammar, one that dominated the field for most of the twentieth century and that had a huge impact on how Sumerologists generally handled the 'word' until quite recently.

4.2. The Sumerological concept of 'Kettenbildung'

Sumerologists consistently describe Sumerian as an agglutinative language. The first to do so was Poebel (1914: 9) and he is still followed in this almost a century later (Edzard 2003: 161; Michalowski 2004: 22; Rubio 2007: 1327). Hence, we seem to be dealing here with a point of universal agreement. There is an important caveat, though. In actual fact, it is only the statement's wording that has remained remarkably stable. Over the last century, the meaning and use of the term 'agglutinative' have changed considerably and the properties which Poebel associated with agglutinative languages have little to do with what modern linguists use the term for.

Poebel's views on the nature of agglutinative languages profoundly influenced his approach to Sumerian grammar and left their mark on Sumerology through his seminal grammar (Poebel 1923). As some of his descriptive decisions were still commonplace in Sumerology in the early 1990s, it is worthwhile to point out some of his ideas and their consequence.

Poebel expresses his views most clearly in his grammar: there is a 'Sprachengruppenfolge' of 'isolierende', 'agglutinierende', and 'flektierende Sprachen'. These three types of languages are viewed as consecutive stages of an evolutionary series. This is shown by his use of the term 'Sprachgruppenfolge' and by his statement that some 'Wortarten' in Sumerian 'bisweilen *schon* [my italics, B.J.] eine gewisse Ähnlichkeit mit den grammatischen Bildungselementen der flektierenden Sprachen haben' (Poebel 1923: §7).

This tripartite typology of isolating, agglutinating, and inflecting languages was developed in the nineteenth century and is associated with scholars such as W. Von Humboldt, H. Steinthal, and F. Misteli.[1] Hence, Poebel's ideas are firmly embedded in an approach to linguistic

[1] Poebel (1923: 6 note 1) refers explicitly to Misteli.

typology that enjoyed wide support at the end of the nineteenth and in the early twentieth century. Since then this approach has come under increasing criticism and has now universally been abandoned.[2]

The criticism of this view of typology is directed against a number of points, first of all against its evolutionary perspective: The notion of a linguistic evolution from an isolating through an agglutinating towards a final inflecting and highest stage of language development is simply contrary to the facts. Secondly, languages only rarely fit exactly one of the three types. A specific language may be isolating in some and inflecting in other respects. Being agglutinating, for example, is a matter of degree and does not involve a property that is either present or absent: a language is more or less agglutinating. Thirdly, this language typology is one-sided because it is only focussed on the properties of words to the exclusion of those of other parts of the grammatical system. For this reason it cannot possibly do justice to the overall structure of a language.

Because of considerations like these, the term 'agglutinating' is nowadays only used as a label for a specific type of word structure and is therefore only relevant for morphology. For Poebel the term 'agglutinating' does not label a specific type of word structure but a specific type of language and has therefore implications for syntax as well: 'Dem Sprachbau nach gehört das Sumerische ganz deutlich in die Kategorie der agglutinierenden Sprachen. Die wichtigsten Merkmale sind die folgenden: Die Wortwurzeln sind nicht wandelbar, ... Die grammatische Zusammengehörigkeit wird durch das Prinzip der Wortkettenbildung bestimmt' (Poebel 1923: §7). Hence, in Poebel's view, an agglutinating language is characterized by a specific morphological property (unchangeable roots) as well as a specific syntactic property: words are joined together by the principle of 'Kettenbildung'. This last concept is still part of the basic terminology of Sumerian grammar.[3]

That Poebel's concept of 'Kettenbildung' is deeply rooted in his view of agglutinative languages is also shown by the following quotations: 'Sumerian is an agglutinative language; its most characteristic feature, therefore, is that it strings together, by simple juxtaposition, a number of words intended by the speaker to convey a certain idea. Each such chain of words is governed by a chief idea to which all the other words joined to it stand in the relation of modifiers.' (Poebel 1914: 9); 'Seinem agglutinierenden Charakter gemäss drückt das Sumerische die grammatische Zusammengehörigkeit der einzelnen Wörter oder Satzelemente im allgemeinen nur dadurch aus, dass sie dieselben zu Wortketten aneinander reiht.' (Poebel 1923: §98).

Thus, Poebel extends to Sumerian syntax what is only a property of Sumerian word structure. But syntax and morphology are two quite different things. In order to express syntactic relations, languages can use any of a number of formal means, the most common among them being word order, function words, and special word-forms. What Poebel calls 'Kettenbildung' is simply a formal marking of syntactic relations by means of word order, which is not at all restricted to agglutinating languages. Take, for instance, Poebel's own example **é maḫ-ĝu$_{10}$-šè** (Poebel 1914: 9)[4], translated by him as 'to my sublime house'. While the order of the Sume-

[2] A classic discussion, which is critical of earlier approaches to morphological typology is Sapir (1921: chapter 6). More recent discussions include: Greenberg (1974: 35-41), Comrie (1989: 42-52), and Croft (1990: 39-43).

[3] In the widely used grammar of Thomsen (1984), for instance, the concept lives on in the notions 'nominal chain' and 'verbal chain' (e.g., Thomsen 1984: 48). A more recent grammar similarly discusses 'das Kettenbildungsprinzip im Sumerischen' (Römer 1999: 74).

[4] Transliterated there as E-mah-mu-šu.

rian words is the exact opposite of the English order (viz. 'house sublime my to'), the syntactic relations are expressed by the same means: by a fixed word order. In this respect Sumerian syntax has much in common with English syntax.

The concept of 'Kettenbildung' and the outdated view of agglutinating languages associated with it have not only shaped to some extent the traditional approach to Sumerian grammar but lies also at the basis of a convention for transliterating Sumerian texts. In accordance with his view of agglutinating, Poebel transliterates a phrase as a unit: all its parts – words, affixes, and clitics alike – are connected by hyphens. Falkenstein restricted this convention to genitive constructions, attributive adjectives, and some non-finite constructions. This transliteration convention was widely followed for most of the last century but has lately been falling into disuse. And rightly so.

This method of transliterating Sumerian ignores the distinction between a word and a group of words. It obscures the difference between the grammatical relations within words and those between words, that is, between morphology and syntax. This practice hardly contributes to a better understanding of Sumerian grammar, especially in view of the fact that the word belongs to the most basic units of grammar. For transliterations such as **diĝir-gal-gal-e-ne** 'the great gods', there is no linguistic justification. The syntactic relation between the noun **diĝir** 'god' and the reduplicated adjective **gal** 'great' is expressed by word order, as in the English phrase 'great gods'. The means of expressing the syntactic relation are identical in the Sumerian and English phrases, only the actual word order itself differs.

Of course, the modern advocates of transliterating phrases as units are well aware of these issues but have their reasons to retain the traditional method. Selz (1992: 139) is particularly clear: 'Mit der Setzung der Bindestriche hängt das Problem der Bestimmung der Wortgrenzen des Sumerischen eng zusammen. (...) Konsequente Bindestrichverbindungen innerhalb der einzelnen Nominalkompleze helfen dabei sprachfremde Interpretationen zu vermeiden.'

And indeed, if we want to separate words by spaces, we must be able to identify word boundaries. This is not always easy and it is especially difficult to distinguish compound words from phrases. This is a problem for which in some instances perhaps no solution will be found that will convince everyone. But if we want to make progress in our understanding of Sumerian morphology and syntax, we have to address the issues involved. The following section will try to make a beginning.

4.3. Phonological and grammatical words

4.3.1. Introduction

The linguistic unit 'word' is notoriously difficult to define, but there are criteria which can be used to distinguish complex words from phrases, and words from parts of words (Matthews 1991: 208-215; Haspelmath 2002: 149). These criteria can be of different kinds. One possible criterion is orthographical: whatever is written between spaces is a word. Or a criterion may be phonological: whatever has a single main stress is a word. Or a criterion may be grammatical: whatever shows a particular inflection or belongs to a particular paradigm is a word. Or: whatever functions as a basic unit in syntax is a word.

In some languages the different sorts of criteria give basically the same results. But in many languages they do not. Because of this, Dixon and Aikhenvald (2002: 1-41) suggest to keep the different sorts of criteria strictly apart and to distinguish between an orthographic word, a phonological word, and a grammatical word, each defined with its own sort of criteria. The

prudent approach is to define the different sorts of words with their own criteria and then describe the relations between them.

4.3.2. Orthographic word

Unfortunately, there is no such thing as an orthographic word in Sumerian, because the script does not indicate word boundaries (§2.3). Still the orthography is of some help in identifying Sumerian words. The scribes use dividing lines to cut up the text into sections, but these sections may contain anything from a single word up to entire clauses. However, because the scribes never cut up a single word with a dividing line, every such line indicates in practice a word boundary. This gives us a criterion of sorts: whatever can be separated by a dividing line is not a single word but consists of at least two words. But this is merely a negative criterion, for whatever is between two dividing lines can indeed be a single word but may as well be a whole series of words.

Nevertheless, the criterion is helpful, especially for the Old Sumerian texts, which have many more dividing lines than the later texts (§2.3). Thus, the dividing lines – indicated by the forward slash ('/') – show that the following clause contains at least five words:

(1) **barag-*nam*-tar-*ra* / dam lugal-an-*da* / ensi$_2$ / lagas^{ki}-*ka*-*ke*$_4$ / *e*-lá**
barag.nam.tar.ra / dam lugal.an.da / ensi$_2$.k / lagas =ak =ak =e
Baragnamtarra wife Lugalanda ruler Lagash=GEN=GEN=ERG

/ ʔi -n -láʔ -Ø
VP-3SG.A-weigh-3N.S/DO
'Baragnamtarra, the wife of Lugalanda, the ruler of Lagash, weighed it.' (DP 517 3:2-4:3; L; 24)

At the same time, the dividing lines treat **dam lugal-an-*da*** 'the wife of Lugalanda' as a single unit. That is standard practice for this kind of phrase, although one text actually has a dividing line between **dam** and the name of the husband: **/ dam / *bíl-làl-la* /** 'the wife of Billalla' (Foxvog 1980: 68 3:12-13; A; 26).

The orthography provides us even with a second criterion, albeit one of minor importance. As we saw in chapter 2, the Sumerian script uses sound signs and word signs. The latter are used to write the stems of words. And this is what gives us our second orthographic criterion: whatever is written with a single word sign is either a word or a part of a word but can never be more than one word. Thus, the three syllables of **muḫaldim** 'cook' belong to one and the same word, because they are written with a single sign, viz. the sign MU. The same argument applies to any other sequence of two or more syllables written with a single sign.

4.3.3. Phonological word

Sumerian has a phonological word, defined by phonological criteria. It is true that because Sumerian is a dead language, we often lack the factual data to apply these criteria to individual cases, but that is only a problem for us. It does not in any way alter the fact that there is a Sumerian phonological word.

First of all, the phonological word is the unit to which the Sumerian stress rule applies. Primary stress goes on the last syllable in each word (§3.11) and thus has a strong word demarcating function. This stress rule is probably the single most important criterion for word status in Sumerian. Unfortunately for us, it is very difficult to apply because the Sumerian

script does not indicate the presence or absence of stress. But sometimes certain effects of stress give us clues.

A second criterion lies in the many assimilations, contractions, and other phonological adaptations that take place across syllable boundaries within phonological words. For instance, the final consonant of one syllable may assimilate to the initial consonant of the following syllable. Or the vowel of one syllable may assimilate to the vowel of the preceding or following syllable. Or parts of two morphemes may come to belong to a single syllable. And so on.

Consider, for example, the following clause:

(2) **dusu gub-*ba* / šu-ku$_6$ ab-*ba-ke$_4$-ne-kam***
dusu gub -Ø -ʔa šu.ku$_6$ ab =ak =enē=ak =Ø =ʔam
tax stand-NFIN-NOM fisherman sea=GEN=PL =GEN=ABS=be:3N.S
'This is the imposed tax of the fishermen of the sea.' (DP 294 3:2-3; L; 24)

In **ab-*ba-ke$_4$-ne-kam***, the final /b/ of **ab** 'sea' and the initial /a/ of the genitive case marker {ak} make up a single syllable together. Hence, they belong to the same phonological word. Also, the vowel /a/ of the second genitive case marker has contracted with the final /e/ of the plural marker. Hence, the two markers belong to the same phonological word. In this way, the entire unit **ab-*ba-ke$_4$-ne-kam*** can be shown to be a single phonological word.

Or take the following clause:

(3) ***a-šà-bé* ur-diĝir-*ra-ke$_4$* / kíĝ *bí-in-na***
a.šà.g=be=e ur.diĝir.ra.k=e kíĝ =Ø Ø -bi -n -ʔak -Ø
field =its=DIR Urdingir =ERG work=ABS VP-3N.OO-3SG.A-make-3N.S/DO
'Urdingir worked their field.' (TCS 1:148 13-14; U; 21)

In this clause ***bí-in-na*** is shown to be a phonological word by two phenomena. First, the two morphemes {bi} and {n} belong to a single syllable. Second, the initial consonant of **ʔak** 'do, make' has assimilated to the final /n/ of the preceding syllable.

A special case of this second phonological criterion is the rule of vowel harmony in Old Sumerian (§3.9.3). It is an assimilation rule which operates across the syllable boundaries of finite verbal forms. It only applies within the boundaries of a phonological word. For example:

(4) ***e-né*-ĝar**
ʔi -nni -n -ĝar -Ø
VP-3SG.OO-3SG.A-place-3N.S/DO
'He placed this (as a burden) on him.' (DP 565 3:3; L; 24)

According to the rule of vowel harmony, the phonological word ***e-né*-ĝar** contains the vowel /e/ instead of /i/.

A third criterion is that a word-initial vowel can be deleted in a phonological word of three or more syllables. For instance, if the genitive case marker {ak} is attached to the noun **eden** 'plain', the resulting form is often written ***dè-na*** (< **eden=ak**) (§3.9.4). This deletion rule only applies to phonological words.

As for their phonemic make-up, phonological words do not show a special structure. The initial and final syllables of a word do not differ from medial syllables. All have the same structure CV(C) (§3.10). The same phonemes that can begin a syllable can also begin a word, and the same phonemes that can occur in syllable-final position can also occur in word-final position.

4.3.4. Grammatical word

Sumerian has grammatical words, defined by morphological or syntactic criteria. These criteria have their basis in the fact that the parts of words have different grammatical properties from those that words have as parts of phrases, clauses, and sentences. Words have a strong internal cohesiveness which larger grammatical units such as phrases lack. The parts of words always occur together. They cannot be separated from each other and be scattered through a clause. Also, the parts of words always occur in a fixed order. Finally, words have a convential meaning (cf. Dixon and Aikhenvald 2002: 19).

Prefixes and suffixes make up a single grammatical word together with the stem they are attached to. Thus, verbal forms are grammatical words. The parts of a verbal form always occur in a fixed order and cannot be separated from each other. The prefixes and suffixes can only occur attached to a verbal stem. Stem and affixes together make up a single linguistic unit that cannot be broken up in any way (§11.2).

Clitics are grammatical words because they can be separated from the linguistic units they are attached to. Compare, for instance, the following two examples:

(5) **ensi$_2$-*ke$_4$***
ensi$_2$.k=e
ruler =ERG
'the ruler' (DP 242 4:1; L; 24)

(6) **ensi$_2$ *an-ša-an*^{ki}-*ke$_4$***
ensi$_2$.k an.ša.an=ak =e
ruler Anshan =GEN=ERG
'the ruler of Anshan' (SAT 1:121 7; L; 21)

In the first example, the ergative case marker {e} is attached to the noun **ensi$_2$.k** 'ruler', but in the second it is separated from it by the word ***an-ša-an*^{ki}**, itself in the genitive case. Because of this separability, a clitic is a grammatical word in its own right. (But it makes up a single phonological word with the form it is attached to, see §4.3.5.)

What Sumerologists commonly call compound verbs are idiomatic expressions made up from separate grammatical words. Take, for example, the following two clauses, which contain forms of the 'compound' verb **igi—bar** 'look at' (Thomsen 1984: 269):

(7) **^{d}en-líl-*e* en ^{d}nin-*ĝír-su-šè* igi zi *mu-ši*-bar**
en.líl=e en nin.ĝír.su.k=še igi zi.d =Ø Ø -mu -n -ši-n -bar -Ø
Enlil =ERG lord Ningirsu =TERM eye right=ABS VP-VENT-3SG-to-3SG.A-be.out-3N.S/DO
'Enlil looked at the lord Ningirsu with favour (lit. "brought out (his) right eyes to").' (Cyl A 1:3; L; 22)

(8) **u$_4$ ^{d}inanna-*ke$_4$* / igi nam-ti-*ka-né* / *mu-ši*-bar-*ra-a***
u$_4$.d inanna.k=e igi nam.ti.l=ak =ane=Ø
day Inanna =ERG eye life =GEN=her=ABS

Ø -mu -n -ši-n -bar -Ø -ʔa =ʔa
VP-VENT-3SG-to-3SG.A-be.out-3N.S/DO-NOM=LOC
'when Inanna had looked at him with her life-giving eyes' (St C 2:11-13; L; 22)

As these clauses show, other words can separate the nominal part of **igi—bar** from the verbal part, showing the two parts to be separate grammatical words.

Reduplicated stems are parts of a single grammatical word, because they cannot occur separated from each other. Thus, in the following clause, **kur-kur** is a single grammatical word:

(9) **kur-kur *e-ma*-ḫuĝ**
kur -kur =Ø ʔi -m(u) -ba -n -ḫuĝ-Ø
mountains-mountains=ABS VP-VENT-MM-3SG.A-hire-3N.S/DO
'He hired the foreign lands for himself.' (Ent. 28 3:1; L; 25)

A linguistic unit that follows a particular rule for word-formation is a grammatical word. Such rules are only known for nouns (§6.5-§6.7) and numerals (chapter 9). For example, Sumerian nouns can only occur juxtaposed as separate words when one noun is the apposition of the other, as in **ki lagas^{ki}** 'the land Lagash' (Cyl B 5:18; L; 22) and **en-*na* / muḫaldim** 'Enna, the cook' (DP 31 4:7-8; L; 24). Other sequences of juxtaposed nouns are compounds and thus grammatical words: e.g., **é-maš** 'sheepfold' (lit. 'house-goat'), **ki-šár** 'horizon' (lit. 'earth-circle'), and so on.

4.3.5. Conclusion

In the preceding three paragraphs, we have discussed several criteria that can be used to identify Sumerian words and delimit them from parts of words on the one hand, and from phrases on the other hand. Now the obvious question to ask is whether these criteria coincide, so that we have a single unit 'word' in Sumerian. The answer is that they generally do but not always. The orthographic criteria never identify a word boundary that conflicts with any of the phonological or grammatical criteria, but phonological words do not always have a one-to-one relationship with grammatical words.

One clear case where the two do not match is that of the clitics. This is a cross-linguistically common situation (Dixon and Aikhenvald 2002: 25-27). In Sumerian a clitic is a grammatical word in its own right (§4.3.4), but it also forms a single phonological word with the preceding word (§4.4.3).

A further mismatch involves noun compounds like **ama-*ar*-gi$_4$** 'freedom'. It consists of three grammatical words but is at the same time a single phonological word, as is shown by the loss of the initial vowel in variant forms like ***ma-ar-gi$_8$*** (see §6.5.4 and §3.11 for details).

Sometimes it is simply unknown what the relation is between phonological and grammatical word. This is, for instance, the case with reduplicated nouns. The available evidence is too limited to decide how many phonological words an expression like the following contains:

(10) **ugula-ugula-*ne***
ugula -ugula =enē=e
overseer-overseer=PL =ERG
'the various overseers' (Ukg. 4 4:6; L; 24)

But I will treat it as a single phonological word. See section 6.4 for a discussion.

A further unknown has to do with noun phrases that make up a tight semantic unit. Let me give two examples:

(11) **níĝ ĝiš tag-*ga***
níĝ ĝiš =Ø tag -Ø -ʔa
thing wood=ABS touch-NFIN-NOM
'offerings (lit. "things which (the) wood touched")' (DP 66 10:5; L; 24)

(12) **ki šúm-*ma***
ki šúm =ak
place garlic=GEN
'garlic field' (DP 402 1:3; L; 24)

Expressions such as these have the grammatical structure of a phrase and seem to be made up from several grammatical words. But they also have a strong semantic and formal coherence. We translate them with (compound) words and it is not possible to break them up and separate their parts in any way. It is perfectly conceivable that a phrase of this sort forms a stress unit. If so, it would be a single phonological word. However, there is as yet no evidence whatsoever to support such an analysis. But neither is there any that contradicts it. Section 6.5 treats the various types of noun compounds. It also includes a more detailed discussion of noun phrases with some word-like properties. For now, it suffices to say that the present grammar treats anything that looks like a phrase as a phrase, unless there is positive evidence for a different analysis.

As said before, the Sumerian script generally does not indicate word boundaries. When Sumerologists transliterate a Sumerian text, they insert spaces to indicate such boundaries. But the transliterations of different Sumerologists can be hugely different in this respect (§4.2). The criteria given above are the basis on which the present grammar indicates word boundaries in Sumerian. In those cases where the criteria for phonological and grammatical words give conflicting results, those for phonological words are followed.

4.4. Basic structure of a Sumerian word

4.4.1. Introduction

Sumerian morphology is predominantly agglutinative: the boundaries between the morphemes of a word-form are mostly clear-cut, so that generally speaking the segmentation of word-forms into morphemes is quite straightforward. E.g.:

(13) **udu gu$_7$-*a* / sipa-*dè-ne-kam***
udu gu$_7$-Ø -ʔa sipa.d =enē=ak =Ø =ʔam
ram eat -NFIN-NOM shepherd=PL =GEN=ABS=be:3N.S
'These are the consumed rams of the shepherds.' (Nik 1:160 5:1-2; L; 24)

(14) ***mu-un-na-ni-in*-ku$_4$**
Ø -mu -nna -ni-n -ku$_4$.r-Ø
VP-VENT-3SG.IO-in-3SG.A-enter -3SG.S/DO
'He let her enter it for him.' (FAOS 9/2 Amarsuen 8 10; ?; 21)

Because of this property, Sumerian word structure is well suited to a description in terms of morphemes and much lesser so for one in terms of paradigms.

4.4.2. Morphemes

Morphemes are the building blocks of words. They are the smallest linguistic units with both a form and a meaning. Thus, Sumerian **dam** 'wife, husband' is a morpheme. It has a form /dam/, consisting of a sequence of three phonemes. It has a meaning 'wife, husband'. And it cannot be analysed into smaller units with both a form and a meaning.

Most Sumerian morphemes have a form of one or two syllables, but smaller and larger ones are also found. The largest seem to have no more than three syllables, such as **muḫaldim** 'cook' and **taskarin** 'boxwood'. Among them are also loanwords like ***na-gada*** 'shepherd' (from Akkadian *nāqidu*) and ***dam-ḫa-ra*** 'battle' (from Akkadian *tamḫāru*). A few morphemes consist of a single vowel or consonant. Because every Sumerian syllable must include a vowel (§3.10), morphemes consisting of a single consonant can never make up a full syllable in their own right. An example of such a morpheme is the third person human singular prefix {n} (§13.2.3).

The so-called zero-morphemes are a special case. They have a meaning, but their forms consist of the very absence of any overt form. That is to say, a zero-morpheme is the meaningful absence of an overt form. This grammar posits four zero-morphemes for Sumerian:

(a) the absolutive case marker {Ø} (§7.4),
(b) the person suffix {Ø} (§14.4),
(c) the non-finite marker {Ø} (§28.1),
(d) the preformative {Ø} (§24.3.1).

Of course, precisely because they lack an overt form, zero-morphemes are no true morphemes. Yet, they are very useful descriptive tools, as they make it possible to visualise the meaningful absence of other morphemes.

Sumerian has lexical and grammatical morphemes. A lexical morpheme is a morpheme that can occur as a phonological word in its own right, that is, without being bound to one or more other morphemes. Grammatical morphemes cannot occur as phonological words in their own right but are obligatorily bound to other morphemes.

4.4.3. Stems, affixes, and clitics

A Sumerian word (word-form) consists of a stem with optionally one or more grammatical morphemes attached to it. In its simplest form, a Sumerian word is a stem made up from a single lexical morpheme. Take, for example, **dam** in the following clause:

(15) **sa_6-sa_6 / dam iri-ka-*ge-na* / lugal / lagas^{ki}-*ka-ke$_4$* / *mu-ba-al***
sa_6.sa_6.g dam iri.ka.ge.na lugal lagas =ak =ak =e Ø -mu -n -ba.al-Ø
Sasa wife Irikagena king Lagash=GEN=GEN=ERG VP-VENT-3SG.A-dig -3N.S/DO
'Sasa, the wife of Irikagena, the king of Lagash, dug them up.' (DP 388 3:5-4:4; L; 24)

Here the morpheme **dam** makes up a full word in its own right and is therefore, by definition, a lexical morpheme (§4.4.2). Most Sumerian words consist of more than one morpheme, though. Either they have a complex stem, or, in addition to a stem, they also contain one or more grammatical morphemes, or both of these situations apply.

A Sumerian stem is either simple or complex. A simple stem consists of a single lexical morpheme (like **dam** in the example above) and a complex stem consists of two or more morphemes. Sumerian has basically three types of complex stem:

First, a complex stem may contain two or more different lexical morphemes. Such a stem will be called a compound. The word **lugal** 'king' in the clause above is an example. Its stem contains the two lexical morphemes **lú** 'man' and **gal** 'big'. Its literal meaning is 'big man'. Compounds are attested for nouns (§6.5) and numerals (chapter 9).

Second, a complex stem may contain the same lexical morpheme repeated partly or completely. Such a stem will be called reduplicated. The word **sa_6-sa_6** in the clause above is an example. Its stem is made up from a repetition of the lexical morpheme **sa_6(.g)** '(be) beautiful'.

Reduplicated stems are attested for nouns (§6.4), adjectives (§10.3), and verbs (§12.3 and §12.4.3).

Third, a complex stem may contain a grammatical morpheme in addition to the lexical morpheme or morphemes. If the imperfective suffix {ed} is added to a simple or reduplicated verbal stem, this yields a complex imperfective stem (§12.3). Also, a very small number of stems seems to include a derivational affix (§6.7). Finally, certain noun compounds contain a clitic (§6.5.7).

Thus, every Sumerian word contains a simple or complex stem. In addition, it may contain one or more grammatical morphemes. But it does not have to. Many Sumerian words consist of only a stem – as, for instance, the words **sa$_6$-sa$_6$**, **dam**, and **lugal** in the clause above.

Grammatical morphemes are morphemes that are obligatorily bound to other morphemes. They cannot make up a full phonological word in their own right. But some grammatical morphemes are grammatical words. A grammatical morpheme that is a grammatical word will be called a clitic and a grammatical morpheme that is not a grammatical word will be called an affix (cf. §4.3.4 and §4.3.5).

Affixes and clitics differ in the categories they are attached to. Affixes are attached to a member of a specific word class, to a verb or to a noun, for example. They are bound on word level. Clitics, however, are bound on phrase or clause level. They are attached to the last word of a phrase or a clause.

A Sumerian affix is either a prefix or a suffix. A prefix precedes the stem, a suffix follows it. Infixes, that is, affixes inserted into the stem, do not occur in Sumerian, but some Sumerologists use the term 'infixes' to designate a subclass of verbal prefixes (§16.1). Since derivational affixes hardly exist in Sumerian (§6.7), almost all affixes are inflectional. They only occur in verbal forms (§11.2) and in numerals (chapter 9).

All Sumerian clitics are enclitics: they are attached to the word that precedes. The majority of them are phrase-final clitics: they are attached to the last word of the phrase to which they belong. The phrase-final clitics can be divided into three categories:

1. the enclitic pronouns, that is, the possessive pronouns (§8.3), the enclitic demonstratives (§8.4.2), and connective {be} (§5.4),
2. the plural marker {enē} (§6.3),
3. the case markers (chapter 7).

Sumerian also has a set of clause-final clitics, which are attached to the last word of the clause to which they belong. This set of clause-final clitics is made up from the enclitic forms of the copula ***me*** 'be' (§29.2.3). If two or more clitics are attached to the same word, they are always found in the same relative order (see §4.4.4 below).

In the morphemic glosses of the examples, stems and affixes are connected with hyphens ('-'), while clitics are linked to neighbouring morphemes by means of an equal sign ('='). Thus, the clause above contains the phonological word **lagas^{ki}-*ka-ke$_4$*** made up from a stem with three clitics attached to it. It also includes the finite verbal form ***mu-ba-al*** consisting of a stem and several affixes.

4.4.4. The relative order of the clitics

As stated in the previous section, all Sumerian clitics are attached to the word that precedes them. The phrase-final clitics are attached to the last word of the phrase to which they belong and the clause-final clitics to the last word of their clause. If two or more clitics are attached to the same word, they are always found in the same relative order.

If two or more phrase-final clitics belong to the same noun phrase, they are always found in the following order:

1. the enclitic pronoun
2. the plural marker {enē}
3. the case marker

A noun phrase contains at most one clitic from each of these three categories. (Note that in the examples of this section, every single noun phrase has been put between square brackets.) E.g.:

(16) **gudu$_4$-*bé-ne***
[gudu$_4$.g=be =enē=e]
[priest =this=PL =ERG]
'these priests' (Ukg. 6 1:7'; L; 24)

(17) **dumu-*ĝu$_{10}$-ne***
[dumu=ĝu=enē=Ø]
[child =my=PL =ABS]
'my children' (ZA 55 p.68:ITT 5:9594 4'; L; 21)

(18) **en-en-*né-ne-šè***
[en -en =enē=še]
[lord-lord=PL =TERM]
'for the lords' (DP 77 4:1; L; 24)

If two or more phrase-final clitics belong to different noun phrases, their relative order reflects the hierarchy among those phrases, with the clitics of the superordinate phrase following those of the subordinate phrase.

A noun phrase can be a part of a larger, superordinate noun phrase (§5.2), so that a single word can be the last word of several noun phrases, of subordinate and superordinate ones. As a result, clitics belonging to different noun phrases can be attached to one and the same word. E.g.:

(19) **ka dumu-*ne-ne-ka***
[ka.g [dumu=ane=enē=ak]=ʔa]
[mouth [child =her =PL =GEN]=LOC]
'in the mouth of her children' (NG 171 5; L; 21)

This example involves two different phrases, one a part of the other. The locative case marker belongs to the superordinate phrase which has **ka.g** 'mouth' as its head noun, while the other three clitics belong to the subordinate phrase that has **dumu** 'child' as its head noun. But all four clitics are part of the same phonological word, because that word is the last word of both the superordinate and the subordinate phrase.

As the previous example and the following one show, the clitics of the superordinate phrase are attached en bloc to those of the subordinate phrase:

(20) **lú inim-*ma-ĝu$_{10}$-ne***
[lú [inim=ak]=ĝu=enē=e]
[man [word=GEN]=my=PL =ERG]
'my witnesses (lit. "my men of the word/matter")' (NG 113 36; L; 21)

Thus, while the clitics of each individual noun phrase follow the regular relative order of the phrase-final clitics, the clitics of different noun phrase are in an order that reflects the relative

hierarchy of those noun phrase, with the clitics of a superordinate noun phrase following those of a subordinate one.

A clause-final clitic always follows all phrase-final clitics. Thus, a form of the enclitic copula always comes last. E.g.:

(21) **gu é-gal-*kam***
[gu [é.gal =ak]=Ø]=ʔam
[flax [palace=GEN]=ABS]=be:3N.S
'This is the flax of the palace.' (DP 620 2:2; L; 24)

(22) **še-ba še-ĝar lú ^{d}*ba-ú-ke$_4$-ne-kam***
[še.ba še.ĝar [lú [ba.ú=ak]=enē=ak]=Ø]=ʔam
[ration.barley supply.barley [man [Bau =GEN]=PL =GEN]=ABS]=be:3N.S
'These are the barley rations and barley supplies of Bau's men.' (STH 1:4 2:3; L; 24)

4.5. Word classes (parts of speech)

4.5.1. Introduction

As for any other language, we can distinguish for Sumerian a number of word classes, or parts of speech. Since the set of word classes often differs from one language to another, we cannot take for granted that the word classes of languages such as English or Akkadian are exactly duplicated in Sumerian. The kind and number of word classes which exist in a given language must be established on the basis of criteria specific for this language. In a more traditional approach such criteria often are semantic: a word naming an 'action' would, for example, be called a verb, one naming a 'thing' a noun, one naming a 'quality' an adjective, and so on. In practice such an approach leads to decisions that are largely intuitive and arbitrary, and usually results in analysing a language in terms of another, more familiar one.

An approach that does more justice to the internal organisation of a language is to group its words into classes on the basis of the grammatical properties which these words have in common. Such shared grammatical properties can be morphological or syntactic. A word class may, for example, have a particular kind of inflection in common, or have a particular function in a specific construction.[5]

Such a linguistic approach to the division into word classes is not new to Sumerian. Using the first (1985) edition of Schachter and Shopen (2007), Schretter (1996) defines a number of word classes for Sumerian and discusses several of the problems involved. Black (2002: 69-75) and Edzard (2003: 23-27) define their own sets of word classes. Although the three sets of word classes defined in this way show considerable overlap, each of them is somewhat different from the other two.

I propose to recognise the following ten word classes for Sumerian, some of them with further subdivisions:

1. Nouns
2. Verbs
3. Adjectives
4. Pronouns

[5] For an illuminating typological overview of parts-of-speech systems, see Schachter and Shopen (2007).

5. The plural marker {enē}
6. Case markers
7. Numerals
8. Ideophones
9. Conjunctions
10. Interjections

The following section (§4.5.2) discusses these classes in some more detail.

Black (2002: 74) and Edzard (2003: 23, 69) posit a distinct class of adverbs, but what they consider adverbs are in my view particular constructions involving nouns or adjectives. Section 4.5.3 treats the main ways in which Sumerian expresses adverbial meanings.

Black (2002: 74-75) proposes a separate word class of ideophones for Sumerian. The present grammar follows him in this. Section 4.5.4 brings the known ideophones from our corpus together and discusses their properties.

4.5.2. The word classes and their main properties

As all other languages, Sumerian has the two major word classes verbs and nouns. The word class of verbs is constituted by the words that are verbally inflected. A large number of prefixes and suffixes may be attached to a verbal stem, thus marking it for categories such as person, mood, and aspect. The typical syntactic function of a verb is that of predicate in a clause. E.g.:

(23) **kù-*ĝu$_{10}$* *ḫa-ma*-šúm-*mu***
kù.g =ĝu =Ø ḫa =Ø -ma -šúm-e
silver=my=ABS MOD=VP-1SG.IO-give -3SG.A:IPFV
'He should give me my silver!' (NG 179 9; L; 21)

The word class of verbs is a closed class and consists of only a few hundred words. Sumerian lacks morphological means to create new verbs, such as composition or derivation. The verbs are treated in the chapters 11 through 29.

The word class of the nouns is an open class. New nouns can, for instance, be created through composition. Nouns are typically the head of a noun phrase. Such a noun phrase can be quite complex: a noun can be modified by an adjective, another noun, a participle, a numeral, a relative clause, or any combination of these. As heads of noun phrases, nouns can perform a variety of syntactic functions within a clause, including those of the subject or object of a verb. Their syntactic function is usually expressed by an enclitic case marker (see below) but word order plays a role as well. E.g.:

(24) **kišib an-dùl lú-*na***
kišib an.dùl lú =ane=ak
seal Andul man=his =GEN
'the seal of Andul, his man' (ASJ 2 p.7:10 3; L; 21)

(25) **lugal-*e* ĝír-*ta* *in*-gaz**
lugal=e ĝír =ta ?i -n -gaz-Ø
king =ERG knife=ABL VP-3SG.A-kill -3N.S/DO
'The king killed it with a knife.' (JCS 10 p.28:5 6; D; 21)

The nouns are treated in chapter 6.

The word class of the adjectives is a closed class and consists of only a few dozen words. Adjectives are rather verb-like in their grammatical behaviour. Nearly all adjectival stems also occur as verbal stems in finite or non-finite verbal forms. But in contrast with verbal forms, adjectival forms cannot be negated. Adjectives are typically used as the modifiers of nouns. They are then placed immediately after the noun they modify. E.g.:

(26) **kisal daĝal-*la-na***
kisal daĝal=ane=ʔa
courtyard wide =his =LOC
'in his wide courtyard' (Ean. 22 3:2; L; 25)

The adjectives are discussed in chapter 10.

The pronouns do not constitute a uniform word class but must be classified into a number of subclasses. The independent personal pronouns, the interrogative pronouns, the independent demonstrative pronouns, and the reflexive pronoun display noun-like grammatical behaviour. They can make up a noun phrase by themselves and have case markers. They differ from nouns, however, in that they cannot be combined with adjectives and other modifiers. The indefinite pronoun ***na-me*** 'any' behaves more like an adjective. The possessive pronouns and the enclitic demonstrative pronouns are phrase-final clitics. In the relative order of phrase-final clitics, they precede the plural marker {enē} and the case markers. The word class of the pronouns is a closed class. It is treated in chapter 8.

The smallest closed word class of Sumerian consists of a single member: the enclitic plural marker {enē}. As a phrase-final clitic, it is a grammatical word which is attached to the final phonological word of the noun phrase it belongs to. In the relative order of phrase-final clitics, it follows the enclitic pronouns and precedes the enclitic case markers. It expresses the plural of human nouns. It is treated in §6.4.

A second small closed class of phrase-final clitics is that of the enclitic case markers (often called 'postpositions' in the Sumerological literature). In the relative order of phrase-final clitics, they follow both the enclitic pronouns and the enclitic plural marker {enē}. Thus, a case marker is always the last grammatical word of the noun phrase to which it belongs. The case markers are the topic of chapter 7.

The word class of the numerals also displays a noun-like grammatical behaviour. Numerals, too, can make up a noun phrase by themselves and have case markers. They differ from the nouns and other noun-like words in their morphology. They constitute an open word class. An in principle infinite number of numerals can be formed through the process of composition. Numerals express a number. They are typically used to quantify a noun. E.g.:

(27) **šà-gal u_4 diš-*a-bé***
šà.gal u_4.d diš =ak =be
fodder day one=GEN=its
'its fodder for one day' (CST 789 1; U; 21)

The numerals are treated in chapter 9.

The ideophones make up a small word class. They, too, have noun-like grammatical properties but differ from the other noun-like words in their phonemic make-up and their quite restricted syntactic possibilities. See §4.5.4 below for a detailed discussion.

Sumerian has a small closed class of conjunctions. Our corpus contains two coordinating conjunctions, {be} 'and' (§5.4) and the loanword ***ù*** 'and' (§5.4 and §27.2). In addition there are three subordinating conjunctions, ***en-na*** 'until', **u_4-*da*** 'if', and **tukum-*bé*** 'if' (§27.3.2).

Finally, there is the word class of interjections (Edzard 2003: 167-170). They are completely invariable and cannot enter into any construction with other words. The corpus contains hardly any interjections at all but that is probably due to small amount of direct speech it contains. The following clause occurs four times in a Gudea text and is the only true occurrence of an interjection in our corpus:

(28) ***ga-na ga-na-ab*-du$_{11}$**
ga.na ga -nna -b -du$_{11}$.g
come.on MOD:1SG.A/S-3SG.IO-3N.OO-say
'Come on! I will say it to her!' (e.g., Cyl A 1:24; L; 22)

The second interjection is only found in a fixed expression:

(29) ***ì*-^{d}utu**
ì utu
oh Utu
'Oh, Utu!' (Ukg. 6 2:14'; L; 24), (Cyl B 18:11; L; 22)

This 'Oh, Utu' is an outcry to the Sungod Utu. It is also merely an etymology, because, in the two attestations available, this ***ì*-^{d}utu** behaves grammatically like a noun and is generally taken to mean something like 'complaint'.

4.5.3. The 'adverbs'

Sumerian lacks a distinct word class of adverbs. It expresses adverbial meanings in other ways, mostly with adjectives, verbal affixes, or noun phrases. As Poebel (1923: §388) already observed, the most common way is by means of a noun phrase. Thus, the Sumerian equivalent of an English time adverb is a noun phrase in a case which can have a temporal meaning – the locative, ablative, or terminative. E.g.:

(30) **u$_4$-*ba***
u$_4$.d=be =ʔa
day =this=LOC
'then (lit. "on this day")' (Ent. 8 7:7; L; 25)

(31) **iti-*da be$_6$-dam***
iti.d =ʔa ba? -ed -Ø =ʔam
month=LOC portion.out-IPFV-NFIN=be:3N.S
'This is to be portioned out monthly (lit. "in a month").' (AAICAB I/1 pl. 37 Ashm. 1911-228 4:7; L; 21)

(32) **eger-*a nam-ḫa-né* dub-sar-*e* / (...) *bí-in*-du$_{11}$**
eger=ʔa nam.ḫa.né dub.sar=e Ø -bi -n -du$_{11}$.g-Ø
back=LOC Namhani scribe =ERG VP-3N.OO-3SG.A-say -3N.S/DO
'Later (lit. "on the back") Namhani, the scribe said: (...).' (NG 69 8-9; U; 21)

(33) **eger$_5$-*bé-ta***
eger$_5$=be=ta
back =its=ABL
'afterwards (lit. "from its back")' (NG 103 8; L; 21)

(34) **2-*kam-ma-šè***

min-kamma=še
two-ORD =TERM
'subsequently (lit "for the second one")' (Cyl A 9:5; L; 22)

The Sumerian equivalent of an English manner adverb often is a noun phrase in the equative or adverbiative case. E.g.:

(35) **é *ur$_5$-gen$_7$* dím-*ma***
é ur$_5$ =gen dím -Ø -ʔa
house that=EQU create-NFIN-NOM
'a temple thus (lit. "like that") created' (St B 6:77; L; 22)

(36) **^{d}nin-*ĝír-su* u$_4$-*dè-éš im*-è**
nin.ĝír.su.k=Ø u$_4$.d=eš ʔi -m(u)-ʔè -Ø
Ningirsu =ABS day=ADV VP-VENT-go.out-3SG.S/DO
'Ningirsu came out as day-light.' (Cyl B 16:8; L; 22)

Other types of adverbial meanings can also be expressed by a noun phrase in the appropriate case:

(37) **mu-*bé-šè in*-su**
mu =be=še ʔi -n -su.g -Ø
name=its=TERM VP-3SG.A-repay-3N.S/DO
'Therefore (lit. "for the name of this") he replaced it.' (OrSP 47/49:197 23; U; 21)

(38) **ki-*ba***
ki =be =ʔa
place=its=LOC
'there (lit. "in the place of this")' (Cyl A 10:26; L; 22)

Although the Sumerian equivalent of an English place or directional adverb often is a noun phrase, it may also be a verbal prefix. Thus, the meanings 'here' and 'hither' are expressed in Sumerian by the ventive prefix {mu} (see chapter 22). In addition, Sumerian has the dimensional prefixes, which can convey meanings similar to English adverbs like 'therein', 'thereon', 'thereto', and so on (see the chapters 16 to 20).

The Sumerian equivalents of English degree adverbs remain to be identified and described. For some purposes, however, the verb **diri.g** 'exceed' is used (§10.6).

Noun phrases with non-finite verbal forms as their heads can also be used to express adverbial meanings. E.g.:

(39) **é-*a* ḫúl-*la ì-na-ni*-ku$_4$**
é =ʔa ḫúl -Ø =ʔa ʔi -nna -ni-n -ku$_4$.r-Ø
house=LOC be.happy-NFIN=LOC VP-3SG.IO-in -3SG.A-enter -3N.S/DO
'He brought it to him into the temple joyfully (lit. "in being happy").' (Cyl A 7:30; L; 22)

Apart from nouns and verbs, Sumerian also employs adjectives to express adverbial meanings. Mostly, this involves turning the adjective into a noun and then using one of the following three constructions:

- a de-adjectival noun with the adverbiative case marker (§10.5)

(40) **é lugal-*na* zi-*dè-éš mu*-řú**

é lugal =ane=ak =Ø zi.d =eš Ø -mu -n -řú -Ø
house master=his =GEN=ABS rightness=ADV VP-VENT-3SG.A-erect-3N.S/DO
'He built his master's temple in the right way.' (Cyl A 24:8; L; 22)

- a de-adjectival noun with the enclitic pronoun {be} and the directive case marker (§10.5)

(41) **lú tur gibil-*bé* é řú-*gen*$_7$**
lú tur gibil =be=e é =Ø řú -ed -Ø =gen
man small newness=its=DIR house=ABS erect-IPFV-NFIN=EQU
'like a young man who is building a house from scratch' (Cyl A 19:22; L; 22)

- a de-adjectival noun in the absolutive case used as direct object (§10.5)

(42) **gal *mu*-zu**
gal =Ø Ø -mu -n -zu -Ø
bigness=ABS VP-VENT-3SG.A-know-3N.S/DO
'He is greatly knowing (lit. "he knows bigness").' (Cyl A 12:20; L; 22)

A fourth construction is restricted to phrasal verbs and involves using the adjective attributively with the nominal part of a phrasal verb (§10.4.1):

(43) **igi zi *mu-ši*-bar**
igi zi.d =Ø Ø -mu -n -ši-n -bar -Ø
eye right=ABS VP-VENT-3SG-to-3SG.A-be.out-3N.S/DO
'He looked approvingly at him (lit. "brought out (his) rightful eye").' (Cyl A 23:17; L; 22)

Attinger (1993: 168-170), Black (2002: 74), Edzard (2003: 23, 69), and Michalowski (2004: 37-38) posit a distinct word class of adverbs for Sumerian, although they differ somewhat among themselves on its exact size and contents. Nevertheless, all four of them include noun forms like **u$_4$-*dè-éš*** (ex. 36) and adjectival forms like **zi-*dè-éš*** (ex. 40) and **gibil-*bé*** (ex. 41). Each of these forms consists of a single phonological word and has an adverbial meaning. But does that make them adverbs? I do not think so. Each of these forms consists of several grammatical words and includes one or two clitics. Grammatically they are phrases, not words. Forms like **u$_4$-*dè-éš*** and **zi-*dè-éš*** are noun phrases in the adverbiative case. As such, they cannot be separated from the other noun phrases in that case, which have similar adverbial meanings and which can consist of more than one phonological word or even of an entire clause (§7.9).

4.5.4. The ideophones

Following Black (2002: 74-75 and 2003) the present grammar posits a separate word class of ideophones for Sumerian. It is a fairly small class and our corpus contains only a handful of attestations. The ideophones are onomatopoeic words expressing various kinds of noises. They contain sounds that approximate the noises they express, but at the same time they also have a fairly rigid phonemic structure. All ideophones are fully reduplicated forms, but with only the vowel /u/ in their first halves and only the vowel /a/ in their second halves. The ideophones are construed like nouns but they occur in only one construction, as the direct object of the verb **za** 'make the noise'. E.g.:

(44) **[n]a$_4$ tur-tur [n]a$_4$ gal-gal-[*e*] murgu-*ĝá bu*-[*u*]*d-ba-ad ḫi*-[*b*]*í-íb*-za-*àm***

na$_4$ tur -tur na$_4$ gal-gal=e murgu=ĝu=ʔa
stone small-small stone big-big=ERG back =my=LOC

bu.ud.ba.ad=Ø ḫa =Ø -bi -b -za -Ø =ʔam
budbad =ABS MOD=VP-3N:on-3N.A-make.the.noise-3N.S/DO=be:3N.S
'It was so that small stones and large stones were clattering on my back!' (SLTNi 82 side a 3 = Shulgi A 68-69; N; 21)

As stated above, the phonemic structure of ***bu-ud-ba-ad*** is typical for an ideophone. Often, however, this structure is somewhat concealed by the spelling, as the other three attestations from our corpus illustrate to some extent. Thus, in the following example, ***bùl-bal*** is actually written BAL.BAL, with twice the same sign:

(45) **ki muš-ĝír-*da* / *bùl-bal am$_6$-da*-za**
ki =e muš.ĝír=da bùl.bal=Ø ʔa-m(u) -da -b -za -Ø
earth=ERG scorpion=COM bulbal =ABS VP-VENT-with-3N.A-make.the.noise-3N.S/DO
'Earth sounded *bulbal* with the scorpion.' (MBI 1 2:11-12; N; 24)

Likewise, in the next example, ***gun$_x$-ga-an*** is written KUN.GA.AN. Since there is no separate sign for /gun/, I assume that the scribe used to sign KUN to write /gun/ here. The form has also been harmonized as ***kun-kà-an*** (e.g., Black 2003: 48), but that would have been written ***kun-ka-an***, with the sign KA instead of GA:

(46) **é-bappir$_3$ é á sikil-*ba* / *ú-lu$_5$-ši-e* a pa$_4$-sír-*gen$_7$* / *gun$_x$-ga-an* za-*a-da***
é.bappir$_3$ é á sikil=ak =be=ʔa ú.lu$_5$.ši.n =e
brewery house strength pure =GEN=its=LOC emmer.beer=ERG

a pa$_4$.sír=ak =gen gun.ga.an=Ø za -Ø -ʔa =da
water Pasir =GEN=EQU gungan =ABS make.the.noise-NFIN-NOM=COM
'with that in its brewery, the house of pure strength, emmer beer splashes like the waters of Pasir' (Cyl B 7:1-3; L; 22)

Finally, there is ***wu-wá*** (PI.BA), also with a rather unusual spelling. (Note that the phoneme /w/ does not occur in other Sumerian words.):

(47) **[ud$_5$ m]áš guru$_5$-*a-gen$_7$* *wu-wá* *mu-ši-íb*-za**
ud$_5$ máš guru$_5$ -Ø -ʔa =gen
goat kid cut.off-NFIN-NOM=EQU

wu.wá=Ø Ø -mu -n -ši-b -za -Ø
wuwa =ABS VP-VENT-3SG-to-3N.A-make.the.noise-3N.S/DO
'Like a goat from which the kid has been separated, it bleats towards him/her.' (PSD B p. 171 6 N-T 450 3'; N; 21)

5. THE NOUN PHRASE AND ITS PARTS

5.1. Introduction

A Sumerian clause consists of a finite verbal form and, as a rule, one or more noun phrases (see chapter 11 for details). Consider, for example, the following clause:

(1) **ensi$_2$-*ke$_4$* é *mu*-řú**
ensi$_2$.k=e é =Ø Ø -mu -n -řú -Ø
ruler =ERG house=ABS VP-VENT-3SG.A-erect-3N.S/DO
'The ruler built the temple.' (Cyl A 22:9; L; 22)

This clause is made up from three parts. Its most important part is the finite verbal form ***mu*-řú** 'he erected it (hither)', which refers to a certain action and to the two participants having roles in that action. The properties of the verbal form will, however, not concern us here any further, as they will be the topic of later chapters (chapter 11 and following). The two other parts of clause (1) are noun phrases, **ensi$_2$-*ke$_4$*** 'the ruler' (in the ergative case) and **é** 'the house' (in the absolutive case). Their properties and those of similar grammatical units are the topic of this chapter.

A noun phrase is, broadly speaking, a grammatical unit of one or more words which is in some case. Its case is expressed by an enclitic case marker which is attached to the last word of the noun phrase. The case marker thus serves a double purpose. It not only indicates the case of the noun phrase but it also makes clear where the noun phrase ends, having an important demarcating function too. Take, for example, the following noun phrase, which refers to the location of certain crops in a field:

(2) **zà šúm é-gal-*ka*-*ta***
zà.g šúm é.gal =ak =ak =ta
border garlic palace=GEN=GEN=ABL
'from the border of the garlic of the palace' (VS 14:189 1:1; L; 24)

This noun phrase is in the ablative case, as indicated by the ablative case marker {ta}. It, in turn, contains the noun phrase **šúm é-gal-*ka*** 'garlic of the palace', which is in the genitive case, as indicated by the second genitive case marker {ak}.This second noun phrase again includes a third noun phrase, **é-gal-*k*** 'of the palace', which is also in the genitive case, as indicated by the first of the two genitive case markers {ak}. Since **é-gal** is the last word of all three the noun phrases, all case markers are attached to it. Such an accumulation of case markers on the last word of a complex noun phrase is very common in Sumerian. (See chapter 7 for a detailed discussion of the cases and case markers.)

Since a noun phrase functions as a unit, the words belonging to it follow each other without being separated by other words. There is only one exception to this general rule. An anticipatory genitive (see §7.2.4 for details) can be separated from the rest of the noun phrase, so that this particular construction can lead to a discontinuous noun phrase, as, for instance, in the following clause (the noun phrase in question is underlined):

(3) **<u>é-*a*</u> ^{d}en-ki-*ke$_4$* <u>ĝiš-ḫur-*bé*</u> si *mu-na*-sá**
é.j =ak en.ki.k=e ĝiš.ḫur=be=e si =Ø
house=GEN Enki =ERG plan =its=DIR horn(?)=ABS

Ø -mu -nna -n -sá -Ø
VP-VENT-3SG.IO-3SG.A-be.equal-3N.S/DO

'Enki straightened out for him the ground-plan of the temple (lit. "Of the house ... its plan").' (Cyl A 17:17; L; 22)

A noun phrase can refer to one or more persons, animals, things, to a time, a place, etc., just like a noun. Consequently, a noun phrase can perform several different syntactic functions, either as a part of a clause or as a part of a larger noun phrase. As a part of a clause, a noun phrase refers to a participant or a circumstance which plays a role in the action or state expressed by the verb. Accordingly, it expresses the subject, an object, or an adjunct. Which function applies to a given noun phrase is always made clear by the case it is in. E.g.:

(4) **u_4-*ba* ensi$_2$-*ke$_4$* kalam-*ma-na* zi-*ga* *ba-ni*-ĝar**
u_4.d=be =ʔa ensi$_2$.k=e kalam =ane=ʔa zi.g-Ø -ʔa =Ø
day =this=LOC ruler =ERG country=his =LOC rise -NFIN-NOM=ABS

Ø -ba -ni-n -ĝar -Ø
VP-3N.IO-in-3SG.A-place-3N.S/DO
'Then the ruler organized a levy for it in his country.' (Cyl A 14:7; L; 22)

This clause is made up from five parts, the finite verbal form ***ba-ni*-ĝar** as well as four noun phrases. The noun phrases function as time adjunct (**u_4-*ba***), transitive subject (**ensi$_2$-*ke$_4$***), place adjunct (**kalam-*ma-na***), and direct object (**zi-*ga***). (For the cases and the functions they signal, see chapter 7.)

As a part of a noun phrase, a noun phrase can also perform various functions, also made clear by the case it is in. Take, for instance, the following clause:

(5) **gù-dé-*a* ensi$_2$ lagas^{ki}-*ke$_4$* / temen-*bé* *mu*-si**
gù.dé.a ensi$_2$.k lagas =ak =e temen =be=Ø
Gudea ruler Lagash=GEN=ERG foundation.pegs=its=ABS

Ø -mu -n -si.g -Ø
VP-VENT-3SG.A-put.in-3N.S/DO
'Gudea, the ruler of Lagash, put in its foundation pegs.' (Cyl A 30:4-5; L; 22)

The first part of this clause is the noun phrase **gù.dé.a ensi$_2$.k lagas=ak=e** 'Gudea, the ruler of Lagash'. It is in the ergative case, functioning as the subject of the clause. What interests us here, though, is that it, in turn, contains the noun phrase **ensi$_2$.k lagas=ak** 'the ruler of Lagash', which functions as an apposition with the proper noun **gù.dé.a** 'Gudea', sharing the ergative case marker with it (§5.3). Furthermore, the noun phrase **ensi$_2$.k lagas=ak** itself contains a noun phrase in the genitive case, **lagas=ak** 'of Lagash'.

The next section (§5.2) gives a brief outline of what parts a noun phrase can contain. Each of these parts will be discussed in more detail in one of the following chapters. Two constructions, though, of noun phrases used as parts of a larger noun phrase will already receive a comprehensive treatment in this chapter: appositive (§5.3) and coordinated noun phrases (§5.4).

5.2. Basic structure of the noun phrase

A crucial concept for describing the structure of a noun phrase is the notion of 'head'. The head is the central part of a noun phrase. It determines both the general meaning and the general grammatical properties of the noun phrase as a whole. Take, for instance, the following noun phrase:

(6) **ezem ^{d}*ba-ú-ka***
ezem ba.ú=ak =ʔa
festival Bau =GEN=LOC
'during the festival of Bau' (RTC 61 13:1; L; 24)

The noun **ezem** 'festival' is the head of this phrase. It determines the general meaning of the phrase, which refers to a kind of **ezem** 'festival', namely the 'festival of Bau'. It also determines the gender of the phrase, which is non-human, the gender of the head noun. (The proper noun ^{d}***ba-ú*** belongs to the human gender class.)

Noun phrases can be classified according to the nature of their heads. Most noun phrases have a noun as their head, but pronouns, numerals, ideophones, participles, and nominalized clauses can also be used as heads of noun phrases. Finally, in certain types of noun phrases, the head is omitted altogether. The various types of noun phrases as well as their possible parts will now be discussed and illustrated briefly, with a crossreference to a more thorough treatment in one of the following chapters.

A noun phrase with a noun as its head can be quite complex. As a rule, it begins with the head noun and ends with the enclitic case marker. In between, a wide variety of elements can be found. The most common order of elements within the noun phrase is as follows:

1) Head noun
2) Attributive adjective (§10.4.1) or participle (§28.2.2, §28.3.3, and §28.4.3)
3) Numeral (chapter 9)
4) Noun phrase in the genitive case (§7.2.3)
5) Relative clause (§27.4.1)
6) Enclitic possessive (§8.3) or demonstrative pronoun (§8.4.2)
7) Enclitic plural marker {enē} (§6.3)
8) Appositive noun phrase (§5.3) or coordinate noun phrase (§5.4)
9) Enclitic case marker (chapter 7)

Of course, the average noun phrase contains only a few of these elements. E.g.:

(7) **dumu-maš 7 ^{d}*ba-ú***
dumu.maš imin ba.ú=ak =Ø
twin seven Bau =GEN=ABS
'Bau's septuplets (lit. "the seven twins of Bau")' (Cyl B 11:11; L; 22)

(8) **mu gu$_4$ niga sig$_5$ é-gal-*ta* è-*a* 1-*a-šè***
mu gu$_4$.ř niga sig$_5$ é.gal =ta è -Ø -ʔa diš=ak =še
name bull barley.fed good palace=ABL go.out-NFIN-NOM one=GEN=TERM
'because of (lit. "for the name of") one good barley-fed bull which went out of the palace' (TPTS 1:171 2; U; 21)

(9) **pisaĝ *ù*-šub-*ba* ĝiš *bí*-ḫur-*ra-né***
pisaĝ ù.šub =ak ĝiš =Ø Ø -bi -n -ḫur -Ø -ʔa =ane=Ø
basket brick.mold=GEN wood=ABS VP-3N:on-3SG.A-scratch-3N.S/DO-NOM=his =ABS
'his brick-mold frame on which he made a design' (Cyl A 13:20; L; 22)

(10) **ka dumu-*ne-ne-ka***
ka.g dumu=ane=enē=ak =ʔa
mouth child =her =PL =GEN=LOC
'in the mouth of her children' (NG 171 5; L; 21)

The order of noun phrase elements as listed above is only the most common one. Other orders are also possible. If the semantic relationships between the various parts of the phrase call for it, the mutual order of elements is adapted. Generally speaking, the semantic relationships are such that the parts of the noun phrase that follow describe or delimit what precedes. This is particularly true for the mutual order of adjective and genitive, which is very much dictated by such semantic considerations (§10.4.1).

The preceding discussion does not cover the entire range of possible constructions within the noun phrase. A noun phrase can also contain another noun phrase in the locative (§7.7.2), directive (§7.6.2), terminative (§7.8.2), or ablative (§7.10) case. E.g.:

(11) **kù giĝ$_4$ 2-*a* / kuš 5-*ta***
kù.g giĝ$_4$ 2 =ʔa kuš 5 =ta
silver shekel two=LOC hide five=ABL
'with five hides per (lit. "in") two shekels of silver' (Nik 1:230 5:2-3; L; 24)

In a far less common type of noun phrase, the head consists of a pronoun, namely, an independent personal pronoun (§8.2), an interrogative pronoun (§8.5), an independent demonstrative pronoun (§8.4.3), or a reflexive pronoun (§8.7). Such noun phrases generally have a simple structure, merely consisting of the pronoun and its case marker. E.g.:

(12) ***za-ra***
ze =ra
you=DAT
'you' (Cyl A 5:18; L; 22)

(13) ***ĝe$_{26}$ a-na mu-ù-da-*zu**
ĝe$_{26}$=e ana =Ø Ø -mu -e -da -ʔ -zu -Ø
I =ERG what=ABS VP-VENT-2SG-with-1SG.A-know-3N.S/DO
'What have I learned from you?' (Cyl A 9:4; L; 22)

(14) ***ur$_5$-gen$_7$***
ur$_5$ =gen
that=EQU
'like that' (St B 6:77; L; 22)

(15) **ní-*ĝá***
ní =ĝu=ak
self=my=GEN
'of myself' (Ean. 1 obv. 3:30; L; 25)

The reflexive pronoun can be construed with a possessive pronoun (§8.7), but for the rest only the interrogative pronouns ***a-na*** 'what ...?' and ***a-ba*** 'who ...?' can be the heads of more complex noun phrases (§8.5).

Noun phrases with numerals as their heads occur in several different constructions (chapter 9). The most common one consists of a cardinal with an enclitic pronoun and case marker. E.g.:

(16) **6-*a-ne-ne-kam***
6 =anēnē=ak =ʔam
six=their =GEN=be:3N.S
'This is of the six of them.' (VS 14:172 8:9; L; 24)

Noun phrases with a participle (chapter 28) or a nominalized clause (chapter 27) as their head are the primary types of subordinate clauses in Sumerian. E.g.:

(17) **ur-^{d}nin-ĝiš-zi-*da* ti-*la-a***
ur.nin.ĝiš.zi.da.k=Ø ti.l -Ø -ʔa =ʔa
Urningishzida =ABS live-NFIN-NOM=LOC
'when Ur-Ningishzida was still alive' (NG 18 5; L; 21)

(18) ***a-na-ĝu$_{10}$* [š]e áĝ-*a***
a.na.ĝu$_{10}$=e še =Ø áĝ -Ø -ʔa =ak
Anamu =ERG barley=ABS measure.out-NFIN-NOM=GEN
'of (the fact) that Anumu had paid barley' (NG 127 14; U; 21)

(19) **esir$_2$-*ra* sa$_{10}$-sa$_{10}$-*dè***
esir$_2$ =ʔa sa$_{10}$:RDP -ed -Ø =e
bitumen=LOC barter:IPFV-IPFV-NFIN=DIR
'for buying bitumen' (MVN 16:1257 obv 1; U; 21)

(20) **ensi$_2$ / é-mí-*a* / *mu*-ti-*la-a***
ensi$_2$.k=Ø é.mí=ʔa Ø -mu -n(i)-ti.l -Ø -ʔa =ʔa
ruler =ABS Emi =LOC VP-VENT-in -live-3SG.S/DO-NOM=LOC
'when the ruler stayed in the Emi' (DP 164 3:5-7; L; 24)

Some constructions allow the head of the noun phrase to be omitted. Since this is usually not permitted in English, the omitted head has to be translated with the substitute word *one* (as in *the big one*) or with a pronoun. The head is omitted in noun phrases with headless genitives (§7.2.4), e.g.,

(21) **geme$_2$-^{d}*ba-ú-ka-me***
geme$_2$.ba.ú.k=ak =Ø =me-eš
Geme-Bau =GEN=ABS=be -3PL.S
'They are the ones of Geme-Bau.' (Nik 1:7 2:4; L; 24)

with headless ordinals (§9.4), e.g.,

(22) **2-*kam-ma* / é-gal-*šè* / ře$_6$-*a-am$_6$***
min-kamma é.gal =še ře$_6$ -Ø -ʔa =Ø =ʔam
two -ORD palace=TERM carry-NFIN-NOM=ABS=be:3N.S
'These are the second ones that were brought to the palace.' (VS 14:48 2:4-6; L; 24)

with headless participles (§10.5.3, §28.2.2, §28.3.3, and §28.4.3), e.g.,

(23) **á šúm-*ma* / ^{d}nin-*ĝír-su-ke$_4$***
á =Ø šúm-Ø -ʔa nin.ĝír.su.k=ak =e
strength=ABS give -NFIN-NOM Ningirsu =GEN=ERG
'the one given strength by Ningirsu' (ergative) (Ean. 11 1:7-8; L; 24)

(24) **du$_{10}$-*ga-ĝu$_{10}$***
du$_{10}$.g -Ø -ʔa =ĝu
be.sweet-NFIN-NOM=my
'my sweet one' (PN) (TCS 1:58 1; L; 21)

and with headless relative clauses (§27.4.2), e.g.:

(25) **^{d}nin-*ĝír-sú-ke$_4$* iri-ka-ge-*na-da e-da*-du$_{11}$-*ga-a***
nin.ĝír.su.k=e iri.ka.ge.na.k=da ʔi -n -da -n -du$_{11}$.g-Ø -ʔa =ʔa
Ningirsu =ERG Irikagena =COM VP-3SG-with-3SG.A-say -3N.S/DO-NOM=LOC
'what Ningirsu has agreed with Irikagena' (locative) (Ukg. 34 1; L; 24)

5.3. Appositive noun phrases

A noun phrase can be made up from two or more juxtaposed noun phrases. Such a noun phrase may involve at least two different constructions, apposition and coordination. This section will deal with appositions and similar constructions, while the coordination of noun phrases will be treated in the next section (§5.4).

Juxtaposed noun phrases involve apposition if they are coreferential, that is, if each of them refers to the same person or thing. E.g.:

(26) **lugal-kèš^{ki} / dub-sar-*da***
lugal.kèš dub.sar=da
Lugalkesh scribe =COM
'with Lugalkesh, the scribe' (DP 116 10:3-4; L; 24)

In this phrase the proper noun **lugal-kèš** 'Lugalkesh' and the noun **dub-sar** 'the scribe' refer to the same individual, the first with his name and the second with his profession. Of such a series of juxtaposed and coreferential noun phrases, the second and, if present, following ones will be called appositions of the first, while the first noun phrase of such a series will be called the head. Thus, in example (26) **dub-sar** is an apposition of **lugal-kèš**, while **lugal-kèš** is the head of the entire noun phrase.

An apposition is in the same case as its head, but the case marker is normally placed only once, after the last word of the entire noun phrase. E.g.:

(27) **níĝ-^{d}*ba-ú* dumu *ḫu-wa-wa-ke$_4$***
níĝ.ba.ú dumu ḫu.wa.wa=ak =e
Nigbau son Huwawa =GEN=ERG
'Nig-Bau, the son of Huwawa (ergative)' (NG 101 6; L; 21)

(28) **^{d}en-líl / lugal kur-kur-*ra* / *ab-ba* diĝir-diĝir-*ré-ne-ke$_4$***
en.líl lugal kur -kur =ak ab.ba diĝir-diĝir=enē=ak =e
Enlil king mountains-mountains=GEN father god -god =PL =GEN=ERG
'Enlil, the master of all the mountain lands, the father of all the gods (ergative)' (Ent. 28 1:1-3; L; 25)

However, if the head is followed by two or more appositions, the case marker is sometimes placed after every apposition and thus repeated several times. This happens chiefly when the number of appositions is particularly large. Take, for instance, the following example, which gives only the first two appositions out of a series of twelve, all of them with an ergative case marker:

(29) **é-an-*na*-túm / ensi$_2$ / lagas^{ki}-*ke$_4$* / mu pà-*da* / ^{d}en-líl-*ke$_4$***
é.an.na.túm ensi$_2$.k lagas =ak =e mu =Ø pà.d-Ø -ʔa en.líl=ak =e
Eannatum ruler Lagash=GEN=ERG name=ABS call -NFIN-NOM Enlil =GEN=ERG
'Eannatum, the ruler of Lagash, the one nominated by Enlil, (...)' (Ean. 3 1:7-3:5; L; 25)

Usually, the head of an apposition consists of a proper noun (as in the examples above) but other types of noun phrases are also possible. E.g.:

(30) **lugal ki *an-na*-áĝ-*ĝá-né* / ^{d}nin-*ĝír-su-ra***
lugal ki =Ø ʔa -nna -n -ʔáĝ -Ø -ʔa =ane nin.ĝír.su.k=ra
master place=ABS VP-3SG.IO-3SG.A-measure.out-3N.S/DO-NOM=his Ningirsu =DAT
'for his master who loves him, Ningirsu' (Ent. 28 5:14-15; L; 25)

(31) **2 ½ giĝ$_4$ kù-babbar ur$_5$ *a-ba***
2 ½ giĝ$_4$ kù.babbar ur$_5$ a.ba=ak =Ø
2 ½ shekel silver debt Aba=GEN=ABS
'two and a halve shekels of silver, Aba's debt' (NATN 131 obv 13; N; 21)

Pronouns, however, cannot be followed by an apposition, with the unique exception of an independent pronoun (§8.2).

A wide variety of noun phrases can be used as appositions, but the semantic relationship between the apposition and its head is not always the same. If the head is a proper noun, the apposition merely gives additional information about the already identified person or thing. E.g.:

(32) **šul-ge lugal-*e***
šul.ge.r lugal=e
Shulgi king =ERG
'Shulgi, the king (ergative)' (RTC 278 6; L; 21)

(33) **ur-^{d}*ba-ú* ses-*a-né-er***
ur.ba.ú ses =ane=r(a)
Urbau brother=his =DAT
'for Ur-Bau, his brother' (NG 28 6'; L; 21)

(34) **an-*ta*-sur-*ra* / é *me-lám-bé* kur-kur-*ra a*-dul$_5$**
an.ta.sur.ra é me.lám =be=Ø kur -kur =ʔa ʔa-b(i) -dul$_5$ -Ø
Antasurra house radiance=its=ABS mountains-mountains=LOC VP-3N:on-cover-3N.S/DO
'the Antasurra, the temple whose radiance covers the mountain lands' (Ent. 8 6:1-2 = Ent. 23 39-40; L; 25)

(35) **en-mete-*na* / lú é-*ad-da* ř́ú-*a***
en.mete.na lú é.ad.da.k=Ø ř́ú -Ø -ʔa =ak
Enmetena man Eadda =ABS erect-NFIN-NOM=GEN
'of Enmetena, the man who built the Eadda' (Ent. 1 4:2-3; L; 25)

(36) **dìm-tur / dam en-èn-tar-zi / ensi$_2$ / lagas^{ki}-*ka***
dìm.tur dam en.èn.tar.zi ensi$_2$.k lagas =ak =ak
Dimtur wife Enentarzi ruler Lagash=GEN=GEN
'Dimtur, the wife of Enentarzi, (the latter being) the ruler of Lagash' (BIN 8:347 11:5-8; L; 24)

(37) **gù-dé-*a* / ĝidri šúm-*ma* / ^{d}nin-*ĝír-su-ka-ra***
gù.dé.a ĝidri =Ø šúm-Ø -ʔa nin.ĝír.su.k=ak =ra
Gudea sceptre=ABS give-NFIN-NOM Ningirsu =GEN=DAT
'for Gudea, the one given the sceptre by Ningirsu' (St D 4:4-6; L; 22)

If the head is not a proper noun but some other type of noun phrase, the apposition may also be non-restrictive, giving only additional information about the person or thing referred to by the head:

(38) ***nam-ti ab-ba-né* / en-an-*na*-túm-*ma-šè***
nam.ti.l ab.ba=ane en.an.na.túm=ak =še
life father=his Enannatum =GEN=TERM
'for the life of his father Enannatum' (En. I 26 2:9-10; L; 25)

(39) **sám^{àm}-*né* 8 giĝ$_4$ kù-*šè***
sám =ane kù.g giĝ$_4$ 8=še
price=his silver shekel 8=TERM
'for his price, eight shekels of silver' (NG 204 24; L; 21)

(40) **2 ½ giĝ$_4$ kù-babbar ur$_5$ *a-ba***
2 ½ giĝ$_4$ kù.babbar ur$_5$ a.ba=ak =Ø
2 ½ shekel silver debt Aba=GEN=ABS
'two and a halve shekels of silver, Aba's debt' (NATN 131 obv 13; N; 21)

If the head is a single common noun and the apposition a proper noun, the apposition is always restrictive, limiting the possible referents of the head to a single one. Such restrictive appositions are linked much more strongly to their head nouns than other appositions. Accordingly, the Sumerian scribes always wrote them on the same line as their head nouns, although they often wrote other appositions on separate lines (see several of the above examples). E.g.:

(41) **ki lagas^{ki}-*e***
ki lagas =e
land Lagash=ERG
'the land Lagash (ergative)' (Cyl A 12:23; L; 22)

(42) **kur dilmun^{ki}-*ta***
kur dilmun =ta
mountains Dilmun=ABL
'from the mountain land Dilmun' (VS 14:30 2:4; L; 24)

(43) **en ^{d}nin-*ĝír-su-ke$_4$***
en nin.ĝír.su.k=e
lord Ningirsu =ERG
'lord Ningirsu (ergative)' (Cyl A 23:16; L; 22)

Restrictive appositions can also be used with the nouns **iti.d** 'month' and **mu** 'year' to refer to specific months and years:

(44) **iti siki-ba-*a***
iti.d siki.ba =ʔa
month wool.distribution=LOC
'in the month of Sikiba' (Nik 1:229 1:4; L; 24)

(45) **mu *ur-bí-lum^{ki} ba-*ḫulu-*ta* / mu *ḫu-ḫu-nu-re^{ki} ba-*ḫulu-*šè***
mu ur.bí.lum=Ø ba -ḫulu -Ø =ta
year Urbilum =ABS MM-destroy-3N.S/DO=ABL

mu ḫu.ḫu.nu.re=Ø Ø -ba -ḫulu -Ø =še
year Huhunure =ABS VP-MM-destroy-3N.S/DO=TERM
'from the year "Urbilum was destroyed" to the year "Huhunure was destroyed"' (ITT 3:4913 6-7; L; 21)

However, other constructions are also possible with **iti.d** 'month' and **mu** 'year'. Month names are often construed as genitives (§7.2.3), and year names often follow the noun **mu** 'year' as a nominalized clause:

(46) **mu *ḫu-ùḫ-nu-re*^{ki} *ba*-ḫulu-*a***
mu ḫu.ùḫ.nu.re=Ø Ø -ba -ḫulu -Ø -ʔa
year Huhnure =ABS VP-MM-destroy-3N.S/DO-NOM
'the year that Huhnure was destroyed' (BE 3/1:4 16; N; 21)

Rarely, an apposition refers to a property which belongs to the referent of the head noun:

(47) **15 gu$_4$ gal-gal igi silim**
15 gu$_4$.ř gal-gal igi silim -Ø
15 bull big-big eye be.healthy-NFIN
'fifteen full-grown oxen (having) healthy eyes' (VS 14:66 1:1; L; 24)

(48) **é ub imin-*na-né***
é ub imin =ane=Ø
house corner seven=his =ABS
'his seven-cornered house (lit. "his seven-corners house")' (St D 2:11; L; 22)

(49) ***sa-ma-na* ka piriĝ-*ĝá***
sa.ma.na ka.g piriĝ=ak
Samana mouth lion =GEN
'the Samana-demon (having) the mouth of a lion' (Studies Borger p.73 2; ?; 21)

(50) **2 áb mu 2-*šè***
2 áb mu 2 =še
2 cow year two=TERM
'for two two-year-old cows (lit. "two two-years cows")' (MVN 18:130 5; D; 21)

A common type of apposition occurs in metrological expressions, where a measured noun is followed by an apposition consisting of the measure and the numeral. E.g.:

(51) **kù giĝ$_4$ 1-*a***
kù.g giĝ$_4$ 1 =ʔa
silver shekel one=LOC
'per (lit. "in one") shekel of silver' (Nik 1:300 3:4; L; 24)

See §9.3.2 for more details.

5.4. Coordinate noun phrases

Before the Old Akkadian period, coordination is only rarely expressed by a conjunction. Most conjoined noun phrases are simply juxtaposed. Thus, a noun phrase consisting of two or more juxtaposed noun phrases can not only be an instance of apposition (see the previous section) but may also involve a case of coordination. E.g.:

(52) ***nu*-siki *nu-ma*-kuš**
nu.siki nu.ma.kuš=Ø
orphan widow =ABS
'orphan and widow' (Ukg. 4 12:23; L 24)

At least in their written forms, appositive and coordinate noun phrases are therefore very similar. (In the spoken language, they may have had different intonation patterns, but that is impossible to determine from the textual evidence.) Their similarity hardly ever poses problems for interpretation, though, because they express completely different semantic relationships. While appositive noun phrases always refer to the same person or thing, coordinate noun phrases always refer to different persons or things.

Coordinate noun phrases are in the same case, but the case marker is, as a rule, only placed once, after the last word of the entire noun phrase. E.g.:

(53) **bara$_2$ ^{d}en-líl-*lá* / bara$_2$ ^{d}utu-*ka***
bara$_2$.g en.líl=ak bara$_2$.g utu=ak =ʔa
dais Enlil =GEN dais Utu=GEN=LOC
'on Enlil's dais and Utu's dais' (Ukg. 16 1:12-13; L; 24)

(54) **še-ba še-ĝar zíz-ĝar-*šè***
še.ba še.ĝar zíz.ĝar =še
distribution.barley supply.barley supply.emmer=TERM
'as ration barley, supply barley, and supply emmer' (RTC 66 8:5; L; 24)

(55) **an ki-*a***
an ki =ʔa
heaven earth=LOC
'in heaven and on earth' (e.g., Cyl A 1: 1; L; 22)

(56) ***nam*-urdu$_2$ *nam*-geme$_2$-*a***
nam.urdu$_2$.d nam.geme$_2$ =ʔa
status.of.male.slave status.of.female.slave=LOC
'upon the status of slaves' (NG 30 14; U; 21)

However, if the number of conjoined noun phrases is very large, the case marker is placed after every noun phrase and thus repeated several times. One example contains eighteen conjoined noun phrases, each with its own ergative case marker:

(57) **an-*e* / ^{d}en-líl-*e* / (...) / diĝir-*ĝu$_{10}$* ^{d}nin-ĝiš-zi-*da*-*ke$_4$***
an =e en.líl=e diĝir=ĝu nin.ĝiš.zi.da.k=e
An=ERG Enlil =ERG god =my Ningishzida =ERG
'An, Enlil, (fifteen other gods), and my personal god Ningishzida' (St B 8:44-9:4; L; 22)

A noun phrase consisting of two or more conjoined noun phrases can perform the same syntactic functions as a simple noun. With the appropriate case marker, such a phrase can be a part of a clause or of a larger noun phrase:

(58) **še-numun zíz-numun-*am$_6$***
še.numun zíz.numun =Ø =ʔam
seed.barley seed.emmer=ABS=be:3N.S
'It is seed barley and seed emmer.' (TSA 39 1:3; L; 24)

(59) **gurum$_2$ gu$_4$ ĝiš anše ĝiš-*ka***

gurum$_2$ gu$_4$.ř ĝiš =ak anše ĝiš =ak =ak =Ø
inventory bull wood=GEN donkey wood=GEN=GEN=ABS
'the inventory of draught oxen and draught donkeys' (Genava 26 MAH 16248 3:4; L; 24)

It can even be the head of a larger noun phrase:

(60) **še-ba zíz-ba níĝ-sa-ḫa-ba ezem ^{d}*ba-ú-ka***
še.ba zíz.ba níĝ.sa.ḫa.ba ezem ba.ú=ak =ak
barley.ration emmer.ration fruit.ration festival Bau =GEN=GEN
'the barley rations, emmer rations, and fruit rations of Bau's Festival' (RTC 61 12:8-13:1; L; 24)

(61) **še-ba zíz-ba lú-IGI.LAGAB RU-lugal-*ke$_4$-ne* / ezem ^{d}*ba-ú-ka***
še.ba zíz.ba lú.IGI.LAGAB RU.lugal.k=enē=ak
barley.ration emmer.ration notable subordinate=PL =GEN

ezem ba.ú=ak =ak
festival Bau =GEN=GEN
'barley and emmer rations of the notables and the subordinates, of Bau's festival' (BIN 8:347 11:3-4; L; 24)

Not all conjoined noun phrases are simply juxtaposed. Sometimes, an explicit conjunction is used. The most common Old Sumerian conjunction is {be} 'and', which is in form and spelling completely identical with the non-human possessive pronoun {be} 'its' (§8.3.3). It is only used with two conjoined noun phrases and, being a phrase-final clitic, it is attached to the last word of the second noun phrase. E.g.:

(62) **^{d}nin-*ĝír-su* / ^{d}šara$_2$-*bé***
nin.ĝír.su.k šara$_2$=be =r(a)
Ningirsu Shara=and=DAT
'for Ningirsu and Shara' (Ent. 28 1:5-6; L; 25)

(63) **idigna / buranun-*bé***
idigna buranun =be
Tigris Euphrates=and
'the Tigris and the Euphrates' (FAOS 5/2 Luzag. 1 2:6-7; N; 24)

(64) **PN$_1$ / dub-sar-maḫ / PN$_2$ / lú éš gíd-*bé* / inim *bí*-ĝar-*éš***
PN$_1$ dub.sar.maḫ PN$_2$ lú.éš. gíd=be =e inim =Ø Ø -bi -n -ĝar -eš
PN$_1$ chief.scribe PN$_2$ surveyor =and=ERG word=ABS VP-3N:on-3SG.A-place-3PL
'PN$_1$, the chief scribe, and PN$_2$, the surveyor, claim this (land).' (MVN 6:319 rev 1:3-7; L; 21)

This {be} 'and' mostly joins proper nouns, but can also be used with common nouns:

(65) **gú-mun / šúm-GUD-*bé***
gú.mun šúm.GUD =be =Ø
cumin kind.of.onion=and=ABS
'the cumin and ... onions' (VS 14:52 4:4-5; L; 24)

(66) **še kù maš-*ba***
še kù.g maš=be =ak
barley silver goat=and=GEN

'the barley (equivalent) of the silver and the goat' (Nik 1:102 2:6; L; 24)

(67) **tur maḫ-*ba***
tur maḫ =be =ak
smallness greatness=and=GEN
'of various sizes (lit. "of smallness and greatness")' (VS 14:86 5:1; L; 24)

(68) **kíĝ ú saḫar-*ba***
kíĝ ú saḫar=be =ak
work grass sand =and=GEN
'grass and sand work (lit. "work of grass and sand")' (TENS 28 1; U; 21)

The two types of coordination, by simple juxtaposition or with the conjunction {be}, are not equivalent to each other. There are no examples of conjoined noun phrases which are juxtaposed in one text and joined with {be} in another. Still, it is not easy to give rules. It would seem that {be} joins noun phrases which are conceptually more distinct. (Note that {be} mostly joins proper nouns.) Thus, a phrase **X Y-*bé*** seems to come close to 'both X and Y' or even 'on the one hand X and on the other hand Y'. E.g.:

(69) **u_4-*ba* PN_1 / $ensi_2$ / lagas^{ki} / PN_2 / $ensi_2$ / unug^{ki}-*bé* / *nam*-ses *e*-ak**
u_4.d=be =ʔa PN_1 $ensi_2$.k lagas =ak PN_2 $ensi_2$.k unug=ak =be =e
day=this=LOC PN_1 ruler Lagash=GEN PN_2 ruler Uruk=GEN=and=ERG

nam.ses =Ø ʔi -b -ʔak -Ø
brotherhood=ABS VP-3N.A-make-3N.S/DO
'Then PN_1, the ruler of Lagash, and PN_2, the ruler of Uruk, became brothers (lit. "made brotherhood")' (Ent. 45 2:4-10; L; 25)

The conjunction {be} 'and' is sometimes reinforced with the comitative case marker {da}. E.g.:

(70) **še (...) / ašag en-*né*-gù-*ba*-dé / ašag ù-gig-*bé-da-šè***
še ašag en.né.gù.ba.dé ašag ù.gig=be =da =ak =še
barley field Ennegubade field Ugig=and=COM=GEN=TERM
'as ... barley of the field Ennegubade and the field Ugig' (Nik 1:74 3:1-3; L; 24)

(71) **maš da ri-*a* / ki-a-naĝ / en-èn-tar-zi / *du-du* / saĝĝa-*bé-da-kam***
maš da ri.a ki.a.naĝ en.èn.tar.zi
ceremonial.gift offering.chapel Enentarzi

du.du saĝĝa =be =da =ak =Ø =ʔam
Dudu administrator=and=COM=GEN=ABS=be:3N.S
'These are ceremonial gifts for the mortuary chapels of Enentarzi and Dudu, the administrator.' (Nik 1:195 1:4-2:3; L; 24)

(72) **PN_1 / PN_2-be_6-*da* / *ì-ne*-šúm**
PN_1 PN_2=be =da =r(a) ʔi -nnē -n -šúm-Ø
PN_1 PN_2 =and=COM=DAT VP-3PL.IO-3SG.A-give-3N.S/DO
'He gave this to PN_1 and PN_2.' (OSP 2:60 8-11; N; 23)

(73) **íd idigna íd buranun-*bé-da***
íd idigna íd buranun =be =da
river Tigris river Euphrates=and=COM

'the river Tigris and the river Euphrates' (Cyl B 17:10; L; 22)

Sometimes a second noun phrase is coordinated with a preceding noun phrase by putting it in the ablative case. Often the second phrase shows a possessive pronoun which is coreferential with the preceding phrase, but such a pronoun is not obligatory. E.g.:

(74) ***du-du* / saĝĝa / dam dumu-*né-ta* / (...) / *ì*-gu$_7$-*ne***
du.du saĝĝa dam dumu=ane=ta =e ʔi -b -gu$_7$-enē
Dudu administrator wife child =his =ABL=ERG VP-3N.DO-eat -3PL.A:IPFV
'Dudu, the administrator, together with his wife and children will eat this.' (DP 224 6:5-9; L; 24)

(75) **20 lá 1 u$_8$ sila$_4$-*bé-ta***
20 lá 1 u$_8$ sila$_4$=be=ta
20 minus 1 ewe lamb=its=ABL
'19 ewes, including their lambs' (DP 98 4:6; L; 24)

(76) **10 lá 1 ud$_5$ maš-*bé-ta***
10 lá 1 ud$_5$ maš=be=ta
10 minus 1 goat kid =its=ABL
'9 goats and kids' (DP 98 5:1; L; 24)

(77) **24 gu$_4$ áb-*ta***
24 gu$_4$.ř áb =ta
24 bull cow=ABL
'24 bulls and cows' (Nik 1:177 1:2; L; 24)

(78) **udu-*bé* máš-*bé-ta* / *ga-ab-da-bé-nam***
udu =be máš=be =ta ga -b -tab -en =ʔam
sheep=this goat=this=ABL MOD:1SG.A/S-3N.DO-double-1SG.S/DO=be:3N.S
'I will double those sheep and those goats!' (YOS 4:3 9-10; U; 21)

In the Old Akkadian period, Sumerian acquires a new conjunction, namely the loanword ***ù*** 'and' (from Akkadian *u* 'and'), which is used to coordinate clauses (§27.2) or noun phrases. If it coordinates a series of noun phrases, it is placed between the last two of the series. E.g.:

(79) **šà-gal udu niga šáḫ *ù* mušen-*na***
šà.gal udu niga šáḫ ù mušen=ak
fodder sheep barley.fed pig and bird =GEN
'fodder of the barley-fed sheep, the pigs, and the birds' (MVN 15:64 4:2; D; 21)

(80) ***ḫa-ar-ši*^{ki} *ki-maš*^{ki} *ḫu-ur$_5$-ti*^{ki} *ù ma-da-bé***
ḫa.ar.ši ki.maš ḫu.ur$_5$.ti ù ma.da =be
Harshi Kimash Hurti and countryside=its
'Harshi, Kimash, Hurti, and their countryside' (MVN 11:112 8; L; 21)

(81) **é ^{d}nin-ĝiš-zi-*da* / *ù* é ^{d}ĝeštin-an-*na-ka***
é nin.ĝiš.zi.da.k ù é ĝestin.an.na.k=ak
house Ningishzide and house Geshtinanna =GEN
'the temple of Ningishzida and the temple of Geshtinanna' (St M caption 4-5; L; 22)

From the late Old Akkadian period onwards, using the conjunction ***ù*** 'and' is the most popular method for conjoining noun phrases. It is not only used to coordinate noun phrases which were earlier simply juxtaposed but can also replace the clitic {be} 'and'. Compare:

(82a) **gana$_2$ šuku apin-lá**
gana$_2$ šuku.ř apin.lá=ak
land prebend rent =GEN
'prebendal and rented land (lit. "land of prebend and rent")' (STH 1:40 4:9; L; 24)

(b) **gana$_2$ šuku *ù* apin-[lá]**
gana$_2$ šuku.ř ù apin.lá=ak
land prebend and rent =GEN
'prebendal and rented land' (MVN 6:309 rev 1:14; L; 22)

(83a) ***da-da* / ur-ti-*bé* *i*-ba-*ne***
da.da ur.ti=be =e ʔi -b -ba -enē
Dada Urti =and=ERG VP-3N.DO-portion.out-3PL.A:IPFV
'Dada and Urti will divide them (six slaves).' (ITT 2:2917 15-16; L; 23)

(b) ***be-lí-a-rí-ik* / *ù* ur-nigin$_3$-ĝar-*ke$_4$***
be.lí.a.rí.ik ù ur.nigin$_3$.ĝar.k=e
Bēlī.arik and Urnigingar =ERG
'Bēlī-arik and Urnigingar (ergative)' (PIOL 19:278 8-9; D; 21)

Yet, the conjunction ***ù*** never completely replaces the earlier methods for conjoining noun phrases. Mere juxtaposition and the clitic {be} continue to be used, although primarily in more formal (literary) texts, while ***ù*** is particularly frequent in more colloquial texts such as administrative documents and letters.

Sumerian has no conjunction 'or'. This semantic relationship, too, may be expressed by simple juxtaposition. E.g.:

(84) **u$_4$ 2 u$_4$ 3 *nu-ma-da-ab*-zal**
u$_4$.d 2 u$_4$.d 3=Ø nu =ʔi -m(u)-ba -n -da -b -zal -Ø
day 2 day 3=ABS NEG=VP-VENT-MM-3SG-with-3N.A-pass-3N.S/DO
'They did not pass two or three days with him.' (Cyl A 23:2; L; 22)

If necessary, though, our 'or' can be expressed more explicitly by using a modal form of the verb ***me*** 'be'. E.g.:

(85) **[…] / gala *ḫé* / lú-bappir$_3$ [*ḫé*] / agrig *ḫé* / ugula *ḫé* / bar sila$_4$ gaba-*ka-ka* / kù *a-ĝá-ĝá-a***
gala =Ø ḫa =ʔi -m(e)-Ø lú.bappir$_3$.k=Ø ḫa =ʔi -m(e)-Ø
lamentation.priest=ABS MOD=VP-be -3SG.S brewer =ABS MOD=VP-be -3SG.S

agrig =Ø ḫa =ʔi -m(e)-Ø ugula =Ø ḫa =ʔi -m(e)-Ø bar
steward=ABS MOD=VP-be -3SG.S overseer=ABS MOD=VP-be -3SG.S fleece

sila$_4$ gaba =ak =ak =ʔa kù.g =Ø ʔa-b(i) -ĝar:RDP -e -ʔa =ʔa
lamb breast=GEN=GEN=LOC silver=ABS VP-3N:on-place:IPFV-IPFV.3SG.A-NOM=LOC
'whether he be a lamentation priest, or a brewer, or a steward, or an overseer: when he paid a silver tax for (lit. "placed on") the fleece of a semi-weaned lamb' (Ukg. 1 4:26-31; L; 24)

6. NOUNS

6.1. Introduction

The nouns make up the largest word class of Sumerian. In principle, the number of nouns is unlimited. Apart from a large number of simple nouns, there are numerous complex nouns, most of them compounds.[1] These compounds include such words as **še-numun** 'seed barley', **é-muḫaldim** 'kitchen', ***nam*-lugal** 'kingship', **níĝ-ba** 'gift', **dub-sar** 'scribe', **ki-maḫ** 'cemetery', and so on (§6.5).

Compounding is not the only means by which the number of nouns is increased. Another, more marginal, source of nouns is conversion. By conversion simple or complex forms of the word classes adjective and verb come to belong to the word class noun. Such nouns are, for example, **sukud** 'height' and ***gáb*-íl** 'basket' (§6.6).

Derivation, word formation by means of an affix, is not found in Sumerian, except perhaps in one type of noun (§6.7).

Outside the domain of word formation, the morphology of Sumerian nouns is quite simple. Nouns are not inflected. They have only two possible forms: the basic stem and the reduplicated stem. Other forms do not occur. Even the reduplicated stem, which expresses a kind of plurality, is only rarely used, so that for most nouns only a single form is attested (§6.4).

Grammatical categories which are expressed by noun inflections in other languages are either absent from Sumerian, or expressed by other means. The category of gender is not formally marked on the noun but reveals itself in other parts of the grammar (§6.2). The category of number is limited in scope. The enclitic plural marker {enē} signals the plurality of one class of nouns (§6.3). Nouns are not marked for definiteness. There is no article in Sumerian.

The category of case is expressed by enclitic case markers which are attached to the last word of the noun phrase whose case they indicate. They are treated in chapter 7.

The word class of nouns can be divided into common nouns and proper nouns. The proper nouns (§6.8) differ from the common nouns in two respects. Firstly, proper nouns can consist of a phrase or a clause. Secondly, while common nouns can refer to any member of a class of persons, things, and so on, proper nouns always refer to a single person or thing. Yet, proper nouns and common nouns constitute a single word class because they display basically the same syntactic properties. Nouns of either subclass are used as heads of noun phrases and can occur with a wide range of modifiers (see chapter 5).

6.2. Gender

Sumerian grammars typically state that Sumerian has no gender but a system of two noun classes. Falkenstein (1959a: 36), for example, writes: 'Dem Sumerischen fehlt ein grammatisches Geschlecht. Dafür kennt es ein Zweiklassensystem, das die Nomina einer "Personen-" oder einer "Sachklasse" zuweist'. This distinction between 'gender' and 'noun class' comes from an association of 'gender' with the semantic category of sex. It restricts the category of gender to languages which differentiate between masculine and feminine nouns.

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[1] Recent discussions of Sumerian noun formation, with references to earlier literature, are Attinger (1993: 155-158), Schretter (2000), Selz (2002), Black (2002: 70), and Cunningham (2008).

Such a distinction between 'gender' and 'noun class' is somewhat artificial, however, because the two terms refer to basically the same phenomenon. The crucial fact is that the grammar of a language divides the nouns of the language into classes. It is only of secondary importance how this division is made. In some languages the nouns are divided into classes on the basis of their meaning. Common semantic distinctions are male/female, human/non-human, animate/inanimate, and so on. In other languages formal properties of nouns play a role. Nouns having a certain ending belong to a particular gender class. In many languages the nouns are assigned to a gender class on the basis of a mixture of semantic and formal criteria.[2]

With this in mind, we can say that the grammatical category of gender is present in Sumerian and that the nouns of this language are divided into two gender classes. Nouns are assigned to a gender class on a strictly semantic basis. The gender of a noun is only determined by its meaning, its formal properties are completely irrelevant. The basic semantic distinction between the two genders is human/non-human.

This brings up a terminological problem. In German the two gender classes are called 'Personenklasse' and 'Sachklasse', which are perfectly suitable terms. Unfortunately, there are no generally accepted English equivalents. Various English terms have been proposed, including person and non-person (Edzard 2003), personal and non-personal (Jacobsen 1988a: 208), personal and neuter (Jacobsen 1965: 90), and animate and inanimate (e.g., Thomsen 1984). The latter two terms, animate and inanimate, have gained wide currency but are unfortunately quite misleading. After all, the labels 'animate' and 'inanimate' wrongly suggest that the basic semantic distinction is between living and lifeless. As regards the other proposals, the term 'personal' is also not very suitable either, because it can lead to confusion with the terminology for the grammatical category of person (first, second, and third person, personal pronouns, etc.). Therefore, this grammar proposes to call the two gender classes human and non-human.

Gender class membership is not marked on the noun itself but shows itself in three ways. Firstly and most importantly, the pronominal elements for the third person distinguish between human and non-human. Both the person markers in the finite verb and the pronouns have different forms depending on the gender class to which they refer.

1. the initial person-prefixes human {n} (§16.2.2) and non-human {b} (§16.2.1);
2. the final person-prefixes human {n} (§13.2.3) and non-human {b} (§13.2.2);
3. the possessive pronouns human {ane} and non-human {be} (§8.3);
4. the independent personal pronoun human ***a-ne*** (§8.2);
5. the interrogative pronouns human ***a-ba*** and non-human ***a-na*** (§8.5).

As this overview shows, the human forms regularly show an /n/ and the non-human forms a /b/. With one exception, though: in the interrogative pronouns this pattern is reversed. There the human form contains a /b/ and the non-human form an /n/. (See below for a discussion.)

Secondly, gender class membership shows itself in how certain cases are used. The directive cases only occurs with non-human nouns, whereas the dative is restricted to human nouns (see chapter 7). Thirdly, the two gender classes differ in the way plurality is indicated. Only the human gender class has a number distinction between singular and plural. The enclitic plural marker {enē} is only used with human nouns (§6.3). Similarly, in so far as the person markers in the finite verb and the pronouns show separate plural forms, such forms only refer to the human gender class.

As stated above, the gender of a noun is determined by its meaning. The class of human nouns consists of designations for human beings and gods. It includes:

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[2] For a linguistic discussion of the grammatical category of gender, see Corbett (1991).

– proper names of persons or gods;
– kinship terms, e.g., **ses** ‘brother’, **dam** ‘wife’, and **dumu** ‘child’;
– terms for occupations, e.g., **dub-sar** ‘scribe’ and **sipa.d** ‘shepherd’;
– generic terms, e.g., **diĝir** ‘god’, **lú** ‘man’, and **munus** ‘woman’.
The class of non-human nouns consists of all other nouns. It includes designations of:
– plants, e.g., **ĝiš** ‘tree’, **ḫašḫur** ‘apple’, **še** ‘barley’;
– animals, e.g., **udu** ‘sheep’, **anše** ‘donkey’;
– all kinds of objects, e.g., **na$_4$** ‘stone’, **apin** ‘plough’, **mar** ‘wagon’, **balaĝ** ‘harp’, **gada** ‘linen garment’;
– geographical phenomena, **iri** ‘town’, **kur** ‘mountain’, **íd** ‘river’;
– abstract nouns, e.g., ***nam*-lugal** ‘kingship’.

Thus all nouns which refer to human beings and gods are human, while all other nouns are non-human. However, this basic distinction is interfered with in two ways. Firstly, the words **saĝ** ‘slave (lit. “head”)’ and **geme$_2$** ‘slave woman’ are often treated as grammatically non-human instead of human. Without doubt, this is due to the relatively low social status of slaves. E.g.:

(1) **1 saĝ-mí *sar-ru-a* mu-*né-em* / níĝ-sám^{àm}-*bé* (...)**
1 saĝ.mí sar.ru.a=Ø mu =ane=Ø =(ʔa)m níĝ.sám=be
1 slave.woman Šarrūa =ABS name=her=ABS=be:3SG.S price =its
‘one female slave, Šarrūa is her name, “its” price ...’ (FAOS 17:10 1-2; N; 21)

Here two possessive pronouns are used to refer to the same slave, once a human pronoun, {ane} ‘his, her’, and once a non-human pronoun, {be} ‘its’. Although such ambivalence about the gender of the word **saĝ** ‘slave’ is rarely shown in a single text, across texts it is nevertheless extremely common.

Secondly and more importantly, a group of persons is usually treated as non-human and not as human. Here, too, the borderline between human and non-human is somewhat fluid, so that precise rules cannot be given. Normally, a group of persons is non-human, but if the persons are important as separate individuals, they are treated as human. This principle can be illustrated with some finite forms of the phrasal verb **šu—ti** ‘receive (lit. “bring something near to one’s hand”)’. If the subject of the verb refers to a single person, it is expressed by the human prefix {n}. E.g.:

(2) **lú-^{d}utu-*ke$_4$* / šu *ba-an*-ti**
lú.utu.k=e šu =e Ø -ba -n -ti -Ø
Lu'utu =ERG hand=DIR VP-3N.OO-3SG.A-approach-3N.S/DO
‘Lu-Utu received this.’ (AUCT 3:394 4-5; U; 21)

If the subject of the verb refers to two individuals, each of them mentioned by name, it is nearly always expressed with the human person-affixes {n} and {eš}, but sometimes with the non-human prefix {b}. E.g.:

(3) ***be-lí-a-rí-ik* / *ù* ur-nigin$_3$-ĝar-*ke$_4$* šu *ba-an*-ti-*éš***
be.lí.a.rí.ik ù ur.nigin$_3$.ĝar.k=e šu =e Ø -ba -n -ti -eš
Beliarik and Urnigingar =ERG hand=DIR VP-3N.IO-3SG.A-approach-3PL
‘Beli-arik and Urnigingar received this.’ (PIOL 19:278 8-10; D; 21)

(4) ***be-lí-a-rí-ik* / *ù* ur-nigin$_3$-ĝar / šu *ba-ab*-ti**
be.lí.a.rí.ik ù ur.nigin$_3$.ĝar.k=e šu =e Ø -ba -b -ti -Ø
Beliarik and Urnigingar =ERG hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO

'Beli-arik and Urnigingar received this.' (BIN 3:611 8-10; D; 21). Note that in administrative documents such as these, the scribes often ignore the ergative case marker {e}.

If the subject of the verb refers to an anonymous group of persons, it is nearly always treated as non-human and only very rarely as human. E.g.:

(5) **aga$_3$-ús sukkal-maḫ-*ke$_4$* šu *ba-ab*-ti**
aga$_3$.ús sukkal.maḫ=ak =e šu =e Ø -ba -b -ti -Ø
guard grand.vizier=GEN=ERG hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO
'The guards of the grand vizier received this.' (MVN 12:449 2; L; 21)

(6) **gudu$_4$ ^{d}šara$_2$-*ke$_4$* / šu *ba-ab*-ti**
gudu$_4$.g šara$_2$=ak =e šu =e Ø -ba -b -ti -Ø
priest Shara=GEN=ERG hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO
'The priests of the god Shara received this.' (SAT 2:222 5-6; U; 21)

(7) **engar-*e* šu *ba-ab*-ti**
engar =e šu =e Ø -ba -b -ti -Ø
farmer=ERG hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO
'The farmers received this.' (e.g., UTAMI 4:2864 14; U; 21)

(8) **engar-*e-ne* / šu *ba-ab*-ti**
engar =enē=e šu =e Ø -ba -b -ti -Ø
farmer=PL =ERG hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO
'The farmers received this.' (UTAMI 4:2676 5-6; U; 21)

(9) **lú má gal-gal-*ke$_4$-ne* / šu *ba-an*-ti-*éš***
lú má gal-gal=ak =enē=e šu =e Ø -ba -n -ti -eš
man boat big-big =GEN=PL =ERG hand=DIR VP-3N.IO-3SG.A-approach-3PL
'The men (in charge) of the large boats received this.' (MVN 7:587 obv 4-5; L; 21)

Example 8 also shows that the human plural marker {enē} (§6.3) is used more easily than the human person affixes {n} and {eš}. While the subject of that example, **engar-*e-ne*** 'the farmers', includes the human plural marker {enē}, it is nevertheless referred to by the non-human prefix {b} in the finite verb. Thus, in a single clause the subject is once treated as human (in the noun phrase) and once as non-human (in the finite verb). Such discrepancies are not uncommon and show that the borderline between non-human and human is fluid when groups of persons are referred to.

The possessive pronouns (see §8.3.3 for details) show the same pattern as the person prefixes of the finite verb. The human enclitic pronoun {ane} 'his, her' can only refer to a single individual and {anēnē} 'their' only to two or more individuals. In the same way as the non-human person prefix {b}, however, the non-human pronoun {be} 'its' can be used to a group of persons when their individuality is of no particular importance. The following two examples (from a single administrative document) illustrate this clearly:

(10) **1 PN$_1$ engar še šuku-*ra-na nu*-šúm-*mu***
1 PN$_1$ engar še šuku.r =ane=ak =Ø nu =šúm-ed -Ø
1 PN$_1$ farmer barley subsistence=his =GEN=ABS NEG=give-IPFV-NFIN
'1 PN$_1$, the farmer: the barley of his subsistence-field not to be given' (ASJ 9 p.334:9 7; L; 21)

(11) ***nu* PN$_1$ engar / *n*[*u*] PN$_2$ engar / še šuku-*ba nu*-šúm-*mu***

nu PN$_1$ engar nu PN$_2$ engar še šuku.r =be=ak =Ø nu =šúm-ed -Ø
NEG PN$_1$ farmer NEG PN$_2$ farmer barley subsistence=its=GEN=ABS NEG=give-IPFV-NFIN
'NOT PN$_1$, the farmer; NOT PN$_2$, the farmer: the barley of their subsistence-fields not to be given' (ASJ 9 p.334:9 1-3; L; 21)

As stated above, where the pronominal elements for the third person distinguish between human and non-human, the human forms regularly show an /n/ and the non-human forms a /b/. Yet, this gender difference between /n/ and /b/ must be a relatively recent development. This is proven by the fact that the interrogative pronouns ***a-na*** 'what?' and ***a-ba*** 'who?' show a reversed pattern, with /b/ in the human form and /n/ in the non-human form (§8.5). Originally, the pronominal elements with /n/ and /b/ must have had a functional difference which allowed them to develop to a distinction non- human and human in the interrogatives and to the exact opposite in all other forms.

I cannot offer a plausible reconstruction of what preceded the attested uses of the /n/ and /b/ in Sumerian, but the following are some additional facts which may turn out to be relevant for such a reconstruction:

- the pronominal elements with /b/ can have human reference in the sense that they can be used to refer to a plurality of persons (see above);
- the middle marker {ba} contains the pronominal element /b/ but expresses any indirect reflexive, regardless of gender class (§21.3.2);
- the enclitic conjunction {be} 'and', which is cognate with the non-human pronoun {be}, can coordinate both human and non-human nouns (§5.4);
- the person suffixes {Ø} (§14.4) and {e} (§14.5) have only a single form to express both the third person non-human and the third person singular human;
- in the imperfective inflection, the marking of a non-human direct object (with the non-human person-prefix {b}) is optional (§15.2.4);
- the non-human person prefix {b} is also absent from certain other types of verbal forms (§16.3.1 and §22.4).

Thus, the distinction between /n/ and /b/ plays a central role in the Sumerian gender system. But the human/non-human contrast associated with it shows several discrepancies, which make clear that the Sumerian gender system is a linguistic system in flux.

6.3. The plural marker {enē}

6.3.1. Introduction

Nouns are not inflected for number. In this, Sumerian differs from a language such as English, where basically every noun has a special plural form. Sumerian **é**, for instance, stands for both English 'house' and 'houses'. However, this ambiguity between singular and plural meaning is restricted to non-human nouns. The plurality of a human noun is generally indicated with the plural marker {enē}.

This plural marker {enē} is a phrase-final clitic (§4.4.3). It is attached to the last word of a noun phrase and indicates the plural of the head noun of that phrase. In each of the following phrases, for instance, {enē} indicates the plural of the noun **diĝir** 'god' (note that every single noun phrase has been put between brackets):

(12) **é diĝir-*re-ne-ke$_4$***
[é [diĝir=enē=ak]=e]
[house [god =PL =GEN]=ERG]

'the temples of the gods' (MVN 15:138 7; D; 21)

(13) **diĝir gal-gal-*e-ne***
[diĝir gal-gal=enē=ak]
[god big-big=PL =GEN]
'of the great gods' (FAOS 9/2 Šūsuen 9 11; U; 21)

(14) **diĝir gal-gal lagas^{ki}-*a-ke$_4$-ne***
[diĝir gal-gal [lagas =ak]=enē=e]
[god big-big [Lagash=GEN]=PL =ERG]
'the great gods of Lagash' (Cyl A 10:28; L; 22)

In the relative order of phrase-final clitics, {enē} follows any enclitic pronoun and precedes the case marker (§4.4.4):

(15) **ka dumu-*ne-ne-ka***
[ka.g [dumu=ane=enē=ak]=?a]
[mouth [child =her =PL =GEN]=LOC]
'in the mouth of her children' (NG 171 5; L; 21)

Being a clitic, {enē} is a grammatical word (§4.3.4). Thus, it is what Dryer (1989) calls a plural word and Corbett (2000: 133-135) a number word: it is a word which indicates the plurality of nouns just like plural affixes do in other languages. Crosslinguistically, a plural word can belong to various word classes. In Sumerian, it constitutes a minor word class containing a single member (§4.5.2). Its word order properties are as predicted by Dryer (1989: 880; 2007a: 99), who found that the order of plural word and noun exhibited a clear correlation with the order of verb and object. In all the languages of his sample with the word order object – verb, the plural word followed the noun. Sumerian is also such a language.

Section §6.3.3 will give more details about how {enē} is used. But, first, section §6.3.2 will address the forms of {enē} and how they are written.

6.3.2. Forms and spellings

The basic form of the plural marker seems to be /ĕnē/. That the first /e/ is short and the second long is suggested by spellings such as the following:

(16) **en-en-*né-ne-šè***
en -en =enē=še
lord-lord=PL =TERM
'for the lords' (DP 77 4:1; L; 24)

Here the phonemic sequence /nene/ is written ***né-ne***, with two different sound signs, ***né*** representing /nĕ/ and ***ne*** /nē/ (§2.5). However, the Ur III texts contain a few spellings with the word **diĝir** 'god' which suggest that the first /e/ is not short but long. E.g.:

(17) **é diĝir-*re-e-ne-ke$_4$ ba-ab*-dab$_5$**
é diĝir=enē=ak =e Ø -ba -b -dab$_5$-Ø
house god =PL =GEN=ERG VP-MM-3N.A-take -3N.S/DO
'The temples of the gods took this for themselves.' (e.g., PDT 2:294 6; D; 21)

Similarly: **diĝir-*re-e-ne*** ‘of the gods’ (BRM 3:161 2; U; 21). Such plene spellings are generally used to express long vowels (§2.5). Do they represent a lengthening of the first /e/ of {enē} in these forms? But why only with this one word, **diĝir** ‘god’?

The initial /e/ of {enē} contracts with a preceding vowel. Where word signs are used to write the morpheme before {enē}, the contraction shows itself only in the absence of the initial /e/ of {enē} after a vowel. E.g.:

(18) **ki geme$_2$-*ne-ta***
ki geme$_2$ =enē=ak =ta
place slave.woman=PL =GEN=ABL
‘from the slave women’ (MVN 22:273 obv 2; L; 21)

(19) **ama dumu-dumu-*ne***
ama dumu-dumu=enē=ak
mother child -child =PL =GEN
‘mother of all children’ (St A 1:3; L; 22)

(20) **ki šabra-*ne-ta***
ki šabra =enē=ak =ta
place administrator=PL =GEN=ABL
‘from the administrators’ (PDT 1:171 30; D; 21)

But where the morpheme before {enē} is written with a sound sign, the result of the contraction can be observed. Thus, the contraction of the initial short /e/ of {enē} with a preceding short /e/ results in a long /ē/:

(21) **ka dumu-*ne-ne-ka***
ka.g dumu=ane=enē=ak =ʔa
mouth child =her =PL =GEN=LOC
‘in the mouth of her children’ (NG 171 5; L; 21)

Here the final short /e/ of {ane} (§8.3.3) contracts with the initial short /e/ of {enē}. The resulting vowel is written with the sound sign ***ne***, which represents /nē/. (The sequence /nĕ/ would have been written ***né***, §2.5.) By analogy, it can be assumed that the result of the contraction is also a long vowel where the spelling is ambiguous. In the following form, for instance, the spelling ***bé-ne*** can be taken to represent /bēnē/:

(22) **ki lú-*bé-ne-ta***
ki lú =be =enē=ak =ta
place man=this=PL =GEN=ABL
‘from (the place of) these men’ (AUCT 3:52 4; D; 21)

The contraction of the initial /e/ of {enē} with a preceding /a/ results in an /a/:

(23) **še-ba lú šuku dab$_5$-*ba-ne***
še.ba lú šuku.ř =Ø dab$_5$-Ø -ʔa =enē=ak
ration.barley man subsistence=ABS take -NFIN-NOM=PL =GEN
‘barley rations of the persons holding a subsistence field’ (e.g., DP 154 1:2; L; 24)

Here, too, one expects the /a/ resulting from the contraction to be long, but evidence for or against this is lacking. The same applies to the contraction of /e/ with a preceding /u/ or /i/, which similarly results in a – presumably long – /u/ and /i/. E.g.:

(24) **urdu$_2$-*ĝu$_{10}$-ne***
urdu$_2$.d=ĝu=enē=e
servant =my=PL =ERG
'my servants' (ITT 1:1119 7; L; 23)

(25) ***ši-ma-aš-gi$_4$-ne***
ši.ma.aš.gi$_4$=enē=e
Shimashkian=PL =ERG
'the Shimashkians' (UMTBM 2:112 rev 1; U; 21)

The full form /enē/ is only found after a consonant. As in all other forms, the second syllable of {enē} is then always written ***-ne***, but the scribes handle the initial /e/ of {enē} in a variety of ways. Either they take it together with the preceding consonant and write ***-Ce-ne***, or they ignore the consonant and simply write ***-e-ne***, or they ignore both the consonant and the initial /e/ and merely write ***-ne***. Which strategy they follow depends partly on which consonant precedes and partly on other considerations. The first strategy, writing ***-Ce-ne***, is more faithful to the syllabic structure of the form. The second strategy, writing ***-e-ne***, reflects the morphological structure better, as it clearly separates the preceding morpheme from the clitic {enē}. The third strategy is the more economical one, as it requires one sign less. The actual pronunciation of a given word may have been an important consideration as well, especially where the scribe chose to ignore the initial /e/ of {enē} instead of spelling it out.

Generally speaking, the spelling with ***-Ce-ne*** is the norm in the Old Sumerian texts from Lagash, except after a fricative, where ***-ne*** is the most common spelling. From the later Old Akkadian period onwards, the spelling with ***-e-ne*** is widely attested. It is regularly used after all consonants except /k/ in the Ur III texts from Umma, Ur, and Drehem. It is also often found in the Ur III texts from Lagash, but there the spelling with ***-Ce-ne*** remains in use to a much larger extent than elsewhere.

After the plain voiceless stops /b/, /d/, and /g/, the spellings ***-bé-ne***, ***-dè-ne***, and ***-ge-ne*** are the norm in the Old Sumerian texts from Lagash. E.g.: **ašgab-*bé-ne*** (Nik 1:93 3:3; L; 24), **sipa-*dè-ne*** (Nik 1:234 3:2; L; 24), **unu$_3$-*dè-ne*** (DP 276 4:5; L; 24), **agrig-*ge-ne*** (DP 221 6:2; L; 24), **gudu$_4$-*ge-ne*** (Ukg. 4 3:14; L; 24). The spelling with ***-dè-ne*** remains widely used in Ur III Lagash and Umma, but for the rest spellings with ***-e-ne*** dominate in the Ur III texts, alternating with the occasional ***-ne***: E.g.: **ašgab-*e-ne*** (ASJ 16 p.106:4 7; D; 21), **išib-*e-ne*** (MVN 3:280 7; U; 21), **sipa-*e-ne*** (MVN 18:97 7; D; 21), **sipa-*ne*** (TPTS 1:520 11; U; 21), **unu$_3$-*e-ne*** (UET 3:1217 25; Ur; 21), **unu$_3$-*ne*** (TCTI 2:3284 3; L; 21), **simug-*e-ne*** (AnOr 1:106 9; U; 21).

After the voiceless aspirated stop /k/, the spelling with ***-ke$_4$-ne*** is the only one used. E.g.: ***nu*-kiri$_6$-*ke$_4$-ne*** (Nik 1:144 4:5; L; 24), **ab-*ba-ke$_4$-ne*** (VS 25:53 3:2; L; 24), **ud$_5$-*da-ke$_4$-ne*** (DP 277 6:4; L; 24), **ensi$_2$-*ka-ke$_4$-ne*** (OIP 14:144 12; A; 23), **ensi$_2$-*ke$_4$-ne*** (MVN 8:98 16; D 21), ***nu*-^{ĝiš}kiri$_6$-*ke$_4$-ne*** (UET 3:1097 15; Ur; 21).

For the plain voiceless affricate /z/, the theoretically possible spellings seem to be ***-zé-ne***, ***-e-ne***, and ***-ne***. Unfortunately, there are no attestations.

After the voiceless aspirated affricate /ř/, all three spellings are attested, but the one with ***-Ce-ne*** only once: **šu-ku$_6$-*ře$_6$-ne*** (VS 25:62 3:2; L; 24). The spelling with ***-ne*** is the most frequent, but the one with ***-e-ne*** also occurs quite regularly: **šu-ku$_6$-*e-ne*** (MVN 5:245 19; L; 21), **šu-ku$_6$-*ne*** (Nik 1:269 3:7; L; 24), **di-ku$_5$-*e-ne-šè*** (NG 202 8; U; 21), **di-ku$_5$-*ne-šè*** (NG 74 4; L; 21).

After the fricatives /s/, /š/, and /ḫ/, the spelling with ***-Ce-ne*** is never used, even though CV-signs with /ḫ/ and /š/ are available. That is to say, the scribes could very well have written ***-

ḫe-ne and ****-šè-ne***, but they never do. In the Old Sumerian texts from Lagash, the spelling with ***-ne*** seems to be the most common one, but the number of attestations is quite small. E.g.: **má--laḫ$_5$-*ne*** (DP 428 4:4; L; 24), **aga$_3$-ús-*ne*** (Nik 1:130 1:2; L; 24). In the Ur III texts from Lagash, this spelling alternates with ***e-ne***. E.g.: **má-laḫ$_5$-*e-ne*** (ITT 3:4811 2; L; 21), **má-laḫ$_5$-*ne*** (MVN 12:345 6; L; 21), **kas$_4$-*ne*** (MVN 6:255 rev 11; L; 21). Elsewhere, the spellings with ***-e-ne*** are the most frequent by far. E.g.: **má-laḫ$_5$-*e-ne*** (SNAT 533 rev 13; U; 21), **maš-maš-*e-ne*** (TCNU 544 obv 4; U; 21), **maš-maš-*ne*** (MVN 16:994 obv 3; U; 21), **kuš$_7$-*e-ne*** (UET 9:1007 rev 3; Ur; 21), ***gáb*-ús-*e-ne*** (MVN 8:201 rev 11'; D; 21). Note that the spelling **aga$_3$-ús-*e-ne*** occurs over 250 times in the Drehem texts, as opposed to only a handful of attestations of **aga$_3$-ús-*ne***.

After /ĝ/, the spelling with ***-Ce-ne*** occurs only once: **saĝ-*ĝe$_{26}$-ne-ke$_4$*** (DP 513 6:1; L; 24). The two spellings with ***-e-ne*** and ***-ne*** both occur a few times: **ur-saĝ-*e-ne*** (e.g., PDT 1:527 obv 13; D; 21), **saĝ-*ne*** (BIN 8:301 8; U; 23).

Also after /m/, the spelling with ***-me-ne*** is quite rare. E.g.: **elam-*me-ne-kam*** (RTC 20 1:4; L; 24), **šitim-*me-ne*** (AAICAB I/2 pl. 105 Ashm. 1937-68 2; U; 21), **zadim-*me-ne*** (UET 3:264 15; Ur; 21). The spelling with ***-ne*** occurs from the late Old Akkadian period onwards: ***gu-ti-um-ne-šè*** (Amherst 9 2; L; 22), **elam-*ne-ta*** (Nisaba 10:48 obv 6; L; 21), **muḫaldim-*ne*** (HSS 4:120 2; L; 21). But regardless of time and place, the spelling with ***-e-ne*** is by far the most frequent: **gidim-*e-ne-kam*** (VS 14:163 6:1; L; 24), **muḫaldim-*e-ne*** (SACT 1:155 1; D; 21), **šà-tam-*e-ne*** (BIN 3:387 3; D; 21), **šitim-*e-ne*** (SAT 1:373 6; L; 21), **elam-*e-ne-ta*** (Nisaba 13:47 3; L; 21), **gašam-*e-ne*** (ITT 3:4906 3; L; 21).

In the Old Sumerian texts from Lagash, the spelling ***-né-ne*** is the norm after /n/. E.g.: **en-en-*né-ne*** (DP 25 2:4; L; 24). But that spelling is in later texts replaced by ***-e-ne***, also in Lagash: **en-en-*e-ne*** (MVN 20:69 rev 3; U; 21), (RTC 401 1:14; L; 21).

After /r/, the normal spelling in the Old Sumerian texts from Lagash is ***-ré-ne***. E.g.: **engar-*ré-ne*** (VS 14:175 3:3; L; 24), **nagar-*ré-ne*** (DP 487 1:3; L; 24). Subsequently, the CV-sign ***re*** generally replaces ***ré***, so that from then on we find ***-re-ne*** instead of ***-ré-ne***. This ***-re-ne*** mainly occurs in Lagash texts. E.g.: **engar-*re-ne*** (MVN 11:42 2; L; 21), **nagar-*re-ne*** (JCS 40 p.237:5 3; L; 21). But the spellings with ***-e-ne*** and ***-ne*** are used in Ur III Lagash as well. E.g.: **nar-*e-ne*** (SAT 1:28 2; L; 21), **dub-sar-*ne*** (MVN 7:528 obv 2; L; 21), **engar-*ne*** (MVN 6:24 obv 2; L; 21). Outside of Lagash, the normal spelling is with ***-e-ne***. E.g.: **engar-*e-ne*** (UTAMI 3:2091 13; U; 21), ***uš-bar-e-ne*** (UET 3:76 2:5'; Ur; 21).

The word **diĝir** 'god' shows exceptional behaviour. It almost exclusively occurs with a ***-Ce-ne*** spelling: **diĝir-*ré-ne*** (Ent. 28 5:30; L; 25), **diĝir-*re-ne*** (FAOS 5/2 Enšak. 1 6; N; 24), (DTBM 58 rev 20; D; 21), (UTAMI 3:2022 2; U; 21), (UET 3:94 8; Ur; 21). Moreover, it is the only word to occur with a plene spelling ***-re-e-ne*** (see ex. 17 above).

After /l/ the theoretically possible spelling ****-le-ne*** is not attested, but the total number of attestations after /l/ is relatively small. Of the other two spellings, the one with ***-e-ne*** is somewhat more frequent than the one with ***-ne***. E.g.: **gal-gal-*e-ne*** (FAOS 9/2 Šūsuen 9 11; U; 21), **lugal-lugal-*e-ne-šè*** (BIN 9:440 31'; I; 21), **lugal-lugal-*ne*** (RTC 316 rev 1; L; 21).

After /ʔ/, the spelling with ***-e-ne*** dominates. E.g.: **gala-*e-ne*** (e.g., Ukg. 6 1:13'; L; 24), ***gu-za*-lá-*e-ne*** (e.g., SAT 3:2031 9; U; 21). But the Ur III texts also contain a few spellings with ***-ne***: **gala-*ne-ta*** (TROM 2:220 5; U; 21) and ***gu-za*-lá-*ne*** (e.g., MTBM 231 2; L; 21).

6.3.3. Usage

As stated above in §6.3.1, {enē} expresses the plural of nouns belonging to the human gender class. As a phrase-final clitic, it is attached to the last word of the noun phrase to which it

belongs and indicates the plural of the head noun of that phrase. If that noun phrase consists of a single word, {enē} is attached to the head noun itself and thus to the word whose plural it expresses. E.g.:

(26) **engar-*e-ne***
engar=enē=e
farmer=PL =ERG
'the farmers' (UTAMI 4:2676 5; U; 21)

But if that noun phrase is complex, {enē} is separated from its head noun by the modifiers of that noun – by, for instance, an adjective, a noun phrase, a relative clause, or an enclitic pronoun (§5.2). Most of these possibilities have already been illustrated in §6.3.1 above, so that we can limit ourselves here to examples with a non-finite and a finite relative clause (the head noun and its plural marker have been underlined):

(27) **mu <u>aga$_3$-ús</u> urim$_5^{ki}$-*ta* má lugal gíd-*da*-<u>*ne*</u>-*šè***
mu aga$_3$.ús urim$_5$=ta má lugal=ak =Ø gíd-Ø -ʔa =enē=ak =še
name guard Ur =ABL boat king =GEN=ABS pull-NFIN-NOM=PL =GEN=TERM
'because (lit. "for the name") of the guardsmen who towed the royal bark from Ur' (MVN 10:142 obv 19; D; 21)

(28) **še šuku-*řá* / <u>lú</u> DUN-*a* / é-me-lám-sù / *ba-ta*-ru-*a*-<u>*ne*</u>-*kam***
še šuku.ř =ak lú DUN -Ø -ʔa é.me.lám.sù=ak
barley subsistence=GEN man be.subordinate-NFIN-NOM Emelamsu =GEN

Ø -ba -ta -ru -Ø -ʔa =enē=ak =Ø =ʔam
VP-MM-from-eject-3N.S/DO-NOM=PL =GEN=ABS=be:3N.S
'This is the subsistence barley of Emelamsu's subordinate men who were removed.' (Nik 1:90 2:4-3:1; L; 24)

If two or more nouns are coordinated, each of them can be marked as plural by {enē}:

(29) **ugula-*ne* / *ab-ba-ne***
ugula =enē ab.ba=enē=r(a)
foreman=PL elder =PL =DAT
'for the foremen and elders' (VS 14:154 7:2-3; L; 24)

Normally, however, the plural marker {enē} is used only once, after the last of the coordinated nouns (Poebel 1923: §137):

(30) **lú éš gíd / gala-maḫ / agrig / lú bappir$_3$ / ugula-ugula-*ne***
lú éš =Ø gíd -Ø =ak gala.maḫ agrig
man rope=ABS pull-NFIN=GEN chief.lamentation.priest steward

lú bappir$_3$ =ak ugula -ugula =enē=e
man beer.bread=GEN foreman-foreman=PL =ERG
'the surveyors (lit. "man of pulling the rope"), chief lamentation-priests, stewards, brewers (lit. "man of the beer bread"), and all foremen' (Ukg. 4 4:2-6; L; 24)

(31) **mu aga$_3$-ús *ù* lú šuku-*ra-ke$_4$-ne-šè***
mu aga$_3$.ús ù lú šuku.r =ak =enē=ak =še
name guard and man subsistence=GEN=PL =GEN=TERM
'because of the guardsmen and the subsistence men' (AUCT 1:284 6; D; 21)

(32) **lá-NI su-*ga* sipa unu$_3$ *ù* gurušta-*e-ne***
lá.NI su.g -Ø -ʔa sipa unu$_3$ ù gurušta=enē=ak
shortage repay-NFIN-NOM shepherd herdsman and fattener =PL =GEN
'shortages repaid by the shepherds, herdsmen, and fatteners' (OIP 115:292 40'; D; 21)

The plural marker {enē} is not used when a plurality of humans is seen as a collective. Such a plurality is treated as belonging to the non-human gender class (§6.2). E.g.:

(33) **gurušta-*e íb*-dab$_5$**
gurušta=e ʔi -b -dab$_5$-Ø
fattener =ERG VP-3N.A-take -3N.S/DO
'The fatteners took them.' (BCT 1:119 13; D; 21)

(34) **engar-*e* šu *ba-ab*-ti**
engar=e šu =e Ø -ba -b -ti -Ø
farmer=ERG hand=DIR VP-3N.IO-3N.A-be.near-3N.S/DO
'The farmers received it.' (UTAMI 4:2864 14; U; 21)

Even with human nouns, explicit indication of the plural is relatively infrequent in Sumerian as compared with languages such as English or Akkadian. The plural marker {enē} is absent from human nouns if their plural meaning is already made clear by other means. Thus, a noun quantified by a numeral never has a plural marker:

(35) **2 sipa udu siki-*ka***
2 sipa udu siki =ak =ak
2 shepherd sheep wool=GEN=GEN
'two shepherds of wool sheep' (VS 14:187 3:6; L; 24)

(36) **a-nun-*na* eridu^{ki} ninnu-*bé***
a.nun.na eridu=ak ninnu=be
Anunna Eridu=GEN fifty =this
'the fifty Anunna-gods of Eridu' (TrD 1 4; ?; 21)

(37) **šuku lú 3-*a-kam***
šuku.ř lú eš =ak =Ø =ʔam
subsistence person three=GEN=ABS=be:3N.S
'It is the subsistence land of three persons.' (NG 215 1; U; 21)

As Attinger (1993: 160) noted, the plural marker {enē} is also absent from nouns in the absolutive case. The reason is the same as for nouns quantified by numerals. A plural meaning of a noun in the absolutive case is already made clear by other means, in this case by the verbal form, either by the plural person-suffix {eš} (§14.8) or by a special form of the verbal stem indicating plurality (§12.4). E.g.:

(38) **engar-*me-éš***
engar =Ø =me-eš
farmer=ABS=be -3PL.S
'They are farmers.' (BPOA 2:2562 rev 2; U; 21)

(39) **di-ku$_5$ *ib-dú-ru-né-eš***
di.ku$_5$.ř=Ø ʔi -b(i) -durun -eš
judge =ABS VP-3N:on-sit:PLUR-3PL.S/DO
'The judges have sat there.' (TCS 1:203 3; U; 21)

(40) **lú inim-*ma-bé ba*-ri-ri-*ge-eš*-[*àm*]**
lú inim=ak =be=Ø Ø -ba -ri.g -ri.g -eš =ʔam
man word=GEN=its=ABS VP-MM-pick.up-pick.up-3PL.S/DO=be:3N.S
'It was so that the witnesses for it had died.' (NG 212 13; U; 21)

(41) **mu 3-*àm* / dumu AN.LUḪ / ur-si$_4$-si$_4$ šu-i / á *i*-è-*éš-a-ta***
mu 3=ʔam dumu AN.LUḪ=ak =Ø ur.si$_4$.si$_4$ šu.i =e
year 3=be:3N.S son AN.LUḪ=GEN=ABS Ursisi barber=ERG

á =Ø ʔi -n -ʔè -eš -ʔa =ta
strength=ABS VP-3SG.A-go.out-3PL.S/DO-NOM=ABL
'after Ursisi, the barber, had raised AN.LUḪ's sons for three years' (BIN 8:293 3:2-5; N; 23)

(42) **lú-zàḫ dab$_5$-dab$_5$-*dè***
lú.zàḫ =Ø dab$_5$-dab$_5$-ed -Ø =e
fugitive=ABS take -take -IPFV-NFIN=DIR
'in order to arrest fugitives' (RTC 355 10; L; 21)

If the noun phrase in the absolutive case consists of coordinated nouns, the verbal form does not make clear whether these nouns are themselves plural or not. The plural marker {enē} is therefore used with such nouns. In the following two clauses, {enē} indicates that **dumu** 'child' is plural, something which cannot be inferred from the verbal form:

(43) **tukum-*bé* u$_4$-*da-ta* / ur-^{d}*ša-u$_{18}$-ša ù* dumu-*ĝu$_{10}$-ne ḫa-ba-*zàḫ-*dè-eš***
tukum.bé u$_4$.da=ta ur.ša.u$_{18}$.ša ù dumu=ĝu=enē=Ø
if today=ABL Ur.Sha'usha and child =my=PL =ABS

ḫa =Ø -ba -zàḫ -ed -eš
MOD=VP-MM-run.away- IPFV-3PL.S:IPFV
'if after today Ur-Sha'usha and my children run away' (ZA 55 p.68:ITT 5:9594 3'-4'; L; 21)

(44) **ur-saĝ-ùb^{ki} *ù* dumu-*ne-ne* / dumu-gi$_7$-*ra ba-an-*ku$_4$**
ur.saĝ.ùb ù dumu=ane=enē=Ø dumu.gi$_7$.r=ʔa Ø -ba -n(i)-ku$_4$.r-Ø
Ursagub and child =his =PL =ABS citizen =LOC VP-MM-in -enter -3N.S/DO
'Ur-Sagub and his children became (free) citizens.' (NG 75 22-23; L; 21)

Very rarely, though, {enē} is found redundantly with a noun in the absolutive case:

(45) **lú má zi-*ra-bé-ne* / lugal-kù-zu / *ba-an-la-aḫ***
lú má zi.r -Ø -ʔa =ak =be =enē=Ø
man boat destroy-NFIN-NOM=GEN=this=PL =ABS

lugal.kù.zu=e Ø -ba -n -la.ah -Ø
Lugalkuzu =ERG VP-MM-3SG.A-bring:PLUR-3N.S/DO
'Lugalkuzu brought away these men of the destroyed boat.' (RA 46 p. 53:3 3-5; U; 21)

Finally, in the following clause, a noun in the genitive case (**lú** 'man') lacks the plural marker {enē}, because its plural meaning is already made clear by the person suffix {eš} in the verbal form of the relative clause:

(46) **še šuku-*řá* / lú amar-ki / ugula / *ba*-ug$_7$-*ge-a-kam***

še šuku.ř =ak lú amar.ki ugula =ak
barley subsistence=GEN man Amarki foreman=GEN

Ø -ba -ʔug$_7$ -eš -ʔa =ak =Ø =ʔam
VP-MM-die:PLUR-3PL.S/DO-NOM=GEN=ABS=be:3N.S
'This is the subsistence barley of Amarki the foreman's men who have died.' (VS 14:39 1:2-5; L; 24)

The plural marker {enē} is an obligatory part of the independent personal pronoun ***a-ne-ne*** 'they' (§8.2) and of the enclitic possessive pronouns of the second and third persons plural ***zu-ne*** 'of you guys' and ***-a-ne-ne*** 'their' (§8.3.4).

The plural marker {enē} is cognate with the verbal third person plural suffix {enē} (§14.9). What these two morphemes have in common is their form /enē/ and their plural meaning. The most likely historical source for both morphemes seems to be a hypothetical obsolete demonstrative */enē/ 'these' or 'those'. Demonstratives are a historical source for plural markers (Diessel 1999: 137-138). They are also a common historical source for third person pronouns. A classic example is French *il*, which comes from Latin *ille* 'that (over there)'. And personal pronouns are in turn a regular source of person markers on verbs (Diessel 1999: 119-120). Thus, a development from a hypothetical demonstrative */enē/ to the person suffix {enē} would have a parallel in other languages. It may also have a parallel in Sumerian itself. As a person suffix, {enē} is the plural counterpart of the person suffix {e} (§14.5), for which an origin as demonstrative is also a real possibility, as it may be cognate with the Sumerian enclitic demonstrative {ʔe} (§8.4.2).

6.4. Reduplication

Sumerian nouns can have reduplicated forms. It is a property they share with the adjectives and with the verbs. The latter even have two types of reduplication: a partial reduplication for making imperfective stems (§12.3) and a full reduplication which expresses verbal number (§12.4.3). Reduplicated nouns express a kind of plurality and this, too, they have in common with reduplicated adjectives (§10.3) and fully reduplicated verbal stems (§12.4.3). Reduplication occurs with nouns of both gender classes.

The reduplication of a noun involves a full repetition of its stem. The standard spelling for a reduplicated noun is to write it twice. E.g.:

(47) **kur-kur**
kur -kur =Ø
mountains-mountains=ABS
'the foreign lands' (FAOS 5/2 Luzag. 1 1:44; N; 24)

Such spellings nearly always are simple repetitions of word signs, which give no real indication of the actual phonemic make-up of the reduplicated stems. However, there are a few spellings with sound signs and they confirm that the reduplication is a full one. For **kur-kur**, for instance, we have a spelling ***ku-úr-ku-úr-ši*** (ZA 55 p.36 17; OB), with ***ši*** for the terminative case marker {še}. Other examples are ***ga-na-qa-na*** for **gana$_2$-gana$_2$** 'fields' (ZA 92 p.26 1:17B; OB), ***a-ga-ar-a-ga-ar*** for **a-gàr-a-gàr** 'agricultural districts' (ZA 92 p.26 1:17B; OB), and ***[t]e-er-te-re*** for **tir-tir-*e*** 'forests' (VS 2:3 1:9; OB), with the ergative case marker {e}. In addition, we have reduplicated forms of a few nouns which are always written with sound signs: ***ma-da-ma-da*** 'lands' (RIM E3/2.1.4.3 2:16; N; 21, OB copy) and ***ab-ba-ab-ba*** 'elders' (TCTI 1:1030 4:2'; L; 21).

The full reduplication of an adjectival or verbal stem results in a single phonological word. This is shown by the many assimilations and other phonological adaptations which take place at the boundary between the two repeated stems (§4.3.3). Take, for instance, the spelling ***ba-ab-ba-ar*** for the reduplicated form of **bar$_6$** 'white' (§10.3) or the spelling ***gu-qú-bu*** for that of **gub** 'stand', with the final /u/ representing the suffix {ed} (§12.4.3).

Unfortunately, the evidence for reduplicated nouns is limited and inconclusive. Only one spelling suggests that reduplicated nouns form a phonological unit and that is the spelling ***ga-na-qa-na*** for **gana$_2$-gana$_2$** 'fields' (ZA 92 p.26 1:17B; OB). Here the initial /ga/ of **gana$_2$** is represented by different sound signs in the two parts of the form, which points to a difference in pronunciation between the two repeated stems and thus to some phonological adaptation across the boundary between them. If there were a word boundary between the two parts, we would expect the initial /ga/ of **gana$_2$** to be written both times in exactly the same way.

However, the spelling ***a-ga-ar-a-ga-ar*** for **a-gàr-a-gàr** 'agricultural districts' in the same line of the same text points in exactly the opposite direction. If the two stems were a single phonological word, we would expect a spelling ****a-ga-ra-ga-ar***, which is not only lacking here but also elsewhere in the same text: ***a-ga-ar-a-ga-re***, with the directive case marker {e} (ZA 92 p.26 2:6; OB), and ***a-ga-ar-a-ga-ra***, with the locative case marker {ʔa} (ZA 92 p.28 2:11; OB).

Thus, the question remains: is a reduplicated noun one phonological word or does it consist of two? As we saw above, there is some evidence in support of either possibility. Since, however, fully reduplicated adjectival and verbal stems are phonological words, I will treat a reduplicated noun as a single phonological word, too. However, sooner or later fresh evidence may prove reduplicated nouns to be separate phonological words, each with its own main stress, as is the case in many languages (Dixon and Aikhenvald 2002: 29).

Reduplication occurs with human as well as with non-human nouns but there are only a few nouns which actually occur with reduplicated forms and their number seems to decrease across time. Take, for instance, the human nouns in texts from Lagash. The Old Sumerian Lagash texts contain five human nouns which occur reduplicated: **diĝir** 'god' (Ent. 28 1:1-3; L; 25), **dumu** 'child' (e.g., VS 27:8 7:2; L; 24), **en** 'lord' (e.g., DP 25 2:4; L; 24), **saĝĝa** 'administrator' (e.g., DP 82 8:2; L; 24), and **ugula** 'foreman' (Ukg. 4 4:6; L; 24). The Gudea texts contain only one: **dumu** 'child' (e.g., St A 1:1-3; L; 22). The Ur III texts, finally, seem to contain only four, although I may have overlooked a few: ***ab-ba*** 'father' (e.g., MVN 6:279 1:20; L; 21), **dumu** 'child' (e.g., BPOA 1:104 8; L; 21), **en** 'lord' (e.g., RTC 401 2:9; L; 21), **lugal** 'king' (RTC 316 rev 1; L; 21). Lagash has yielded perhaps ten times more Ur III texts than Old Sumerian ones, so that, relatively speaking, those from the Ur III period contain far fewer reduplicated human nouns. Moreover, frequently occurring words like **diĝir** 'god', **saĝĝa** 'administrator' and **ugula** 'foreman' do not occur reduplicated any more in the later Lagash texts. All this points to a decrease in productivity for noun reduplication.

There is universal agreement among Sumerologists that reduplicated nouns express a kind of plural. However, reduplicated nouns are not simple plurals. It is true that every reduplicated noun expresses a plural in the sense that it refers to multiple entities. But the opposite is not true. A noun which refers to multiple entities does not have to be reduplicated and, in fact, hardly ever is. Moreover, the plural of human nouns is already expressed by the plural marker {enē} (§6.3), which is used on reduplicated nouns in exactly the same way as on non-reduplicated ones.

Poebel (1923: 53) proposed a meaning 'all' for reduplicated nouns. It is a meaning which fits some attestations very well. The reduplicated form **ès-ès** of **ès** 'shrine', for instance, came to be a term for 'festival celebrated in all shrines' (Sallaberger 1993: Band 1, 41). The redupli-

cated nouns in the following examples also refer to multiple entities while clearly their totality is meant, that is, all of them:

(48) **^{d}en-líl / lugal kur-kur-*ra* / *ab-ba* diĝir-diĝir-*ré-ne-ke$_4$***
en.líl lugal kur -kur =ak ab.ba diĝir-diĝir=enē=ak =e
Enlil king mountains-mountains=GEN father god -god =PL =GEN=ERG
'the god Enlil, the master of all mountain lands, the father of all gods (ergative)' (Ent. 28 1:1-3; L; 25)

(49) **é-an-*na* kur-kur-*ra* / *mu-na*-diri**
é.an.na=Ø kur -kur =ʔa Ø -mu -nna -n -diri.g -Ø
Eanna =ABS mountains-mountains=LOC VP-VENT-3SG.IO-3SG.A-exceed-3N.S/DO
'He had the Eanna temple rise above all mountain lands for her.' (En. I 29 3:7-8; L; 25)

(50) ***me-bé me* gal-gal *me-me-a* diri-*ga***
me =be=Ø me gal-gal me -me =ʔa diri.g -Ø -ʔa
being=its=ABS being big-big being-being=LOC exceed-NFIN-NOM
'its features great features, surpassing all features' (Cyl A 9:12; L; 22)

(51) **^{d}nin-ḫur-saĝ / (...) / ama dumu-dumu-*ne***
nin.ḫur.saĝ ama dumu-dumu=enē=ak
Ninhursag mother child -child =PL =GEN
'the goddess Ninhursag, (...), the mother of all children' (St A 1:1-3; L; 22)

However, because this meaning 'all' fits only some attestations, it cannot be the basic meaning of noun reduplication as such. That is, in my view, the one proposed by Falkenstein (1978b: 47): a reduplicated noun refers to multiple entities while emphasizing the separateness of each individual entity. It has a distributive function and refers to entities 'here and there'.[3]

An Old Sumerian text from Lagash provides a good example. It contains two lists, one listing the donkeys belonging to princess Geme-Nanshe, the other those of princess Munus-saga. The two lists are then summarized as follows:

(52) **anše gurum$_2$-*ma* šid-*da* / dumu-dumu-*ne-kam***
anše gurum$_2$ =ʔa šid -Ø -ʔa dumu-dumu=enē=ak =Ø =ʔam
donkey inventory=LOC count-NFIN-NOM child -child =PL =GEN=ABS=be:3N.S
'These are the donkeys which were counted during stock-taking and which belong to either of the two children (= princesses).' (Nik 1:203 4:2-3; L; 24)

Here **dumu-dumu-*ne*** cannot mean 'of all children' as in example (51). The reduplicated noun highlights the fact that the text deals with the properties of two separate individuals. The distributive function is also clear in the following example:

(53) **é-*šè* u$_4$-*ù-dè bí*-dib / ĝi$_6$-ĝi$_6$ *ba-an*-dib**
é =še u$_4$.d-u$_4$.d=e Ø -bi -n -dib -Ø
house=TERM day -day =DIR VP-3N.OO-3SG.A-pass-3N.S/DO

ĝi$_6$ -ĝi$_6$ =Ø Ø -ba -n -dib -Ø
night-night=ABS VP-MM-3SG.A-pass-3N.S/DO
'He let day after day pass for the house. He passed night after night.' (Cyl A 8:2-3; L; 22)

[3] Reduplicated nouns have a distributive function in many languages (Mithun 1988: 218-223).

A reduplicated noun can be used with reference to only two entities (Attinger 1993: 160 note 232). E.g.:

(54) **íb-íb-*ĝu*$_{10}$**
íb -íb =ĝu
hip-hip=my
'(each of) my hips' (Shulgi X 21; ?; 21, OB copy)

Example (52) above is also a clear case in point.

Non-human nouns lack distinct plural forms. For **kur** 'mountain land, foreign land', however, its reduplicated form has become a simple plural. If it has a plural meaning, it is reduplicated and if it has a singular meaning, it is not reduplicated. The only exception to this rule occurs when it is used as the direct object of a verb whose stem already indicates plurality (§12.4), which is a construction where the plural marker {enē} is also lacking (§6.3.3). E.g.:

(55) **kur šu-*šè* ĝar-ĝar**
kur =Ø šu =š(e) ĝar -ĝar -Ø
mountains=ABS hand=TERM place-place-NFIN
'who subdues the foreign lands (lit. "the mountain-lands to the hand placing one")' (Cyl A 9:24; L; 22)

(56) **kur *ḫu-mu*-gam-gam**
kur =Ø ḫa =Ø -mu -? -gam-gam-Ø
mountains=ABS MOD=VP-VENT-1SG.A-bow-bow -3N.S/DO
'I subdued the foreign lands!' (Shulgi A 91; ?; 21, OB copy)

Thus, for this one noun, reduplication actually expresses a simple plural. The reason for this exceptional behaviour lies in the meaning of **kur** 'mountain land, foreign land'. If it has a plural meaning, it necessarily refers to separate entities. Because of this, the distributive function of reduplication has for the noun **kur** a one-to-one relationship with a plural meaning.

6.5. Noun formation through compounding

6.5.1. Introduction

A compound is a complex word which consists of two or more other words. An example is English *greenhouse*. It is a single word with the two parts *green* and *house*, which also occur as words on their own.

Compounds have a grammatical structure. Thus, *greenhouse* is a noun consisting of an adjective (*green*) and a noun (*house*). Like most compounds, it has a head, viz. *house*, and because its head is its rightmost part, *greenhouse* is called a right-headed compound. As we shall see below, Sumerian has both left- and right-headed compounds.

The head of a compound is the part which determines the grammatical and semantic categories of the compound. Thus, *greenhouse* belongs to the same part of speech as *house* (both are nouns), has the same gender (we refer to both with 'it'), and has the same inflection. As for its meaning, a *greenhouse* is a kind of *house* and not a kind of *green*.

The compound *greenhouse* is very similar to the phrase *green house*, because they have the same parts in the same order. Yet, they differ in meaning as well as in form. The compound denotes a building for growing plants and the phrase a building of a particular colour. The compound consists of one phonological word and the phrase of two, something which corre-

lates with a different stress placement and spelling. Formally, *greenhouse* is a compound and not a phrase, because it is stressed like a word and unlike a phrase.

Most Sumerian compounds resemble English *greenhouse* in having a grammatical structure which is very similar to that of a phrase. Take, for instance, the noun **é-gal** 'palace'. It consists of the noun **é** 'house' and the adjective **gal** 'big, large' and has the same parts in the same order as the phrase **é gal** 'large house'. The formal difference between the two can hardly be anything else but a difference in stress placement, just like what we saw with English *greenhouse*. For **é-gal**, however, this is as yet impossible to prove, because we know too little about how it was pronounced. Unfortunately, Sumerian spelling does not help either, because it generally ignores word boundaries.

The problem of how to identify word boundaries for Sumerian has been discussed at length in §4.3. There, we have proposed several criteria for recognising words. As we shall see below in §6.5.3, there are Sumerian compounds with the same structure as **é-gal** which can thus be proven to be phonological words. By analogy, we can infer that **é-gal** is a phonological word, too. In this way, we can establish several types of noun compounds, although in the end many problematic cases remain.

The remainder of §6.5 first treats the types of compounds whose internal structures differ from phrases. Their status as compounds is unproblematic. This is true of the right- and left-headed noun-noun compounds (§6.5.2). And this is likewise true of the right-headed adjective-noun compounds (§6.5.3). All these compounds are shown to be words by grammatical criteria alone (§4.3.4).

Subsequently we will deal with various types of compounds for which grammatical criteria fail, because their grammatical structure is too similar to that of a phrase. These compounds are shown to be words by phonological criteria (§4.3.3). They are the left-headed noun-adjective compounds (§6.5.3), left- and right-headed noun-participle compounds (§6.5.4), and the compounds of a noun and a case marker (§6.5.5). This group also includes the coordinative compounds, a type of compound which lacks a head (§6.5.6).

The final section discusses various constructions which have the same structure as a phrase but which also have word-like properties (§6.5.7). They are word-like in that they are syntactic as well as semantic units. They are often translated as words and most Sumerologists transliterate them as words, without any word boundaries between their constituent parts. At the same time, any positive proof that they really are words is lacking. In some cases such proof may eventually turn up, but in most cases we are probably dealing with a typological difference between Sumerian and the Germanic languages. For what the latter express with compounds, Sumerian mostly uses phrases.

6.5.2. Noun-noun compounds

Sumerian has two types of noun-noun compounds, one left-headed and the other right-headed. The compounds of either type are without doubt words, because no phrase can consist of two nouns juxtaposed in this way (§4.3.4).

Right-headed noun-noun compounds are quite rare and their pattern does not seem to be productive any more. Our corpus contains only a handful of such compounds. One of them is **an-šà.g** 'interior of heaven', which consists of the two nouns **an** 'heaven' and **šà.g** 'heart'. In this compound, **šà.g** is the head and **an** the modifying element, because an **an-šà.g** is a kind of **šà.g** 'heart, interior' and not a kind of **an** 'heaven'. Other right-headed noun-noun compounds are:

an-eden ‘upper plain’ (lit. ‘plain of above’ < **eden** ‘plain’ and **an** ‘heaven’)
an-šár ‘horizon’ (lit. ‘heavenly circle’ < **an** ‘heaven’ and **šár** ‘circle, totality’)
é-šà.g ‘innermost part of the house’ (< **é** ‘house’ and **šà.g** ‘heart’)
gú-za ‘necklace’ (lit. ‘neck stone’ < **gú** ‘neck’ and **za** ‘stone’)
iri-bar ‘outside of the city’ (< **iri** ‘city, town’ and **bar** ‘outside’)
ki-šár ‘horizon’ (lit. ‘earth circle’ < **ki** ‘earth’ and **šár** ‘circle, totality’)
kur-šà.g ‘inner (part of the) mountains’ (< **kur** ‘mountain land’ and **šà.g** ‘heart’)
má-šà.g ‘inside of a boat’ (< **má** ‘boat’ and **šà.g** ‘heart’)
šu-si ‘finger’ (lit. “horn of a hand” < **šu** ‘hand’ and **si** ‘horn, protruding part’)

Left-headed noun-noun compounds occur more frequently and their pattern is productive. The word **é-maš** ‘sheepfold’ can serve as an example. It consists of the two nouns **é** ‘house’ and **maš** ‘he-goat’, so that it literally means something like ‘goat house’. Its head is **é**, because **é-maš** refers to a kind of house, not to a kind of goat. Although its grammatical structure suffices to prove it a word, there is in fact more evidence in support of this conclusion. While **é-maš** is the usual spelling in the texts of our corpus, it may also be written with the single word sign **amaš**. Moreover, it can lose its initial /ʔa/, something which only occurs in phonological words of three or more syllables (§3.9.4). This possible loss is documented by an Ur III text which contains two different spellings of the same proper name, viz. **ur-amaš-*a*** and **ur-*ma-sá*** (YOS 4:45 4 // seal line 1; N; 21). Other left-headed noun-noun compounds are:

áb-saĝ ‘top strap’ (< **áb** ‘strap (?)’ and **saĝ** ‘head’)
áb-úr ‘bottom strap’ (< **áb** ‘strap (?)’ and **úr** ‘base’)
dumu-saĝ ‘firstborn´ (lit. ‘head child’ < **dumu** ‘child’ and **saĝ** ‘head’)
é-muḫaldim ‘kitchen’ (lit. ‘cook house’ < **é** ‘house’ and **muḫaldim** ‘cook’)
é-tùr ‘stable’ (lit. ‘stall house’ < **é** ‘house’ and **tùr** ‘stall’)
ereš-diĝir ‘highpriestess’ (lit. ‘god lady’ < **ereš** ‘lady’ and **diĝir** ‘god’)
éš-kiri$_3$ ‘nose rope’ (< **éš** ‘rope’ and **kiri$_3$** ‘nose’)
ès-ge ‘reed shrine’ (< **ès** ‘shrine’ and **ge** ‘reed’)
geme$_2$-*uš-bar* ‘weaver maid’ (< **geme$_2$** ‘slave woman’ and ***uš-bar*** ‘weaver’)
gig-numun ‘wheat for seeding’ (lit. ‘seed wheat’ < **gig** ‘wheat’ and **numun** ‘seed’)
še-numun ‘barley for seeding’ (lit. ‘seed barley’ < **še** ‘barley’ and **numun** ‘seed’)
zíz-numun ‘emmer for seeding’ (< **zíz** ‘emmer wheat’ and **numun** ‘seed’)

Note that in later texts the compound **éš-kiri$_3$** also occurs written with the single word sign **eškiri**.

Many left-headed noun-noun compounds have the noun ***nam*** as their heads. In fact, this subtype is so productive that some Sumerologists analyse ***nam*** as a derivational prefix forming abstracts (Black 2002: 70, Edzard 2003: 24, Michalowski 2004: 32-33). However, since the same morpheme ***nam*** is also frequently attested as an independent noun, there is no reason to analyse it as a prefix when it occurs in complex words. It is a lexical morpheme in either case (Krecher 1987b: 71).

As a noun, ***nam*** is commonly translated as ‘fate, destiny’ but its actual meaning is probably closer to something like ‘status, state’ (cf. Krecher 1987b: 71, Farber 1991: 88-89, Attinger 1993: 157). However imprecise the usual translation of ***nam*** as an independent noun may be, all compounds with ***nam*** as their heads are abstracts of the noun following ***nam***. Thus, while **lugal** means ‘king’, ***nam*-lugal** means ‘kingship’. And so many more, including:

***nam*-dam** ‘status of wife’ (< **dam** ‘wife, husband’)
***nam*-diĝir** ‘godliness’ (< **diĝir** ‘god, goddess’)

***nam*-dumu** 'childhood' (< **dumu** 'child')
***nam*-engar** 'position of farmer' (< **engar** 'farmer')
***nam*-ensi$_2$.k** 'status of ruler' (< **ensi$_2$.k** 'ruler')
***nam*-geme$_2$** 'slavehood' (< **geme$_2$** 'female slave')
***nam*-gala** 'position of lamentation priest' (< **gala** 'lamentation priest')
***nam*-išib** 'craft of the purification priest' (< **išib** 'purification priest')
***nam*-lú-ulu$_3$** 'people' (< **lú-ulu$_3$** 'person')
***nam*-nir-ĝál** 'authority' (< **nir-ĝál** 'authoritative person')
***nam*-*nu*-banda$_3$** 'function of overseer' (< ***nu*-banda$_3$** 'overseer')
***nam*-sipa.d** 'shepherdship' (< **sipa.d** 'shepherd')
***nam*-ses** 'brotherhood' (< **ses** 'brother')
***nam*-urdu$_2$.d** 'slavehood' (< **urdu$_2$.d** 'male slave')

The second part of these compounds with ***nam*** is not only filled by nouns, but other noun-like words are attested in that position as well:

***nam*-maḫ** 'greatness' (< the de-adjectival noun **maḫ** 'greatness')
***nam*-u** 'company of ten' (< the numeral **u** 'ten')
***nam*-ti.l** 'life' (< the present participle **ti.l** 'living' used as an action noun)
***nam*-úš** 'death' (< the present participle **úš** 'dying' used as an action noun)

Note that ellipsis of ***nam*** is possible with the second of two coordinate ***nam***-compounds:

(57) ***nam*-geme$_2$ urdu$_2$ é-gal-*šè ba-ge-né-eš***
nam.geme$_2$ nam.urdu$_2$.d é.gal =ak =še Ø -ba -ge.n -eš
slavehood slavehood palace=GEN=TERM VP-MM-be.firm-3PL.S/DO
'They were confirmed as belonging to the female and male slaves of the palace.' (SNAT 333 rev 2; U; 21)

6.5.3. Adjective-noun and noun-adjective compounds

Sumerian has two types of compounds made up from an adjective and a noun. In either type, the noun is the head and the adjective the modifying part. One type is left-headed (the noun-adjective compounds) and the other right-headed (the adjective-noun compounds). We will start with the latter.

The right-headed adjective-noun compounds still occur frequently in the earlier periods but gradually fall out of use and are all but obsolete by the Ur III period. All attestations known to me involve the adjective **gal** 'big' and are designations for occupations. An example is **gal-nar** 'chief musician' (lit. 'big musician', with **nar** 'musician'). Other examples are:

gal-*ad*-KID 'chief reed worker' (< **gal** 'big' and ***ad*-KID** 'reed worker')
gal-baḫar$_2$ 'chief potter' (< **gal** 'big' and **baḫar$_2$** 'potter')
gal-*dam-gara$_3$* 'chief merchant' (< **gal** 'big' and ***dam-gara$_3$*** 'merchant')
gal-KÍD.ALAN 'chief sculptor' (< **gal** 'big' and **KÍD.ALAN** 'sculptor')
gal-kinda$_2$ 'chief barber' (< **gal** 'big' and **kinda$_2$** 'barber')
gal-nagar 'chief carpenter' (< **gal** 'big' and **nagar** 'carpenter')
gal-niĝir 'chief herald' (< **gal** 'big' and **niĝir** 'herald')
gal-sukkal 'chief messenger' (< **gal** 'big' and **sukkal** 'messenger')
gal-ulu$_3$-di.d 'chief wailer' (< **gal** 'big' and **ulu$_3$-di.d** 'wailer')

Without doubt these expressions are words and not phrases, because contemporary Sumerian grammar does not allow a phrase with the word order ***gal nar**. Yet, it is likely that phrases with such a word order were possible in an earlier form of the language and that the attested adjective-noun compounds are fossils of that earlier word order (see §10.4.1 for more details). At any rate, as we shall see below, the adjective-noun compounds are eventually completely replaced by the noun-adjective compounds, which show the same order of noun and adjective as occurs in phrases.

The left-headed noun-adjective compounds are attested throughout the entire period of our corpus, and beyond. A classic example is the frequently attested **é-gal** 'palace', which also occurs as a loanword in several different languages from the Middle East (§3.4.4). It consists of the noun **é** 'house' and the adjective **gal** 'big, large'. Its literal meaning is therefore 'big house'. Other examples of this type of compound are:

agrig-maḫ 'chief steward' (< **agrig** 'steward' and **maḫ** 'great')
ašgab-gal 'chief leatherworker' (< **ašgab** 'leatherworker' and **gal** 'big')
dub-sar-maḫ 'chief scribe' (< **dub-sar** 'scribe' and **maḫ** 'great')
engar-maḫ 'chief farmer' (< **engar** 'farmer' and **maḫ** 'great')
gala-maḫ 'chief lamentation priest' (< **gala** 'lamentation priest' and **maḫ** 'great')
išib-maḫ 'chief purification priest' (< **išib** 'purification priest' and **maḫ** 'great')
ki-ḫulu 'mourning place' (< **ki** 'place' and **ḫulu** 'bad')
ki-maḫ 'cemetery' (< **ki** 'place' and **maḫ** 'great')
kù-bar$_6$-bar$_6$ 'silver' (< **kù.g** 'precious metal' and reduplicated **bar$_6$** 'white')
kù-sig$_{17}$ 'gold' (< **kù.g** 'precious metal' and **sig$_{17}$** 'yellow')
lugal 'king' (< **lú** 'man' and **gal** 'big')
lú-maḫ 'highpriest' (< **lú** 'man' and **maḫ** 'great')
niĝir-gal 'chief herald' (< **niĝir** 'herald' and **gal** 'big')
niĝir-maḫ 'chief herald' (< **niĝir** 'herald' and **maḫ** 'great')
simug-gal 'chief smith' (< **simug** 'smith' and **gal** 'big')
sukkal-maḫ 'grand vizier' (< **sukkal** 'messenger' and **maḫ** 'great')
ur-maḫ 'lion' (< **ur** 'dog' and **maḫ** 'great')
ušumgal 'dragon' (< **ušum** 'snake' and **gal** 'big')

In adjective-noun compounds, the relative order of noun and adjective was sufficient to prove their status as words. In noun-adjective compounds, however, this grammatical criterion is useless, because in these compounds the relative order of noun and adjective is exactly the same as in a phrase (cf. §10.4.1). Fortunately, there is sufficient other evidence to prove that noun-adjective compounds are indeed words, and not simply idiomatic phrases.

A crucial piece of evidence is provided by the compound **ušumgal** 'dragon'. As several phonographic spellings from the Old Babylonian period attest, **ušumgal** may lose its initial vowel. E.g.:

(58) **ka *šu*-gal**
ka.g ušumgal=ak
mouth dragon =GEN
'(having) a dragon's mouth' (VS 2:1 1:10 = 1:14; Sippar (?); OB)

Since such a loss of an initial vowel is restricted to words of three or more syllables (§3.9.4), it proves that **ušumgal** is a phonological word (§4.3.3). In other words, a Sumerian word like **ušumgal** differs from a phrase in the same way as the English word *greenhouse* differs from the phrase *green house*: the words are stressed differently, having a single main stress. Al-

though this distinctive stress placement can as yet only be proved for **ušumgal**, it surely applies to the other noun-adjective compounds as well.

Further proof comes from how the scribes write some of these compounds. The word **lugal** 'king' (lit. 'big man') is written GAL.LÚ and the word **ušumgal** 'dragon' (lit. 'big snake') GAL.UŠUM, with a reversed order of the noun and the adjective. These spellings show that for the scribes **lugal** and **ušumgal** form single units, because if either **lugal** or **ušumgal** had been a sequence of two separate words instead of a single compound word, the written order would surely have been identical to the spoken one.

A final criterion for word status derives from how these compounds behave when reduplicated. A noun may be reduplicated (§6.4) and an adjective may be reduplicated (§10.2), but phrases never are. Hence, the following attestation proves that **lugal** is a compound noun and not a phrase:

(59) **ki-a-naĝ lugal-lugal-*ne***
ki.a.naĝ lugal-lugal=enē=ak
offering.chapel king -king =PL =GEN
'the offering chapels of each of the kings' (RTC 316 rev 1; L; 21)

A similar argument applies to the adjectival part of these compounds. Adjectives may be reduplicated and an adjective like **gal** 'big' always is when it modifies a plural noun (§10.2). Yet, as a part of a compound it never is. In fact, only one adjective occurs reduplicated in a compound and that is **bar$_6$** 'white', but that adjective is only used reduplicated (§10.2) and does not occur in any other form. It does, therefore, not carry much weight as an exception.

Noun-participle compounds like **ki-tuš** 'dwelling' (lit. 'sitting place' < **ki** 'place' and **tuš** 'sit') have basically the same structure as the noun-adjective compounds. There is only one difference: while the latter contain an adjective, the former include a present participle used like an adjective. See the next section for details (§6.5.4).

As a pattern for word formation, the noun-adjective compounds gradually replace the adjective-noun compounds. In our corpus, we can observe the final stages of that development. Consider, for instance, the Lagash documentation. The Old Sumerian texts from Lagash contain dozens of attestations of adjective-noun compounds and are the primary source for the list given above. The texts from the Old Akkadian period, though, have yielded as yet only one attestation: **gal-kinda$_2$** 'chief barber' (Festschrift Sjöberg p. 164:16 3; L; 23). More recent texts have yielded none at all. In fact, the entire Ur III corpus from Lagash and elsewhere, which is enumerably larger than the earlier corpora, contains only a single attestation: **gal-nar** 'chief musician' (BBVO 11 p.278:6-NT-364 obv 24; N; 21). Clearly, the adjective-noun compounds become obsolete during the period covered by our corpus.

But it is not only a matter of the dying out of one pattern. We can also observe its replacement by the other. Take, for instance, the compound **gal-niĝir** 'chief herald'. It occurs several times in the Old Sumerian texts from Lagash (e.g., DP 133 10:1; L; 24) and once in a Nippur text (ECTJ 164 1:7; N; 24), but it does not occur any more in later texts. The compound **niĝir-gal** 'chief herald', however, is attested over a wide area, during the entire period of our corpus: Adab (TCABI 2=BI 14 rev 1:2; A; 24), Isin (MVN 3:53 4:3; I; 24), Lagash (MVN 7:260 rev 2; L; 21), and Umma (ASJ 19 p.228:74 1:9; U; 21). The distribution of these two compounds shows that step by step **niĝir-gal** ousted its synonym **gal-niĝir**.

Also the script provides evidence for such replacement of one pattern by the other. As we saw above, **lugal** 'king' is written GAL.LÚ and **ušumgal** 'dragon' GAL.UŠUM. Both spellings may go back to the old pattern where the adjective precedes the noun.

Of course, such spellings also raise an important question: if the spelling can remain **gal-lú** even when the word itself has long become **lugal**, how are we to know which spellings represent real adjective-noun compounds? The answer is simple: the final phoneme of a word is often made clear by the form and spelling of a following clitic. E.g.:

(60) **PN_1 / gal-*dam-gara$_3$* / PN_2 / dam PN_3 / lugal / lagas^{ki}-*ka-ke$_4$* / é-gal-*ta* / *e-na*-šúm**
PN_1 gal.dam.gara$_3$ =r(a) PN_2 dam PN_3 lugal lagas =ak =ak =e
PN_1 merchant.in.chief=DAT PN_2 wife PN_3 king Lagash=GEN=GEN=ERG

é.gal =ta ʔi -nna -n -šúm-Ø
palace=ABL VP-3SG.IO-3SG.A-give -3N.S/DO
'PN_2, wife of PN_3, the king of Lagash, gave this from the palace to PN_1, the chief merchant.' (VS 14:43 3:3-4:4; L; 24)

Here, the reduced form /r/ of the dative case marker {ra} proves that **gal-*dam-gara$_3$*** has a final vowel. After a consonant it would have had the full form /ra/ (§7.5.1). Hence, **gal-*dam-gara$_3$*** is a real adjective-noun compound and not a mere spelling of a hypothetical noun-adjective compound ***dam-gara$_3$*-gal**.

6.5.4. Noun-participle compounds

Sumerian has several types of noun compounds which include a non-finite verbal form (henceforth: "participle" for short, cf. §28.1). Almost all of them contain a present participle (§28.2), that is to say, a perfective verbal stem without any suffixes. This can be readily explained from the meaning of a present participle. This can be used either like an agent or action noun or like a verbal adjective. It refers to a non-specific, generic action or state and is therefore perfectly suited to express concepts, that is, word-like meanings.

A noun-participle compound is either left- or right-headed. In the left-headed compounds the participle is used like an adjective and modifies the noun which serves as the head. These compounds have a similar structure to that of the noun-adjective compounds treated in the previous section. In the right-headed noun-participle compounds, the participle is used like a noun and serves itself as the head of the compound.

The noun **ki-tuš** 'dwelling' is a good example of the most common type of left-headed noun-participle compound. It consists of the noun **ki** 'place' and the present participle of the verb **tuš** 'sit' and means literally 'sitting place'. The noun **ki** is its head (**ki-tuš** is a kind of place, not a kind of sitting) and the present participle is used here like an adjective, modifying the head noun. Other examples of this type of compound are:

bar-dul$_5$ 'fleece' (lit. 'outside which covers' < **bar** 'outside' and **dul$_5$** 'cover')
ì-ba 'distribution fat' (< **ì** 'fat' and **ba** 'portion out')
ki-bala 'rebel land' (lit. 'place going across' < **ki** 'place' and **bala** 'go across')
ki-gub 'position' (lit. 'standing place' < **ki** 'place' and **gub** 'stand')
ki-nú 'bedroom' (< **ki** 'place' and **nú** 'lie')
níĝ-ba 'present' (< **níĝ** 'thing' and **ba** 'portion out')
níĝ-dab$_5$ 'supplies' (< **níĝ** 'thing' and **dab$_5$** 'take')
níg-sa-ḫa-ba 'distribution fruit' (< **níĝ-sa-ḫa** 'fruit' and **ba** 'portion out')
siki-ba 'distribution wool' (< **siki** 'wool' and **ba** 'portion out')
še-ba 'distribution barley' (< **še** 'barley' and **ba** 'portion out')
še-bala 'conversion barley' (< **še** 'barley' and **bala** 'go across')
še-ĝar 'supply barley' (< **še** 'barley' and **ĝar** 'place')

zíz-ba ‘distribution emmer’ (< **zíz** ‘emmer wheat’ and **ba** ‘portion out’)
zíz-ĝar ‘supply emmer’ (< **zíz** ‘emmer wheat’ and **ĝar** ‘place’)

Nouns like **ì-ba** ‘distribution fat’ and **še-ba** ‘distribution barley’ are usually translated as if they are right-headed, viz. as ‘fat ration’ and ‘barley ration’. That they are actually left-headed in Sumerian is made clear by texts like BIN 8:348, where an amount of **še** ‘barley’ is defined as:

(61) **še-ba še-ĝar / lú** ^{d}***ba-ú-ke$_4$-ne***
še.ba **še.ĝar** **lú** **ba.ú=ak** **=enē=ak**
distribution.barley supply.barley man Bau =GEN=PL =GEN
‘distribution and supply barley of Bau’s men’ (BIN 8:348 2:2-4; L; 24)

Attestations like this one show that **še-ba** and **še-ĝar** designate kinds of barley and are therefore left-headed.

Nouns like **ki-tuš** ‘dwelling’ have the same structure as the noun-adjective compounds (§6.5.3). The only difference is that instead of an adjective they contain a participle used like an adjective. Since the noun-adjective compounds certainly are words, we can safely assume that nouns like **ki-tuš** are words too, and not idiomatic phrases.

Related to the type **ki-tuš** is the type **é-gu$_4$-gaz** ‘slaughterhouse’. The two have basically the same structure, except that in the latter the modifying participle is preceded by noun serving as its subject or object. Thus, **é-gu$_4$-gaz** is also left-headed, having the noun **é** ‘house’ as its head. In addition, it contains the present participle of the verb **gaz** ‘kill’, which is accompanied by an object, the noun **gu$_4$** ‘bull’. Literally the compound means therefore ‘bull-killing house’. Other examples of this type are:

bur-šúm-gaz ‘garlic mortar’, lit. ‘garlic (**šúm**) crushing (**gaz**) bowl (**bur**)’
ĝír-gu$_4$-šum ‘slaughter knife for cattle’, lit. ‘bull (**gu$_4$.ř**) slaughtering (**šum**) knife (**ĝír**)’
ĝír-ku$_6$-dar ‘fish fillet knife’ (< fish (**ku$_6$**) splitting (**dar**) knife (**ĝír**)’
ĝír-udu-úš ‘slaughter knife for sheep’, lit. ‘ram (**udu**) killing (**úš**) knife (**ĝír**)’
ĝiš-a-naĝ ‘offering table’, lit. ‘water (**a**) drinking (**naĝ**) wood (**ĝiš**)’
gur-saĝ-ĝál ‘heaped *gur*’, lit. ‘a head (**saĝ**) being there (**ĝál**) container (**gur**)’
ki-a-naĝ ‘offering chapel’, lit. ‘water (**a**) drinking (**naĝ**) place (**ki**)’
ki-lugal-ku$_4$ ‘royal entrance’, lit. ‘place (**ki**) the king (**lugal**) entering (**ku$_4$**)’
níĝ-zi-ĝál ‘living things’, lit. ‘breath (**zi**) being there (**ĝál**) thing (**níĝ**)’

Semantically and syntactically these forms behave like words. Although there is as yet no evidence which proves them to be phonological words, neither is there any proof that structures such as these can be phrases. Since these forms are so similar to other compounds, their word status seems beyond doubt.

An example of a right-headed noun-participle compound is the noun **zadim** ‘stonecutter’. That it is a word and not a phrase is absolutely certain, because the scribes write it with a single word sign – the sign MUG. It contains the noun **za** ‘stone, gem’, which serves as the object of the present participle of the verb **dím** ‘fashion, create’, which is used as an agent noun (‘fashioner, creator’) and which is the head of the compound. The compound as a whole is an agent noun and means literally ‘stone shaper’. Other examples of this type of compound are:

á-tuku ‘powerful person’ (cf. German *Machthaber* < **á** ‘strength’ and **tuku** ‘have’)
di-ku$_5$.ř ‘judge’ (lit. ‘judgement cutter’ < **di.d** ‘judgement’ and **ku$_5$.ř** ‘cut’)
dub-sar ‘scribe’ (lit. ‘tablet writer’ < **dub** ‘tablet’ and **sar** ‘write’)
gana$_2$-ùr ‘harrow’ (lit. ‘field sweeper’ < **gana$_2$** ‘field’ and **ùr** ‘sweep’)
gu$_4$-laḫ$_5$ ‘ox driver’ (lit. ‘oxen bringer’ < **gu$_4$.ř** ‘bull’ and **laḫ$_5$** ‘bring (plural)’)

kisal-luḫ ‘courtyard sweeper’ (< **kisal** ‘courtyard’ and **luḫ** ‘clean’)
kù-dím ‘gold- or silversmith’ (lit. ‘precious metal shaper’ < **kù.g** ‘precious metal’ and **dím** ‘fashion’)
má-laḫ$_5$ ‘sailor’ (lit. ‘boats bringer’ < **má** ‘boat’ and **laḫ$_5$** ‘bring (plural)’)
saĝ-šu$_4$ ‘helmet’ (lit. ‘head coverer’ < **saĝ** ‘head’ and **šú** ‘cover’)
šen-šú ‘lid (of a kettle)’ (lit. ‘kettle coverer’ < **šen** ‘kettle’ and **šú** ‘cover’)
túg-dan$_6$ ‘cloth washer’ (< **túg** ‘cloth’ and **dan$_6$** ‘clean’)
zabar-dab$_5$ ‘cupbearer’ (lit. ‘bronze holder’ < **zabar** ‘bronze’ and **dab$_5$** ‘take, hold’)

Several other compounds have basically the same structure as **zadim** ‘stonecutter’, albeit with modifications. One is **ulu$_3$-di.d** ‘wailer’ (lit. ‘*ulu* sayer’), which contains instead of a present participle the imperfective participle **di.d** (§12.3). Another is **igi-*nu*-du$_8$**, a noun which designates a kind of low-status labourer working in orchards. It contains the noun **igi** ‘eye’ which serves as the object of the negated present participle ***nu*-du$_8$** of a verb **du$_8$** with unclear meaning. As a phrasal verb **igi—du$_8$** means ‘see’ and **igi-*nu*-du$_8$** means therefore literally ‘blind person’.

A third compound similar in structure to **zadim** is **máš-šu-gíd-gíd** ‘diviner’, also written **maš-šu-gíd-gíd**. It contains the reduplicated present participle of the phrasal verb **šu—gíd** ‘stretch out the hand’. Literally it means ‘one who stretches out (**gíd**) the hands (**šu**) into kids (**máš**)’ and thus refers to the form of divination which involves the inspecting the entrails of a goat. Since **šu—gíd** ‘stretch out the hand’ is construed with a locative (cf. example 17 in chapter 20), the absence of a locative case marker after **máš** proves that **máš-šu-gíd-gíd** ‘diviner’ is a compound and not a phrase.

Present participles are not only used as agent nouns, as in compounds like **zadim**, but can also be used as action nouns (§28.2.3). Compounds with present participles used as action nouns are far less common, though. An example is **munu$_4$-gu$_7$** ‘Malt-Eating’, the name of a festival and a month in Lagash. Its head is the present participle of the verb **gu$_7$** ‘eat’, with the noun **munu$_4$** ‘malt’ serving as its object. Since it has exactly the same form as **zadim**, it is safe to assume that it is a phonological word, but evidence specific for this type of compound is as yet lacking. Similar compounds are:

še-gu$_7$ ‘(the festival) Barley-Eating’ (< **še** ‘barley’ and **gu$_7$** ‘eat’)
šu-bala ‘change’ (< **šu—bala** ‘change’, lit. ‘let one’s hand (**šu**) go across (**bala**)’)
šu-gíd ‘selection’ (< **šu—gíd** ‘select’, lit. ‘stretch out (**gíd**) one’s hand (**šu**) to’)
šu-luḫ ‘cleaning’ (<**šu—luḫ** ‘clean’, lit. ‘let one’s hand (**šu**) clean (**luḫ**)’)
šu-tag ‘decoration’ (< **šu—tag** ‘decorate’, lit. ‘let one’s hand (**šu**) touch (**tag**)’)

A few compounds with the same structure refer to objects, which may be the result of a semantic shift from an action noun to one with more concrete meaning:

ĝiš-ḫur ‘drawing, plan’ (< **ĝiš—ḫur** ‘draw’, lit. ‘scratch (**ḫur**) wood (**ĝiš**)’)
sá-du$_{11}$.g ‘provisions’ (lit. ‘reaching’ < **sá—du$_{11}$.g** ‘reach’)

A very different kind of right-headed noun-participle compound is the noun **ama-*ar*-gi$_4$** ‘freedom’, which has the following structure:

(62) **ama-*ar*-gi$_4$**
ama =r(a) gi$_4$ -Ø
mother=DAT turn-NFIN
‘freedom (lit. “returning to mother”)’ (MVN 6:52 rev 8; L; 22)

From a grammatical point of view, **ama-*ar*-gi$_4$** is a phrase, but phonologically it is a single word (§4.3.5). It consists of three grammatical words: the noun **ama**, the enclitic case marker {ra}, and the present participle **gi$_4$**. At the same time, it is a single phonological word, as is shown by the loss of the initial vowel (§4.3.3, §3.11) in variant forms like ***ma-ar-gi$_8$*** (NG 77 10'; L; 21). The same pattern is found in other forms:

šà-*ga*-řú (a garment) (lit. 'which holds on to the belly' < **šà.g** 'heart' with the locative case marker {ʔa} and **řú** 'hold on to')
šà-*ge*-dab$_6$ (a garment) (lit. 'which surrounds the belly' < **šà.g** 'heart' with the directive case marker {e} and **dab$_6$** 'surround')
gú-dab$_6$ (a garment) (lit. 'which surrounds the neck' < **gú** 'neck' with the directive case marker {e} and **dab$_6$** 'surround')
aga$_3$-ús 'guardsman' (lit. 'who follows the crown/back' < **aga$_3$** 'crown' or **aga$_3$** 'back(side)' with the directive case marker {e} and **ús** 'follow')

6.5.5. Compounds of a noun and a case marker

A few expressions have the internal grammatical structure of an adverbial phrase, but show for the rest the grammatical behaviour of a simple noun. E.g.:

(63) **munus u$_4$-*bé-ta-ke$_4$-ne***
munus u$_4$.bé.ta =ak =enē=e
woman former.days=GEN=PL =ERG
'the women of former days (in the ergative case)' (Ukg. 6 3:20'; L; 24)

Here and elsewhere, the form **u$_4$-*bé-ta*** 'former days' behave grammatically like a noun, because it has a case marker (here the genitive) which expresses its syntactic function. As to its internal structure, however, it is itself a noun in the ablative case and means literally 'from (ablative {ta}) its (***bé***) day(s) (**u$_4$.d**)'. Similar expressions are:

ki-*ta* 'below' (lit. 'from the earth' < **ki** 'place, earth' with the ablative case marker {ta})
zà-*ta* 'all' (lit. 'from the limit' < **zà.g** 'border, limit' with the ablative case marker {ta})

Attestations like the following show that these expressions are nouns:

(64) **saĝ a ki-*ta-ka***
saĝ a ki.ta =ak =ak
head water below=GEN=GEN
'the short side of the water of below' (DP 605 1:3; L; 24)

(65) **zà-*ta-ne-ne-kam***
zà.ta=anēnē=ak =ʔam
all =their =GEN=be:3N.S
'It is of all of them.' (VS 27:85 3:3; L; 24)

6.5.6. Coordinative compounds

Coordinative compounds have a different internal structure from those treated above, because in contrast with the latter they lack a head. Their parts are on the same level and the relationship between them can be expressed with the word 'and'. An example is **zíd-munu$_4$** 'beer ingredients', which is a coordinative compound of the nouns **zíd** 'flour' and **munu$_4$** 'malt'.

Thus, it means literally 'flour (and) malt', but in actual fact it seems to be the technical term for the material used for making beer en route. The word is also found as a loanword in Akkadian, in the form (*i*)*simmānu*. Other coordinative compounds are:

ĝiš-ge 'canebrake', lit. 'wood (**ĝiš**) (and) reed (**ge**)'
mun-gazi 'spices', lit. 'salt (**mun**) (and) mustard (?) (**gazi**)'
ú-šim 'plants', lit. 'grass (**ú**) (and) herbs (**šim**)'

These expressions have word-like meanings and behave grammatically like words, but proof that they actually are phonological words is as yet lacking. In theory, they could also be analysed as phrases consisting of two nouns coordinated by means of simple juxtaposition (§5.4).

6.5.7. Word-like phrases

It is difficult to establish word boundaries in Sumerian. The orthography is of hardly any help, phonological criteria are mostly not available, and if they are their results do not always coincide with grammatical criteria (§4.2). In the preceding sections, we have discussed a wide variety of compounds which can be proved to be phonological words or for which such a status can at least be made plausible. This leaves us with some constructions which are syntactic as well as semantic units, which are often translated and transliterated as words, but which nonetheless do not seem to be phonological words.

One such construction is what Zólyomi (1996) dubbed the 'indefinite genitive'. This is a genitive construction like **saĝ apin-*na***, lit. 'head of a plough(ing team)':

(66) **saĝ apin-*na* dumu-dumu-*ke*$_4$-*ne***
saĝ apin =ak dumu-dumu=ak =enē=r(a)
head plough=GEN child -child =GEN=PL =DAT
'for the chief ploughmen of the children' (VS 27:77 6:1; L; 24)

This genitive construction **saĝ apin-*na*** behaves syntactically like a noun, being the head of the larger noun phrase. On this syntactic criterion, Zólyomi judges it to be a 'word-level category'. But at the same time he transliterates the expression with a space between **saĝ** and **apin**, and compares it with constructions in Hungarian and Turkish which obviously involve more than one phonological word. Clearly, the syntactic criterion for word-status gives here a result which differs from the outcome of orthographical and phonological criteria.

Following but in my view also misunderstanding Zólyomi's analysis, genitive constructions like **saĝ apin-*na*** have been identified as compounds (Black 2002: 70; Rubio 2007: 1333). This is hard to justify. It is true that a genitive construction like **saĝ apin-*na*** displays somewhat different word order properties from those of other genitive constructions. It is also true that it expresses a meaning similar to that of a compound in English ('plough head'). But it also has exactly the same grammatical structure as any other genitive construction. And there is no evidence whatsoever that it is stressed differently from other genitive constructions or that it is a single phonological word by any other criterion. The present grammar treats therefore all genitive constructions as phrases, including constructions like **saĝ apin-*na***. (See §7.2.3 for a more detailed discussion of the various genitive constructions.)

Certain non-finite constructions pose similar problems in determining whether they are words or phrases. Consider, for instance, these two examples:

(67) **kaš dé-*a* lugal**

kaš=Ø dé -Ø -ʔa lugal=ak
beer=ABS pour-NFIN-NOM king =GEN
'banquet (lit. "beer pouring") of the king' (AUCT 1:316 11; D; 21)

(68) **níĝ ĝiš tag-*ga* diĝir-*re*-*ne***
níĝ ĝiš =Ø tag -Ø -ʔa diĝir=enē=ak
thing wood=ABS touch- NFIN-NOM god =PL =GEN
'offerings (lit. "things which (the) wood touched") to the gods' (YOS 4:272 19; U; 21)

Each includes a construction which Sumerologists usually treat as a single word: **kaš dé-*a*** 'banquet' and **níĝ ĝiš tag-*ga*** 'offering'. Both are translated with a single word, which shows them to be semantic units. They are also syntactic units, for their parts always occur in the same order and are never separated by other words. But this is still insufficient to prove that they really are words. Idiomatic phrases are also semantic units and the observed word order is normal for non-finite constructions (§28.3).

In fact, both non-finite constructions have their finite counterparts:

(69) **u_4 lugal-*ra* kaš *in*-*na*-*ni*-dé-*a***
u_4.d lugal=ra kaš=Ø ʔi-nna -ni-n -dé -Ø -ʔa =ʔa
day king =DAT beer=ABS VP-3SG.IO-in-3SG.A-pour-3N.S/DO-NOM=LOC
'when he poured in beer for the king' (PDT 1:476 3; D; 21)

(70) **ninda ĝiš *bí*-tag**
ninda=e ĝiš =Ø Ø-bi -n -tag -Ø
bread=DIR wood=ABS VP-3N.OO-3SG.A-touch-3N.S/DO
'He sacrificed bread.' (Cyl A 2:8; L; 22)

These finite constructions clearly involve separate words (**kaš** 'beer' and **dé** 'pour', and so on). So, why would this be any different for their non-finite counterparts? Here, too, there is nothing to suggest that expressions like **kaš dé-*a*** are anything else than phrases with idiomatic meanings. There is no proof at all that they are phonological words.

6.6. Noun formation through conversion

6.6.1. Introduction

Through conversion an item comes to belong to another word class without a change in form. Examples from English are the noun *smile*, which comes from the verb *smile*, and the noun *sweet* 'piece of candy' from the adjective *sweet*. A few Sumerian nouns are likewise the result of conversion from one word class to the other, but their number is small and only two kinds of conversion are found: deverbal, on the basis of verbal forms (§6.6.2), and de-adjectival, on the basis of adjectives (§6.6.3).

6.6.2. Deverbal nouns

Verbal stems can be used like nouns, a phenomenon of which we saw several examples in our discussion of noun compounds above (§6.5). Thus, the compound ***nam*-ti.l** 'life' contains the stem of the verb **ti.l** 'live' used as an action noun (§6.5.2). Many other examples of verbal stems used as agent or action nouns can be found in §6.5.4 above. But, however noun-like the behaviour of such verbal stems may be, I do not consider them as instances of a conversion of

a verb into a noun, but rather as instances of a specific non-finite verbal form, the 'present participle', which can be used like a noun or like an adjective while retaining verbal properties at the same time (§28.2).

Yet, conversion from verb into noun does occur in Sumerian. But, interestingly, it does not apply to stems, as in English, but to finite verbal forms. An example is the form ***ù-na-a*-du$_{11}$**, which is a part of the standard address formula of letters (§24.2.2):

(71) **ur-é-ninnu-*ra* / *ù-na-a*-du$_{11}$**
ʔu -nna -e -du$_{11}$.g-Ø
REL.PAST-3SG.IO-2SG.A-say -3N.S/DO
'Say to Ur-Eninnu:' (TCS 1:206 1-2; L; 21)

Through this conventional usage, the same form came to be used as a noun with the meaning 'letter' and was even borrowed into Akkadian as *unnedukkum* 'letter':

(72) ***ù-na-a*-du$_{11}$ sukkal-maḫ-*ta***
ʔu.nna.a.du$_{11}$.g sukkal.maḫ=ak =ta
letter grand.vizier=GEN=ABL
'with a letter of the grand vizier' (e.g., DAS 79 22; L; 21)

But ***ù-na-a*-du$_{11}$** 'letter' is also an atypical example of a conversion from finite verbal form into noun, because it came into being through metonymy. Most if not all of the other examples are due to an entirely different mechanism: they are in origin nominalized clauses and, more specifically, headless relative clauses.

Nominalized clauses are a common feature of Sumerian (§27.3). Nearly all of them show the nominalizing suffix {ʔa} but a few of them do not. The latter type of nominalization does not seem to be productive any more in the period of our corpus, but there is enough evidence to prove that it once was (§27.3.5). It is this type of nominalized clause, the one lacking the nominalizing suffix {ʔa}, that brought about many nouns that are finite verbal forms as to their internal structure.

Take, for instance, the noun and accounting term ***íb*-taka$_4$** 'remainder'. As a finite verbal form, it has the following structure and meaning:

(73) ***íb*-taka$_4$**
ʔi -b -taka$_4$ -Ø
VP-3N.A-leave.behind-3N.S/DO
'It left it behind.'

But the same form can also be taken as a nominalized clause (§27.3.5). Analysed as a headless relative clause, its meaning then is 'what is left behind'. From there it is only a small step to a noun ***íb*-taka$_4$** 'remainder'. Thus, taking this noun as a headless relative clause we arrive at a straightforward explanation for the origin of both its form and its meaning.

Other examples are ***mu*-ku$_x$(DU).r** 'delivery', ***ì*-dub** 'granary', ***ma-an*-sim** 'sieve', and ***ba*-úš** 'dead one':

(74) ***mu*-ku$_x$(DU).r**
Ø -mu -n(i)-ku$_4$.r-Ø
VP-VENT-in -enter-3N.S/DO
'what came in'

(75) ***ì*-dub**

ʔi -dub -Ø
VP-heap.up-3N.S/DO
'what is heaped up'

(76) ***ma-an*-sim**
Ø -ma -n(i)-sim -Ø
VP-1SG.IO-in -sieve-3N.S/DO
'one in which it is sieved for me'

(77) ***ba*-úš**
Ø -ba -ʔúš-Ø
VP-MM-die -3SG/3N.S/DO
'one who has died'

A further example may be ***ba-an*-$\mathbf{du_8}$-$\mathbf{du_8}$**, a term for a kind of container.

Several finite forms converted into nouns include the modal proclitic {ḫa} (§25.4): ***ḫé*-ĝál** 'abundance' (lit. perhaps 'what hopefully exists', of the verb **ĝál** 'exist, be there'), ***ḫé*-$\mathbf{dab_5}$** 'captive' (lit. 'who is truly held', of the verb **$\mathbf{dab_5}$** 'take, seize, hold'), and ***ḫé*-$\mathbf{du_7}$** 'ornament' (lit. 'what is truly fitting', of the verb **$\mathbf{du_7}$.ř** 'be fitting, be suitable'). E.g.:

(78) ***ḫé*-ĝál**
ḫa =ʔi -ĝál -Ø
MOD=VP-be.there-3N.S/DO
'which hopefully exists'

A particularly archaic type of form is represented by ***gáb*-íl** 'basket' (Selz 1993b). It contains the modal prefix {ga} which is normally restricted to verbal forms with a subject of the first person (§25.6). This rule would lead to the following analysis:

(79) ***gáb*-íl**
ga -b -ʔíl
MOD:1SG.A/S-3N.DO-lift
'I will lift it!'

However, a semantic shift from 'I will lift it!' to 'basket' is not a very plausible one. Again the first step towards a solution is to take it as a headless relative clause 'which I will lift'. But there is more. As we shall see in §25.6, there are a few frozen forms which suggest that, in an earlier period, {ga} could also be used for the third person. It is this fact that provides us with a plausible origin for the noun ***gáb*-íl** 'basket': it comes from a headless relative clause with the meaning 'what will truly lift it'. Other nouns of this type are the following:

***gáb*-$\mathbf{dan_6}$** 'washerman' (from **$\mathbf{dan_6}$** 'wash')
gáb-ge-en*$_6$** 'guarantor' (from ***ge.n 'confirm')
***gáb*-$\mathbf{kas_4}$** 'postman' (from **$\mathbf{kas_4}$** 'run')
***gáb*-lá** 'hanger' (from **lá** 'hang')
***gáb*-ra** 'driver (a kind of shepherd)' (from **ra** 'hit')
***gáb*-ús** 'follower (a kind of shepherd)' (from **ús** 'follow')

Some of these nouns fall out of use during the period covered by our corpus. In the Old Sumerian texts from Lagash, for instance, Selz (1993a: 154) observed the replacement of the occupational name ***gáb*-$\mathbf{dan_6}$** 'washerman' by **túg-$\mathbf{dan_6}$** 'washerman', a compound of the type **zadim** (§6.5.4).

A related type of noun is ***ga-an*-tuš** 'tenant (of a house)'. It is attested in later texts but there are as yet no certain earlier attestations that I am aware of. However, written ***gan*-tuš** it would be a homograph of the frequently attested noun ***ḫé*-dab$_5$** and therefore quite difficult to identify. It is to be analysed as follows:

(80) ***ga-an*-tuš**
ga **-n(i)-tuš**
MOD:"1SG".A/S-in -sit
'who will truly dwell (lit. "sit") in it'

This noun, too, displays an archaic use of {ga} for the third person.

6.6.3. De-adjectival nouns

An adjective can come to belong to the class of nouns without any change in form. There are a only a few attestations in the corpus. We have already encountered an example in §6.5.2 above, where the compound ***nam*-maḫ** 'greatness' was listed, containing the noun **maḫ** 'greatness', which comes from the adjective **maḫ** 'great'. For other examples and a more detailed discussion of de-adjectival nouns, see §10.6.

6.7. Noun formation through derivation

New words (lexemes) can also be formed from existing ones through derivation, the formation of words from other words through the addition of an affix (called a derivational affix). Derivation is very common in English. In that language, nouns can, for instance, be formed from adjectives (*happiness* from *happy*, *unwise* from *wise*), from verbs (*writer* from *write*, *disconnect* from *connect*), or from other nouns (*brotherhood* from *brother*, *subway* from *way*).

In contrast with English, Sumerian largely lacks words formed from other words through derivation. In part, this lack of derived words may be apparent only. We are not very well informed about the make-up of Sumerian stems as they are largely written with word signs. There are perhaps derivational affixes yet to be discovered.

In fact, Sumerian seems to have at least one derivational affix: the suffix /ʔu/. This suffix forms object nouns from verbs. It occurs in the following words: **sar-*ru*** (Nik 1:165 2; L; 24) 'document' (from the verb **sar** 'write') and **daḫ-*ḫu*** (CTNMC 8 11; D; 21), also written **daḫ-*ù*** (MVN 2:191 4; L; 21) 'addition' (from the verb **daḫ** 'add'). Uncertain attestations are: **lu$_5$-*gu*** (VS 14:165 3:3; L; 24) '... (?)' (from the verb **lu$_5$-g**) and **la'u$_6$** (uncertain reading of LAL.NI, passim in Ur III texts) 'shortage' (from the verb **lá** 'be short').

6.8. Proper nouns

6.8.1. Introduction

Proper nouns have largely the same syntactic properties as common nouns. As with any other noun, the syntactic function of a proper noun is expressed by an enclitic case marker. Proper nouns perform the same syntactic functions as common nouns. A proper noun can be the head of a noun phrase and can be modified by relative clauses, appositions, participles, and so on. However, proper nouns differ from common nouns in their meaning. A proper noun always has a unique referent. This specific meaning of proper nouns makes that they are only rarely occur with modifiers which have a restrictive meaning. For this reason, they are hardly ever

found in certain constructions common for other nouns. Proper nouns are, for instance, not likely to be construed with attributive adjectives or possessive pronouns. But this is only a semantic restriction and not a grammatical one, as is shown by the form **^{d}*ba-ú-ĝu$_{10}$*** 'my Bau' (Cyl B 2:23; L; 22) and an expression like the following:

(81) **(...) nin-*ĝu$_{10}$-šè*-igi-*ĝu$_{10}$* gu-*la* / (...) nin-*ĝu$_{10}$-šè*-igi-*ĝu$_{10}$* tur**
nin.ĝu$_{10}$.šè.igi.ĝu$_{10}$ gu.l -Ø -ʔa nin.ĝu$_{10}$.šè.igi.ĝu$_{10}$ tur
Ningushe'igigu be.big-NFIN-NOM Ningushe'igigu small
'...the older Ningushe-igigu; ... the young Ningushe-igigu' (BM 28836 1:19-20; L; 21)

Proper nouns also differ from common nouns in their morphology. Nearly all Sumerian proper nouns are meaningful. Although a proper noun behaves syntactically as a word, according to its internal structure it can be a word, a phrase, or a clause. In the remainder of this section, the most frequent types will be briefly pointed out:[4] first, the proper nouns which are noun phrases (§6.8.2), then those which are clauses (§6.8.3), and finally the ones with shortened forms (§6.8.4).

6.8.2. Noun phrases as proper nouns

The internal grammatical structure of a proper noun can be that of a noun phrase. Such a proper noun can be made up from a single noun, but usually they consist of a head noun and some modifying element following it. Examples of the former type are the following: **maš-dà** 'gazelle' (RTC 52 4:1; L; 24), **ka$_5$-*a*** 'fox' (NG 15 5; L; 21), **ulu$_3$-*di*** 'wailer' (CT 3 pl.35-39 BM 21335 4:16; L; 21), **kinda$_2$** 'barber' (TSA 20 9:3; L; 24).

Most proper nouns with the structure of a noun phrase also include some modifying element. A proper noun can, for instance, be made up from a noun with a possessive pronoun:

(82) **ses-*ĝu$_{10}$***
ses =ĝu
brother=my
'my brother' (MVN 13:538 10; D; 21)

Similarly: **ka$_5$-*a*-*ĝu$_{10}$*** 'my fox (**ka$_5$-*a***)' (NG 47 14'; L; 21).

A very common structure is that of a noun followed by a dependent genitive. Such proper nouns include a genitive case marker which may appear when it is followed by a vocalic morpheme. E.g.:

(83) **lú-*ge-na* dumu lú-^{d}*ba-ú-ka-ke$_4$***
lú.ge.na dumu lú ba.ú=ak =ak =e
Lugena son Man Bau =GEN=GEN=ERG
'Lugena, son of Lu-Bau (ergative)' (NG 141 3; L; 21)

Here, the first of the two genitive case markers is part of the proper noun **lú-^{d}*ba-ú.k*** 'man of Bau'. Often, however, the genitive case marker internal to the proper noun is ignored, as in **lú-diĝir-*ra* dumu lú-^{d}*ba-ú-ke$_4$*** 'Lu-dingira, son of Lu-Bau (ergative)' (TuT 123 3:8; L; 21). Only a very few nouns occur as the head noun in genitive constructions used as proper nouns. Apart from the already mentioned **lú** 'man', the most important are **geme$_2$** 'female servant', **urdu$_2$.d** 'slave', and **ur** (with unclear meaning).

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[4] For more details, see Limet (1968), Balke (1994-1995), Edzard (1998), and especially Krebernik (2002).

Other proper nouns consist of a noun followed by an attributive adjective. E.g.:

(84) **ses-tur**
ses tur
brother small
'little brother' (RTC 28 1:2; L; 24)

Similarly: ***ad-da*-tur** 'little father (***ad-da***)' (BCT 1:71 5; D; 21). As in other languages, such noun phrases can also have the general meaning 'one having ...'. E.g.:

(85) **igi-si$_4$**
igi si$_4$
eye brown
'brown-eye (i.e., "One having brown eyes")' (VS 14:80 1:5; L; 24)

Similarly: **igi-gùn** 'one having multicoloured (**gùn**) eyes' (Nik 2:202 5; U; 21), **igi-tur-tur** 'one having small (**tur**) eyes' (SNAT 445 obv 12; U; 21), **siki-gíd** 'long-hair (**siki** "hair", **gíd** "long")' (SNAT 538 obv 6; U; 21).

Proper nouns may consist of a noun followed by a non-finite verbal form used like an adjective. E.g.:

(86) **ses-du$_{10}$-*ga***
ses du$_{10}$.g -Ø -ʔa
brother be.sweet-NFIN-NOM
'sweet brother' (MVN 2:268 2; L; 21)

Similarly: **maš-*gu-la*** 'big (***gu-la***) kid (**maš**)' (MVN 6:109 obv 16; L; 21).

According to its internal structure, a proper noun can also be a headless noun phrase (§5.2). E.g.:

(87) **kal-*la*-gu$_{10}$**
kal -Ø -ʔa =ĝu
be.dear-NFIN-NOM=my
'my dearest one' (SACT 1:63 4; D; 21)

(88) **pu$_6$-*ta*-pà-*da***
pu$_6$=ta pà.d-Ø -ʔa
well=ABL find-NFIN-NOM
'one found at the well' (RTC 16 1:2; L; 24)

(89) **a-*da*-gal-di**
a =da gal =Ø di -ed -Ø
father=COM greatness=ABS say:IPFV:NFIN-IPFV-NFIN
'one famous with father' (Nik 1:16 6:6; L; 24)

(90) ***ì*-kal-*la***
ʔi -kal -Ø -ʔa
VP-be.dear-3SG.S/DO-NOM
'one who is dear' (UTAMI 3:1698 3; U; 21)

6.8.3. Clauses as proper nouns

The internal grammatical structure of a proper noun can also be that of a clause. Such a proper noun may consist of a finite verbal form only, but usually they include one or more noun phrases as well. E.g.:

(91) ***ḫé*-ti**
ḫa =?i -ti.l -Ø
MOD=VP-live-3SG.S/DO
'May he live!' (TCTI 2:3407 4; L; 21)

(92) **^{d}šara$_2$-*a*-*mu*-túm**
šara$_2$=e Ø -mu -n -túm -Ø
Shara=ERG VP-VENT-3SG.A-bring-3SG.S/DO
'Shara brought it (i.e., the child).' (ASJ 19,221:62 4; U; 21)

(93) ***nam*-šita-*ĝu$_{10}$*-*bí*-du$_{11}$**
nam.šita=ĝu=Ø Ø -bi -n -du$_{11}$.g-Ø
prayer =my=ABS VP-3N.OO-3SG.A-say -3N.S/DO
'He said a prayer for me.' (DP 113 11:10; L; 24)

(94) **é-ḫi-li-*a*-*ì*-*in*-řú**
é =Ø ḫi.li =?a ?i -n(i)-řú -Ø
house=ABS charm=LOC VP-in -erect-3N.S/DO
'The house has been built with charm.' (NATU 1:28 rev 1:15; U; 21)

Proper nouns like these have finite verbal forms as their predicates. Others have nominal or adjectival predicates. They consist of either a copular or a nominal clause, depending on how the subject is expressed. If the clause lacks a subject noun phrase, the copula is used. E.g.:

(95) **aza-*àm***
aza =Ø =?am
bear=ABS=be:3SG.S
'He is a bear.' (YOS 18:92 1:22; U; 21)

(96) **^{d}nanna-*kam***
nanna=ak =?am
Nanna=GEN=be:3SG.S
'He belongs to Nanna.' (TENS 280 3; D; 21)

But if the clause contains a subject noun phrase, there is no copula. Such proper nouns consist of a nominal clause (§30.2), with a predicative noun phrase, participle, or adjective. E.g.:

(97) **lugal-agrig-zi**
lugal=Ø agrig zi.d =Ø
king =ABS steward right=ABS
'The king is the right steward.' (FAOS 9/1 Gudea 90 4; L; 22)

(98) ***a-ba*-^{d}en-líl-*gen$_7$***
a.ba=Ø en.líl=gen
who=ABS Enlil =EQU
'Who is like Enlil?' (AUCT 1:159 4; D; 21)

(99) **^{d}en-líl-gal-zu**
en.líl=Ø gal =Ø zu -Ø
Enlil =ABS greatness=ABS know-NFIN
'Enlil is wise (lit. "is greatly knowing").' (ITT 1:1448 3:6; L; 23)

(100) **inim-*ma*-*né*-zi**
inim=ane=Ø zi.d
word=his=ABS right
'His word is right.' (BIN 5:135 2; U; 21)

In proper nouns, the verbal prefix {ʔi} may contract with a preceding vowel, thus obscuring the difference between a predicative finite and non-finite verb. Take, for instance, the following proper noun:

(101) **šul-^{d}en-líl-*le*-*ì*-su**
šul =Ø en.líl=e ʔi -n -zu -Ø
young.man=ABS Enlil=ERG VP-3SG.A-know-3SG.S/DO
'The young man is known by Enlil.' (DP 115 13:6; L; 24)

The name of this individual is normally written **šul-^{d}en-líl-*le*-su**, without the overt ***-ì-*** (e.g., DP 114 13:13; L; 24). It is only the variant spelling with the prefix {ʔi} that makes it clear that this proper noun contains a finite instead of a non-finite verbal form.

6.8.4. Shortened proper nouns

Very often the proper noun as attested is only the short form of an actually far more complex proper noun. The vast majority of these shortened forms come from proper nouns which have the internal make-up of a clause. These short forms tend to leave out one or two constituents of the clause, such as the subject or the predicate. Take, for instance, the following proper noun:

(102) **lugal-*ga*-ti-*e*-ki-áĝ**
lugal=Ø ga.ti.l =e ki =Ø áĝ -Ø
king =ABS ex.voto=DIR place=ABS measure.out-NFIN
'The king is one who loves (lit. "measures out a place for") *ex voto* offerings.' (UET 3:1288 seal 1; Ur; 21)

This individual is called Lugal-gatile-ki'ag on his seal, but is referred to as ***ga*-ti-*e*** in line 7 of the text on which his seal is impressed. And it is also this short form of his name that is used again and again in other texts. This ***ga*-ti-*e***, a noun in the indirective case, is the indirect object in the complete proper noun. All other constituents have been left out in the short form.

Or, take this proper noun:

(103) **inim-^{d}en-líl-*lá*-*an*-dab$_5$**
inim en.líl=ak =Ø ʔa-n -dab$_5$-Ø
word Enlil =GEN=ABS VP-3SG.A-take -3N.S/DO
'He obeys (lit. "holds") Enlil's command.' (e.g., DP 553 2:2; L; 24)

This individual, a farmer (**engar**) in charge of collecting rent, is also called **inim-^{d}en-líl** 'Enlil's command' (e.g., Nik 1:124 1:4; L; 24). Here, the short form leaves out the predicate. (The omission of the genitive case marker is only a spelling matter.)

These two examples involve shorter and longer forms which can be proven to apply to one and the same individual. But there are many more instances, where it is impossible to prove

what the full form is of a given short form. Thus, a proper noun like ***ma-an*-ba** 'He/she gave him (= the child) to me.' (CST 53 3; D; 21) lacks an explicit subject and must be the short form of a name such as the following:

(104) **^{d}nanna-*ma-an*-ba**
nanna=e Ø -ma -n -ba -Ø
Nanna=ERG VP-1SG.IO-3SG.A-portion.out-3SG.S/DO
'Nanna gave him to me.' (e.g., BIN 3:182 4; D; 21)

In some instances, the short form cuts right through one of the constituents of the full proper noun. Take, for instance, the name of a well-attested foreman (**ugula**):

(105) **inim-du$_{11}$-du$_{11}$-*ga-né-an*-dab$_5$**
inim du$_{11}$.g-du$_{11}$.g-Ø -ʔa =ane=Ø ʔa-n -dab$_5$-Ø
word say -say -NFIN-NOM=his =ABS VP-3SG.A-take -3N.S/DO
'He obeys the commands spoken by him.' (e.g., VS 25:58 1:3; L; 24)

Nearly always his name is just **KA-KA**, which may be read either **inim-du$_{11}$** or **du$_{11}$-du$_{11}$** (e.g., DP 614 1:4; L; 24).

There are also short forms in which a meaningful element is truncated in such a way as to make the name all but opaque. Thus, a certain cook (**muḫaldim**) has the following name:

(106) **lugal-*mu-da*-kúš**
lugal=Ø Ø -mu -n -da -kúš-Ø
king =ABS VP-VENT-3SG-with-tire -3SG.S/DO
'The king tires himself on his behalf.' (VS 25:79 5:2; L; 24)

Sometimes, though, he is called **lugal-*mu*** (VS 25:70 7:5; L; 24), a short form in which only the first part of the finite verbal form is retained. Such a mutilation of the predicate is not unique, but is also attested elsewhere. E.g.:

(107) ***e-ta*-e$_{11}$**
ʔi -b -ta -e$_{11}$.d -Ø
VP-3N-from-go.up/down-3SG.S/DO
'He went down.' (DP 409 6:2; L; 24)

The same individual, a gardener (***nu*-kiri$_6$**), may also be called ***e-ta*** (e.g., VS 27:63 6:2; L; 24).

Such a truncation of what is a single word does not only apply to finite verbal forms but also occurs elsewhere. Thus, the same individual called **ur-šul** in one text (STH 1:6 4:2; L; 24) is referred to in another as:

(108) **ur-^{d}šul-pa-è**
ur šul.pa.è=ak
? Shulpae=GEN
'the one (?) of (the god) Shulpae' (STH 1:7 7:4; L; 24)

Just like **ur-šul** is the short form of **ur-^{d}šul-pa-è**, **ur-igi** is probably short for **ur-^{d}igi-ama-*šè***, and **ur-nu** for **ur-^{d}nu-muš-da** (Bauer 1972: 498).

7. THE CASES

7.1. Introduction

Cases play an important role in Sumerian. Every noun phrase is in some case which shows how this phrase is related to the verb or to other parts of the sentence. Some cases express syntactic functions such as the subject and the various types of objects. Others have meanings such as 'in', 'from', 'with', and 'like', which are typically conveyed by prepositions in English. Finally, there is the genitive case, which indicates among other things a relation of possession. Thus the cases are crucial for expressing the relations between the parts of the sentence and between noun phrases which are parts of a larger noun phrase.

Sumerian has twelve different cases, which are expressed with enclitic case markers. But not every noun phrase can occur in every case. Some cases are restricted to phrases of either the human or the non-human gender class. The dative case, for instance, is only used with human noun phrases. The following table lists the twelve cases, the basic forms of their case markers, as well as the sections where the forms and functions of each case are discussed in detail:

Case	**Case marker**		**Section**
	Human	***Non-human***	
Genitive	ak		§7.2
Ergative	e		§7.3
Absolutive	Ø		§7.4
Dative	ra	-	§7.5
Directive	-	e	§7.6
Locative	ʔa		§7.7
Locative 2	-	ne	§28.6
Terminative	še		§7.8
Adverbiative	eš		§7.9
Ablative	ta		§7.10
Comitative	da		§7.11
Equative	gen		§7.12

The "locative 2" case is all but obsolete. It only occurs in a few fixed expressions and in the so-called "pronominal conjugation", a kind of non-finite temporal clause (Krecher 1993d: 97-8). It will be treated in the chapter on non-finite verbal forms (§28.6).

The case markers are phrase-final clitics (§4.4.3). As clitics, they are grammatical words (§4.3.4) but form a single phonological word (§4.3.3) with whichever word precedes. As *phrase-final* clitics, they are attached to the last word of the noun phrase to which they belong, at the very end of that phrase. The word class of this last word is completely immaterial. It can be a noun but also, for instance, an adjective or a verb.

In the relative order of clitics, the case markers follow all other phrase-final clitics (§4.4.4). This rule underlies the second important function of the Sumerian case markers. Being located at the very end of a noun phrase, a case marker not only indicates the case of the noun phrase but it also makes clear where the noun phrase ends, thus having an important demarcating function (§5.1). The following phrase is a good example of this double function of the enclitic case markers as delimiters of noun phrases and as markers of cases (in the glosses the three noun phrases have been put between square brackets):

(1) **mu ensi$_2$ *ĝír-su*^{ki}*-ka-šè***
[mu [ensi$_2$.k [ĝír.su=ak]=ak]=še]
[name [ruler [Girsu =GEN]=GEN]=TERM]
'because of the governor of Girsu (lit. "for the name of the governor of Girsu")' (DTBM 99 obv 3; D; 21)

This example also illustrates a very common phenomenon in Sumerian: the accumulation of case markers on the last word of a complex noun phrase. It occurs whenever a word is the last word of more than one noun phrase.

Case markers and cases are two closely related yet different things. Case markers are elements of form which indicate that a given noun phrase is in a certain case. Take, for instance, the genitive case (§7.2). A noun phrase which has the genitive case marker {ak} attached to it is in the genitive case. Here there is a clear correlation of case marker and case. But now consider the absolutive case (§7.4). There it is the very absence of any case marker that indicates that the noun phrase is in the absolutive case. Although there is no case marker, there is a case nonetheless.

Cases and noun phrases have a one-to-one relationship. This follows from the definition given in §5.1: a noun phrase is a grammatical unit of one or more words which is in some case. Thus, by definition every noun phrase is in some case and, conversely, every grammatical unit which is in some case is a noun phrase. Although the noun phrase has already been discussed in chapter 5, one thing needs to be mentioned here as well. In spite of its label, a noun phrase does not have to contain a noun. A noun phrase may also be built around a pronoun, a numeral, or a participle. It may even consist of a nominalized clause (§5.2).

The rule that noun phrases are always in some case equally applies to proper nouns. Even foreign names occur with case markers, as in the following examples with Akkadian names:

(2) **ki *ṣú-la-lum-ma-ka***
ki ṣú.la.lum=ak =ʔa
place Ṣulālum =GEN=LOC
'at *Ṣulālum*'s place' (NG 138 9; U; 21)

(3) **mu lú *nu-ì-da-ke$_4$-ne-šè***
mu lú nu.ì.da=ak =enē=ak =še
name man Nu'idā =GEN=PL =GEN=TERM
'because (lit. "for the name") of *Nu'idā*'s men' (OIP 115:219 8; D; 21)

Twice in our corpus, a formal element ***-na-an-na*** is found which may be a further case marker but which may also be a complex form that includes a known case marker, like, for instance, the locative case marker {ʔa}. According to Falkenstein (1956: II, 40) and Edzard (2003b: 158), this ***-na-an-na*** means 'without, apart from'. As I am unable to provide an analysis, I give the two attestations with tentative translations:

(4) **ur-balaĝ-kù-*ga-na-an-na* / lú *nu-ù-da*-nú-*a***

ur.balaĝ.kù.ga.k=nanna lú =Ø nu =ʔi -n -da -nú-Ø -ʔa
Urbalagkuga =apart.from man=ABS NEG=VP-3SG-with-lie -3SG.S/DO-NOM
'that, apart from Urbalagkuga, no man slept with her' (NG 24 10'; L; 21)

(5) **dub-lá-maḫ / (...) / *ì-me-a-na-an-na* / *é-bé nu*-řú-*àm***
dub.lá.maḫ (...) ʔi -me-Ø -ʔa =nanna é =be =Ø nu =řú -Ø =ʔam
Dublamah (...) VP-be -3N.S-NOM=apart.from house=this=ABS NEG=erect-NFIN=be:3N.S
'the Dublamah – this temple was unbuilt, apart from that it had been (a ... since time immemorial)' (FAOS 9/2 Amarsuen 12 3-8; Ur; 21)

7.2. The genitive case

7.2.1. The genitive case marker {ak}

The genitive case is expressed by the enclitic case marker {ak}. Its spelling is a complicated matter and will be treated separately, in the following section (§7.2.2). Stated briefly, the scribes often ignore the case marker entirely, but if they spell it out, they write its initial /a/ with a CV-sign or as ***a***, with a V-sign. The /k/ is either written with a CV-sign or ignored. The most common use of a noun phrase in the genitive case is to express a possessor, but the genitive case can also be employed in other ways. The uses of the genitive and the constructions associated with them will be the topic of §7.2.3, except one construction, the headless genitive, which has a section of its own (§7.2.4).

Here we will look at the form of the genitive case marker {ak}. Depending on which sounds precede or follow it, its basic form /ak/ undergoes certain changes. The initial /a/ contracts with a preceding vowel. The /k/ is retained before a vowel but is reduced in syllable-final position. Before a consonant and in word-final position, the /k/ had become /h/ by the Old Sumerian period and was completely lost by the Ur III period.

The full form /ak/ is only found between a consonant and a vowel. E.g.:

(6) **šu-ku$_6$ ab-*ba-ke$_4$***
šu.ku$_6$ ab =ak =e
fisherman sea=GEN=ERG
'the sea fisherman (lit. "the fisherman of the sea")' (VS 14:151 2:2; L; 24)

(7) **é iri kù-*ga-ka-né***
é iri kù.g=ak =ane=Ø
house city pure =GEN=his=ABS
'her temple in (lit. "of") the Holy City' (FAOS 9/1 Gudea 7 8; L; 22)

(8) **ugula *uš-bar-ra-ke$_4$-ne***
ugula uš.bar =ak =enē=e
overseer weaver=GEN=PL =ERG
'the overseers of the weavers' (UET 3:1535 10; Ur; 21)

(9) ***a-gù* šabra an-*na-ka***
a.gù šabra an =ak =ʔa
top administrator An=GEN=LOC
'on the administrator of the god An' (CM 26:142 4; D; 21)

Only a few morphemes can follow the genitive case marker and even fewer have an initial vowel. They are the plural marker {enē} (§6.3), the possessive pronouns {ane} 'his, her'

(§8.3.3) and {anēnē} 'their' (§8.3.4), the case markers {e} of the ergative (§7.3), {e} of the directive (§7.6.1), {ak} of the genitive, and {eš} of the adverbiative case (§7.9), as well as the assimilated forms of the locative case marker {ʔa} (§7.7.1) and the enclitic copula /ʔam/ (§29.2.3).

The initial /a/ of {ak} contracts with a preceding vowel. In most instances, the result of this contraction is unknown, because the preceding morpheme is written with a word sign. Take, for instance, the following example:

(10) **níĝ-ga / geme$_2$-^{d}*ba-ú* / dumu-*kam***
níĝ.ga.r geme$_2$.ba.ú.k dumu=ak =Ø =ʔam
property Geme-Bau child =GEN=ABS=be:3N.S
'It is property of princess Geme-Bau (lit. "of G., the child [of the ruler]").' (VS 25:75 9:1-3; L; 24)

The transliteration **dumu-*kam*** suggests a form /dumukam/, but in actual fact the word sign **dumu** only represents the word **dumu** as such and not the sound sequence /dumu/. The written form **dumu-*kam*** may stand for a phonological form /dumukam/ but also for /dumakam/, or for whatever the actual form of the stem **dumu** may be before the two clitics {ak} and {ʔam}. In this form and in all other instances involving word signs, we know that a contraction took place because the /a/ of {ak} is never written, but the actual pronunciation of the contracted form always eludes us:

(11) **sá-du$_{11}$ *du-du* / saĝĝa-*kam***
sá.du$_{11}$.g du.du saĝĝa =ak =Ø =ʔam
provisions Dudu temple.administrator=GEN=ABS=be:3N.S
'These are provisions for Dudu, the temple administrator.' (DP 155 5:3-4; L; 24)

(12) **agrig kalag-*ga* ^{d}nanše-*ke$_4$***
agrig kalag -Ø -ʔa nanše =ak =e
steward be.strong-NFIN-NOM Nanshe=GEN=ERG
'the strong steward of Nanshe' (St D 1:14; L; 22)

(13) **nin an ki-*ke$_4$***
nin an ki =ak =e
lady heaven earth=GEN=ERG
'the lady of heaven and earth' (ISET 1,207 Ni.13230 3:4; N; 21)

Only spellings with sound signs can give us information on the result of the contraction, but such spellings are rare. Yet, those morphemes which are always written with sound signs present a clear picture. Thus, a contraction with the /a/ of the nominalizing suffix {ʔa} (§31.2) always results in an /a/. E.g.:

(14) **ama lú tu-*ra-ke$_4$***
ama lú tu.r -Ø -ʔa =ak =e
mother person be.ill-NFIN-NOM=GEN=ERG
'the mother of a sick person' (Cyl B 4:17; L; 22)

A contraction with the /u/ of the possessive pronouns {ĝu} 'my' and {zu} 'your' (§8.3.2) always results in an /a/. E.g.:

(15) **lú ur$_5$-*ra ab-ba-ĝá-ke$_4$-ne***

lú ur$_5$ =ak ab.ba=ĝu=ak =enē=e
person debt=GEN father=my=GEN=PL =ERG
'the debt collectors of my father' (Studies Pettinato p. 183 BM 23678 rev. 8; L; 21)

(16) **dumu dab$_5$-*ba-za-ke$_4$-eš***
dumu dab$_5$-Ø -ʔa =zu =ak =eš
child take -NFIN-NOM=your=GEN=ADV
'because of your captive child' (Inanna B 141; OB copy)

A contraction with the short /e/ of the possessive pronouns {ane} 'his, her' and {be} 'its' (§8.3.3), and of the personal pronouns ***ĝe$_{26}$*** 'I' and ***zé*** 'you' (§8.2) always results in an /a/. E.g.:

(17) **é *ab-ba-na-ka***
é ab.ba=ane=ak =ʔa
house father=her =GEN=LOC
'in the house of her father' (NG 169 20; L; 21)

(18) **šà mu-*ba-ka***
šà.g mu =be=ak =ʔa
heart year=its=GEN=LOC
'in the middle of that year' (Ukg. 4 12:29; L; 24)

(19) ***ĝá-a-kam***
ĝe$_{26}$=ak =ʔam
I =GEN=be:3N.S
'He is mine.' (PN) (PDT 2:1163 rev 1; D; 21)

(20) **lugal-*za-me***
lugal=Ø zé =ak =me-en
king =ABS you=GEN=be -1SG.S
'Oh king, I am yours.' (PN) (e.g. TuT 141 2:22; L; 21)

A contraction with the long /ē/ of the plural marker {enē} (§6.3) and of the plural possessive pronouns (§8.3.4) always results in an /ē/. E.g.:

(21) **udu gu$_7$-*a* / sipa-*dè-ne-kam***
udu gu$_7$-Ø -ʔa sipa.d =enē=ak =Ø =ʔam
sheep eat -NFIN-NOM shepherd=PL =GEN=ABS=be:3N.S
'They are used up sheep of the shepherds.' (Nik 1:161 6:1-2; L; 24)

(22) **3-*a-ne-ne-kam***
3 =anēnē=ak =ʔam
three=their =GEN=be:3N.S
'This is of the three of them.' (DP 223 10:5'; L; 24)

Examples with the possessive pronouns of the first and second person plural can be found in §8.3.4.

Taking together, these contractions present a mixed picture. Mostly the result is an /a/, but the examples with a preceding /e/ suggest that vowel length plays a role as well. The /a/ of {ak} contracts with a short /e/ to /a/ but with a long /ē/ to /ē/. Assuming that this analysis for /e/ is correct and assuming that the vowels of {ĝu} 'my' and {zu} 'your' are short, we could posit a rule that the /a/ of {ak} contracts with a preceding short vowel to /a/ but that it is lost after a

preceding long vowel. As it is, we have as yet insufficient data to prove such a rule, however plausible it may be.

It is clear, though, that in some instances it is the preceding vowel that is lost, while in others it is the /a/ of {ak}. Hence, these two possible outcomes are also what we expect in those cases where the preceding morphemes are written with word signs. Indeed, there is some evidence to support this, in the form of complex sign names found in late lexical texts (Gong 2000). These names often contain an Akkadianized form of a Sumerian genitive: e.g. *gu-na-ak-ku* **'**of (the sign) GÚ', with the Akkadian suffix *-u* (Gong 2000: 132). It suggests a genitive /gunak/ for the Sumerian word **gú.n** 'load'. Some such names involve Sumerian nouns with a final vowel and their genitives also present a mixed picture. In some cases the /a/ of {ak} is preserved (references are to Gong 2000): e.g. *i-ga-ku* of **igi** 'eye' (p. 137), *i-za-ak-ku* of **izi** 'fire' (p. 141). In others it is lost: e.g. *an-še-ku* of **anše** 'donkey' (p. 103), *gi-ri-ku* of **ĝiri$_2$** 'knife' (p. 127), *gi-ir-ri-ik-ku* of **ĝiri$_3$** 'foot' (p. 127), *i-lim-mu-ku* of **ilimmu** 'nine' (p. 191), *lim-mu-ku* of **limmu** 'four' (p. 190). Instances with a preceding /a/ are of course ambiguous between these two possible outcomes: e.g. *qa-da-ku* of **gada** 'linen' (p. 123), *ia-a-ku* of /ia/ 'five' (p. 191), *na-ga-ak-ku* of **naga** 'soap' (p. 164), *nin-da-ku* of **ninda** 'bread' (p. 166). The form *ú-da-ku* of **udu** 'ram' (p. 195) is ambiguous, too, because this noun comes from earlier /uřa/, with a final /a/ (§3.3.2).

Thus, the /a/ of {ak} contracts with a preceding vowel, although in most instances the spelling hides from us the actual outcome of that contraction. The fate of the /k/ of {ak} is similarly obscure when it is syllable-final position. As stated above, the /k/ is only preserved before a following vowel. Elsewhere, that is word-finally or before a following consonant, it is reduced, but the precise nature of the reduction is again hidden from us by the spelling. Only one thing is certain: if the /k/ of {ak} occurs in syllable-final position, the scribes *never* write it. E.g.:

(23) **saĝ apin-*na-me***
saĝ apin =ak =Ø =me-eš
head plough=GEN=ABS=be -3PL.S
'They are chief ploughmen.' (DP 598 2:1; L; 24)

(24) **udu ab-*ba-ĝá***
udu ab.ba=ĝu=ak
sheep father=my=GEN
'of the sheep of my father' (NG 138 8; U; 21)

(25) **še gub-*ba* / gudu$_4$-*ge-ne-ta***
še gub -Ø -ʔa gudu$_4$.g=enē=ak =ta
barley stand-NFIN-NOM priest =PL =GEN=ABL
'from the barley rent of the priests' (Ukg. 4 8:24-25; L; 24)

Does this consistent absence from the written language mean that the /k/ was completely lost in syllable-final position? As we shall see presently, in the end it was but only after time and only by stages.

Evidence from the Old Sumerian texts points to the presence of a consonant. If the comitative and dative case markers follow the genitive, they always have their full form /da/ (§7.11.1) and /ra/ (§7.5.1), forms which they otherwise only have after a consonant. For example:

(26) **simug / ^{d}nanše-*ra***

simug nanše =ak =ra
smith Nanshe=GEN=DAT
'to the smith of Nanshe' (RTC 23 2:1-2; L; 24)

(27) **sipa udu siki-*ka-da***
sipa.d udu siki =ak =ak =da
shepherd sheep wool=GEN=GEN=COM
'with the shepherd of wool sheep' (VS 14:111 1:3; L; 24)

Similarly: **ur-saĝ ^{d}en-líl-*lá-ra*** 'to Enlil's warrior' (Ent. 22 2; L; 25); **^{d}nin-*ĝír-sú* / é-ninnu-*ra*** 'to (the god) Ningirsu of the Eninnu (temple)' (En. I 19 1-2; L; 25); **saĝ apin-*na-ra*** 'to the chief ploughman (lit. head of the plough)' (DP 521 2:1; L; 24).

Evidence from the Ur III texts, however, points to a complete loss of syllable-final /k/. As we shall see in §7.11.1 below, the scribes sometimes mistakenly write a dative case marker where a comitative is called for. They only make this mistake where the two case markers are pronounced alike: after a vowel, but also after a genitive case marker. Clearly, the syllable-final /k/ of the genitive case marker is not pronounced anymore in such forms, so that this case marker, too, only consists of a vowel. E.g.:

(28) **lú-^{d}en-líl-*lá-ra* / di *in-da*-tuku-*àm***
lú en.líl=ak =d(a) di.d=Ø ʔi -n -da -n -tuku-Ø =Ø =ʔam
man Enlil=GEN=COM trial=ABS VP-3SG-with-3SG.A-have -3N.S/DO=ABS=be:3N.S
'It was (the case) that he had a trial with Lu-Enlila (= Man-of-Enlil).' (PBS 13:32 2-3; N; 21)

For further examples see §7.11.1 below.

Further evidence comes from the following phrase, where the terminative case marker {še} has the reduced form /š/, which only occurs after a vowel (§7.8.1):

(29) **ig[i] šabra ^{d}en-líl-*lá-ka-áš***
igi šabra en.líl=ak =ak =še
eye administrator Enlil =GEN=GEN=TERM
'before the eyes of the administrator of Enlil' (PBS 13:32 8; N; 21)

Thus, by the Ur III period the genitive case marker was simply pronounced as /a/ before a consonant or in word-final position. An Akkadian loanword provides additional evidence for this. The Akkadian noun *šakkanakkum* is a pre-Old Babylonian loan from Sumerian **šagina** 'military governor'. The Sumerian noun has a final /a/ but contains no genitive case marker (cf. **šagina-*né*** 'his military governor' in Cyl B 7:22; L; 22). Yet, the Akkadians borrowed it as if it were a genitive. This only makes sense if a word-final /a/ could represent a genitive case marker, even though not in this particular word. The same applies to the Akkadian loan *sanda-nakkum* from the Sumerian noun **sandana** 'chief gardener', which does not contain a genitive case marker either.

The genitive case marker must originally have been /ak/ in syllable-final position as well. By the Ur III period it had become /a/, with a complete loss of syllable-final /k/. For what happened in between, we must once again look at the Old Sumerian evidence. As we saw above, it proves that the Old Sumerian forms still contained a consonant. This raises the question: which consonant? One word provides a clue because of its irregular spelling. After the word **^{d}en-líl** '(the god) Enlil', the genitive case marker is always written with the sign ***lá***, which seems to be an old CVC-sign representing the sequence /lah/ (§3.6). This spelling is already attested in the time of Eannatum (e.g. **^{d}en-líl-*lá*** 'of Enlil' in Ean. 1 obv 16:17; L; 25).

It suggests that by that time the syllable-final /k/ of {ak} had already been reduced to a glottal fricative /h/.

Thus, the reduction of /k/ in syllable-final position appears to have proceeded in two steps, first to /h/ (Old Sumerian), then to zero (Neo-Sumerian). This change fits the syllabic structure of Sumerian, which generally lacks voiceless aspirated consonants in syllable-final position. The only exceptions are a few morphemes with a syllable-final /k/, which is unstable in all of them (§3.2.2).

Words with an initial vowel may lose this vowel when a genitive case marker is attached to them. Thus, the genitive of **eden** 'plain' occurs as ***dè-na*** and the genitive of **iti.d** 'month' as ***ti-da***. See §3.11 for more details.

7.2.2. Spellings

The spelling of the genitive case marker is a complicated matter. The scribes may write it out fully with sound signs or only a part of it. Or they may ignore it altogether. The spelling conventions controlling these options are far from obvious and clearly change across time. Some forms come to be spelled more explicitly, others move in the opposite direction, becoming less precise. Unfortunately, the logic behind such changes often remains unclear. As our corpus contains tens of thousands of genitives, a proper analysis of the date is outside the scope of the present grammar, so that the description here will have to remain rather sketchy.

As noted in the previous section, the /k/ of the genitive case marker {ak} is only preserved before a vowel. Because {ak} can only be followed by a very limited number of grammatical morphemes, only three sound signs suffice to write all possible forms. They are ***ka***, ***ke$_4$***, and ***kam***, examples for which can be found in the previous section. With the exception of double genitives (see below), it is basically always written explicitly. Sometimes, though, it is ignored in texts from the Ur III period, but the examples known to me are limited to genitive case markers which are part of proper names. E.g.:

(30) **ur-^{d}en-líl-*e* / tùm-*dam***
ur en.líl=ak =e tùm -ed -Ø =ʔam
? Enlil =GEN=ERG bring:IPFV-IPFV-NFIN=be:3N.S
'It is to be brought by Ur-Enlil ("...-Of-Enlil").' (ITT 5:6893 4-5; L; 21)

(31) **mu ^{d}amar-^{d}suen-*e* *ur-bí-lum* *mu*-ḫulu**
mu amar suen=ak =e ur.bí.lum=Ø Ø -mu -n -ḫulu -Ø
year calf Suen=GEN=ERG Urbilum =ABS VP-VENT-3SG.A-destroy-3N.S/DO
'The year: Amar-Suen ("Calf-Of-Suen") destroyed Urbilum.' (UDU 107 rev 2; U; 21)

This spelling **^{d}amar-^{d}suen-*e*** occurs only a few times, against hundreds with the full spelling **^{d}amar-^{d}suen-*ke$_4$***. Clearly, this type of defective spelling is quite marginal. We may have a few examples only because some scribes were not aware of the internal grammatical structure of these proper names.

If the /k/ of {ak} is not followed by a vowel, it is reduced and accordingly never written. The only exception involves the spelling **^{d}en-líl-*lá*** (Ent. 28 5:23; L; 25), where ***lá*** may represent /lah/, with a reduced form of the genitive case marker {ak}. This type of spelling is restricted to the proper name **^{d}en-líl** '(the god) Enlil'. See the previous section and §3.6 for more details.

If the scribes write the /a/ of {ak}, they either use the V-sign ***a***, or they use a CV-sign, writing the /a/ together with the preceding consonant. Which strategy they use depends on the

nature of that consonant. They use CV-signs if it is a stop (signs used: ***ba***, ***da***, ***ga***, and ***ka***), an affricate (***řá***, I do not know any examples of {ak} after /z/), a nasal (***ĝá***, ***ma***, and ***na***), a lateral (***la***), or a tap (***ra***).

If the preceding consonant is a fricative, the scribes could use the CV-signs ***sa***, ***ša$_4$***, ***ša*** and ***ḫa***, but in practice they hardly ever do:

(32) ***nam*-lugal / lagas^{ki}-*sa***
nam.lugal lagas =ak
kingship Lagash=GEN
'the kingship over Lagash' (Ent. 26 14-15; L; 25)

The normal strategy for the scribes is to ignore the /a/ after a fricative altogether. E.g.:

(33) **gù-dé-*a* ensi$_2$ lagas^{ki}**
gù.dé.a ensi$_2$.k lagas =ak
Gudea ruler Lagash=GEN
'Gudea, the ruler of Lagash' (e.g. St D heading; L; 22)

After a glottal consonant (/ʔ/ or /h/), the /a/ is written with the sign ***a***:

(34) **mu-*bé* / lú-*a nu***
mu =be=Ø lúʔ =ak =Ø nu
name=its=ABS man=GEN=ABS NEG
'Its name is not that of a person.' (Ean. 1 rev 10:24-25; L; 25)

(35) **mu bala-*a-šè***
mu balaʔ =ak =še
name turn.of.duty=GEN=TERM
'because of (lit. "for the name of") the turn-of-duty' (e.g. AUCT 2:260 2; D; 21)

(36) ***nam*-ensi$_2$ / umma^{ki}-*a***
nam.ensi$_2$.k umma'=ak
rulership Umma =GEN
'the rulership over Umma' (Ent. 28 3:35-36; L; 25)

Similarly: **lú umma^{ki}-*a*** 'the man of Umma' (Ent. 28 6:9; L; 25), ***a-šà* gala-*a*** 'the field (***a.šà.g***) of the lamentation priest (**gala**ʔ)' (NG 215 44; U; 21), **še apin-lá-*a*** 'the barley (**še**) of the rent (**apin-lá**)' (MVN 11:168 12; U; 21). Note that the word **apin-lá** probably has a final glottal fricative (cf. §3.6).

Judging from the word **é** 'house' (Wilcke 1990b), the /a/ is usually written ***a*** after a /j/ (§3.8) in Neo-Sumerian but was consistently ignored in Old Sumerian: e.g. **é-*kam*** (CT 50:29 4:1; L; 24), **é-*kam*** (OSP 2:62 3:10=15; N; 23), **é-*a*** (Cyl A 6:5; L; 22), **é-*a-kam*** (BIN 3:491 3:47; D; 21), **é-*kam*** (TCS 1:361 6; L; 21).

As already noted, the /a/ of {ak} is hardly ever written after a fricative. After other consonants it is often spelled out explicitly, whether with a CV-sign or with the sign ***a***. Yet, the /a/ is certainly not written consistently, particularly not in the earlier periods. On the contrary, in the Old Sumerian texts from Lagash, the /a/ of {ak} is usually *not* written. From the numerous attestations illustrating this phenomenon, only a few will be mentioned: the full form **saĝ apin-*na-ke$_4$*** 'the chief ploughman (lit. "the head of the plough")' is attested two times (VS 14:59 2:2; VS 25:32 4:3; L; 24). The written form **saĝ apin-*ke$_4$***, however, is attested much more frequently: twenty-three times (DP 358 2:2; Nik 1:74 1:3; STH 1:50 1:3; VS 14:85 1:5, 3:1; VS 25:106 3:2; etc.; L; 24). Similarly, the form **é-gal-*la-kam*** 'This is that of the palace.' is

attested only once (DP 482 3:2; L; 24), while the written form **é-gal-*kam*** occurs at least twenty times (BIN 8:369 3:1; Nik 1:48 4:1; VS 14:189 1:4; VS 25:98 4:1; etc.; L; 24). Whereas the spelling **sipa-*da-kam*** does not occur, **sipa-*kam*** 'They are (...) of the shepherd.' is attested three times (DP 98 2:3; VS 14:34 6:4, 46 2:2; L; 24). The spelling **saĝ apin-*na-ra*** 'to the chief ploughman' occurs six times (DP 239 4:1; Nik 1:76 2:3; VS 14:47 2:1; etc.; L; 24), whereas **saĝ apin-*ra*** is found twenty-three times (DP 238 3:4, 526 1:4; etc.; L; 24).

Later it becomes more common to write the /a/ explicitly. A nice example is the phrase **pisaĝ dub-*ba*** 'basket (**pisaĝ**) of tablets (**dub**)'. In the Old Sumerian texts from Lagash, it is attested twenty-three times but only written as **pisaĝ dub** (e.g. DP 29 1:1; L; 24), a spelling which ignores the genitive case marker. This defective spelling still occurs in texts from the Old Akkadian period (e.g. PPAC 1:A.900 obv 1; A; 23), but the same period also provides us with the first full spelling **pisaĝ dub-*ba*** (RTC 85 1; L; 23). In the texts from the Ur III period, the full spelling is the norm, occurring hundreds of times.

Yet, in the Ur III period, too, defective spellings remain very common and for many expressions alternative writings occur. E.g.:

(37) **^{d}*ba-ú-in*-zu dam ur-^{d}*ba-ú-ka-ke$_4$***
ba.ú.in.zu dam ur ba.ú=ak =ak =e
Bau.inzu wife ? Bau =GEN=GEN=ERG
'Bau-inzu, the wife of Ur-Bau ("...-Of-Bau")' (NG 63 13; L; 21)

Similarly: ***um-ma*-sa$_6$-*ga*** **dumu ur-^{d}*ba-ú-ka-ke$_4$*** 'Ummasaga, the daughter of Ur-Bau' (NG 206 23'; L; 21). But without the ***-ka-***: ***da-da* / dumu ur-^{d}*ba-ú-ke$_4$*** 'Dada, the son of Ur-Bau' (TuT 254 6; L; 21), **[da]m ur-^{d}*ba-ú-k*[*e$_4$*]** 'the wife of Ur-Bau' (NG 19 15'; L; 21). Such defective spellings of double genitives occur quite often, also during the earlier periods.

While the change in spelling from **pisaĝ dub** to **pisaĝ dub-*ba*** is one from a more defective to a more explicit spelling, a change in the opposite direction also occurs. Consider the following:

(38) **saĝ iti-*da-ka***
saĝ iti.d =ak =ʔa
head month=GEN=LOC
'at the beginning of the month' (UET 2 suppl. 13 obv 1:2; Ur; 24)

(39) **saĝ iti *gu-la***
saĝ iti.d =ak gu.l -Ø -ʔa
head month=GEN be.big-NFIN-NOM
'the grand beginning of the month' (e.g. UET 3:856 6; Ur; 21)

The first example is the earliest attestation of **saĝ iti-(*da.k*)** 'beginning of the month' and it shows an explicit spelling of the genitive case marker. It is also the only explicit spelling known to me. The second example is one from many lacking the ***da***. Because of this general absence of the case marker, Sallaberger (1993: I 40 note 165) takes Ur III **saĝ-iti.d** as a compound, an original genitive construction reanalysed as a word. This is a distinct possibility and would explain the consistent absence of the ***da***. But at the same time, we lack an explicit spelling showing the final consonant of **saĝ iti-(*da.k*)**. If Sallaberger's analysis is correct it should be a /d/, but if we are simply dealing with defective spellings it should be a /k/. Only the discovery of an explicit spelling can decide this issue.

A similar example is the following phrase:

(40) **túg gú anše-*ka***

túg gú anše =ak =ak
cloth neck donkey=GEN=GEN
'donkey neck cloth' (e.g. VS 14:41 1:3; L; 24)

In the Old Sumerian texts from Lagash, this explicit spelling occurs eight times, alternating with the defective **túg gú anše**, which is found twice (VS 27:27 3:3 = DP 492 9:1; L; 24). Later texts only contain defective spellings, with two Old Akkadian attestations from Isin (MAD 4:64 6 = MAD 4:69 6; I; 23) and about forty Ur III attestations from Umma (e.g. BIN 5:176 1; U; 21). Again, we lack positive evidence to determine whether **túg gú anše** merely became a conventional defective spelling of a genitive construction or whether it became a compound ***túg-gú-anše**.

That conventional defective spellings really exist, also in the Ur III period, is shown by the following genitive construction:

(41) **mu lugal-*ka-né in*-pà**
mu lugal=ak =ane=Ø ?i -n -pà.d-Ø
name king =GEN=his =ABS VP-3SG.A-call -3N.S/DO
'He took his oath by the king's name (lit. "his name of the king")' (NG 205 62; L; 21)

This example proves that **mu lugal** is a genitive construction and not a compound. Yet, the numerous other attestations for this construction consistently lack a written case marker. Only once, we find a full spelling **mu lugal-*la*** (NG 122 8; U; 21) (reference courtesy Attinger).

All this is enough to show that the spelling of the genitive case marker fluctuates and is far from consistent, not only across time but also within texts from the same time and place. Some spelling changes may eventually turn out to reflect changes in the language but for proving or refuting this possibility a more systematic analysis of the data is needed than is possible within the scope of the present grammar.

7.2.3. Dependent use of a genitive

A noun phrase in the genitive case can be a part of a noun phrase. It is then syntactically dependent on the head of this noun phrase. Such a noun phrase in the genitive case will be called a dependent genitive. A construction with a dependent genitive expresses that the referent of the head belongs in some way to the referent of the dependent genitive. This 'belonging to' is often a relationship of possession.

The syntactic dependency of the genitive is formally expressed by word order: a dependent genitive is enclosed between its head and the clitics of this head. If the head is construed with an attributive adjective or participle as well, this adjective or participle precede the dependent genitive. Thus the basic word order in a noun phrase is (see also §5.2): (1) head noun (2) attributive adjective (or participle) (3) dependent genitive (4) clitics of the head noun. For example:

(42) **é gibil / an-*ta*-sur-*ra-ka-na***
é gibil an.ta.sur.ra=ak =ane=ʔa
temple new Antasura =GEN=his =LOC
'into his new temple of Antasura' (DP 116 16:9-10; L; 24)

(43) **^{ĝiš}gigir sumun ensi$_2$-*ka-ke$_4$***
gigir sumun ensi$_2$.k=ak =e
chariot old ruler =GEN=DIR

'the old chariot of the governor' (UTAMI 6:3683 obv 2; U; 21)

(44) **^{ĝiš}kiri$_6$ gibil ereš-diĝir-*ra-ta***
kiri$_6$ gibil ereš.diĝir =ak =ta
orchard new highpriestess=GEN=ABL
'from the new orchard of the highpriestess' (MVN 2:3 2:27; L; 21)

Being a noun phrase, the dependent genitive can itself consist of a head noun and a dependent adjective or a dependent genitive. This positioning of one noun phrase inside another can lead to quite complicated clusters of clitics when the clitics of one head noun are attached to the clitics of another. Note that it is always the case marker which delimits one phrase from another (§5.1). For example (with each individual noun phrase between square brackets):

(45) **^{ĝiš}ig é ^{d}*ba-ú-ka-ke$_4$***
[ig [é [ba.ú=ak]=ak]=e]
[door [house [Bau =GEN]=GEN]=DIR]
'the door of the temple of (the goddess) Bau' (DAS 228 2; L; 21)

(46) **kíĝ řú-*a* / bàd iri gibil-*ka-kam***
[kíĝ řú -Ø -ʔa [bàd [iri gibil=ak]=ak]=Ø]=ʔam
[work erect-NFIN-NOM [wall [town new =GEN]=GEN]=ABS]=be:3N.S
'This is building work on ("of") the wall of the new city.' (VS 27:11 4:2-3; L; 24)

(47) **dusu gub-ba / šu-ku$_6$ ab-ba-ke$_4$-ne-kam**
[dusu gub -Ø -ʔa [šu.ku$_6$ [ab=ak]=enē=ak]=Ø]=ʔam
[quota stand-NFIN-NOM [fisherman [sea=GEN]=PL =GEN]=ABS]=be:3N.S
'These are the imposed quota of the sea fishermen.' (DP 294 3:2-3; L; 24)

(48) ***ḫa-la-*^{d}lama$_3$ / dumu lú-kiri$_3$-zal / ensi$_2$ / lagas^{ki}-*ka-ke$_4$***
[PN$_1$ [dumu PN$_2$ [ensi$_2$.k lagas =ak]=ak]=e]
[PN$_1$ [child PN$_2$ [ruler Lagash=GEN]=GEN]=ERG]
'Hala-Lama, the daughter of Lukirizal, the governor of Lagash' (FAOS 9/2 Šulgi 28 2:3-6; L; 21)

Thus the positioning of one genitive construction inside another can result in a series of genitive case markers at the end of a noun phrase. As a rule, however, such a series is never longer than two genitive case markers, even if the number of nested genitive constructions is larger than two. For example:

(49) **maš da ri-*a* / dam saĝĝa é-bar$_6$-bar$_6$-ka-kam**
maš da ri.a dam saĝĝa é.bar$_6$.bar$_6$=ak =ak =Ø =ʔam
ceremonial.gift wife administrator Ebabbar =GEN=GEN=ABS=be:3N.S
'This is the ceremonial gift *of* the wife *of* the administrator *of* the Ebabbar temple.' (DP 217 1:2-3; L; 24)

As stated above, a dependent genitive often expresses a possessor. Such a genitive is for semantic reasons incompatible with the use of a possessive pronoun. However, a genitive construction can express a variety of relationships other than one of possession. It can then co-occur with a possessive pronoun. For example:

(50) **é-gal urub^{ki}-*ka-né***
é.gal urub =ak =ane
palace Urub=GEN=his

'his palace in ("of") Urub' (En. I 20 2:7; L; 25)

(51) **bàd iri kù-*ga-ka-né***
bàd iri kù.g=ak =ane
wall city pure =GEN=her
'her wall of the Holy City' (Ukg. 4 2:4-5; L; 24)

(52) **á *en-te-na-ka-né***
á en.te.n=ak =ane=Ø
strength winter =GEN=his =ABS
'his winter labour' (SNAT 325 obv 4; U; 21)

(53) **lukur kaskal-*la-ka-né***
lukur kaskal=ak =ane
concubine road =GEN=his
'his concubine for journeys' (RIM E3/2.1.2.69 6; D; 21)

A genitive can, for instance, express the material from which the referent of the head noun is made:

(54) **ig ^{ĝiš}eren-*na***
ig eren=ak
door cedar=GEN
'doors of cedar wood' (Cyl A 26:20; L; 22)

(55) **udug$_2$ saĝ maḫ ^{ĝiš}eren bar$_6$-bar$_6$-*ra***
udug$_2$ saĝ maḫ eren bar$_6$ -bar$_6$ =ak
mace head great cedar white-white=GEN
'maces of white cedar wood with huge heads' (Cyl B 12:22; L; 22)

A measure phrase in the genitive case can express the size of the referent of the head noun (Wilcke 1999: 633):

(56) **^{ĝiš}*mi-rí-za* má 30 gur *ù* má 15 gur-*ka***
[mi.rí.za [má [30 gur=ak] ù má [15 gur=ak]=ak]
[plank [boat [30 *gur*=GEN] and boat [15 *gur*=GEN]=GEN]
'planks for ("of") boats of thirty *gur* and boats of fifteen *gur*' (MVN 20:93 obv. 5 & rev. 2; U; 21). Note that the two coordinate nouns **má** and **má** share a single case marker at the end of the coordinate phrase (§5.4).

A genitive can, for example, express the content of the referent of the head noun:

(57) **má dug ĝeštin-*ka* gíd-*da***
má dug ĝeštin=ak =ak =Ø gíd -Ø -ʔa
boat pot wine =GEN=GEN=ABS tow-NFIN-NOM
'who towed a boat with pots of wine' (TPTS 1:528 2; U; 21)

(58) **má še-*ka***
má še =ak =ʔa
boat barley=GEN=LOC
'on a barley ship' (YOS 4:274 13; U; 21)

In modifying a noun, a dependent genitive can have a meaning which is expressed by an adjective in English (§10.1):

(59) **še-ba iti-*da***
še.ba iti.d =ak
ration.barley month=GEN
'monthly barley rations' (AAICAB I/2 pl. 127:Ashm. 1971-284 4; U; 21)

A dependent genitive and its head noun can express a single concept and have a meaning which is expressed by a compound noun in English. In this regard Sumerian is more similar to the Romance languages than to the Germanic languages (compare, e.g., French *maison de poupée* with German *Puppenhaus*). Such a genitive construction is semantically a unit and functions as a word-like unit in syntax. It can be the head of a noun phrase and can, for example, be construed with a dependent adjective:

(60) **26 túg gú anše-*ka* sumun**
26 túg gú anše =ak =ak sumun
26 cloth neck donkey=GEN=GEN old
'26 old donkey neck cloths' (TSA 31 2:4; L; 24)

(61) **še ur_5-*ra* gibil**
še ur_5 =ak gibil
barley debt=GEN new
'new barley debts (lit. "new barley of debt")' (SAT 3:1788 3; U; 21)

A genitive construction functioning as a semantic unit can also be the head of a dependent genitive:

(62) **ki šúm-*ma* / $ensi_2$-*ka***
ki šúm =ak $ensi_2$.k=ak
place garlic=GEN ruler =GEN
'the onion plot of the ruler' (Ukg. 4 4:10-11; L; 24)

(63) **ku_6 bansur-*ra* iti-*da***
ku_6 bansur=ak iti.d =ak
fish table =GEN month=GEN
'monthly table fish' (DP 289 6:1; L; 24)

(64) **é kišib-*ba zú-lum-ma-ka***
é kišib=ak zú.lum=ak =ʔa
room seal =GEN date =GEN=LOC
'in the storeroom (lit. "room of the seal") of the dates' (VO 8/1:43 3; U; 21)

(65) **še šuku-*ra ab-ba-na***
še šuku.r =ak ab.ba=ane=ak
barley subsistence=GEN father =his =GEN
'the subsistence barley of his father' (UET 3:993 6; Ur; 21)

Note that a genitive construction which as a semantic unit functions as the head of a noun phrase is also modified as a whole. The following example implies the existence of another **é ^{d}šul-šà-*ga-na-ka***' room of Shulshagana', not merely that of another **é**:

(66) **é ^{d}šul-šà-*ga-na-ka* / *a-bul*$_5$-*la* ^{d}*ba-ú-ka* / řú-*a-ta***
é DN =ak a.bul_5.la ba.ú=ak =ʔa řú -Ø -ʔa =ta
room DN=GEN gate Bau =GEN=LOC erect-NFIN-NOM=ABL
'from the room of Shulshaganak which is built in the gate of Bau' (VS 27:2 3:3-5; L; 24)

Month names introduced with the noun **iti.d** ‘month’ are often construed as genitives, as in English ‘in the month of June’. E.g.:

(67) **iti šu-numun-*a-ka***
iti.d šu.numun=ak =ʔa
month Shunumun=GEN=LOC
‘in the month of Shunumun’ (NRVN 1:114 5; N; 21)

(68) **iti nesaĝ$_2$-*ka***
iti.d nesaĝ$_2$=ak =ʔa
month Nesag =GEN=LOC
‘in the month of Nesag’ (SANTAG 6:313 obv 5; U; 21)

(69) **iti šu-numun-*na-ta***
iti.d šu.numun=ak =ta
month Shunumun=GEN=ABL
‘from the month of Shunumun’ (YOS 4:162 5; U; 21)

Not all month names are construed as genitives, though. Alternatively, the noun **iti.d** ‘month’ may precede the actual name as an apposition (§5.3).

A canal name can be construed as a genitive with the noun **íd** ‘river, canal’. E.g.:

(70) **íd piriĝ-tur-*gen$_7$-ke$_4$* si *ba-an*-sá**
íd piriĝ tur =gen =ak =e si=Ø Ø -ba -n -sá -Ø
river lion small=EQU=GEN=DIR ? =ABS VP-MM-3SG.A-be.equal-3N.S/DO
‘He put in order the Like-a-lion-cub canal.’ (CT 7 pl. 18 BM 12942 rev 13; L; 21). Note that the phrasal verb **si—sá** means ‘make straight, put in order’.

Two expressions which are very common in administrative texts are also genitive constructions, as the following two examples prove:

(71) **kišib ur-diĝir-*ra* ses-*na***
kišib ur.diĝir.ra.k ses =ane=ak
seal Urdigira brother=his=GEN
‘sealed by his brother Urdingira (lit. “the seal of U., his brother”)’ (SNAT 104 4; L; 21)

(72) **ĝiri$_3$ *ab-ba*-sa$_6$-*ga* dumu-*na***
ĝiri$_3$ ab.ba.sa$_6$.ga dumu=ane=ak
foot Abbasaga child =his =GEN
‘via his son Abbasaga’ (AUCT 1:388 5; D; 21)

A non-finite verbal form can be the head of a dependent genitive. Usually the genitive then refers to some participant in the action or state expressed by the non-finite verbal form. Thus, if the head of the dependent genitive is a past participle, the genitive expresses as a rule the agent:

(73) **ĝeštu$_2$ šúm-*ma* / ^{d}en-ki-*ka***
ĝeštu$_2$.g=Ø šúm-Ø -ʔa en.ki.k=ak
wisdom =ABS give -NFIN-NOM Enki =GEN
‘(the one) given wisdom by Enki’ (Ent. 28 5:24-25; L; 25)

Such constructions are discussed more fully in chapter 28.

7.2.4. Headless genitives

A noun phrase in the genitive case can also be used as a constituent of a clause. It is then not syntactically dependent on a noun or another noun phrase. Such a noun phrase in the genitive case will be called a headless genitive. A headless genitive expresses the same meanings as English 'the one(s) of ...', 'that of ...', and the like. For example:

(74) **mu kas$_4$-*ke$_4$-ne-šè***
mu kas$_4$-Ø =ak =enē=ak =še
name run -NFIN=GEN=PL =GEN=TERM
'because of the couriers (lit. "the ones of running")' (AUCT 2:122 3; D; 21)

(75) **gu$_4$-*řá-ke$_4$-éš***
gu$_4$.ř=ak =eš
bull =GEN=ADV
'as for the oxen (lit. "in the manner of that of the oxen")' (MVN 11:168 18; U; 21)

(76) **[geme$_2$]-tar-[sír]-sír-*ra* / ^{d}mes-an-du-*ka* / maš-*e* pà-*da-a***
PN=Ø mes.an.du=ak =ʔa maš=e pà.d-Ø -ʔa =ʔa
PN=ABS Mesandu =GEN=LOC kid =ERG find-NFIN-NOM=LOC
'when Geme-tarsirsira was chosen by extispicy (lit. "was found by a young he-goat") in the one of (the god) Mesandu' (Nik 1:174 4:1-3; L; 24)

(77) **ašgab-*bé-ne* / é gibil-*a* / ^{ĝiš}gigir$_2$-*ra* / šu-*a* *bí*-gi$_4$-*a***
ašgab =enē=e é gibil=ʔa gigir$_2$ =ak šu =ʔa
leather.worker=PL =ERG house new =LOC chariot=GEN hand=LOC

Ø -bi -b -gi$_4$ -ʔa =ʔa
VP-3N:on-3N.A-turn-NOM=LOC
'when in the new house the leather workers turned in that of the chariot' (Nik 1:93 3:3-6; L; 24)

The most common construction of a headless genitive is the one as the nominal predicate of a copular clause. For example:

(78) **en-ig-gal / *nu*-banda$_3$-*kam***
en.ig.gal nu.banda$_3$=ak =Ø =ʔam
En-iggal overseer =GEN=ABS=be:3N.S
'They are ones of En-iggal, the overseer.' (Nik 1:47 3:4-5; L; 24)

(79) **iti 1-*a-kam***
iti.d 1=ak =Ø =ʔam
month 1=GEN=ABS=be:3N.S
'It is that of one month.' (MVN 13:325 5; L; 21)

(80) **umma^{ki}-*kam***
umma?=ak =Ø =ʔam
Umma =GEN=ABS=be:SSG.S
'He is one from ("of") Umma.' (DP 230 16:6'; L; 24)

(81) **sa$_6$-sa$_6$-*me***
sa$_6$.g.sa$_6$.g=ak =Ø =me-eš
Sasa =GEN=ABS=be -3PL.S

'They are ones of Sasa.' (DP 339 1:4; L; 24)

This construction is not only found with predicative nouns (§29.4.2), but also with predicative numerals (§29.4.3), and predicative pronouns (§29.4.4).

A special kind of headless genitive is the so-called anticipatory genitive (Zólyomi 1996: 39-45). This is a noun phrase in the genitive case which stands in clause-initial position and which is resumed by a possessive pronoun elsewhere in the clause. Such a genitive is grammatically disjoined from the clause, while its grammatical role in the clause is performed by the resumptive possessive pronoun. The function of an anticipatory genitive is to give a noun phrase in the genitive case a more prominent place within the information structure of the clause. E.g.:

(82) **nam-lú-ulu$_3$-*ba* / ĝiri$_3$-pad-*řá-bé* / eden-*da e-da*-taka$_4$-taka$_4$**
nam.lú.ulu$_3$=be=ak ĝiri$_3$.pad.řá=be=Ø eden=da
people =its=GEN bones =its=ABS plain=COM

ʔi -b -da -n -taka$_4$-taka$_4$-Ø
VP-3N-with-3SG.A-leave-leave -3N.S/DO
'Of those persons, he left their bones strewn over the plain.' (Ent. 28 3:22-23; L; 25)

(83) **é-*a* ĝiš-ḫur-*bé im-ĝá-ĝá***
é.j =ak ĝiš.ḫur=be=Ø ʔi -m(u) -ĝar:RDP-e
house=GEN plan =its=ABS VP-VENT-place:IPFV-3SG.A:IPFV
'Of the temple he was placing its plan (on it).' (Cyl A 5:4; L; 22)

(84) **e-*ba a-ba* ^{d}nanna-*gen$_7$* / mu-*bé***
e.g =be =ak a.ba=Ø nanna=gen=Ø mu =be=Ø =(ʔa)m
dike=this=GEN who=ABS Nanna=EQU=ABS name=its=ABS=be:3N.S
'Of this dike "Who is like Nanna" is its name.' (FAOS 9/2 Urnammu 27 2:7-8; Ur; 21)

(85) **en-mete-*na* / lú é-mùš řú-*a* / diĝir-*ra-né* / ^{d}šul-utul$_{12}$-*am$_6$***
PN lú é.mùš =Ø řú -Ø -ʔa =ak diĝir=ane=Ø šul.utul$_{12}$=Ø =ʔam
PN man Emush=ABS erect-NFIN-NOM=GEN god =his =ABS Shulutul =ABS=be:3SG.S
'Of Enmetena, the man who built the Emush, his personal god is Shul-utul.' (Ent. 45 1:9-2:3; L; 25)

(86) **kišib aš-ni-u$_{18}$ / ki ki-tuš-lú-*ka* / *mu*-ĝál-*la* gaba-ri-*bé***
kišib aš.ni.u$_{18}$=ak ki ki.tuš.lú=ak =ʔa
seal Ashniu =GEN place Kitushlu=GEN=LOC

Ø -mu -n(i)-ĝál -Ø -ʔa =ak gaba.ri=be
VP-VENT-in -be.there-3N.S/DO-NOM=GEN copy =its
'of Ashniu's sealed documents which are at Kitushlu's place, their duplicates' (TPTS 1:123 14-16; ?; 21)

Complement clauses dependent on a noun are mostly construed as anticipatory genitives. E.g.:

(87) **iti nesaĝ-*šè* / su-su-*da* / mu lugal-*bé in*-pà**
iti.d nesaĝ=ak =še su.g:RDP -ed -Ø =ak
month Nesaĝ=GEN=TERM repay:IPFV-IPFV-NFIN=GEN

mu lugal=ak =be=Ø ʔi -n -pà.d-Ø
name king =GEN=its=ABS VP-3SG.A-call -3N.S/DO

'He took an oath by the king's name to repay it (viz. a barley loan) until the month of Nesag (lit. "of repaying until the Month Nesag, he called a king's name about it").' (SAT 3:1229 6-8; U; 21)

For more examples see §27.5.3, §28.3.4, and §28.4.4.

7.3. The ergative case

The ergative case is expressed with the enclitic case marker {e}, which is not only homonymous but also cognate with the directive case marker {e} (§7.6). A noun phrase in the ergative case expresses the subject of a transitive clause. (Ergativity in Sumerian is discussed in §11.4.3.) For semantic reasons, the ergative case is primarily found with human noun phrases, but it can be used with non-human noun phrases as well.

The basic form of the ergative case marker is /e/. This /e/ is probably short, because after the consonant /n/ it is regularly spelled with the sign ***né*** and never with ***ne*** (for the difference in vowel length between these two signs, see §2.5). Among the numerous examples with ***né*** are forms like **en-*né*** (from **en** 'lord': DP 541 3:2; L; 24) and **an-*né*** (from **an** 'heaven': MBI 1 1:12; N; 24).

The /e/ of the ergative case marker contracts with a preceding vowel. Texts from the Gudea and Ur III periods occasionally indicate the resulting long vowel with a plene spelling, by repeating the final vowel of the word (§2.5):

(88) **lugal ki áĝ-*né-e***
lugal ki =Ø áĝ -Ø =ane=e
king place=ABS measure.out-NFIN=his =ERG
'his beloved king (lit. "his king for whom a place is measured out")' (St B 5:24; L; 22)

(89) **PN *nu*-banda$_3$-*a***
PN nu.banda$_3$=e
PN overseer = ERG
'PN, the overseer' (NG 44 6; L; 21)

Similarly: **^{d}nanše-*e*** 'the goddess Nanshe' (Cyl A 7:11; L; 22), **šà-kù-*ge-e*** 'Shakuge' (NRVN 1:49 5; N; 21), **ama-*a*** 'mother' (Cyl A 13:3; L; 22), **^{d}nanna-*a*** 'the god Nanna' (UET 9:503 10; Ur; 21), **dumu-*ù*** 'child' (Cyl A 13:4; L; 22), **lú-*ù*** 'someone' (Cyl A 13:11; L; 22), and more (Attinger 1993: 211-212).

However, the script usually, and before Gudea always, fails to express the ergative case marker after words with a final vowel. The following example gives consecutive clauses which contain two forms of the ergative case. The first, **^{d}nanše**, involves a noun with a final vowel and lacks a written expression of the ergative. The second form, **^{d}nin-*ĝír-šú-ke$_4$***, consists of a noun with a final consonant and displays the ergative case marker {e}:

(90a) **u$_4$ ^{d}nanše / *nam*-lugal / lagas^{ki}-*sa* / *mu-na*-šúm-*ma-a***
u$_4$.d nanše =e nam.lugal lagas =ak =Ø
day Nanshe=ERG kingship Lagash=GEN=ABS

Ø -mu -nna -n -šúm-Ø -ʔa =ʔa
VP-VENT-3SG.IO-3SG.A-give-3N.S/DO-NOM=LOC
'when Nanshe had given him the kingship over Lagash and when Ningirsu had called his name' (Ent. 26 13-16; L; 25)

(b) **^{d}nin-*ĝír-sú-ke$_4$* / mu *e-né*-pà-*da-a***
nin.ĝír.sú.k=e mu =Ø ʔi -nni -n -pà.d-Ø -ʔa =ʔa
Ningirsu =ERG name=ABS VP-3SG.OO-3SG.A-call -3N.S/DO-NOM=LOC
'and when Ningirsu had called his name' (Ent. 26 17-18; L; 25)

The following are additional attestations of the ergative case which involve forms with a final vowel:

(91) **en-ig-gal / *nu*-banda$_3$ / níĝ-ka$_9$-*bé* *e*-ak**
en.ig.gal nu.banda$_3$=e níĝ.ka$_9$=be=Ø ʔi -n -ʔak -Ø
Eniggal overseer =ERG account=its=ABS VP-3SG.A-make-3N.S/DO
'Eniggal the overseer made the account of this.' (DP 163 8:5-7; L; 24)

(92) **ki še *gu-n*[*u*] *mu-na*-mú-mú**
ki =e še gu.nu=Ø Ø -mu -nna -mú:RDP -e
earth=ERG barley ? =ABS VP-VENT-3SG.IO-grow:IPFV-3SG.A:IPFV
'The earth kept growing ... barley for him.' (Cyl B 19:13; L; 22)

(93) **PN ses-*ĝu$_{10}$* ^{ĝiš}kiri$_6$-*né* / ma-an-*šúm***
PN ses =ĝu=e kiri$_6$ =ane=Ø Ø -ma -n -šúm-Ø
PN brother=my=ERG orchard=his =ABS VP-1SG.IO-3SG.A-give-3N.S/DO
'PN, my brother, gave me his orchard.' (Pettinato L'uomo p. 101:45 obv 2-3; ?; 21)

Thus, generally speaking, the contraction of the ergative case marker {e} to a preceding vowel shows itself only in the absence of the /e/ after the vowel. Only very rarely the scribes spell it out by repeating the final vowel of the word.

After a consonant, the ergative case marker always has the form /e/, which is written with a CV-sign or with the V-sign ***e***. Either the scribes take the /e/ together with the preceding consonant and write ***-Ce***, or they ignore the consonant and simply write ***-e***. Which strategy they follow depends partly on which consonant precedes and partly on other considerations. Writing ***-Ce*** is more faithful to the syllabic structure of the form, but writing ***-e*** reflects the morphological structure better, as it clearly separates the preceding morpheme from the clitic {e}. Both spellings are in use during the entire period covered by our corpus but not to the same extent. While CV-spellings are in the majority during the Old Sumerian period, afterwards they are increasingly replaced by V-spellings.

After the plain voiceless stops /b/, /d/, and /g/, the spellings with ***bé***, ***dè***, and ***ge*** are the only ones used in the Old Sumerian texts from Lagash. E.g.:

(94) **kuš-*bé* amar-^{d}ašnan / ašgab-*bé* / *ba*-ře$_6$**
kuš =be=Ø amar.ašnan ašgab =e Ø -ba -n -ře$_6$ -Ø
hide=its=ABS Amarashnan leather.worker=ERG VP-MM-3SG.A-bring-3N.S/DO
'Amar-Ashnan, the leather worker, carried off their hides.' (RTC 46 5:4-6; L; 24)

(95) **šul-me / agrig-*ge* / é-gal-*ta* / *e-ta*-ĝar**
šul.me agrig =e é.gal =ta ʔi -b -ta -n -ĝar -Ø
Shulme steward=ERG palace=ABL VP-3N-from-3SG.A-place-3N.S/DO
'Shulme the steward supplied this from the palace.' (DP 512 4:1-4; L; 24)

Similarly: **inim-*ma-né*-zi-*dè*** (VS 14:11 2:3; L; 24), **é-ì-gara$_2$-sù-*ge*** (VS 14:132 2:4; L; 24). Such spellings remain in use, but later alternate with V-spellings: e.g. **ašgab-*e*** (CT 50:185 5; L; 23), **sipa-*dè*** (Cyl A 16:25; L; 22), **sipa-*e*** (MAD 4:159 6; U; 23), **sipa-*dè*** (MVN 20:115

obv 6; U; 21), **u$_4$-*dè*** (SAT 1:344 8; L; 21), **gudu$_4$-*ge*** (MBI 1 3:7; N; 24), **gudu$_4$-*e*** (NG 112 19; L; 21), **gudu$_4$-*e*** (SAT 3:2186 31; U; 21).

After the voiceless aspirated stop /k/, the spelling with ***-ke$_4$*** is the only one used. E.g.:

(96) **ki utu-*ke$_4$ ì*-gu$_7$**
ki utu =ak =e ʔi -b -gu$_7$-Ø
place Utu=GEN=ERG VP-3N.A-eat -3N.S/DO
'The (cultic) place of (the Sungod) Utu consumed it (= a bull).' (VS 25:56 1:5; L; 24)

(97) **ur-^{d}en-líl-*lá-ke$_4$* / šu *ba*-ti**
ur.en.líl.lá.k=e šu =e Ø -ba -n -ti -Ø
Urenlila =ERG hand=DIR VP-3N.IO-3SG.A-approach-3N.S/DO
'Ur-Enlila received it (lit. "let it approach the hand").' (CST 36 6-7; N; 21)

Similarly: **ensi$_2$-*ke$_4$*** (passim, e.g. MVN 20:86 rev 3; U; 21), ***nu*-^{ĝiš}kiri$_6$-*ke$_4$*** (NG 120b 4; U; 21).

For the plain voiceless affricate /z/, there are only a few attestations from the Ur III period, all of them with ***e*** in the same form. E.g.:

(98) **túg-*ga-né* sa-gaz-*e* *ba-ab*-ře$_6$**
túg =ane=Ø sa.gaz=e Ø -ba -b -ře$_6$ -Ø
cloth=his =ABS robber=ERG VP-MM-3N.A-bring-3N.S/DO
'Robbers took away his clothes.' (Nisaba 9:183 obv 4; U; 21)

After the voiceless aspirated affricate /ř/, there is also a clear shift froma CV-spelling to a V-spelling. The spelling **gu$_4$-*ře$_6$*** is the normal one in Old Sumerian and it occurs more than forty times in the Lagash texts (e.g. Nik 1:69 1:1; L; 24), but already then a few **gu$_4$-*e*** spellings are found, albeit it in a single text (VS 14:184 1:2 and 3:5; L; 24). After the Old Sumerian period, the spelling **gu$_4$-*e*** becomes the norm. E.g.:

(99) **še gu$_4$-*e* gu$_7$-*a***
še gu$_4$.ř=e gu$_7$-Ø -ʔa
barley bull =ERG eat -NFIN-NOM
'barley consumed by the oxen' (e.g. AAS 1 2:4; U; 23)

Similarly: **enku-*ře$_6$*** (Ukg. 1 4:16; L; 24), **enku-*e*** (Cyl B 12:5; L; 22), **ki-en-gi-*ře$_6$*** (Cyl A 11:16; L; 22). With the word **šu-ku$_6$.ř** 'fisherman', the spelling **šu-ku$_6$-*e*** is already the regular one in Old Sumerian, where it occurs almost ten times (e.g. DP 322 4:3; L; 24), with the CV-spelling as yet unattested. Note that from the time of Gudea onwards, words with a final /ř/ may also follow the spelling rules for /r/ and /d/, because of a sound change whereby /ře/ came to be pronounced as /re/ or /de/ (§3.3.2).

As for the fricatives /s/, /š/, and /ḫ/, CV-spellings are only attested after /š/, but only very exceptionally so:

(100) **PN$_1$ / gaeš$_2$-*šè* / PN$_2$ / dub-sar-*ra* / *ì-na*-šúm**
PN$_1$ gaeš$_2$ =e PN$_2$ dub.sar=ra ʔi -nna -n -šúm-Ø
PN$_1$ traveling.merchant=ERG PN$_2$ scribe =DAT VP-3SG.IO-3SG.A-give-3N.S/DO
'PN$_1$, the traveling merchant, gave it to PN$_2$, the scribe.' (Pettinato L'uomo p. 85:29 2-6; ?; 23)

Similarly: **lú diš-*šè*** 'one man (will bring)' (DP 294 2:4; L; 24), **máš-*šè-e*** (NATN 333 7; N; 21). Such spellings are very unusual and after /ḫ/ they do not occur at all, even though a CV-

sign with /ḫ/ is available. That is to say, the scribes could very well have written ***-ḫe***, but they never do. If we disregard the three exceptions with ***šè*** above, we can say that the scribes consistently use the spelling ***e*** after a fricative: e.g. **munus-*e*** (TSA 45 5:3; L; 24), **aga$_3$-ús-*e*** (OSP 2:71 5; N; 23), ***gáb*-ús-*e*** (NG 138 14; U; 21), **gaeš$_2$-*e*** (Nik 1:36 3:2; L; 24), **maš-*e*** (Nik 1:174 4:3; L; 24), **diš-*e*** (ITT 5:6865 2; L; 21), **ĝuruš-*e*** (UTAMI 3:1655 6; U; 21), **dub-sar-maḫ-*e*** (CT 50:44 6:3; L; 24), **má-laḫ$_5$-*e*** (MVN 13:34 5; U; 21).

After /ĝ/, the spelling with ***ĝe$_{26}$*** is attested but mostly ***e*** is used: e.g. **ur-saĝ-*ĝe$_{26}$*** (DP 442 1:4; L; 24), **ur-saĝ-*e*** (Cyl B 3:3; L; 22), **piriĝ-*e*** (ISET 1:217 Ni. 4176 3, 10; N; 21).

After /m/, the spelling with ***me*** seems to be restricted to two Old Sumerian proper names: **é-an-*na*-túm-*me*** (e.g. Ean. 1 rev 10:34; L; 25), **en-an-*na*-túm-*me*** (e.g. En. I 9 3:2; L; 25). Elsewhere the spelling is always with ***e***: **me-silim-*e*** (Ean. 6 4:16; L; 25), **elam-*e*** (MVN 16:719 obv 3; U; 21), **kù-dím-*e*** (MVN 21:343 2:13; U; 21), **muḫaldim-*e*** (MVN 17:129 7; L; 21), **šitim-*e*** (MVN 7:147 obv 3; L; 21). In one text, the spelling with ***e*** alternates with ***è***: ***a-bi-ša-ru-um-è*** (AAICAB I/1 pl.79 Ashm. 1932-283 obv 4; N; 21) and ***a-bi-ša-ru-um-e*** (ibidem rev 1).

In the Old Sumerian texts from Lagash, the spelling ***né*** is the norm after /n/: e.g. **en-*né*** (RTC 70 2:2; L; 24), **mušen-*né*** (DP 143 1:1; L; 24). This spelling with ***né*** continues to be frequently used with **an** 'heaven' and **en** 'lord', alongside occasional spellings with ***e***: **an-*e*** (st B 8:44; L; 22), **an-*né*** (Cyl B 24:11; L; 22), **en-*e*** (PDT 2:767 1:3; D; 21), **en-*né*** (UCP 9/2/1:4 7; D; 21). But elsewhere the spelling with ***e*** dominates: e.g. **mušen-*e*** (Cyl A 29:12; L; 22), **eren$_2$-*e*** (STH 2:26 21; L; 21), **nun-*e*** (AUCT 1:100 11; D; 21), **nun-*né*** (MVN 14:536 rev 4; U; 21).

After /r/, the normal spelling in the Old Sumerian texts from Lagash is ***-ré***. E.g.:

(101) **lú-^{d}*ba-ú* / engar-*ré* / *mu*-gíd**
lú.ba.ú engar=e Ø -mu -n -gíd -Ø
Lubau farmer=ERG VP-VENT-3SG.A-survey-3N.S/DO
'Lu-Bau, the farmer, surveyed it.' (DP 593 12:5-7; L; 24)

Similarly: **niĝir-*ré*** (RTC 17 8:5; L; 24), **kur-kur-*ré*** (Ean. 3 5:8; L; 25). Subsequently, the CV-sign ***re*** generally replaces ***ré***, so that from then on we find ***-re*** instead of ***-ré***: e.g. **ur-*re*** (USP 13 6; U; 23), **kur-*re*** (Cyl A 9:25; L; 22), **geme$_2$-*uš-bar-re*** (SNAT 258 8; L; 21). However, after the Old Sumerian period, the spelling becomes ***e*** in most words. A very clear example of this shift is **dub-sar** 'scribe', which consistenly shows the spelling **dub-sar-*ré*** in the Old Sumerian texts from Lagash (7x, e.g. RTC 69 2:3; L; 24). But in later texts the spelling is as consistently **dub-sar-*e*** (e.g. ITT 1:1474 5; L; 23). For most other words, the spelling with ***e*** becomes the preferred one, but alongside the occasional one with ***re***: e.g. **engar-*e*** (e.g. BCT 2:198 3; U; 21), **engar-*re*** (UTAMI 6:3760 obv. 8'; U; 21). But **ur-gi$_7$.r** 'dog' shows the opposite pattern: the spelling ***ur-gi$_7$-*e*** is not attested while **ur-gi$_7$-*re*** is quite common. E.g.:

(102) **1 aza igi lugal-*šè* / ur-gi$_7$-*re* *íb*-dab$_5$**
1 aza igi lugal=ak =še ur.gi$_7$.r=e ʔi -b -dab$_5$-Ø
1 bear eye king =GEN=TERM dog =ERG VP-3N.A-take -3N.S/DO
'One bear: the dogs seized it in the presence of the king.' (UDT 123 8-9; D; 21)

After /l/, the normal spelling in the Old Sumerian texts from Lagash is ***le***, but sometimes a spelling with ***e*** is used:

(103) **anše *ú-du-le* / *e*-dab$_5$**

anše =Ø ú.du.l =e ʔi -n -dab$_5$-Ø
donkey=ABS shepherd=ERG VP-3SG.A-take -3N.S/DO
'Donkeys were seized by the shepherd.' (Ukg. 4 3:7-8; L; 24)

(104) **ú-ú / *ú-du-e* / *mu*-lá**
ú.ú ú.du.l =e Ø -mu -n -lá-Ø
U'u shepherd=ERG VP-VENT-3SG.A-tie-3N.S/DO
'U'u, the shepherd, tied them (=bundles of reed) together.' (DP 351 2:5-3:1; L; 24)

Similarly: **sukkal-*le*** (En. I 19 8; L; 25), **^{d}en-líl-*le*** (Ean. 11-21 1:6; L; 25), **gal-gal-*e*** (DP 597 1:4; L; 24). But after /l/, too, the preferred spelling becomes later one with ***e***. A very clear case in point is the word **lugal** 'king'. The spelling **lugal-*le*** is found in early texts from Lagash (TSA 7 8:13; L; 24) and Ur (e.g. UET 2 Suppl. 15 obv 3; Ur; 24). But from the Old Akkadian period onwards, the scribes always write this form as **lugal-*e*** (passim). With the name of the god Enlil, the earlier spelling with ***le*** remains in use alongside the one with ***e***: e.g. **^{d}en-líl-*le*** (FAOS 9/2 Amarsuen 9 1:6; N; 21),**^{d}en-líl-*e*** (NATN 502 9; N; 21).

After /ʔ/, the scribes always write ***e***. E.g.: **gala-*e*** (Ukg. 6 1:13'; L; 24), ***gu-za*-lá-*e*** (SAT 3:2031 9; U; 21).

As stated above, the ergative case expresses the subject of a transitive clause. This usage has already been amply illustrated in the preceding examples. It also occurs with distributive expressions, which in their full form contain a verbal form. E.g.:

(105) **ĝuruš 1-*e* u$_4$ 1-*a* 2 nindan-*ta* / *ì-a-ke$_4$***
ĝuruš 1=e u$_4$.d 1=ʔa 2 nindan=ta ʔi -ʔak -e
labourer 1=ERG day 1=LOC 2 *nindan*=ABL VP-make-3SG.A:IPFV
'One labourer makes it with (a work load of) two *nindan* in one day.' (TMHC NF 1/2:294 6-7; N; 21)

Usually, however, such expressions lack the verbal form:

(106) **ĝuruš 1-*e* ½ nindan-*ta***
ĝuruš 1=e ½ nindan=ta
labourer 1=ERG ½ *nindan*=ABL
'with half a *nindan* by one labourer' (CT 7 pl.43:BM 17759 rev 12; L; 21)

(107) **ĝuruš ĝiš-gíd-*da-ke$_4$* iti 1-*a* ku$_6$ NÍG.KI 0.3.3-*ta***
ĝuruš ĝiš.gíd.da=ak =e iti.d 1=ʔa ku$_6$ NÍG.KI 0.3.3=ta
labourer spear =GEN=ERG month 1=LOC fish NÍG.KI 0.3.3=ABL
'with 210 litres of NÍG.KI-fish per month by a spear labourer' (MVN 10:149 =TLB 3:145 =TLB 3:146 obv 1:4; L; 21)

The Old Sumerian texts from Lagash show the terminative instead of the ergative case in such elliptical expressions (**lú 1-*šè*** 'for one man'). See §7.8.2.

The ergative case marker is homonymous with the directive case marker (§7.6). This is not due to chance but the outcome of a historical development. As Coghill and Deutscher (2002) have argued, the ergative case arose in Sumerian through a reanalysis of an earlier passive construction. In that earlier passive construction, the directive case was used to express an agent phrase, in the same way as the English preposition *by* can be used to express nearness (*the table by the window*) but can also occur in an agent phrase (*he was arrested by the police*). That the ergative case marker is cognate with the directive case marker does not only

reveal itself in this semantic link and their formal identity, but also in the fact that both cases can be coreferential with a final person prefix. See §13.1 for more details.

7.4. The absolutive case

The absolutive case is formally marked by the absence of any case marker. A noun phrase which lacks a case marker will be said to be in the absolutive case. A noun phrase in the absolutive case can have a variety of functions. In transitive clauses such a phrase expresses the direct object and in intransitive clauses the subject. In copular clauses it expresses either the subject or the predicate. Finally, the absolutive case is the form used when addressing somebody.

The absence of a case marker is a straightforward feature for indicating that a noun phrase is in the absolutive case, but only in the language as it is spoken. In the written form of Sumerian, matters are unfortunately less clear. Under specific circumstances, the script ignores certain other case markers. To begin with, the script does, as a rule, not indicate vowel length. Thus, if a word has a final vowel, the script generally ignores the presence of an ergative (§7.3) or directive (§7.6) case marker, either of which contracts with a preceding vowel. Secondly, the script usually does not express syllable-final consonants, especially not in the earlier texts. As a result, the dative (§7.5.1) and comitative (§7.11.1) case markers are often left unwritten after a vowel, a position where these two case markers consist of a single syllable-final consonant. Finally, these two and other deficiencies of the script conspire to leave the genitive case marker often unwritten (see §7.2.2 for details).

A noun phrase in the absolutive case can have several different functions. In a transitive clause, it expresses the direct object. E.g.:

(108) **iri-ka-*ge-na-ke$_4$* tukul *e-da*-sìg**
iri.ka.ge.na.k=e tukul=Ø ʔi -n -da -n -sìg-Ø
Irikagena =ERG mace=ABS VP-3SG-with-3SG.A-hit -3N.S/DO
'Irikagena fought (lit. "hit the mace") with him.' (Ukg. 14 3':4'-5'; L; 24)

(109) **^{d}nin-*ĝír-su-ke$_4$* iri-ka-*ge-na-ra* ki-gub *mu-na*-pà**
nin.ĝír.su.k=e iri.ka.ge.na.k=ra ki.gub =Ø
Ningirsu =ERG Irikagena =DAT position=ABS

Ø -mu -nna -n -pà.d-Ø
VP-VENT-3SG.IO-3SG.A-find -3N.S/DO
'Ningirsu found a position for Irikagena.' (Ukg. 35 1; L; 24)

(110) **ur-^{d}suen ses *àm-ma-ke$_4$* / inim *bí-in-^{ĝá}*ĝar**
ur.suen ses àm.ma=ak =e inim=Ø Ø -bi -n -ĝar -Ø
Ursuen brother Amma =GEN=ERG word=ABS VP-3N:on-3SG.A-place-3N.S/DO
'Ur-Suen, the brother of Amma, laid a claim on it.' (NG 103 6-7; L; 21)

In an intransitive clause, a noun phrase in the absolutive case expresses the subject. E.g.:

(111) **ur-lum-*ma* / *ba-da*-kar**
ur.lum.ma.k=Ø Ø -ba -n -da -kar -Ø
Urlumma =ABS VP-MM-3SG-with-withdraw-3SG.S/DO
'Urlumma withdrew from him.' (Ent. 28 3:15-16; L; 25)

(112) **kalam-*ma* u$_4$ *mu*-ĝál**

kalam =ʔa u$_4$.d=Ø Ø -mu -n(i)-ĝál -Ø
country=LOC day =ABS VP-VENT-in -be.there-3N.S/DO
'There was daylight in the country.' (Cyl B 3:11; L; 22)

(113) **nin zabalam$_3^{ki}$-*šè* / *ì-im*-ĝen-*na-a***
nin =Ø zabalam$_3$še ʔi -m(u) -ĝen-Ø -ʔa =ʔa
queen=ABS Zabalam =TERM VP-VENT-go -3SG.S/DO-NOM=LOC
'when the queen came to Zabalam' (UTAMI 3:1724 5-6; U; 21)

Since Sumerian has a separate case (the ergative case, §7.3) to express the subject of a transitive clause, the Sumerian case marking system follows an ergative pattern: the intransitive subject is treated in the same way as the direct object, and differently from the transitive subject (§11.4.3).

In a copular clause, a noun phrase in the absolutive expresses the subject (§29.3) or the predicate (§29.4.1). E.g.:

(114) **u$_4$-*ba* íl / saĝĝa zabalam$_5^{ki}$-*kam***
u$_4$.d=be =ʔa íl=Ø saĝĝa zabalam$_5$=ak =Ø =ʔam
day=this=LOC Il=ABS administrator Zabalam =GEN=ABS=be:3SG.S
'At that time, Il was the temple administrator of Zabalam.' (Ent. 28 3:28-29; L; 25)

(115) **lú-zàḫ urdu$_2$ ^{d}šara$_2$ *ì-me-a***
lú.zàḫ=Ø urdu$_2$.d šara$_2$ =ak =Ø ʔi -me-Ø -ʔa
Luzah=ABS slave Shara=GEN=ABS VP-be -3SG.S-NOM
'that Luzah was a slave of (the god) Shara' (NG 212 46; U; 21)

Note that not every predicate of a copular clause is in the absolutive case (§29.4.1).

A noun phrase used for addressing somebody is also in the absolutive case. Thus, the absolutive also has a function for which some other languages have a separate vocative case. E.g.:

(116) **ur-saĝ *m*[*a*]-*a*-du$_{11}$**
ur.saĝ =Ø Ø -ma -e -du$_{11}$.g-Ø
warrior=ABS VP-1SG.IO-2SG.A-say -3N.S/DO
'Warrior, you ordered it to me.' (Cyl A 2:13; L; 22)

(117) **^{d}nin-*ĝír-su* é-*zu* *ma-ra*-řú-*e***
nin.ĝír.su.k=Ø é =zu =Ø Ø -mu -ra -řúʔ -en
Ningirsu =ABS house=your=ABS VP-VENT-2SG.IO-erect-1SG.A/S:IPFV
'Ningirsu, I am going to build your house for you.' (Cyl A 8:18; L; 22)

(118) **sipa-*ĝu$_{10}$* *ma-mu-zu* *ĝe$_{26}$* *ga-mu-ra*-búr-búr**
sipa.d =ĝu =Ø ma.mu.d=zu =Ø ĝe=e
shepherd=my=ABS dream =your=ABS I =ERG

ga -mu -ra -búr -búr
MOD:1SG.A/S-VENT-2SG.IO-reveal-reveal
'My shepherd, I will explain your dreams for you!' (Cyl A 5:12; L; 22)

7.5. The dative case

7.5.1. The dative case marker {ra}

The dative case only occurs with noun phrases of the human gender class. It is expressed with the enclitic case marker {ra}. A noun phrase in the dative case expresses an indirect object or an oblique object (§11.4.4). Its usage runs largely parallel with that of the directive case for the non-human gender class, but some instances of the dative have a non-human counterpart in the locative case.

The form of the dative case marker is /ra/ after a consonant and /r/ after a vowel, as the following contrasting pairs of examples illustrate:

(119a) **[ki]-áĝ-*ra* / *ù-na-a*-du$_{11}$**
ki.áĝ=ra ʔu -nna -e -du$_{11}$.g-Ø
Ki'ag=DAT REL.PAST-3SG.IO-2SG.A-say -3N.S/DO
'Say (lit. "when you have said", see §24.2.2 end) to Ki'ag:' (MVN 11:168 1-2; U; 21)

(b) ***ì*-kal-*la-ar* / *ù-na-a*-du$_{11}$**
ì.kal.la=r(a) ʔu -nna -e -du$_{11}$.g-Ø
Ikalla =DAT REL.PAST-3SG.IO-2SG.A-say -3N.S/DO
'Say to Ikalla:' (TCS 1:193 1-2; U; 21)

(120a) **šà-kù-*ge-e* / ur-^{d}nuska-*ra* / (...) / *in-na*-du$_{11}$**
šà.kù.ge=e ur.nuska.k=ra ʔi-nna -n -du$_{11}$.g-Ø
Shakuge=ERG Urnuska =DAT VP-3SG.IO-3SG.A-say -3N.S/DO
'Shakuge said to Ur-Nuska: "(...)".' (NRVN 1:49 5-6, 10; N; 21)

(b) **ur-^{d}nuska-*ke$_4$* / šà-kù-*ge-er* / (...) / *in-na*-du$_{11}$**
ur.nuska.k=e šà.kù.ge=r(a) ʔi -nna -n -du$_{11}$.g-Ø
Urnuska =ERG Shakuge=DAT VP-3SG.IO-3SG.A-say -3N.S/DO
'Ur-Nuska said to Shakuge: "(...)".' (NATN 493 1-4; N; 21)

(121a) **[*d*]*a-da* dub-[sa]r-*e* / du-du simug-gal-*ra* / *e-na*-lá**
da.da dub.sar=e du.du simug.gal =ra ʔi -nna -n -lá -Ø
Dada scribe =ERG Dudu chief.smith=DAT VP-3SG.IO-3SG.A-weigh-3N.S/DO
'Dada, the scribe, weighed it for Dudu, the chief smith.' (CST 11=15 11-13; U; 24)

(b) **[DINGIR-*b*]*a-ni-ir* / *in-na*-lá**
ilum.ba.ni=r(a) ʔi -nna -n -lá -Ø
Ilumbani =DAT VP-3SG.IO-3SG.A-weigh-3N.S/DO
'He weighed it for Ilum-bani.' (MVN 8:152 8-9; ?; 21)

(122a) **sukkal-maḫ-*ra nu-ù-na-bé-a***
sukkal.maḫ=ra nu =ʔi -nna -b -ʔe -e -ʔa
chancellor =DAT NEG=VP-3SG.IO-3N.OO-say:IPFV-3SG.A:IPFV-NOM
'that he will not say it to the chancellor' (MVN 2:1 8; L; 21)

(b) **ama-*zu-úr* inim diri *nam-ba-an-na-ab-bé-en***
ama =zu =r(a) inim diri.g -Ø =Ø
mother=your=DAT word exceed-NFIN=ABS

nan -ba -nna -b -ʔe -en
NEG.MOD-MM-3SG.IO-3N.OO-say:IPFV-2SG.A/S:IPFV
'Do not speak excessive words to your mother!' (Instr.Shur. 258; OB)

The form /ra/ of the dative case marker is always written with the sound sign ***ra***. The form /r/, however, is a syllable-final consonant and poses therefore a problem for the Sumerian script (§2.4). The texts of the corpus show three different ways of handling this problem. Usually, the form /r/ is simply ignored, but, from the time of Gudea onwards, the scribes sometimes write it with VC-signs such as ***ar*** and ***er*** or, alternatively, with the morphophonemic spelling ***ra***. Proper names with final **kal-*la*** can serve as an illustration. The headings of Ur III letters from Umma, for instance, show all three spellings:

(a) with syllable-final final /r/ ignored (12x): ***a-a*-kal-*la*** 'to Ayakalla' (TCS 1:39 1; U; 21), **ses-kal-*la*** 'to Seskalla' (TCS 1:293 1=295 1=296 1=297 1=299 1=300 1=301 1=302 1=303 1=305 1=306 1; U; 21);
(b) syllable-final /r/ written with a VC-sign (1x): ***ì*-kal-*la-ar*** 'to Ikalla' (TCS 1:193 1; U; 21);
(c) syllable-final /r/ written with ***ra*** (3x): ***a-a*-kal-*la-ra*** 'to Ayakalla' (TCS 1:43 1; U; 21), **ses-kal-*la-ra*** 'to Seskalla' (TCS 1:294 1=304 1; U; 21).

Writing the form /r/ of the dative case marker with a VC-sign occurs from the time of Gudea onwards but not earlier. With this kind of spelling, the final vowel of the preceding word is repeated in the VC-sign, so that /r/ after the vowel /a/ is written ***ar***, after the vowel /e/ ***er***, and so on. E.g.: **gù-dé-*a-ar*** 'for Gudea' (Cyl B 6:17; L; 22), **lugal-sa$_6$-*ga-ar*** 'to Lugalsaga' (BE 3/1:3 2; N; 21), ***nu*-banda$_3$-*ar*** 'to the overseer' (NG 121 11; U; 21), **lugal-*bé-er*** 'for its lord' (Cyl B 11:18; L; 22), **lugal-*né-er*** '(for) his lord' (Cyl A 1:17; L; 22), ***ab-ba-né-er*** 'for his father' (BCT 1:85 3; D; 21), **šà-kù-*ge-er*** 'to Shakuge' (NATN 493 2; N; 21), and **[DINGIR]-[*b*]*a-ni-ir*** 'for Ilum-bani' (MVN 8:152 8; ?; 21).

Writing the form /r/ of the dative case marker with the sound sign ***ra*** involves a morphophonemic spelling, whereby the spelling of the more basic form /ra/ is also used for the less basic form /r/. Just like the spellings with VC-signs, this method of writing /r/ occurs for the first time in the Gudea texts. Compare the following two examples, the first showing a phonemic spelling with a VC-sign and the second a morphophonemic spelling with ***ra***:

(123) **sipa ^{d}nin-*ĝír-su-ke$_4$* gù dé-*a-ar***
sipa.d nin.ĝír.su.k=e gù =Ø dé -Ø -ʔa =r(a)
shepherd Ningirsu =ERG voice=ABS pour-NFIN-NOM=DAT
'to the shepherd called by Ningirsu' (Cyl B 6:17; L; 22)

(124) **ur-saĝ bara$_2$ kù-*ga* tuš-*a-ra***
ur.saĝ bara$_2$.g kù.g=ʔa tuš-Ø -ʔa =ra
warrior dais pure=LOC sit -NFIN-NOM=DAT
'to the warrior seated on the holy dais' (Cyl B 9:1; L; 22)

Thus, in the time of Gudea, two different methods for writing the form /r/ of the dative case marker had become available. Nevertheless, the scribes often remained faithful to the strategy they had followed earlier. Usually, they simply ignored the syllable-final /r/. This is what they had always done before the time of Gudea and this is what they quite frequently continued to do later. Only after the Ur III period, it becomes the norm to write the /r/ explicitly with one of the two methods mentioned above. The following two examples beautifully illustrate the spelling convention of ignoring the syllable-final /r/. Each shows two words with the dative

case marker, one with a final consonant followed by ***ra*** for the form /ra/, and one with a final vowel without any written indication of the form /r/:

(125) **lugal-*ra ù* saĝĝa *nu-na-bé-ne-a***
lugal=ra ù saĝĝa =r(a) nu =ʔi -nna -b -ʔe -enē -ʔa
king =DAT or administrator=DAT NEG=VP-3SG.IO-3N.OO-say:IPFV-3PL.A:IPFV-NOM
'that they will not say it to the king or to the administrator' (NRVN 1:180 12; N; 21)

(126) **^{d}nin-*ĝír-su-ra* / *ĝír-su*^{ki} / *mu-na*-řú / ^{d}nanše / niĝin$_6^{ki}$ / *mu-na*-řú**
nin.ĝír.su.k=ra ĝír.su=Ø Ø -mu -nna -n -řú -Ø
Ningirsu =DAT Girsu =ABS VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO

nanše =r(a) niĝin$_6$=Ø Ø -mu -nna -n -řú -Ø
Nanshe=DAT Nigin =ABS VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO
'He built Girsu for Ningirsu. He built Nigin for Nanshe.' (Ean. 11 2:9-3:4; L; 25)

Note that what matters is whether the word preceding the dative case marker has a final consonant or a final vowel. Thus, in the previous example, the dative case marker {ra} is attached to a word with a final vowel, viz. /nanše/ '(the goddess) Nanshe'. The resulting form /nanšer/ 'for (the goddess) Nanshe' is written **^{d}nanše**, without the final /r/, due to the deficiencies of the script. However, if the noun /nanše/ is followed by some modifier and the last word of the phrase has a final consonant, the full form /ra/ is used:

(127) **^{d}nanše / nin uru$_{16}$-*ra* / é-an-*na*-túm-*me* / *mu-na*-dím-*ma***
nanše nin uru$_{16}$.n=ra é.an.na.túm=e
Nanshe lady august =DAT Eannatum =ERG

Ø -mu -nna -n -dím -Ø -ʔa
VP-VENT-3SG.IO-3SG.A-create-3N.S/DO-NOM
'which Eannatum fashioned for Nanshe, the august lady' (Ean. 62 Face A 2:2'-5'; L; 25)

Thus, the dative case marker has the form /ra/ after a consonant and the form /r/ after a vowel. In applying this rule, the genitive case marker is treated as having a final consonant (§7.2.1). This is shown by, for instance, the forms that include the plural marker {enē}. In the following examples, the first of each pair has a dative case marker directly after {enē} while the second has a genitive case marker between {enē} and the dative. After the genitive case marker, the dative always has its full form /ra/:

(128a) **en-ig-gal / *nu*-banda$_3$ / gu$_4$ ĝiš-*šè* / saĝ apin-*ke$_4$-ne* / *e-ne*-šúm**
en.ig.gal nu.banda$_3$=e gu$_4$.ř ĝiš =ak =še
Eniggal overseer =ERG ox wood=GEN=TERM

saĝ apin =ak =enē=r(a) ʔi -nnē -n -šúm-Ø
head plough=GEN=PL =DAT VP-3PL.IO-3SG.A-give-3N.S/DO
'Eniggal the overseer gave them (= some oxen) to the chief ploughmen as work oxen.'
(Nik 1:208 4:1-5; L; 24)

(b) **saĝ apin dumu-dumu-*ne-ra***
saĝ apin =ak dumu-dumu=enē=ak =ra
head plough=GEN child -child =PL =GEN=DAT
'to the chief ploughmen of the individual children' (VS 27:27 5:1; L; 24)

(129a) **diĝir gal-gal lagas^{ki}-*ke$_4$-ne* / é-*ne-ne* / *mu-ne*-řú**

diĝir gal-gal lagas =ak =enē=r(a) é.j =anēnē=Ø
god big-big Lagash=GEN=PL =DAT house=their =ABS

Ø -mu -nnē -n -řú -Ø
VP-VENT-3PL.IO-3SG.A-erect-3N.S/DO
'For the great gods of Lagash, he built their temples.' (St I 3:4-6; L; 22)

(b) **^{d}en-líl / lugal diĝir-*re-ne-ra***
en.líl lugal diĝir=enē=ak =ra
Enlil king god =PL =GEN=DAT
'for Enlil, the king of the gods' (FAOS 9/1 Gudea 12 1-2; L; 22)

Note that directly after the plural marker {enē}, the form /r/ of the dative case marker is consistently ignored in the texts of the corpus, even in the Ur III texts. E.g.:

(130) **má-laḫ$_5$-*e-ne ba-an-ne*-zi**
má.laḫ$_5$ =enē=r(a) Ø -ba -nnē -zi.g-Ø
boatman=PL =DAT VP-MM-3PL.IO-rise-3N.S/DO
'This was raised for the boatmen.' (HLC 1:32-33 HLb 81 6:6; L; 21)

The only exception is the form **a-nun-*na-ke$_4$-<ne>-er*** 'to the Anunna-gods' (Cyl B 1:20; L; 22).

In the Old Sumerian texts from Lagash, the dative case marker is written ***la*** after the proper noun **^{d}en-líl**. This is probably only a conventional spelling reflecting an older form of the dative case marker after the consonant /l/ (see §3.6). E.g.:

(131) **^{d}en-líl-*la* / é-*a* / *mu-na-ni*-ku$_4$**
en.líl=ra é =ʔa Ø -mu -nna -ni-n -ku$_4$.r-Ø
Enlil =DAT house=LOC VP-VENT-3SG.IO-in-3SG.A-enter -3N.S/DO
'He brought it for Enlil into the temple.' (Ent. 1 3:13-4:1; L; 25)

The dative case marker {ra} may be cognate with the IO-prefix {ra} of the second person singular human (§17.2.4) and with the second part of the IO-prefix {nna} (< *nra) of the third person singular human (§17.2.2).

7.5.2. Uses

A noun phrase in the dative case can have either of two functions. Most frequently, it expresses the indirect object (§17.3). E.g.:

(132) **PN lugal-*e* má-gur$_8$ maḫ ^{d}en-líl-*ra mu-na*-dím**
PN lugal=e má.gur$_8$ maḫ =Ø en.líl=ra Ø-mu -nna -n -dím -Ø
PN king =ERG boat great=ABS Enlil =DAT VP-VENT-3SG.IO-3SG.A-create-3N.S/DO
'PN, the king, fashioned a great boat for Enlil.' (JCS 16 p. 81:48 9; L; 21)

(133) **en-ig-gal / *nu*-banda$_3$ / di-utu / saĝ apin-*ra* / *e-na*-šúm**
en.ig.gal nu.banda$_3$=e di.utu.k saĝ apin =ak =ra
Eniggal overseer =ERG Di'utu head plough=GEN=DAT

ʔi -nna -n -šúm-Ø
VP-3SG.IO-3SG.A-give-3N.S/DO
'Eniggal the overseer gave it to Di'utu the chief ploughman.' (VS 27:26 10:6-10; L; 24)

A noun phrase in the dative case can also express the oblique object (§18.3). E.g.:

(134) **é-an-*na*-túm-*ra* / lú ti *mu-né*-ra**
é.an.na.túm=ra lú =e ti =Ø Ø -mu -nni -n -ra -Ø
Eannatum =DAT man=ERG arrow=ABS VP-VENT-3SG.OO-3SG.A-hit-3N.S/DO
'Someone hit Eannatum with an arrow.' (Ean. 1 obv 9:2-3; L; 25)

(135) **^{d}en-líl-*ra* / ^{d}nin-maḫ *mu-ni*-ús**
en.líl=ra nin.maḫ=Ø Ø -mu -nni -n -ʔús -Ø
Enlil =DAT Ninmah =ABS VP-VENT-3SG.OO-3SG.A-be.next.to-3N.S/DO
'He seated Ninmah next to Enlil.' (Cyl B 19:20-21; L; 22)

A human noun phrase which expresses the indirect or oblique object is always in the dative case. At the same time, a non-human noun phrase with one of these two functions is always in the directive case (§7.6). This seems to suggest that the dative and directive case are functionally equivalent, but this is not entirely true. Quite a few verbs construe a human object with the dative case, while they construe a non-human object with the locative instead of the directive case (§18.3.3). Thus, while many human phrases in the dative correspond to non-human phrases in the directive, some phrases in the dative have a non-human counterpart in the locative.

7.6. The directive case

7.6.1. The directive case marker {e}

The directive case only occurs with non-human noun phrases. It is expressed with the enclitic case marker {e}, which is homonymous and cognate with the ergative case marker {e} (see §7.3). It is also cognate with the local prefix {e} 'on' (see §20.3.1). A noun phrase in the directive case expresses an indirect object or an oblique object (§11.4.4). Thus, the directive case mostly mirrors the uses of the dative for the human gender class, but not always (§7.5.2).

The directive case marker {e} shows the same formal behaviour as the ergative case marker {e} (§7.3). This is true for its phonological properties as well as its spelling. We can therefore keep the explanations here brief and focus on giving relevant examples. The directive case occurs far less frequently than the ergative, though, so that the general picture is not as clear as for the latter.

The /e/ of the directive case marker contracts with a preceding vowel. With very few exceptions, the resulting long vowel is ignored in the spelling, so that the directive case looks unmarked after words with a final vowel. Thus, Old Sumerian orthography never expresses the directive case marker after a vowel. E.g.:

(136) **lú umma^{ki}-*ke$_4$* / e ki-sur$_x$(ERIM)-*ra*-*ke$_4$* / izi *ba*-šúm / an-*ta*-sur-*ra* / izi *ba*-šúm**
lú umma =ak =e e.g ki.sur.ra=ak =e izi =Ø Ø -ba -n -šúm-Ø
man Umma=GEN=ERG dike border =GEN=DIR fire=ABS VP-3N.IO-3SG.A-give -3N.S/DO

an.ta.sur.ra=e izi =Ø Ø -ba -n -šúm-Ø
Antasurra =DIR fire=ABS VP-3N.IO-3SG.A-give -3N.S/DO
'The Ummaite set fire to the border dike. He set fire to the Antasurra.' (Ukg. 16 1:1-5; L; 24)

But texts from the Gudea and Ur III periods occasionally indicate the resulting long vowel with a plene spelling, by repeating the final vowel of the word (§2.5):

(137) **mu-*bé-e* an-zà-*ta* kur-kur-*re* gú *im-ma*-si-si**
mu =be=e an.zà.g =ta kur -kur =e
name=its=DIR border.of.heaven=ABL mountains-mountains=ERG

gú =Ø ʔi-m(u) -ba -b -si -si -Ø
neck=ABS VP-VENT-3N.IO-3N.A-fill-fill-3N.S/DO
'From the borders of heaven the foreign lands will gather for its fame.' (Cyl A 9:18; L; 22). Note that the phrasal verb **gú—si** means 'assemble'.

(138) ***ù* nè mar-dú / *ma-da-né-e* / *bí-in*-gi$_4$-*a***
ù nè mar.dú ma.da=ane=e Ø -bi -n -gi$_4$ -Ø -ʔa =ʔa
and force Amorite land =his =DIR VP-3N.OO-3SG.A-turn-3N.S/DO-NOM=LOC
'and when he had driven back the Amorite force to his land' (FAOS 9/2 Šūsuen 9 24-26; U; 21)

(139) **me-*zu-ù* šu *bí*-d[u$_7$]**
me =zu =e šu =Ø Ø -bi -n -du$_7$.ř -Ø
essence=your=DIR hand=ABS VP-3N.OO-3SG.A-be.perfect-3N.S/DO
'He perfected your attributes.' (Shulgi R 9; N; 21, OB copy)

Similarly: **me-*e*** (Cyl A 20:22; L; 22), **iri-*e*** (for */erē/?, Cyl B 18:12; L; 22), ***in-da-ĝá-la-a*** (TCTI 2:3600 7; L; 21).

After a consonant, the directive case marker always has its full form /e/. It is then written with a CV-sign, in combination with the preceding consonant, or with the V-sign ***e***. Just as with the ergative case marker (§7.3), there is a partial shift from CV-spellings to the spelling with ***e*** after the Old Sumerian period.

After the plain voiceless stops /b/, /d/, and /g/, the spellings with ***bé***, ***dè***, and ***ge*** are the only ones used in the Old Sumerian texts from Lagash. E.g.:

(140) **dub-*bé* daḫ-*ḫa***
dub =e daḫ-Ø -ʔa
tablet=DIR add-NFIN-NOM
'the ones added to the tablet' (Nik 1:54 2:2; L; 24)

(141) **udu íd-*dè* bala-*e-dè***
udu=Ø íd =e balaʔ-ed -Ø =e
ram =ABS river=DIR cross -IPFV-NFIN=DIR
'to bring sheep across the river' (RTC 341 4; L; 21)

Later texts show the spelling ***e*** after /b/: e.g. ***ù*-šub-*e*** (Cyl A 18:23; L; 22), **áb-*e*** (SACT 1:8 2; D; 21). After /d/ and /g/, spellings with ***dè*** and ***ge*** remain the norm: e.g. ***ĝá-ĝá-dè*** (ECTJ 151 7; N; 23), **u$_4$-*ù-dè*** (Cyl A 8:2; L; 22), **di-*dè*** (Cyl A 20:23; L; 22), **lugal-zà-*ge*-si** (STH 2:117 2; L; 21), **an-šà-*ge*** (Cyl B 1:7; L; 22), **nin-bara$_2$-*ge*-si** (MVN 6:147 obv 7; L; 21), **túg-*e*** (UTAMI 4:2435 2; U; 21), **šà-kù-*ge*** (MVN 15:126 12; U; 21).

After the voiceless aspirated stop /k/, the spelling with ***-ke$_4$*** is the only one used. E.g.:

(142) **é ^{d}mes-an-du-*ke$_4$* ús-*sa-ta***
é mes.an.du=ak =e ús -Ø -ʔa =ta
house Mesandu =GEN=DIR be.next.to-NFIN-NOM=ABL
'From the house next to the one of Mesandu' (DP 173 5:5; L; 24)

(143) **^{d}nisaba-*ke$_4$* é ĝeštu$_2$-*ke$_4$* / ĝál *mu-na*-taka$_4$**

nisaba.k=e é.j ĝeštu$_2$.g=ak =e ĝál=Ø Ø -mu -nna -n -taka$_4$-Ø
Nisaba =ERG house ear =GEN=DIR ?? =ABS VP-VENT-3SG.IO-3SG.A-leave -3N.S/DO
'Nisaba opened for him the House of Wisdom (lit. "the Ear").' (Cyl A 17:16; L; 22). Note that the phrasal verb **ĝál—taka$_4$** means 'open'.

There are no attestations of a directive case marker after the plain voiceless affricate /z/, but after the voiceless aspirated affricate /ř/, there is a clear shift from a CV-spelling to a V-spelling. E.g.:

(144) **gu$_4$ d[u$_7$] máš du$_7$-*ře$_6$* ĝiš *bí*-tag**
gu$_4$.ř du$_7$.ř máš du$_7$.ř =e ĝiš =Ø Ø -bi -n -tag -Ø
bull perfect kid perfect=DIR wood=ABS VP-3N.OO-3SG.A-touch-3N.S/DO
'He sacrificed faultless bulls and faultless kids (lit. "let wood touch them").' (Cyl A 18:7; L; 22)

The same phrase is written elsewhere **du$_7$-*e*** (Cyl B 18:19; L; 22). A clear case is the spelling with the noun **ĝu$_4$.ř** 'bull, ox', which is consistently **gu$_4$-*e*** and never **gu$_4$-*ře$_6$*** in the Ur III texts: e.g. **gu$_4$-*e* ús-*sa*** (passim, e.g. SAT 3:1928 3; D; 21).

After the fricatives /s/, /š/, and /ḫ/, ***e*** is the only spelling attested. Even though the CV-signs ***šè*** and ***ḫe*** are available, the scribes never use them to write the directive case marker. E.g.:

(145) **íd maḫ-*e* ús-*sa***
íd maḫ =e ús -Ø -ʔa
river great=DIR be.next.to-NFIN-NOM
'next to the Great Canal' (RTC 73 3:1; L; 24)

(146) **kuš-*e* ak-*dè***
kuš =e ak -ed -Ø =e
hide=DIR make-IPFV-NFIN=DIR
'(fat) for treating hides' (OIP 14:126 2; A; 23)

Similarly: **kuš-*e*** (MVN 22:230 tablet obv 4; L; 21), **ĝiš-*e*** (Cyl A 7:16; L; 22), **ĝiš-*e*** (SAT 3:1524 2; U; 21), **kas$_4$-*e*** (Cyl A 7:20; L; 22), **é-kas$_4$-*e*** (MVN 21:202 rev 22; U; 21), **^{ĝiš}mes-*e*** (Cyl A 7:17; L; 22).

After /ĝ/, the spelling with ***ĝe$_{26}$*** is attested once in the proper name **lugal-ùĝ-*ĝe$_{26}$*** 'the king (is good) for the people' (MAD 4:78 16; I; 23), but for the rest the spelling ***e*** is used. E.g.:

(147) **^{d}šul-ge-ùĝ-*e*-*ba*-sa$_6$**
šul.ge.r=Ø ùĝ =e Ø -ba -sa$_6$.g -Ø
Shulgi =ABS people=DIR VP-3N.IO-be.good-3SG.S/DO
'(King) Shulgi is good for the people.' (PN) (UDT 59 88; L; 21)

Similarly: **ùĝ-*e*** (Cyl A 11:24; L; 22), **^{d}utu-ùĝ-*e*** (STH 2:10 1:2; L; 21), **nin-saĝ-*e*-ki-áĝ** (TuT 158 3:18'; L; 21), **ki-a-naĝ-*e*** (St B 7:55; L; 22), **šeĝ$_x$(IM.A)-*e*** (Cyl A 11:7; L; 22).

After /m/, the spelling with ***me*** is found in the Old Sumerian texts from Lagash in a proper name:

(148) **nin-éš-dam-*me*-ki-áĝ**
nin =Ø éš.dam=e ki =Ø áĝ -Ø
queen=ABS tavern =DIR place=ABS measure.out-NFIN
'The queen is one who loves (lit. "measures out a place for") the tavern.' (13x, e.g. CT 50:34 14:9; L; 24)

The same name is written once **nin-éš-dam-*e*-ki-áĝ** (STH 1:23 15:17; L; 24). Later the spelling seems to be always with ***e***: e.g. **lugal-urim$_5^{ki}$-*e*** (UET 3:359 2; Ur; 21), **am-*e*** (PDT 1:498 4; D; 21), **lugal-ú-šim-*e*** (passim, e.g. MVN 11:81 3; L; 21).

After /n/, the spelling with ***né*** is the only one found in the Old Sumerian texts from Lagash: e.g. **me-an-*né*-si** (DP 555 3:9; L; 24), **im-nun-*né*** (RTC 74 1:4; L; 24), **lugal-apin-*né*** (RTC 39 4:5; L; 24), **é-eden-*né*-si** (DP 195 9:8'; L; 24). In many words this spelling with ***né*** remains the norm in later texts: e.g. **an-*né*** (Cyl A 25:8; L; 22), **an-*né-ba-ab*-du$_7$** (passim, e.g. NRVN 1:295 3; N; 21), **lugal-ĝír-nun-*né*** (MVN 6:112 rev 11; L; 21), **lugal-unken-*né*** (MVN 14:431 rev 3; U; 21). In other words, the spelling with ***e*** is the normal one in Neo-Sumerian texts: e.g. **alan-*e*** (St B 7:22; L; 22), **nin-eden-*e-ba*-du$_7$** (CTNMC 54 5:49; L; 21), **apin-*e*** (Nisaba 9:316 obv 2; U; 21).

After /r/, the normal spelling in the Old Sumerian texts from Lagash is ***-ré***. E.g.:

(149) **sùr-*ré* ús-*sa***
sùr =e ús -Ø -ʔa
ditch=DIR be.next.to-NFIN-NOM
'next to the ditch' (RTC 74 1:2; L; 24)

Later the CV-sign ***re*** replaces ***ré***: e.g. **kur-*re*** (Cyl A 29:17; L; 22), **ùr-*re-ba-ab*-du$_7$** (TCL 2:5506 27; D; 21), **lugal-má-gur$_8$-*re*** (AUCT 1:518 2; D; 21). In some words, the spelling with ***re*** alternates with ***e***: e.g. **kar-*re*** (UTAMI 6:3683 obv 5; U; 21), **kar-*e*** (SAT 2:1001 4:2; U; 21).

After /l/, the normal spelling in the Old Sumerian texts from Lagash is ***le***: e.g. **nin-é-gal-*le*-si** (DP 176 4:6; L; 24), **ĝišgal-*le*-si** (ITT 5:9232 3:3; L; 24), **me-kisal-*le*** (BIN 8:345 5:15; L; 24). Later the spelling becomes ***e*** in most words: e.g. **gal-*e*** (Cyl A 15:22; L; 22), **é-gal-*e*-si** (TCTI 1:934 5; L; 21), **lugal-kisal-*e*-si** (TCNU 713 2:8'; U; 21), **nin-ù-kul-*e*-ki-áĝ** (AUCT 3:390 seal 3; D; 21). With the word ***ga*-ti.l** 'ex voto', though, the spelling varies regionally. Nippur has consistently ***ga*-ti-*le*** (e.g. NATN 250 seal 3; N; 21), whereas elsewhere ***ga*-ti-*e*** is the norm: e.g. (MVN 19:62 5; L; 21), (MVN 16:683 obv 2; U; 21), (UET 3:884 seal 1; Ur 21).

After /ʔ/ (cf. §3.2.4), the scribes always write ***e***. E.g.:

(150) **še-ba-*e* *da-ḫe-dam***
še.baʔ =e daḫ-ed -Ø =ʔam
barley.ration=DIR add -IPFV-NFIN=be:3N.S
'This is to be added to the barley rations.' (MVN 14:479 rev 1; U; 21)

Similarly: **níĝ-ba-*e*** (Cyl A 6:26; L; 22).

After /j/ (cf. §3.8), the spelling is also consistently ***e***. E.g.:

(151) **é-*e* *ba-an*-du$_{11}$**
é.j =e Ø -ba -n -du$_{11}$.g-Ø
house=DIR VP-3N.IO-3SG.A-say -3N.S/DO
'She spoke to the temple.' (Cyl B 4:6; L; 22)

Similarly: **a-*e*** (Ent. 28 4:10; L; 25), **é-*e*** (Cyl A 29:1; L; 22), **é-*e*** (BBVO 11 p. 286 6-NT-454 2:4'; N; 21).

7.6.2. Uses

Noun phrases in the directive case can be used adverbially or adnominally, but the latter use is rare and restricted to a single construction (see below). All uses are adverbial unless stated otherwise.

A noun phrase in the directive case can express an indirect object (§17.3). E.g.:

(152) **^{d}*ba-ú nam*-šita iri-*ka-ge-na-ka-ke$_4$* *ba*-gub**
ba.ú=Ø nam.šita iri.ka.ge.na.k=ak =e Ø -ba -gub -Ø
Bau =ABS supplication Irikagena =GEN=DIR VP-3N.IO-stand-3SG.S/DO
'Bau is on duty for the supplication of Irikagena.' (Ukg. 53 1; L; 24)

A noun phrase in the directive case can express an oblique object (§18.3). E.g.:

(153) **gù-dé-*a* en ^{d}nin-*ĝír-su-ke$_4$* / šà kù-*ge bí*-pà**
gù.dé.a=Ø en nin.ĝír.su.k=e šà.g kù.g=e Ø -bi -n -pà.d-Ø
Gudea =ABS lord Ningirsu =ERG heart pure=DIR VP-3N.OO-3SG.A-find -3SG.S/DO
'Lord Ningirsu chose Gudea in his pure heart (lit. "let (his) pure heart find Gudea")' (Cyl A 23:22-23; L; 22)

See chapter 17 and 18 for more details on indirect and oblique objects.

The normal method in Sumerian to make a purpose clause is to use an imperfective participle in the directive case. Such a purpose clause can be used adverbially or adnominally. E.g.:

(154) **é kù řú-*dè* gú-*bé mu-ši-íb*-íl**
é kù.g=Ø řú -ed -Ø =e gú =be=Ø Ø -mu -n -ši-b -ʔíl-Ø
house pure=ABS erect-IPFV-NFIN=DIR neck=its=ABS VP-VENT-3SG-to-3N.A-lift-3N.S/DO
'It raised its neck towards him in order to build the holy temple.' (Cyl A 1:16; L; 22)

(155) **0.0.2 kaš gi$_6$ sig$_5$ bala-bala-*e-dè***
0.0.2 kaš gi$_6$ sig$_5$ =Ø balaʔ-balaʔ-ed -Ø =e
20.litres beer black good=ABS cross -cross -IPFV-NFIN=DIR
'twenty litres of good dark beer to be libated' (e.g. UET 3:109 2; Ur; 21)

See §28.4.4 for details.

The Old Sumerian texts from Lagash contain a construction where the directive case marker is unexpectedly absent (Krecher 1987: 77). Consider the following non-finite counterpart of the previous example:

(156) **sipa šà-*ge* pà-*da* / ^{d}nin-*ĝír-su-ka-ke$_4$***
sipa šà.g =e pà.d-Ø -ʔa nin.ĝír.su.k=ak =e
shepherd heart=DIR find -NFIN-NOM Ningirsu =GEN=ERG
'shepherd (ergative) chosen in his pure heart by Ningirsu (lit. "the by the heart found one of Ningirsu")' (St B 2:8-9; L; 22)

This construction is also found in Old Sumerian:

(157) **šà kù-*ge* pà-*da* / ^{d}nanše / nin uru$_{16}$-*na-ke$_4$***
šà.g kù.g=e pà.d-Ø -ʔa nanše nin uru$_{16}$.n=ak =e
heart pure=DIR find -NFIN-NOM Nanshe lady august =GEN=ERG
'the one (ergative) chosen in her pure heart by Nanshe, the august lady' (Ean. 60 1:6-8; L; 25)

However, if the phrase **šà kù-*ge* pà-*da*** lacks the adjective, the directive case marker is also absent. E.g.:

(158) **šà pà-*da* / ^{d}nanše-*ke$_4$***
šà.g pà.d-Ø -ʔa nanše =ak =e
heart find -NFIN-NOM Nanshe=GEN=ERG
'the one (ergative) chosen in her heart by Nanshe' (Ean. 11 1:9-2:1; L; 25)

This construction **šà pà-*da*** is typical for Old Sumerian. As can be seen from ex. 156 above, later Sumerian shows the expected case marker.

The directive case can be used to mark explicitly that a noun phrase is the topic of the clause. It must then be translated as 'as for' or the like. E.g.:

(159) **idim-*e* *a-na* *nu*-zu**
idim =e a.na =Ø nu =ʔi -n -zu -Ø
spring=DIR what=ABS NEG=VP-3SG.A-know-3N.S/DO
'As for the spring, what does he not know?' (VS 10:189 8; ?; 21)

(160) **ge-m[u]š^{ʔ}-*zu*-*ù* ušumgal ki-nú-*bé*-*a* ù du$_{10}$ ku$_4$-*me*-*èn***
ge.muš =zu =e ušumgal ki.nú =be=ʔa
punting.pole=your=DIR dragon lying.place=its=LOC

ù du$_{10}$.g=Ø ku$_4$ -Ø =Ø =me-en
sleep sweet =ABS sleep-NFIN=ABS=be -2SG.S
'As for your punting-poles, you are a dragon, sleeping a sweet sleep in its den.' (Shulgi R 13; N; 21, OB copy)

This clause comes from a hymnic description of a boat and is one of an entire series of similar clauses, all with the structure **NP-*zu*-*ù* NP-*me*-*èn*** 'as for your ..., you are ...' (Shulgi R 10-20, 23-27, 32-39; N; 21). The same structure is also found in later texts, albeit with a different spelling:

(161) **murgu$_2$-*zu* dub sar-sar-*re*-*me*-*en***
murgu$_2$=zu =e dub =Ø sar -sar -ed -Ø =Ø =me-en
back =your=DIR tablet=ABS write-write-IPFV-NFIN=ABS=be -2SG.S
'As for your (bent) spine, you are (like) one who writes tablets all the time.' (Lugalbanda II 122; OB)

The Old Babylonian spelling **murgu$_2$-*zu*** 'your back' can be interpreted as an absolutive, ergative, or directive case. The spelling ***-zu-ù*** of Shulgi R can only represent an ergative or a directive case. Since an ergative is impossible in an intransitive clause, we must be dealing with a directive case in these constructions and not with an absolutive (*pace* Zólyomi 2005b: 177-178).

Some Sumerologists claim that the directive case can also be used with human noun phrases. The first to do so was Falkenstein (1939: 181-183), who collected several attestations of a spelling ***ke$_4$*** replacing an expected dative ***ra***. He considered this type of form to be authentic and analysed it as directive {e} following genitive {ak}. Later he added more material, including forms with simple ***e*** for dative ***ra***, without a preceding genitive (Falkenstein 1941-44: 125). Additional evidence was adduced by Jacobsen (1983: 195), Attinger (1993: 240), and Zólyomi (2000).

As already noted by Falkenstein himself, these forms are extremely rare (Falkenstein 1950: 118). Most attestations come from Old Babylonian literary texts and fall therefore outside the

scope of the present grammar. Not all of Falkenstein's older attestations can be upheld. His only Old Sumerian example was a form **^{d}inanna-*ke$_4$*** (Ent. 49 1:1; L; 25), in an inscription for which we now have numerous duplicates with the expected form **^{d}inanna-*ra***.

Two of Falkenstein's Ur III examples occur in a single text and have been underlined in the following passage:

(162) **ur-^{d}lama$_3$ *ab-ba* ses-kal-*la*-<u>*ke$_4$*</u> / é ur-^{d}kuš$_7$-^{d}*ba-ú* dumu na-mu-*ka* / še-ba siki-ba / šu al-la dub-sar-*ta* / nam-urdu$_2$-*šè ba-na*-šúm-[*ma*] / *ù* ur-^{d}lama$_3$-<u>*ke$_4$*</u> / ses-kal-*la* urdu$_2$ / ki ur-^{d}kuš$_7$-^{d}*ba-ú-ka-àm ì*-dú-*da***
ur.lama$_3$.k ab.ba ses.kal.la=ak =e (...) Ø -ba -nna -šúm-Ø -ʔa
Urlama father Seskalla =GEN=ERG (...) VP-MM-3SG.IO-give -3N.S/DO-NOM

ù ur.lama$_3$.k=e (...) ʔi-n -dú.d -Ø -ʔa
and Urlama =ERG (...) VP-3SG.A-give.birth.to-3SG.S/DO-NOM
'that <to> Urlama, the father of Seskalla, in the house of Urkushbau, the son of Namu, barley rations and wool rations had been given out of the hand of Alla, the scribe, for (his) position of slave and that Urlama had fathered Seskalla, the slave, at Urkushbau's place' (NG 32: 5-12; L; 21)

However, the form **ur-^{d}lama$_3$-<u>*ke$_4$*</u>** is not a directive but an ergative, and expresses the transitive subject of the verbal form ***ì*-dú-*da***. The other form from this text, **ur-^{d}lama$_3$ *ab-ba* ses-kal-*la*-<u>*ke$_4$*</u>**, shows a clear ***ke$_4$*** for an expected ***ra***. In my view, it is a clearcut case of a compositional mistake: the text begins with **ur-^{d}lama$_3$** in the ergative case, then it has a few lines later a verbal form which calls for a dative, and then continues with a new and now correct **ur-^{d}lama$_3$** in the ergative case. The scribe seems to have started out with the second verbal form in mind. Moreover, that the first ergative cannot possibly be a directive is also proven by the other attestations of the verbal form ***ba*(*-an*)*-na*-šúm**, which are construed with clear datives (e.g. NG 126 12-13; L; 21).

Falkenstein has pointed out one more instance from the Ur III period with ***ke$_4$*** for expected ***ra***. It occurs in a seal insciption:

(163) **^{d}mes-lam-*ta*-è-[*a*] / lugal á zi-*da* / lagas^{ki}-<u>*ke$_4$*</u> / (...) / ki-lul-*la gu-za*-lá / dumu ur-ba-gara$_2$-*ke$_4$* / *mu-na*-dím**
mes.lam.ta.è.a (...) lagas =ak =e
Meslamtaea (...) Lagash=GEN=ERG

ki.lul.la (...)=e Ø -mu -nna -n -dím -Ø
Kilulla (...)=ERG VP-VENT-3SG.IO-3SG.A-create-3N.S/DO
'For Meslamtaea, the king, right arm of Lagash, (...) Kilulla, the throne bearer, the son of Urbagara, fashioned this for him.' (RIM E3/2.1.2.2039 1-9; L; 21)

Here, too, it is far more likely that the underlined ***ke$_4$*** is a simple scribal mistake for ***ra***, which is the form that we expect here and which is also the form that we find elsewhere in the many hundreds of other attestations with the verbal form ***mu-na*-dím** (e.g. in the year name for Šu-suen 8).

A further Ur III attestation of ***ke$_4$*** for expected ***ra*** was proposed by Zólyomi (2000). It involves a clause that occurs twice in the same administrative text, once as a main clause and once as a subordinate clause between **mu (...)*-šè*** 'because (...)':

(164) **ur-^{d}suen dumu lugal-<u>*ke$_4$*</u> šu-*na ba-a*-gi$_4$**

ur.suen dumu lugal=ak =e šu =ane=ʔa Ø -ba -e -gi$_4$ -Ø
Ursuen son king =GEN=ERG hand=his =LOC VP-MM-on-turn-3N.S/DO
'It was transferred into the hands of Ur-Suen, the king's son.' (SEL 3 pp. 37f. MusVat 22953 3:25 // 8:1; L; 21)

Zólyomi analyses this clause as an external possession construction, comparing it to similar Old Sumerian constructions. The Ur III clause deviates from the Old Sumerian constructions in two ways: instead of dative ***ra*** it shows ***ke$_4$*** and instead of an oblique-object prefix it shows a local prefix. Taking the case marker as a directive {e} for a dative, as Zólyomi does, does not explain or fit the verbal form. In my view, it is more likely that we are dealing here with a scribal mistake of ***ke$_4$*** for ***ka***, with the whole phrase being an anticipatory genitive ('of Ur-Suen, the king's son, on his hand ...'). Such an analysis better fits the other Ur III attestations of this construction. The number of Ur III attestations is too small, though, to be certain of any analysis. See §16.3.4 for more details.

In summary, there is not a single convincing example in our corpus of a human noun phrase in the directive case. Whatever value the later evidence may have, such a construction is not possible in Old or Neo-Sumerian.

7.7. The locative case

7.7.1. The locative case marker {ʔa}

The locative case is expressed with the enclitic case marker {ʔa} and is most commonly used to express a location in space or time. The case marker can usually be translated with English 'in, into' or 'on, onto'. The uses of the locative case overlap with those of the two verbal prefixes {ni} 'in' or {e} 'on', treated in chapter 20. The locative is almost exclusively found with non-human noun phrases but may also occur with human ones. E.g.:

(165) **é dumu-nita$_2$ *nu*-tuku / dumu-mí-*bé ì-bí-la-ba* / *mi-ni*-ku$_4$**
é dumu.nita$_2$=Ø nu =tuku-Ø =ak dumu.mí=be=Ø
house son =ABS NEG=have -NFIN=GEN daughter =its=Ø

ì.bí.la=be=ʔa Ø -mu -ni-ʔ -ku$_4$.r-Ø
heir =its=LOC VP-VENT-in-1SG.A-enter -3SG.S/DO
'Of a house that had no son, I let its daughter become its heir.' (St B 7:44-46; L; 22)

(166) **^{d}nin-*ĝír-su* / lugal-*ba* / *ni*-ku$_x$**(DU)
nin.ĝír.su.k lugal =be=ʔa Ø -ni-n -ku$_4$.r-Ø
Ningirsu owner=its=LOC VP-in-3SG.A-enter -3SG.S/DO
'He let Ningirsu become its owner.' (Ukg. 4 9:9-11; L; 24)

The locative case marker may be cognate with the /a/ of the verbal prefix {ba}, but this is not entirely certain (§17.2.1).

The basic form of the locative case marker is /ʔa/, with an initial glottal stop (cf. §3.2.4). This is shown clearly by the Old Sumerian spellings with ***a***. In the Old Sumerian texts, the sign A has not yet acquired its later value as a sound sign for the simple vowel /a/ but is only used as a sound sign for the sequence /ʔa/ (§2.5). Spellings such as the following prove, therefore, that the suffix {ʔa} has an initial glottal stop:

(167) **iti guru$_7$ dub-*ba-a***

iti.d guru$_7$ dub -Ø -ʔa =ʔa
month granary heap.up-NFIN-NOM=LOC
'in the month when the granaries were heaped up' (BIN 8:362 7:3; L; 24)

(168) **iti siki ^{d}*ba-ú e-ta*-ĝar-*ra-a***
iti.d siki ba.ú=ak =Ø ʔi -b -ta -ĝar -Ø -ʔa =ʔa
month wool Bau=GEN=ABS VP-3N-from-place-3N.S/DO-NOM=LOC
'in the month when Bau's wool is supplied' (Nik 1:63 13:2; L; 24)

Similarly: **ĝen-*na-a*** (DP 313 1:2; L; 24); **ĝál-*la-a*** (DP 566 2:4; L; 24); **er$_x$-*ra-a*** (DP 53 11:4; L; 24); ***ba*-dab$_5$-*ba-a*** (VS 14:70 3:4; L; 24); ***bé*-ak-*a-a*** (DP 251 2:5; L; 24); ***ba*-pà-*da-a*** (Ent. 35 3:4; L; 25); ***e-me*-ĝar-*ra-a*** (DP 447 3:1; L; 24).

The basic form /ʔa/ of the locative case marker undergoes changes depending on which sound precedes it. It contracts with certain vowels and assimilates to most preceding consonants. The resulting forms show some variation in spelling.

The extent to which the locative case marker contracts with preceding vowels is hard to determine, because the spelling obscures so much. The word to which the case marker is attached is mostly written with a word-sign, so that any phonological changes that take place remain hidden from us. The available evidence is therefore limited to those forms where the locative case marker is preceded by some element written with a sound-sign, which all but limits the evidence to forms where the case marker is preceded by some other clitic or by a suffix.

The situation is clearest for the enclitic pronouns (§8.3 and §8.4.2). The locative case marker usually contracts with the vowels of {ĝu} 'my', {zu} 'your', {ane} 'his', {be} 'its' and {be} 'this'. The result of this contraction is always /a/:

(169) **kù šà-*ĝá a*-sa$_6$-*ga***
kù.g šà.g =ĝu=ʔa ʔa -n(i)-sa$_6$.g-Ø -ʔa
silver heart=my=LOC VP-in -good-3N.S/DO-NOM
'the silver which is good in my heart' (Ukg. 4 11:26; L; 24)

(170) **á zi-*da-za* / ^{d}utu / *rí*-è**
á zi.d -Ø -ʔa =zu =ʔa utu =Ø Ø-ri -n -ʔè -Ø
side be.right-NFIN-NOM=your=LOC Utu=ABS VP-2SG.OO-3SG.A-go.out-3SG.S/DO
'(...) had the Sungod Utu go up over your right side.' (Ean. 1 7:6-8; L; 25)

(171) **elam kur-*ra-na bé*-gi$_4$**
elam=Ø kur =ane=ʔa Ø -bi -n -gi$_4$ -Ø
Elam=ABS mountains=his =LOC VP-3N:on-3SG.A-turn-3SG.S/DO
'He had the Elamite return into his (= the Elamite's) land.' (Ean. 2 6:8; L; 25)

(172) **ig-*ba* éš kù *im*-lá-*ne***
ig =be=ʔa éš kù.g=Ø ʔi -m(u)-lá -enē
door=its=LOC rope pure =ABS VP-VENT-hang-3PL.A:IPFV
'They were tying pure ropes on its doors.' (Cyl A 26:30; L; 22)

(173) **inim-*ba* lú *nu-ub*-gi$_4$-gi$_4$-*da***
inim=be =ʔa lú =Ø nu =ʔi -b(i) -gi$_4$:RDP-ed -Ø -ʔa =ak
word=this=LOC man=ABS NEG=VP-3N:on-turn:IPFV -IPFV-3SG.S:IPFV-NOM=GEN
'about that nobody will go back on this agreement' (NRVN 1:3 7; N; 21)

Uncontracted forms are attested as well, though, albeit very rarely. E.g.:

(174) **u_4-*bé-a* / lú má-la$\underline{h}_5$-*ke$_4$* / má *e*-dab$_5$**
u_4.d=be=ʔa lú má.la$\underline{h}_5$.d=ak =e má =Ø ʔi -n -dab$_5$-Ø
day =its=LOC man boatman =GEN=ERG boat=ABS VP-3SG.A-take -3N.S/DO
'In those days, the chief bargee took charge of the boats.' (Ukg. 4 3:4-6; L; 24)

For examples with the possessive pronouns, see §8.3.2 and §8.3.3.

The locative case marker never contracts with the long vowel of the plural possessive pronouns (§8.3.4):

(175) **kù-*bé* šu-*ne-ne-a* / *ab*-si**
kù.g =be =Ø šu =anēnē=ʔa ʔa -b(i) -si.g-Ø
silver=this=ABS hand=their =LOC VP-3N:on-put -3N.S/DO
'This silver was put on their hands.' (TMTIM 61 7-8; ?; 23)

(176) **iri-*me-a* níĝ du$_7$ pa *nam*-è**
iri =me=ʔa níĝ du$_7$.ř =e pa =Ø na -m(u) -ʔè -Ø
city=our=LOC thing perfect=DIR branch=ABS PFM-VENT-go.out-3N.S/DO
'In our city something perfect appeared.' (Cyl A 1:4-5; L; 22)

It is less clear what happens if the locative case marker is preceded by the nominalizing suffix {ʔa}. If that suffix is also preceded by a vowel, a contraction takes place. E.g.:

(177) **u_4 é-ninnu / ^{d}nin-*ĝír-su-ra mu-na*-řú-*a***
u_4.d é.ninnu nin.ĝír.su.k=ra Ø -mu -nna -n -řú -Ø -ʔa =ʔa
day Eninnu Ningirsu =DAT VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO-NOM=LOC
'when he built the temple Eninnu for the god Ningirsu' (St B 6:73-74; L; 22)

Clearly, a sequence of three syllables is here reduced to one of two syllables, but I am unable to determine what contracts with what. See §27.3.3 and §28.3.2 for details. If the nominalizing suffix is preceded by a consonant, it is normally written separately from the locative case marker, which suggests that then no contraction takes place. Example 167 and following above give some Old Sumerian attestations. Others, also from later periods, can be found in §27.6.2 and §28.3.4. Interestingly, there is evidence, albeit inconclusive, which suggests that the vowel of the nominalizing suffix is long (see §28.3.2).

Thus, the locative case marker contracts with the final vowel of some grammatical morphemes but not with the final vowel of others. The phonological rule involved is perhaps that it contracts with a preceding short vowel but not with a long one.

Sumerian grammars generally assume that the locative case marker does not contract with the final vowel of a lexical morpheme. Indeed, this is what our transliterations seem to suggest: **é-ninnu-*a*** 'into the Eninnu' (St B 6:68; L; 22), **mè-*a*** 'in battle' (Cyl B 7:19; L; 22), **^{ĝiš}kiri$_6$-*a*** 'in the orchard' (UTAMI 3:1819 2; U; 21), **sila-*a*** 'in the street' (TCND 54 obv 3; D; 21). However, such transliterations are misleading, as in each instance the locative case marker is preceded by a morpheme written with a word sign. In actual fact we have no clue whatsoever to the precise pronunciation of this morpheme in this particular word form. For determining that we need spellings with sound signs and these are unfortunately extremely rare. Yet, there are a few Old Babylonian spellings which indicate that what applies to grammatical morphemes is true of lexical morphemes as well: the locative case marker contracts with some preceding vowels but not with others. E.g.: ***ab-za-a*** = ***abzu-*a*** (ASJ 17 p. 90 A 15; Meturan; OB); **ki-*du^{ʔ}-ra*** = ***ki-duru$_5$-*a*** (ZA 92 p. 32 4:7; Meturan; OB); ***ki-ri-a*** = ***^{ĝiš}kiri$_6$-*a*** (ASJ 14 p. 10 47, 52, 53; ?; OB); ***me-e-a*** = ***mè-*a*** (ZA 55 p. 36 6; ?; OB); ***mi-a*** = ***mè-*a*** (CLAM II p. 546 PRAK C 121 1:4; Kish; OB); ***zi-a*** = ***izi-*a*** (CLAM II p. 546 PRAK C 52 16; Kish; OB).

The initial glottal stop of the locative case marker {ʔa} assimilates to most preceding consonants and the spelling reflects this. After a consonant the case marker is written either with a CV-sign, taking up the preceding consonant, or with the sign ***a***. Which method is used depends on the nature of the preceding consonant. After the consonants /ʔ/ and /j/, the locative case marker is always written in the same way as after a vowel, viz. with the sign ***a***. After other consonants, the scribes use CV-signs, combining the preceding consonant with the vowel /a/ of {ʔa}. But they do not always use CV-signs to the same extent. After some consonants, spellings with simple ***a*** are actually more common.

The spelling ***a*** is consistently used after a glottal stop /ʔ/. E.g.: **umma^{ki}-*a*** 'on Umma' (Ean. 1 obv 19:6; L; 25); **má-*a*** 'on a boat' (PPAC 1,335 A.821 2; A; 23); **bala-*a*** 'in the turn of duty' (PDT 2:1097 obv 2; D; 21). See §3.2.4 for the presence of a final glottal stop in these nouns.

The spelling ***a*** is also the only one used after a /j/. E.g.: **é-*a*** 'into the house' (DP 463 1:2; L; 24); **é-*a*** 'into the house' (TENS 206 7; U; 21). See §3.8 for the presence of a final /j/ in **é** = */haj/ 'house'.

After a stop the locative case marker is written with one of the CV-signs ***ba***, ***da***, ***ga***, and ***ka***. E.g.: ***ù*-šub-*ba*** 'in the brick mold' (Cyl A 6:7; L; 22); **áb-*ba*** 'on the cow' (NG 194 31; L; 21); **iti-*da*** 'in a month' (VS 25:66 8:6; L; 24); **íd-*da*** 'on the canal' (MVN 14:128 rev 4; U; 21); **bàd-*da*** 'on the wall' (UET 3:1469 4; Ur; 21); **unug^{ki}-*ga*** 'in Uruk' (FAOS 5/2 Lukin. 2 9; N; 24); **kù-*ga*** 'in silver' (Cyl A 16:25; L; 22); ***a*-šà-*ga*** 'in the field' (MVN 3:276 obv 4; D; 21). Because of the very small number of morphemes with a final /k/ (§3.2.2), the spelling with ***ka*** is all but restricted to forms where the locative is preceded by the genitive. E.g.:

(178) **ĝá udu-*ka***
ĝá udu =ak =ʔa
shed sheep=GEN=LOC
'in the shed of the sheep' (MAD 4:138 7; U; 23)

After a nasal the scribes use one of the CV-signs ***ma***, ***na***, and ***ĝá***, but after /ĝ/ the spelling ***a*** occurs as well, albeit less often. E.g.: **gurum$_2$-*ma*** 'during stock-taking' (Nik 1:216 1:2; L; 24); **kalam-*ma*** 'in the land' (Cyl B 3:11; L; 22); **urim$_5^{ki}$-*ma*** 'in Ur' (TPTS 1:378 3; U; 21); ***le*-*um*-*ma*** 'on the writing board' (UET 3:1097 21; Ur; 21); **eden-*na*** 'in the plain' (Ent. 28 1:31; L; 25); **ĝanun-*na*** 'into the storeroom' (VS 14:107 1:4; L; 24); **an-*na*** 'in heaven' (Cyl B 3:6; L; 22); **absin$_3$-*na*** 'in the furrow' (Cyl B 11:20; L; 22); **ĝá-nun-*na*** 'into the storeroom' (TCNU 627 3; U; 21); **saĝ-*ĝá*** 'on the head' (Cyl A 20:25; L; 22); **saĝ-*a*** 'on the head' (Cyl B 6:19; L; 22); **pisaĝ-*ĝá*** 'in a basket' (TCS 1:290 4; U; 21); **pisaĝ-*a*** 'in a basket' (TENS 402 19; U; 21).

After /l/ and /r/, the scribes normally use the CV-signs ***la*** and ***ra***, but occasionally spellings with ***a*** are found. E.g.: **ú-sal-*la*** 'on green pastures' (FAOS 5/2 Luzag. 1 3:22; N; 24); **šu$_4$-dul$_5$-*la*** 'in the yokes' (Cyl B 15:10; L; 22); **é-gal-*la*** 'into the palace' (PIOL 19:52 10; D; 21); **é-gal-*a*** 'into the palace' (UTAMI 4:2616 8; U; 21); **kù-bar$_6$-bar$_6$-*ra*** 'in silver' (Ent. 44 2:7; L; 25); **tir-*ra*** 'in the forest' (TSA 26 2:3; L; 24); **kur-*ra*** 'upon the mountain land' (Cyl B 1:9; L; 22); **esir$_2$-*ra*** 'into bitumen' (MVN 16:1257 obv 1; U; 21); **eger-*ra*** 'afterwards, later (lit. "on the back")' (SNAT 334 obv 13; U; 21); **eger-*a*** 'afterwards' (Studies Sigrist p. 140 BM 105369 obv 9; U; 21).

After the fricatives the spelling changes across time. In the Old Sumerian texts from Lagash, the CV-signs ***ḫa*** and ***sa*** alternate with ***a***, in about equal numbers: **[é]-maḫ-*ha*** 'into the Emah' (Ean. 62 Face A 1:2'; L; 25); **ĝá-maḫ-*a*** 'in the shed' (MVN 3:17 1:2; L; 24); **lagas^{ki}-*sa*** 'in Lagash' (DP 41 3:5 = DP 42 9:6 = DP 43 1:11 = DP 182 4:1; L; 24); **lagas^{ki}-*a*** 'in Lagash'

(DP 53 2:11 = DP 258 4:1 = MVN 3:18 2:5 = Nik 1:277 4:2 = STH 1:41 2: 1 = VS 14:160 8:2; L; 24). After /š/, the scribes only use ***a*** and never the CV-signs ***ša₄*** or ***ša***: **ĝiš-*a*** 'on wood' (En. I 29 13:2; L; 25); **maš-*a*** 'among the goats' (AWAS 120 13:12 = STH 1:17 13:12; L; 24); **a-ḫuš-*a*** 'on the Ahush' (Ukg. 16 2:2; L; 24). After the Old Sumerian period, the CV-signs are not used anymore and the scribes consistently write ***a*** after all three fricatives. E.g.: **é-maḫ-*a*** 'into the Emah' (MVN 16:745 obv 6; U; 21); **lagas^{ki}-*a*** 'in Lagash' (FAOS 19 Gir 32 14; L; 23); **máš-*a*** 'in the goat' (Cyl A 12:17; L; 22).

I am unable to give an example for the locative case marker after the affricate /z/, but one would expect the spelling ***za*** or ***a***. After the affricate /ř/ the scribes normally use the CV-sign ***řá***, but a spelling with ***a*** is sometimes found. E.g.: **íd súr-du$_7$-*řá*** 'on the Falcon canal' (DP 480 2:1; L; 24); **iti še-KIN-ku$_5$-*řá*** 'in the month še-KIN-ku$_5$.ř' (DP 425 2:5; L; 24); **gu$_4$-*řá*** 'among the bulls' (TCTI 2:2548 6; L; 21); **gu$_4$-*a*** '(bartered) for a bull' (SAT 2:124 1; U; 21).

7.7.2. Uses

Noun phrases in the locative case can be used adverbially or adnominally, but the former is far more frequent. All uses are adverbial unless stated otherwise.

The locative can have the same uses as the local prefix {ni} 'in', treated in §20.2.2, where pertinent examples can be found. Stated briefly, the locative can refer to a location where something or someone is located or comes to be located. E.g.:

(179) ***ì-si-na-ba*** **udu** ***ba-an-dú-ru-un***
ì.si.na =be=ʔa udu =Ø Ø -ba -n(i)-durun -Ø
grain.stalks=its =LOC sheep=ABS VP-MM-in -sit:PLUR-3N.S/DO
'Sheep were caused to sit among its grain stalks (i.e. of the field of Kamari).' (MVN 18:325 2; U; 21)

Or it can refer to the material that is used for making something:

(180) **kù-sig$_{17}$ kù-bar$_6$-bar$_6$-*ra* / šu** ***mu-na-né*-tag**
kù.sig$_{17}$ kù.bar$_6$.bar$_6$=ʔa šu =Ø Ø -mu -nna -ni-n -tag -Ø
gold silver =LOC hand=ABS VP-VENT-3SG.IO-in -3SG.A-touch-3N.S/DO
'He decorated it with gold and silver for him.' (Ent. 16 2:3-4; L; 25)

The locative can also have the same uses as the local prefix {e} 'on', treated in §20.3.2, where many examples can be found. It then also refers to a location where something or someone is located or comes to be located. E.g.:

(181) **a-ḫuš-*a* / šu** ***bé*-bař$_4$**
a.ḫuš =ʔa šu =Ø Ø -bi -n -bař$_4$-Ø
Ahush=LOC hand=ABS VP-3N:on-3SG.A-open-3N.S/DO
'He plundered the Ahush (lit. "opened the hand on").' (Ukg. 16 2:2-3; L; 24)

(182) ***le-um-ma nu-ub-ge-en$_6$***
le.um =ʔa nu =Ø -b(i) -ge.n -Ø
writing.board=LOC NEG=VP-3N:on-be.firm-3N.S/DO
'It has not been confirmed on the writing board.' (TJAMC IOS 15 11; U; 21)

However, the locative case has a much wider range of uses than these two local prefixes. While they express locations that play a central role in the action or state expressed by the verb, the locative can also be used for locations that play a more circumstantial role. E.g.:

(183) **lagas^{ki}-*a* / ĝiš *e*-tag**
lagas =ʔa ĝiš =Ø ʔi -b -tag -Ø
Lagash=LOC wood=ABS VP-3N.OO-touch-3N.S/DO
'This has been sacrificed in Lagash.' (DP 53 2:11-12; L; 24)

The locative case often expresses time adjuncts, something that the local prefixes never do. E.g.:

(184) **u_4 ezem-*ma-ka***
u_4.d ezem =ak =ʔa
day festival=GEN=LOC
'on the day of the festival' (FAOS 9/2 Šulgi 26 2:10; L; 21)

(185) **udu gurum$_2$-*ma* šid-*da***
udu gurum$_2$ =ʔa šid -Ø -ʔa
sheep stock.taking=LOC count-NFIN-NOM
'sheep counted during stock taking' (VS 25:27 3:1; L; 24)

(186) **iti du_6-kù-*ga***
iti.d du_6.kù.g=ʔa
month Duku =LOC
'in the month Duku' (NRVN 1:38 5; N; 21)

With verbs of speaking and the like, the locative case can be used to express the content of the speech act (Attinger 1993: 248, 410; Balke 2006: 50 n. 230). E.g.:

(187) **é-*a-né* řú-*ba mu-na*-du_{11}**
é =ane řú -ed -Ø =be=ʔa Ø -mu -nna -n -du_{11}.g-Ø
house=his erect-IPFV-NFIN=its=LOC VP-VENT-3SG.IO-3SG.A-say -3N.S/DO
'He spoke to him about ("on") his temple and the building of it.' (Cyl A 1:19; L; 22)

(188) ***si-lim-ma-na* du_{11}-*ga***
silim =ane=ʔa du_{11}.g-Ø -ʔa
wellbeing=his =LOC say -NFIN-NOM
'what is said about his wellbeing' (FAOS 19 Du 1; ?; 23)

See §28.4.4 for more details and additional examples.

In the texts from the Ur III period, the locative may replace the dative in certain forms. The following examples are typical:

(189) **amar-šuba$_2$ / ses-*ĝá* / *ù-na*-du_{11}**
amar.šuba$_2$ ses =ĝu =ʔa ʔu -nna -e -du_{11}.g-Ø
Amashuba brother=my=LOC REL.PAST-3SG.IO-2SG.A-say -3N.S/DO
'Say to my brother Amarshuba:' (TCS 1:28 1-3; N; 21)

(190) **ur-nigin$_3$-ĝar-*ke$_4$* / dam-*na in-na-an*-ba**
ur.nigin$_3$.ĝar.k=e dam=ane=ʔa ʔi -nna -n -ba -Ø
Urnigingar =ERG wife =his=LOC VP-3SG.IO-3SG.A-portion.out-3N.S/DO
'Urnigingar donated this to his wife.' (MCS 2,75 BM 105377 11-12; U; 21)

(191) **en-šà-*ga-na* ugula *uš-bar-ka* / *ba-na*-zi**
en.šà.ga.na ugula uš.bar =ak =ʔa Ø -ba -nna -zi.g-Ø
Enshagana overseer weaver=GEN=LOC VP-MM-3SG.IO-rise-3N.S/DO

'It was registered as expended for Enshagana, the overseer of the weavers.' (UET 3:1394 9-10; Ur; 21)

All two dozen or so attestations known to me involve a preceding possessive pronoun {ĝu} or {ane}, or a preceding genitive case marker (cf. Attinger 1993: 248).

In the same kind of environment, the locative also once replaces the comitative:

(192) **mu geme$_2$-ba-gara$_2$ ama-*na* *in*-*da*-tuku-*a*-*šè***
mu geme$_2$.ba.gara$_2$ ama =ane=ʔa
name Gemebagara mother=his =LOC

ʔi -n -da -n -tuku-Ø -ʔa =ak =še
VP-3SG-with-3SG.A-have-3N.S/DO-NOM=GEN=TERM
'because he was owed it by Gemebagara, his mother (lit. "for the name of that he had it with G.")' (NG 141 4; L; 21)

Although eventually the texts may yield more of such forms, for now we are dealing with a unique form, which is probably due to a confusion of the comitative and dative. In texts from the Ur III period, these two are often confused in forms with a vowel before the case marker (§7.11.1).

Thus, the locative case marker {ʔa} replaces the dative case marker {ra} (§7.5.1) and the comitative case marker {da} (§7.11.1) in certain very specific environments. In these same environments the dative and comitative case markers have reduced forms, without the final /a/. The origin of these locatives must therefore be related to the loss of the final /a/ of the dative and comitative case markers.

Because of its wide range of uses, clauses may contain more than one locative. E.g.:

(193) **ezem munu$_4$ gu$_7$ / ^{d}nanše-*ka* / niĝin$_6^{ki}$-*na* / é-gal-*la* / *ba*-ku$_x$**(DU)
ezem munu$_4$=Ø gu$_7$-Ø nanše =ak =ʔa niĝin$_6$=ʔa
festival malt =ABS eat -NFIN Nanshe=GEN=LOC Nigin =LOC

é.gal =ʔa Ø -ba -n(i)-ku$_4$.r-Ø
palace=LOC VP-MM-in -enter -3N.S/DO
'During Nanshe's Malt Eating Festival, it was brought into the palace in Nigin.' (DP 164 1:5-2:1; L; 24)

So far we have only discussed the adverbial uses of the locative. Adnominal use occurs in distributive expressions. E.g.:

(194) **máš gur-*ra* 0.1.4-*ta***
máš gur=ʔa 0.1.4 =ta
interest *gur*=LOC 100.litres=ABL
'with the interest one hundred litres per (lit. "in a") *gur* (= 300 litres)' (NRVN 1:160 2; N; 21)

(195) **šáḫ 1-*šè* / iti-*da* še 0.0.2-*ta***
šáḫ 1=še iti.d =ʔa še 0.0.2 =ta
pig 1=TERM month=LOC barley 2.ban=ABL
'with two *ban* of barley in a month for one pig' (VS 14:9 9:3-4; L; 24)

Note, however, that what looks like adnominal use in a distributive expression may actually be adverbial use with ellipsis of the verb:

(196) **gu-niĝin$_2$-*na* 10 lá 1 sa-*ta***
gu.niĝin$_2$=ʔa 9 sa =ta
bale =LOC 9 bundle=ABL
'with nine bundles in a bale' (Zinbun 18 p. 101 6 BM 16163 1; L; 21)

Full versions of this expression are found elsewhere and include a verb:

(197) **gu-niĝin$_2$-*na* 10 sa-*ta* *ba-an*-ĝar**
gu.niĝin$_2$=ʔa 10 sa =ta Ø -ba -n(i)-ĝar -Ø
bale =LOC 10 bundle=ABL VP-MM-in -place-3N.S/DO
'They (= bundles) were placed in a bale with twenty bundles each.' (AAICAB I/4 pl.269 Bod. S 425 4; D; 21)

(198) **gu-niĝin$_2$-*na* 16 sa-*ta* *i*-ĝál**
gu.niĝin$_2$=ʔa 16 sa =ta ʔi -n(i)-ĝál -Ø
bale =LOC 16 bundle=ABL VP-in -be.there-3N.S/DO
'They (= bundles) are in a bale with sixteen bundles each.' (UTAMI 3:1602 2; U; 21)

As stated above, the locative shares many uses with the local prefixes {ni} 'in' and {e} 'on'. Other adverbial cases have similar relationships with verbal prefixes: the terminative with the prefix {ši}, the ablative with the prefix {ta}, and the comitative with the prefix {da}. In contrast with those three, however, the locative has a functional relationship with *two* different verbal prefixes. And also in contrast with them, the locative case marker is *not* cognate with either of the two related verbal prefixes. As regards the locative, the verbal system for marking the meanings 'on' and 'in' differs radically from the nominal system. Yet, from what we know about linguistic change, we can assume that the two systems arose from a single prehistoric system. I am unable to reconstruct that prehistoric system, though.

It is nonetheless possible to reconstruct a few aspects of this prehistoric system and the intermediate stages through which it developed into the historic Sumerian system. The local prefix {ni} (§20.2.1) is cognate with the all but obsolete "locative 2" case marker {ne}, which is still found in the pronominal conjugation (§28.6). This fossilized case marker must originally have had the same range of uses as the local prefix {ni} 'in' that is cognate with it. The locative case must therefore have acquired these uses secondarily and at the expense of the old "locative 2" case.

But the locative case marker {ʔa} is not cognate with the local prefix {e} 'on' either. Here it may have been the verbal system that has undergone a major change. The prefix {e} is cognate with the directive case marker {e}. And, although the prefix itself has only locative uses, one of its forms, /bi/, has also other uses where it is construed with the directive case (§20.3.1).

The only verbal morpheme that may be cognate with the locative case marker {ʔa} is the /a/ of the non-human indirect-object prefix {ba} (§17.2.1). As to the forms of these two morphemes, this hypothesis certainly is convincing, but this is not the case as to their meanings. The locative case marker {ʔa} and the verbal prefix {ba} do not share any uses and no plausible scenario has been offered as yet which explains how that could have come about.

7.8. The terminative case

7.8.1. The terminative case marker {še}

The terminative case is expressed with the enclitic case marker {še}. This {še} is cognate with the verbal prefix {ši} (§19.4), with which it has a considerable overlap in usage. A noun phrase in the terminative case expresses a destination. This destination can be one in place or time ('to'), but it can also be more metaphorically a purpose ('for'). The terminative case is the semantic opposite of the ablative case (§7.10), which expresses an origin. Noun phrases in the terminative case can be used adverbially or adnominally, but the former use is far more frequent. The terminative case is mostly found with non-human noun phrases but occurs with human phrases too.

The basic form of the terminative case marker is /še/, which is always written ***šè***.[1] It is consistently used after a consonant. E.g.:

(199) **é-muḫaldim-*šè***
é.muḫaldim=še
kitchen =TERM
'to the kitchen' (Nik 1:162 1:4; L; 24)

(200) **lagas^{ki}-*šè***
lagas =še
Lagash=TERM
'to Lagash' (St D 4:13)

(201) **lugal unug^{ki}-*šè* du-*né***
lugal=Ø unug=še du -Ø =ane=e
king =ABS Uruk=TERM go:IPFV-NFIN=his =DIR
'when the king was going to Uruk' (MVN 10:142 obv 11; D; 21)

After a vowel the terminative has a reduced form /š/, without the final vowel. This can be illustrated with an Ur III text, where a tablet and its envelope show slightly different constructions:

(202) ***zíz-da* udu-*šè***
zíz.da udu =ak =še
compensation sheep=GEN=TERM
'as compensation for (lit. "of") the sheep' (MVN 3:219 tablet 9; N; 21)

While the tablet shows the full form /še/ after a consonant, its envelope has the reduced form /š/ after a vowel, viz. ***zíz-da-áš*** 'as compensation' (MVN 3:219 case 7; N; 21).

The spelling of this reduced form /š/ varies in ways that resemble those of the dative (§7.5.1) and comitative (§7.11.1) case markers. The scribes handle it in one of three different ways: (a) they ignore it, as they often do with syllable-final consonants (§2.4), (b) they use a VC-spelling that includes the preceding vowel, or (c) they write the full form ***šè*** instead, with a morphophonemic spelling, whereby they use the spelling of the more basic form /še/ for the

[1] Some Sumerologists assume an original form /eše/ on the basis of forms like **zi-*dè-eš*** (e.g. Inanna B 148; OB copy) and **zi-*dè-eš-e*** (e.g. CT 36:28 8; OB) (e.g. Falkenstein 1978: 112; Römer 1999: 69). As Attinger (1993: 253) has shown, such forms are no terminatives but belong to a different case: the adverbiative. See §7.9 below.

less basic form /š/. Which of these three strategies they follow differs across time and between vowels.

In the Old Sumerian texts from Lagash, the spelling ***šè*** is not only found after consonants but usually also after vowels. For example: ***da-rí-šè*** 'for ever' (Ent. 35 6:9; L; 25); **diĝir-*ré-ne-šè*** 'to the gods' (DP 51 6:6; L; 24). Sometimes, however, the scribes do not write the terminative case marker after a vowel, a strategy which is typical for how they handle syllable-final consonants (§2.4). Contrast the following pairs of examples, where the first has the case marker spelled out but the second not:

(203a) **e-*bé* íd-nun-*ta* / gú eden-*na-šè* / *éb-ta*-NI-è**
e.g =be =Ø íd.nun=ta gú.eden.na.k=še
canal=this=ABS Idnun =ABL Guedena =TERM

ʔi -b -ta -ni-n -ʔè -Ø
VP-3N-from-in-3SG.A-go.out-3N.S/DO
'He let this canal go out from the Idnun into the Guedena.' (Ent. 28 2:1-3; L; 25)

(b) **íd-nun-*ta* / mu-*bé*-kur-*ra* / *e-na-ta*-NI-è**
íd.nun=ta mu.bé.kur.ra=š(e) ʔi -nna -ta -ni-n -ʔè -Ø
Idnun =ABL Mubekurra =TERM VP-3SG.IO-from-in-3SG.A-go.out-3N.S/DO
'For (his master who loves him,) Ningirsu, Enmetena had it (=a canal) go out from the Idnun to Mubekurra.' (Ent. 41 3:5-4:2; L; 25)

(204a) **bàd ašag me-dib-*ta* / im-nun mu_5-ru_5-*šè* 80 *níĝ-řá***
bàd ašag me.dib=ak =ta im.nun mu_5.ru_5b=ak =še 50 níĝ.řá
wall field Medib=GEN=ABL *imnun* middle =GEN=TERM 50 nindan
'from the wall of the Medib-field to the middle *imnun*: 50 nindan' (DP 641 3:4-5; L; 24)

(b) **saĝ-ub$^{!}$-*ta* / kíĝ ak lú ^{d}*ba-ú-ka* zà-*bé* 80 *níĝ-řá***
saĝ.ub=ta kíĝ ak -Ø lú ba.ú=ak =ak zà.g =be=š(e) 80 níĝ.řá
Sagub=ABL work make-NFIN man Bau=GEN=GEN border=its=TERM 80 nindan
'from Sagub to the border of the work done by Bau's men: 80 nindan' (DP 636 2:3-3:1; L; 24)

(205a) **ašag gibil tur-*šè* / *ba*-$ře_6$**
ašag gibil tur =še Ø -ba -$ře_6$ -Ø
field new small=TERM VP-MM-bring-3N.S/DO
'This (barley) was taken to the Small New field.' (VS 14:133 1:5-2:1; L; 24)

(b) **ašag uri_3 řú-*a* / *ba*-$ře_6$**
ašag uri_3 řú -Ø -ʔa =š(e) Ø -ba -$ře_6$ -Ø
field emblem erect-NFIN-NOM=TERM VP-MM-bring-3N.S/DO
'This (barley) was taken to the field Planted Emblem.' (DP 537 3:2-3; L; 24)

(206a) **(...) / mu-*šè ba*-sa_4**
(...)=Ø mu =še Ø -ba -e -sa_4-Ø
(...)=ABS name=TERM VP-MM-on-call-3N.S/DO
'"(...)" was given as a name to this (stela).' (Ean. 7 2':6-7 = 2':8-10 = 2':11-3':2; L; 25)

(b) **(...) / mu *mu-na*-sa_4**

(...)=Ø mu =š(e) Ø -mu -nna -n-sa$_4$-Ø
(...)=ABS name=TERM VP-VENT-3SG.IO-3SG.A-call-3N.S/DO
'"(...)" he gave it (= a canal) for him as a name.' (Ean. 2 5:18-19 = Ent. 16 4:2-3 = Ent. 16 4:7-8; L; 25) = (Ukg. 4 12:36-38; L; 24). Note also the spelling **mu-*šè mu-na*-sa$_4$** in the Gudea texts (e.g. St C 4:2; L; 22).

Such defective spellings prove the presence of a reduced form /š/. How, then, are we to interpret the full spellings with ***šè*** after vowels? Is /š/ is the only possible form after a vowel but can it be written in two different ways or does the reduced form /š/ alternate after vowels with the full form /še/ according to some rule as yet unknown? As it is, the last example strongly suggests that a full spelling ***šè*** after a vowel is just that: a mere spelling. For it is hardly plausible that the spelling **mu-*šè*** in one text would represent a different form as the defective spelling **mu** in the other three texts, in what is basically the same expression.

We seem therefore to be dealing with two different spellings of what is only one and the same form /š/ after a vowel. It must be noted, however, that the terminative case marker behaves differently from the dative and comitative case markers, which also have a reduced form, respectively /r/ (§7.5.1) and /d/ (§7.11.1). The latter two are *never* written after a vowel in the Old Sumerian texts from Lagash and show full spellings only in later texts. In other words, full, morphophonemic, spellings were apparently used earlier for the terminative than for the dative and comitative. Why that should be so remains to be explained. Perhaps the difference in vowels has something to do with it, the terminative case marker {še} containing an /e/ and the comitative {da} and dative {ra} an /a/.

Defective spellings are still attested in the Gudea texts but have then become clear exceptions and in later texts they do not seem to occur anymore. E.g.:

(207) **gù-dé-*a* en ^{d}nin-*ĝír-su-ke$_4$* / igi zi *mu-ši*-bar**
gù.dé.a=š(e) en nin.ĝír.su.k=e igi zi.d =Ø
Gudea =TERM lord Ningirsu =ERG eye right=ABS

Ø -mu -n -ši -n -bar -Ø
VP-VENT-3SG-to-3SG.A-be.out-3N.S/DO
'The lord Ningirsu looked with favour (lit. "brought out (his) right eyes") to Gudea.' (Cyl A 23:16-17; L; 22)

Explicit VC-spellings are not found before the time of Gudea, but from then on, the scribes normally write the terminative case marker after a vowel either as ***šè*** or with a VC-spelling. E.g.:

(208) **na-řú-*a-šè* / *mu*-dím**
na.řú.a=še Ø -mu -n -dím -Ø
stela =TERM VP-VENT-3SG.A-create-3N.S/DO
'He fashioned them (= stones) into stelas.' (St B 6:9-10; L; 22)

(209) **gù-dé-*a-áš* en ^{d}nin-ĝír-su-*ke$_4$* šu *ba-ši*-ti**
gù.dé.a=š(e) en nin.ĝír.su.k=e šu =e
Gudea =TERM lord Ningirsu =ERG hand=DIR

Ø -ba -n -ši-n -ti -Ø
VP-3N.IO-3SG-to-3SG.A-approach-3N.S/DO
'Lord Ningirsu received it from Gudea.' (Cyl B 3:4; L; 22)

(210) **še zuḫ-*a-aš im-ši*-ĝen-*na***

še zuḫ -Ø -ʔa =š(e) ʔi -m(u)-ši-ĝen-Ø -ʔa
barley steal-NFIN-NOM=TERM VP-VENT-to-go -3SG.S/DO-NOM
'who came for stolen barley' (MTBM 52 6; L; 21)

Such VC-spellings are quite common after the vowel /a/, but involve two different signs: ***áš*** and ***aš***. The first seems to be the older spelling: it is mostly used in the Gudea texts but is quite rare in the Ur III texts. The distribution of the sign ***aš*** is the exact opposite: it is the most frequent by far in the Ur III texts but occurs less often than ***áš*** in the Gudea texts. As ***áš*** was being replaced by ***aš***, this did not happen at the same pace everywhere. Most of the Ur III attestations of ***áš*** are in texts from Nippur, where this spelling apparently held out a little longer than elsewhere.

After other vowels than /a/, VC-spellings are extremely rare, at least until the Old Babylonian period. But except after the vowel /i/, they do occur (cf. Balke 2006: 195). Even though, two VC-signs were available, ***uš*** and ***úš***, there is only one example for such a spelling after /u/:

(211) **é-ninnu-*ú*[*š*]** (Krecher 1985: 147)
é.ninnu=š(e)
Eninnu =TERM
'for the Eninnu' (Cyl A 6:13; L; 22)

The situation after the vowel /e/ is more difficult to judge. There is only one clear example with the sound sign ***eš***:

(212) **ur-^{d}li$_9$-si$_4$-*na*-*ke$_4$* / lú-níĝ-lagar-*e*-*eš* / *in*-*ši*-sa$_{10}$**
ur.li$_9$.si$_4$.na.k=e lú.níĝ.lagar.e=š(e) ʔi -n -ši-n -sa$_{10}$ -Ø
Urlisina =ERG Luniglagare =TERM VP-SG-to-3SG.A-barter-3N.S/DO
'Urlisina bought it from Luniglagare.' (YOS 4:4 = FAOS 17:96 4; U; 21)

In addition our corpus contains a unique CVC-spelling:

(213) **en du$_{11}$-*ga*-*né* saĝ-*beš* è-*a***
en du$_{11}$.g-Ø -ʔa =ane=Ø saĝ =be=š(e) è -Ø -ʔa
lord speak -NFIN-NOM=his =ABS head=its=TERM go.out-NFIN-NOM
'lord whose statement takes precedence (lit. "goes out to the head of it")' (Cyl B 2:18; L; 22)

Elsewhere the same phrase is written morphophonemically **saĝ-*bé*-*šè* è-*a*** (St G 1:15 & Cyl A 4:11; L; 22). However, spellings like **saĝ-*bé*-*šè*** are ambiguous. The normal VC-sign for /eš/ in our corpus is not ***eš*** but ***éš***, which is the same sign as ***šè***. In other words, we have no way of knowing whether the scribes meant to write **saĝ-*bé*-*šè*** or **saĝ-*bé*-*éš***. The two are identical. Only spellings with ***eš*** are unambiguous, but they do not occur before the Ur III period and only come into regular use during the Old Babylonian period.

As a rule the terminative case marker {še} has its full form /še/ after the genitive case marker {ak}. Since its /k/ is gradually lost in syllable-final position, the terminative case marker very rarely has the reduced form /š/ after a genitive case marker. Such forms are attested a few times in Ur III texts. See §7.2.1.

7.8.2. Uses

Noun phrases in the terminative case have a wide variety of uses (Balke 2006: 196-214). They can be used adverbially or adnominally. The terminative case shares many of its adverbial uses

with the verbal prefix {ši}, treated in §19.4.2, where also many examples of the terminative case can be found.

The terminative case can be used to express a destination. It can then mostly be translated with 'to'. E.g.:

(214) **a-*né* ^{d}en-ki-*šè* lú *mu-ši*-gi$_4$-gi$_4$**
a =ane en.ki.k=še lú =Ø Ø -mu -n -ši-n -gi$_4$:RDP-e
father=his Enki =TERM man=ABS VP-VENT-3SG-to-3SG.DO-turn:IPFV-3SG.A:IPFV
'He sent someone to his father Enki.' (VS 10:189 4; ?; 21)

(215) **u$_4$ iri-*né-šè ì*-ĝen-*na-a***
u$_4$.d iri =ane=še ʔi -ĝen-Ø -ʔa =ʔa
day town=his =TERM VP-go -3SG.S/DO-NOM=LOC
'when he went to his city' (MVN 15:244 21; D; 21)

This use also occurs adnominally (Sallaberger 2000: 273):

(216) **níĝ šu taka$_4$-*a* lugal dilmun^{ki}-*šè***
níĝ šu =Ø taka$_4$-Ø -ʔa lugal=ak dilmun=še
thing hand=ABS leave-NFIN-NOM king =GEN Dilmun=TERM
'royal consignment (lit. "things that left the hand") to Dilmun' (BIN 9:391 21-22; I; 20)

The terminative can also express the sense of 'towards, in the direction of':

(217) **ká bar-*ra* / kiri$_6$ *nam*-dumu-*šè* ĝál-*la* / *e*-ĝál**
ká bar =ak kiri$_6$ nam.dumu=ak =še ĝál -Ø -ʔa =ʔa
gate outside=GEN orchard princedom =GEN=TERM be.there-NFIN-NOM=LOC

ʔi -n(i)-ĝál -Ø
VP-in -be.there-3N.S/DO
'They (= 16 beams) are in the outer gate which is towards the orchard of the princely estate.' (VS 14:177 1:4-2:1; L; 24)

(218) **ka-*bé* ki-a-naĝ-*šè mu*-ĝar**
ka.g =be=Ø ki.a.naĝ =še Ø-mu -n -ĝar -Ø
mouth=its=ABS offering.chapel=TERM VP-VENT-3SG.A-place-3N.S/DO
'He placed their mouths towards the offering chapel.' (Cyl A 26:16; L; 22)

(219) **áb amar-*bé-šè* igi ĝál-*la-gen$_7$***
áb amar=be=še igi =Ø ĝál -Ø -ʔa =gen
cow calf =its=TERM eye=ABS be.there-NFIN-NOM=EQU
'like a cow that lets her eyes be in the direction of its calf' (Cyl A 19:24; L; 22)

In contrast with the verbal prefix {ši}, the terminative case can also be used to express time adjuncts. It can then be translated with 'until' or 'for'. E.g.:

(220) **u$_4$ ul-*la-šè***
u$_4$.d ul =ak =še
day bud=GEN=TERM
'forever (lit. "until the day of the bud")' (Ukg. 12 14'; L; 24)

(221) ***a-řá* 3-*kam-ma-aš***
a.řá 3-kamma=š(e)
time 3-ORD =TERM

'for the third time' (PDT 1:502 8; D; 21)

(222) **4 ĝuruš u_4 24-*šè***
4 ĝuruš u_4.d 24=še
4 young.man day 24=TERM
'four labourers for 24 days' (UTAMI 3:1605 1; U; 21)

In expressing a destination the terminative case is the antonym of the ablative case, which expresses an origin. For expressing the extent of something, a sequence of two noun phrases is used, the first in the ablative and the second in the terminative:

(223) **e íd maḫ-*ta* / uri_3 řú-*a* ^{d}nanše-*šè* ĝál-*la*-*am*$_6$**
e.g íd maḫ =ta uri_3 řú -Ø -ʔa nanše =ak =še
dike river great=ABL standard erect-NFIN-NOM Nanshe=GEN=TERM

ĝál -Ø -ʔa =Ø =ʔam
be.there-NFIN-NOM=ABS=be:3N.S
'This is the dike which runs from the great canal to Nanshe's erected standard.' (VS 25:97 1:5-2:1; L; 24)

(224) **gú eden-*na*-*ta* umma^{ki}-*šè* ĝen-*na***
gú.eden.na.k=ta umma=še ĝen-Ø -ʔa
Guedena =ABL Umma=TERM go -NFIN-NOM
'who went from the Guedena to Umma' (UTAMI 4:2399 20; U; 21)

(225) **iti ezem ^{d}šul-ge-*ta* / iti šu-eš$_5$-ša-*šè***
iti.d ezem šul.ge.r=ak =ta iti.d šu.eš$_5$.ša=še
month festival Shulgi =GEN=ABL month Shuesha=TERM
'from the month Shulgi's Festival until (and including) the month Shuesha' (UET 3:988 6-7; Ur; 21)

With verbs of making, the terminative case can have a meaning 'into ...' in the sense of 'so as to become ...':

(226) ^{ĝiš}**eren-*bé* / ig gal-*šè* / *mu*-dím**
eren =be =Ø ig gal=še Ø -mu -n -dím -Ø
cedar=this=ABS door big=TERM VP-VENT-3SG.A-create-3N.S/DO
'He fashioned these cedars into a big door.' (St B 5:45-47; L; 22)

(227) **saĝ an-*na*-*ke*$_4$ *áb*-*ki*-*šè* *e*-ak**
saĝ an =ak =e áb.ki.z =še ʔi -b -ʔak -Ø
head above=GEN=ERG a.kind.of.furrow=TERM VP-3N.A-make-3N.S/DO
'The upper part (of the field) makes this (group of furrows) into an *abkiz*-furrow.' (DP 394 6:5; L; 24)

The terminative case can express a purpose or function. It can then be translated as 'for' or 'as':

(228) ^{d}*ba-ú ...-ke*$_4$ **iri-ka-*ge*-*na* / *nam*-sipa-*šè* *mu*-dú**
ba.ú ...=ak =e iri.ka.ge.na.k=Ø nam.sipa.d =še
Bau ...=GEN=ERG Irikagena =ABS shepherdship=TERM

Ø -mu -n -dú.d -Ø
VP-VENT-3SG.A-give.birth.to-3SG.S/DO

'Bau, the (...) of (...), gave birth to Irikagena in order that he be shepherd (lit. "for shepherdship").' (Ukg. 51 1-2; L; 24)

(229) **še é udu-*ka-šè im-ši*-ĝen-*na***
še é udu =ak =ak =še ʔi -m(u) -ši-ĝen-Ø -ʔa
barley house sheep=GEN=GEN=TERM VP-VENT-to-go -3SG.S/DO-NOM
'who came for the barley of the sheep shed' (RTC 350 3; L; 21)

(230) **še-ba iti 2-*kam-ma-šè* / *e-ne*-ba**
še.ba iti.d 2-kam.ma=ak =še ʔi -nnē -n -ba -Ø
ration.barley month 2-ORD =GEN=TERM VP-3PL.IO-3SG.A-portion.out-3N.S/DO
'He distributed it (=the barley) to them as barley rations of the second month.' (DP 548 3:5-6; L; 24)

(231) **é-ninnu-*a* / ĝiš-ùr-*šè mu-na*-ĝar**
é.ninnu=ʔa ĝiš.ùr=še Ø -mu -nna -n -ĝar -Ø
Eninnu =LOC beam =TERM VP-VENT-3SG.IO-3SG.A-place-3N.S/DO
'He placed them (= trees) on the Eninnu as roof-beams for him.' (St B 6:1-2; L; 22)

(232) **ku$_6$ nesaĝ-*šè* má-*a ba-a*-ĝar-*ra íb-ta*-zi**
ku$_6$ nesaĝ =še má =ʔa Ø -ba -e -ĝar -Ø -ʔa =Ø
fish firstling.offerings=TERM boat=LOC VP-MM-on-place-3N.S/DO-NOM=ABS

ʔi -b -ta -zi.g-Ø
VP-3N-from-rise-3N.S/DO
'The fish that were placed on the boat as firstling offerings have been raised from this.' (TCL 5:6046 1:15; U; 21)

(233) **2 giĝ$_4$ kù-babbar / ur$_5$-*šè* / ki ur-^{d}suen-*ta* / ur-du$_6$-kù-*ga* / šu *ba*-ti**
2 giĝ$_4$ kù.babbar=Ø ur$_5$ =še ki ur.suen=ak =ta
2 shekel silver =ABS loan=TERM place Ursuen=GEN=ABL

ur.du$_6$.kù.ga=e šu =e Ø -ba -n -ti -Ø
Urdukuga =ERG hand=DIR VP-3N.IO-3SG.A-approach-3N.S/DO
'Urdukuga received from Ur-Suen two shekels of silver as a loan.' (NATN 422 1-5; N; 21)

(234) **0.3.2 zíz / numun-*šè***
0.3.2 zíz numun=še
200.litres emmer.wheat seed =TERM
'200 litres of emmer wheat (to be used) as seed' (NATN 647 1-2; N; 21)

(235) **(...) / mu-*šè mu-na*-sa$_4$**
(...)=Ø mu =še Ø -mu -nna -n -sa$_4$ -Ø
(...)=ABS name=TERM VP-VENT-3SG.IO-3SG.A-name-3N.S/DO
'For her he gave it (= the statue) "..." as a name.' (St C 3:18-4:2; L; 22)

The terminative can also have the sense of 'in exchange for':

(236) **níĝ-sám-*ma-né-šè* / (...) / *e-na*-šúm**
níĝ.sám.ma=ane=še (...)=Ø ʔi -nna -n -šúm-Ø
price =his =TERM (...)=ABS VP-3SG.IO-3SG.A-give-3N.S/DO

'As the price for him (= a slave) she gave her ... (= various items).' (RTC 17 2:4-3:1; L; 24)

(237) **še kù-*šè* sa$_{10}$-*a***
še kù.g =še sa$_{10}$ -Ø -ʔa
barley silver=TERM barter-NFIN-NOM
'barley sold for silver' (YNER 8 pl.23:13 11; U; 21)

The terminative can have a meaning 'as for, as regards':

(238) ***a-ne* saĝ-*ĝá-né-šè* diĝir-*ra-àm***
a.ne=Ø saĝ =ane=še diĝir=Ø =ʔam
he =ABS head=his =TERM god =ABS=be:3SG.S
'He was a god according to his head.' (Cyl A 4:16; L; 22)

(239) **$^{\text{p}}$igi-$^{\text{d}}$*ba-ú-šè* dumu lugal-ú-šim-*e* / *nam*-geme$_2$ *la-a-šè ba-ge-en$_6$***
igi.ba.ú.šè dumu lugal.ú.šim.e=ak =Ø nam.geme$_2$
Igibaushe child Lugalushime =GEN=ABS status.of.slave.woman

la.a =ak =še Ø -ba -ge.n -Ø
La'a=GEN=TERM VP-MM-be.firm-3SG.S/DO
'Igi-Baushe the child of Lugalushime was proven to be La'a's slave woman (lit. "was made firm as regards the status of slavewoman of La'a").' (NG 174 2-3; L; 21)

With the meaning 'prove', the verb **ge.n** 'be firm' is regularly construed with a noun phrase in the terminative case expressing the content of what is confirmed or proven. This noun phrase can have a noun as its head (as in the previous example), but usually involves a finite or non-finite subordinate clause. See §27.6.8 and especially §28.3.3 for details.

The terminative can express a reason or cause. It can then be translated as 'for (the sake of)' or 'because of':

(240) ***nam-ti-la-né-šè* / a *mu-na*-ru**
nam.ti.l=ane=še a =Ø Ø -mu -nna -n -ru -Ø
life =his =TERM water=ABS VP-VENT-3SG.IO-3SG.A-eject-3N.S/DO
'For the sake of his life, he dedicated this to him.' (FAOS 9/1 Gudea 60 11-12; L; 22). Note that **a—ru** is a phrasal verb meaning 'give (to a god) as a dedicatory gift'.

(241) **anzu$_2$$^{\text{mušen}}$-*gen$_7$ šeg$_{12}$* gi$_4$-*a-bé-šè* / an *im-ši*-dúb-dúb**
anzu$_2$.d=gen šeg$_{12}$ =Ø gi$_4$ -Ø -ʔa =be=še an =Ø
Anzu =EQU shriek=ABS turn-NFIN-NOM=its=TERM heaven=ABS

ʔi -m(u) -ši-dúb -dúb -Ø
VP-VENT-to-tremble-tremble-3N.S/DO
'Because of its roar as the Anzu-bird, the heavens tremble.' (Cyl A 9: 14-15; L; 22)

This usage of the terminative is also found in a construction with the noun **mu** 'name' which had become the normal type of reason clause by the Ur III period. E.g.:

(242) **mu kù šu-*na ba-an*-dab$_5$-*ba-šè***
mu kù.g šu =ane=ʔa Ø -ba -n(i)-dab$_5$-Ø -ʔa =ak =še
name silver hand=his =LOC VP-MM-in -take -3N.S/DO-NOM=GEN=TERM
'because (lit. "for the name of that") silver was caught in his hands' (NATN 32 3; N; 21)

See §27.6.5 for details.

The terminative case expresses the meaning 'before, in the presence of' in combination with the noun **igi** 'eye'. E.g.:

(243) **igi ensi$_2$-*ka-šè* *ba-ge-en$_6$***
igi ensi$_2$.k=ak =še Ø -ba -ge.n -Ø
eye ruler =GEN=TERM VP-MM-be.firm-3N.S/DO
'This was confirmed in the presence of the governor (lit. "before the eyes of").' (BPOA 1:665 13; U; 21)

This construction is particularly common in lists of witnesses of legal transactions.

In the Old Sumerian texts from Lagash, the terminative case is frequently used in distributive expressions:

(244) **šáḫ 1-*šè* / iti-*da* še 0.0.2-*ta***
šáḫ 1=še iti.d =ʔa še 0.0.2=ta
pig 1=TERM month=LOC barley 0.0.2=ABL
'with two *ban* of barley in a month for one pig' (Nik 1:63 10:1-2; L; 24)

(245) **6 lú / lú 1-*šè* / kíĝ ge 5-*ta***
6 lú lú 1=še kíĝ ge 5=ta
6 man man 1=TERM work reed 5 =ABL
'six men: with five reeds of work for one man' (DP 622 1:1-3; L; 24)

Such expressions usually involve ellipsis of a verb, even though it is not always clear which one. The previous example, for instance, may correspond to either one of the two following constructions:

(246) **12 ½ lú / lú 1-*šè* / kíĝ kùš 3-*ta* / *ì-ši*-ti**
12 ½ lú lú 1=še kíĝ kùš 3=ta ʔi -n -ši -te -Ø
12 ½ man man 1=TERM work cubit 3=ABL VP-3SG-to-approach-3N.S/DO
'12 ½ men: To one man with three cubits of work each, it has been assigned.' (TSA 23 3:5-8; L; 24)

(247) **15 lú / lú 1-*šè* / kíĝ kùš 3-*ta* / *e*-dab$_5$**
15 lú lú 1=še kíĝ kùš 3=ta ʔi -b -dab$_5$-Ø
15 man man 1=TERM work cubit 3=ABL VP-3N.A-take -3N.S/DO
'15 men: With three cubits of work for one man, they took it in charge.' (VS 25:86 1:1-4; L; 24)

In later texts, distributive expressions show the ergative case (§7.3) instead of the terminative.

As the terminative case has many different uses, a single clause can contain more than noun phrase in the terminative case. E.g.:

(248) **1 saĝ-nita$_2$ / kù 5 giĝ$_4$-*šè* / lú-^{d}nanna-*šè* / *ab-ba-ge-na-a* / *in-ši*-sa$_{10}$**
1 saĝ.nita$_2$ =Ø kù.g 5 giĝ$_4$ =še lú.nanna=še
1 male.slave=ABS silver 5 shekel=TERM Lunanna =TERM

ab.ba.ge.na=e ʔi -n -ši-n -sa$_{10}$ -Ø
Abbagena =ERG VP-3SG-to -3SG.A-barter-3SG.S/DO
'One male slave Abbagena bought from (lit. "bartered towards") Lu-Nanna (in exchange) for five shekels of silver.' (FAOS 17:94*** 1-5; U; 21)

See §16.3.2 for more details on the various constructions with the verb **sa$_{10}$** 'barter'.

7.9. The adverbiative case

The adverbiative case is expressed with the enclitic case marker {eš} and has a meaning 'in the manner of'. As a distinct case, it is a relative newcomer in Sumerology and its status is still controversial. Attestations for it were and sometimes still are treated as by-forms of the terminative case. The adverbiative case was introduced by Attinger (1993: 253), who separated it from the terminative case on the basis of contrastive forms like the following:

(249a) **an en-*nam* šul-*le-éš al*-gub**
an =Ø en =Ø =ʔam šul =eš ʔa -gub -Ø
heaven=ABS lord=ABS=be:3SG.S youth=ADV VP-stand-3SG.S/DO
'Heaven was lord; he stood as a young man.' (Ukg. 15 2:1; L; 24)

(b) **é-gal-*šè***
é.gal =še
palace=TERM
'for the palace' (e.g. Ukg. 4 9:3; L; 24)

(250) **é lugal-*na* zi-*dè-éš mu*-řú**
é lugal =ane=ak =Ø zi.d =eš Ø -mu -n -řú -Ø
house master=his =GEN=ABS rightness=ADV VP-VENT-3SG.A-erect-3N.S/DO
'He built his master's temple in the right way.' (Cyl A 24:8; L; 22)

(b) **sipa zi-*šè***
sipa.d zi.d =še
shepherd right=TERM
'for the true shepherd' (St B 3:9; L; 22)

Here, and elsewhere in our corpus, one and the same sign ŠÈ is used for writing the adverbiative and terminative case markers, being read as ***éš*** or ***šè***. Yet, the full spellings clearly show that two cases have different forms after a consonant, the adverbiative case marker being /eš/ (examples a) and the terminative /še/ (examples b).

Attinger's proposal has had a mixed reception and has not yet found general acceptance. Some scholars continue to treat forms like **šul-*le-éš*** and **zi-*dè-éš*** as terminatives (Römer 1999: 69-70; Balke 2006: 192-193). Others accept the adverbiative as a category separate from the terminative but deny that it is a *case*. Thus, both Edzard (2003: 42) and Zólyomi (2005a: 23) view it as a suffix forming adverbs. While that analysis seems to work for adverbiatives like the two just mentioned, it does not fit the forms with /akeš/, where it follows the genitive case marker and can be attached to entire noun phrases and nominalized clauses:

(251) **gala *a-šà-ta* e$_{11}$-*da-ke$_4$-eš***
gala =Ø a.šà.g=ta e$_{11}$.d -Ø -ʔa =ak =eš
lamentation.priest=ABS field =ABL go.up-NFIN-NOM=GEN=ADV
'because the lamentation priest was deprived of the field (lit. "went up from the field")' (NG 215 47 U; 21)

(252) ***a-na-aš-àm* / dumu-dumu-*e-ne-ke$_4$-eš* / inim sig-*ĝu$_{10}$ íb-bé***
a.na =še =ʔam dumu-dumu=enē=ak =eš
what=TERM=be:3N.S child -child =PL =GEN=ADV

inim sig =ĝu =Ø ʔi -b -ʔe -e
word weak=my=ABS VP-3N.OO-say:IPFV-3SG.A:IPFV
'Why is it he slanders me regarding the children?' (MVN 11:168 3-5; U; 21)

In the sequence /akeš/, adverbiative {eš} is attached to a clitic and must therefore itself be a clitic. It must also be a case marker because if it were not, the nominalized clause and the noun phrase with /akeš/ would lack a case marker expressing their function in the rest of the sentence.

How the adverbiative behaves after the genitive case marker is also further evidence for it being a separate case from the terminative. As we saw in §7.2.1 above, the /k/ of the genitive case marker is only fully retained before a vowel but reduced or lost elsewhere. Now, after the genitive case marker, the adverbiative is invariably written ***-ke$_4$-eš*** or ***-ke$_4$-éš***, spellings which consistently include the final /k/ of the genitive. But the terminative only shows the CV-spelling ***-šè***, always lacking the /k/. The following two constructions illustrate this nicely:

(253) ***a-šà-ga-ke$_4$-éš***
a.šà.g=ak =eš
field =GEN=ADV
'as for the field (lit. "in the manner of that of the field")' (MVN 11:168 11-12; U; 21)

(254) **mu udu-*na-šè***
mu udu=ane=ak =še
name ram=his =GEN=TERM
'because of his ram (lit. "for the name of his ram")' (MVN 3:279 6; A; 21)

Both constructions occur quite frequently, with dozens of attestations for the first and hundreds for the second construction. See for more details §27.6.5.

Thus, after a consonant, the terminative case marker is /še/, written with the CV-sign ***-šè*** (§7.8.1), whereas the adverbiative case marker is /eš/, usually written ***-Ce-éš*** or ***-Ce-eš***, with C being the preceding consonant. As this spelling has already been amply documented, only a few additional examples will suffice:

(255) **^{d}nin-*ĝír-su* u$_4$-*dè-éš im*-è**
nin.ĝír.su.k=Ø u$_4$.d=eš ʔi -m(u) -ʔè -Ø
Ningirsu =ABS day=ADV VP-VENT-go.out-3SG.S/DO
'Ningirsu came out as day-light.' (Cyl B 16:8; L; 22)

Similarly: **zi-*dè-éš*** (Cyl B 12:26; L; 22); **gu$_4$-*ř́á-ke$_4$-eš*** (MVN 11:168 18; U; 21); ***a-ar-ke$_4$-éš*** (FAOS 9/2 Šulgi 12 rev 2; Susa; 21); ***ì-me-ša-ke$_4$-éš*** (Cyl A 26:15; L; 22); **nun-*né-éš*** (Cyl A 28:20; L; 22); **u$_4$ imin-*né-éš*** (Cyl B 17:19; L; 22). Note that spellings with ***-eš*** do not occur before the Ur III period and are even then outnumbered by the spellings with ***-éš***.

There are exceptions to this type of spelling, though. The phrasal verb **saĝ-éš—rig$_7$** 'give as a present' is in our corpus consistently written with a simple ***-éš*** instead of with the theoretically also possible spelling ***-ĝe$_{26}$-éš***. E.g.:

(256) **é lugal-*na-ke$_4$* / saĝ-*éš im-mi*-rig$_7$**
é lugal =ane=ak =e saĝ =eš ʔi -m(u)-bi -n -rig$_7$-Ø
temple master=his =GEN=DIR head=ADV VP-VENT-3N.OO-3SG.A-? -3N.S/DO
'He gave it (viz. a boat) to his master's temple as a present.' (St D 3:11-12; L; 22)

Such spellings are ambiguous and the form **saĝ-*éš*** might also be read as **saĝ-*šè***, with the terminative case marker. In this particular case, however, the adverbiative is certain because

the form is written **saĝ-*e-eš*** or **saĝ-eš** in Old Babylonian sources. But such unambiguous spellings are not always available, so that some instances of the adverbiative case may have been misread as terminatives.

The situation after a vowel is even less clear. The Old Babylonian spelling **munu$_4$-*e-eš*** 'like malt' (Lugal-e 556) suggests that the initial /e/ of {eš} does not contract with a preceding vowel. If this is really true, the adverbiative and terminative case markers also have different forms after a vowel, the adverbiative being /eš/ and the terminative /š/ (§7.8.1). Unfortunately, the texts of our corpus do not help us any further in this matter, because the spelling of any postvocalic forms of the adverbiative case marker will be ambiguous, being written ***éš***, with the sign ŠÈ, which is also used for ***šè***, the most common spelling of the terminative case marker.

Thus, even though its existence as a distinct case marker is beyond doubt, the adverbiative case marker is in practice often difficult for us to separate from the terminative, because the two are so frequently homographs.

Edzard (2003: 27) has tentatively suggested that the Sumerian adverbiative {eš} was a loan from the Akkadian terminative-adverbial case {iš}. Zólyomi (2005a: 23) considers it even probable. Because of phonological reasons such a loan is highly unlikely, though. Akkadian {iš} goes back to an earlier form /is/ (Hasselbach 2005: 180-181) and is therefore quite different from Sumerian /eš/. Yet, I agree with Attinger (1993: 253) that Akkadian {iš} and Sumerian {eš} have influenced each other functionally. Both can be used to form adverbs or adverb-like forms. See §4.5.3 for Sumerian and, for instance, Hasselbach (2005: 181) for Akkadian examples.

7.10. The ablative case

The ablative case is expressed with the enclitic case marker {ta}. This {ta} is cognate with the verbal prefix {ta} (§19.3) and the two have a considerable overlap in usage. A noun phrase in the ablative case usually expresses the place from where, the time from when, or the instrument with which something happens. The ablative case is almost exclusively found with noun phrases of the non-human gender class, but it may also occur with human noun phrases, as example (287) below proves. Noun phrases in the ablative case can be used adverbially or adnominally, but the former use is the most frequent by far.

The dative case marker {ra} (§7.5.1) and the comitative case marker {da} (§7.11.1) have a different form depending on whether they follow a vowel or a consonant. After a consonant they have the full forms /ra/ and /da/, but after a vowel they lack their final vowel. The ablative case marker {ta} behaves differently, assuming that the orthography reflects linguistic reality. It is always written ***ta*** and evidently has the form /ta/ both after a consonant and after a vowel. This is also true for the earliest texts in the corpus. E.g.:

(257) **é-ninnu-*ta***
é.ninnu=ta
Eninnu =ABL
'from the Eninnu' (Ent. 35 3:5; L; 25)

(258) **ki-*ta***
ki =ta
earth=ABL
'from below' (Ean. 1 rev 5:35; L; 25)

(259) **dumu-*né-ta***

dumu=ane=ta
child =his =ABL
'with his children' (Nik 1:25 4:8; L; 24)

(260) **guru$_7$ ká ^{d}gan-ĝír-*ka-ka* / dub-*ba-ta***
guru$_7$ ká gan.ĝír.k=ak =ʔa dub -Ø -ʔa =ta
granary gate Gangir =GEN=LOC heap.up-NFIN-NOM=ABL
'from the granary heaped up in the gate of Gangir' (STH 1:13 14:5; L; 24).

Very rarely we find a plene spelling ***ta-a*** instead of simple ***ta***. E.g.:

(261) **gu-niĝin$_2$-*ba* 2 LAGAB-*ta-a***
gu.niĝin$_2$=be=ʔa 2 LAGAB=ta
bale =its=LOC 2 ? =ABL
'with two ... in each of its bales' (Nik 2:111 2; U; 21)

This spelling suggests that the vowel of {ta} is long (cf. §2.5), a fact which could also explain why the vowel of {ta} was retained where the (short?) vowels of {ra} and {da} were lost. Much more evidence is needed, though, before a firm conclusion is possible.

The initial vowel of the genitive case marker contracts with a preceding vowel (§7.2.1), so that attestations like the following prove that {ta} indeed has a final vowel and not a final glottal stop or some other final consonant:

(262) **a ki-*ta-kam***
a ki.ta =ak =ak
water below=GEN=GEN
'the short side of the water of below' (DP 605 1:3; L; 24)

For the complex noun **ki-*ta***, which includes the ablative case marker {ta}, see §6.5.5, where additional evidence for contracted {ta} and {ak} can be found as well.

The ablative case has a variety of uses (Balke 2006: 121-137). Most noun phrases in the ablative express a place which is the starting point or origin of somebody or something. It can then be translated with 'from' or 'out of':

(263) **u$_4$ umma^{ki}-*ta* ì-*im*-ĝen-*na-a***
u$_4$.d umma=ta ʔi -m(u) -ĝen-Ø -ʔa =ʔa
day Umma=ABL VP-VENT-go -3SG.S/DO-NOM=LOC
'when he came from Umma' (SACT 1:154 6; D; 21)

(264) **níĝ en-*na-ta* ba-*a***
níĝ en =ak =ta ba -Ø -ʔa
thing lord=GEN=ABL portion.out-NFIN-NOM
'(land) distributed out of the demesne' (VS 14:72 7:4; L; 24)

(265) **dub daĝal gurum$_2$-*ta* / *nu-ta*-zi**
dub daĝal gurum$_2$ =ak =ta nu =ʔi -b -ta -zi.g-Ø
tablet broad inventory=GEN=ABL NEG=VP-3N-from-rise-3N.S/DO
'They were not deducted from the broad tablet of the stock taking.' (Nik 1:161 6:3-4; L; 24)

(266) **^{d}nanše / sirara$_6$^{ki}-*ta* / igi zi *m*[*u-š*]*i*-bar-*r*[*a-a*]**
nanše =e sirara$_6$=ta igi zi.d =Ø
Nanshe=ERG Sirara =ABL eye right=ABS

Ø -mu -n -ši -n -bar -Ø -ʔa =ʔa
VP-VENT-3SG-to-3SG.A-open-3N.S/DO-NOM=LOC
'when (the goddess) Nanshe had looked at him favourably from Sirara (where her temple is)' (Ent. 35 3:7-9; L; 25)

(267) **lú é-ninnu-*ta* / *im-ta-ab*-È.È-*a***
lú é.ninnu=ta ʔi -m(u)-ta -b -ʔè:RDP -e -ʔa
man Eninnu =ABL VP-VENT-from-3N.DO-go.out:IPFV-3SG.A:IPFV-NOM
'the man who will remove it from the Eninnu' (St B 8:6-7; L; 22)

This use also occurs adnominally (Bauer 2005; Sallaberger 2000: 273):

(268) **lú susin^{ki}-*ta-me***
lú susin=ta =Ø =me-eš
man Susa=ABL=ABS=be-3PL.S
'They are men from Susa.' (RTC 350 8; L; 21)

(269) **kišib ra-*a ù-na-a*-du$_{11}$ / *an-ša-an*^{ki}-*ta***
kišib ra -Ø -ʔa ù-na.a-du$_{11}$.g an.ša.an=ta =Ø
seal hit-NFIN-NOM letter Anshan=ABL=ABS
'sealed documents (lit. "impressed seals") and letters from Anshan' (BIN 9:302 2-3; I; 20)

This usage of the ablative is restricted to non-human noun phrases. With human noun phrases the expression **ki (...)-*ta*** 'from the place (of ...)' is used. This idiom can usually be translated with 'from' or even 'by'. E.g.:

(270) **ki ensi$_2$ umma^{ki}-*ta* / al-la šu *ba*-ti**
ki ensi$_2$.k umma =ak =ta al.la=e šu =e Ø -ba -n -ti -Ø
place ruler Umma=GEN=ABL Alla=ERG hand=DIR VP-3N.IO-3SG.A-approach-3N.S/DO
'Alla received it from the governor of Umma.' (UTAMI 3:1602 3-4; U; 21)

(271) **ki ur-^{d}ištaran-*ta* / *ab-ta*-zi**
ki ur.ištaran =ak =ta ʔa-b -ta -zi.g-Ø
place Urishtaran=GEN=ABL VP-3N-from-rise-3N.S/DO
'This was raised from Ur-Ishtaran.' (OSP 1:71 9-10; N; 24)

(272) **ki du$_{11}$-*ga-ta* / *ba*-zi**
ki du$_{11}$.ga=ak =ta Ø -ba -zi.g-Ø
place Duga =GEN=ABL VP-MM-rise-3N.S/DO
'This was raised from Duga.' (SACT 1:163 8-9; D; 21)

(273) **ki ur-tur / dumu lugal-ezem-*ta* / dumu me-ŠEŠ.ŠEŠ-*ra* / *an-na*-šúm**
ki ur.tur dumu lugal.ezem=ak =ak =ta dumu me.ŠEŠ.ŠEŠ =ra
place Urtur son Lugalezem=GEN=GEN=ABL son Mesheshshesh=DAT

ʔa-nna -šúm-Ø
VP-3SG.IO-give-3N.S/DO
'It was given to the son of Mesheshshesh by Urtur the son of Lugal'ezem.' (ECTJ 158 5-8; N; 24)

A noun phrase in the ablative case can also express a starting point or origin in time ('from' or 'since'):

(274) **eger$_4$ gurum$_2$-*ma-ta***
eger$_4$ gurum$_2$ =ak =ta
back stock.taking=GEN=ABL
'after stock-taking (lit. "from the back of stock-taking")' (Nik 1:156 3:4; L; 24)

(275) **u$_4$ ul-*lí-a-ta* / numun *i-a-ta***
u$_4$.d ul =Ø ʔè -Ø -ʔa =ta numun=Ø ʔè -Ø -ʔa =ta
day bud=ABS go.out-NFIN-NOM=ABL seed =ABS go.out-NFIN-NOM=ABL
'since the very beginning of time (lit. "From the day when the bud came out, from when the seed sprouted")' (St B 8:27-28; L; 22)

Accordingly, subordinate clauses in the ablative case are used as temporal clauses. See §27.6.3 for finite and §28.3.4 for non-finite clauses in the ablative case.

While the ablative case expresses an origin ('from'), the terminative indicates a destination ('to(wards)') (§7.8.2). Thus, having these meanings, the ablative and terminative cases are semantic opposites. E.g.:

(276) **e-*bé* íd-nun-*ta* / gú eden-*na-šè* / *éb-ta*-NI-è**
e.g =be=Ø íd.nun=ta gú eden=ak =še ʔi -b -ta -ni-n -ʔè -Ø
dike=its=ABS Idnun =ABL bank plain=GEN=TERM VP-3N-from-in-3SG.A-go.out-3N.S/DO
'He extended its dike from the Idnun to the Gu'edena.' (Ent. 28 2:1-3; L; 25)

(277) **kun-zi-*da-ta* / kar-*šè* má gíd-*da***
kun.zi.da=ta kar =še má =Ø gíd-Ø -ʔa
weir =ABL quay=TERM boat=ABS pull-NFIN-NOM
'who towed a boat from the weir to the quay' (MVN 13:282 8-9; U; 21)

(278) **iti nesaĝ$_2$-*ta* / iti ^{d}dumu-zi-*šè***
iti.d nesaĝ$_2$=ta iti.d dumu.zi.d=še
month Nesag =ABL month Dumuzi =TERM
'from the month Nesag to the month Dumuzi' (UTAMI 3:1692 4-5; U; 21)

The ablative case can indicate the instrument with which something is done ('with, by means of'):

(279) **20 *ma-na* siki na$_4$ siki-ba-*ta***
20 ma.na siki na$_4$ siki.ba =ak =ta
20 pound wool stone wool.distribution=GEN=ABL
'twenty pounds of wool (weighed) with the weight for the wool distribution' (VS 25:54 1:1; L; 24)

(280) **0.2.4 1/2 gana$_2$ éš sám-*ma-ta***
0.2.4 1/2 gana$_2$ éš sám.ma =ak =ta
16 1/2 land rope purchase=GEN=ABL
'16 1/2 *iku* of land (measured) with the rope of purchase' (BM 3:10 1:1; L; 24)

(281) **á ^{d}nanše-*ta* / á ^{d}nin-*ĝír-su-ka-ta***
á nanše =ak =ta á nin.ĝír.su.k=ak =ta
arm Nanshe=GEN=ABL arm Ningirsu =GEN=ABL
'by the power of the Nanshe and by the power of Ningirsu' (St D 4:2-3; L; 22)

(282) **lugal-*e* ĝír-*ta* *in*-gaz**

lugal=e ĝír =ta ʔi -n -gaz-Ø
king =ERG knife=ABL VP-3SG.A-kill -3N.S/DO
'The king killed it with a knife.' (JCS 10 p. 28:5 6; D; 21)

(283) **ge še-*ta* sa_{10}-*a***
ge še =ta sa_{10} -Ø -ʔa
reed barley=ABL barter-NFIN-NOM
'reed bought with barley' (UTAMI 4:2405 2; U; 21)

This instrumental usage is also found in the common expression **inim (...)-*ta*** 'by order (of ...), in accordance with the command (of ...)':

(284) **inim $ensi_2$-*ka-ta***
inim $ensi_2$.k=ak =ta
word ruler =GEN=ABL
'by order of the governor' (TENS 104 8; U; 21)

The ablative case can also express 'with' in the sense of 'in addition to':

(285) ***nam*-$ensi_2$ / $lagas^{ki}$-*ta* / *nam*-lugal $kiš^{ki}$ / *mu-na-ta*-šúm**
nam.$ensi_2$ lagas =ak =ta nam.lugal kiš =ak =Ø
rulership Lagash=GEN=ABL kingship Kish=GEN=ABS

Ø -mu -nna -ta -n -šúm-Ø
VP-VENT-3SG.IO-from-3SG.A-give-3N.S/DO
'In addition to the rulership over Lagash, she gave him the kingship over Kish.' (Ean. 2 6:2-5; L; 25)

With this meaning, the noun phrase in the ablative case can also be used adnominally and thus be a part of a larger noun phrase:

(286) **82 udu $sila_4$-*bé-ta***
82 udu $sila_4$=be=ta
82 sheep lamb=its=ABL
'82 sheep and their lambs' (DP 248 2:4; L; 24)

(287) ***du-du* / saĝĝa / dam dumu-*né-ta* / é ki-sal_4-*la-ka* / *ì*-gu_7-*ne***
du.du saĝĝa dam dumu=ane=ta =e é ki.sal_4=ak =ʔa
Dudu administrator wife child =his =ABL=ERG house Kisal =GEN=LOC

ʔi -gu_7-enē
VP-eat -3PL.A:IPFV
'Dudu the temple administrator and his wife and children consumed this in the house of Kisal.' (DP 224 6:5-9; L; 24)

The ablative case can also have a distributive meaning, usually in combination with a noun phrase in the terminative, locative, or ergative case:

(288) **šáḫ 1-*šè* / iti-*da* še 0.1.4-*ta***
šáḫ 1=še iti.d =ʔa še 0.1.4=ta
pig 1=TERM month=LOC barley 0.1.4=ABL
'with ten *ban* of barley in a month for one pig' (STH 1:30 9:7-8; L; 24)

(289) **lú 1-*šè* / kíĝ ge 5-*ta***

lú 1=še kíĝ ge 5=ta
man 1=TERM work reed 5=ABL
'with five reeds of work for one man' (DP 622 1:2-3; L; 24)

(290) **gu-niĝin$_2$-*ba* sa 16-*ta***
gu.niĝin$_2$=be=ʔa sa 16=ta
bale =its=LOC bundle 16=ABL
'with sixteen bundles in each of its bales' (TENS 48 2; U; 21)

(291) **lú 1-*e* 10 giĝ$_4$-*ta***
lú 1=e 10 giĝ$_4$ =ta
man 1=ERG 10 shekel=ABL
'with ten shekels (of digging work) by one man' (ITT 5:6865 2; L; 21)

But a noun phrase in the ablative case may also have a distributive meaning when used on its own:

(292) **10 gu$_4$ niga / áb 2-*ta* ki-*ba ĝá-ĝá***
10 gu$_4$.ř niga áb 2=ta ki =be=ʔa ĝar:RDP -ed -Ø
10 bull barley.fed cow 2=ABL place=its=LOC place:IPFV-IPFV-NFIN
'ten barley-fed bulls: to be replaced with two cows each' (AUCT 1:181 1-2; D; 21)

Having a distributive meaning, a noun phrase in the ablative case can be a part of a larger noun phrase. E.g.:

(293) **ḫar 5 giĝ$_4$-*ta* 6-*šè***
ḫar 5 giĝ$_4$ =ta 6=še
ring 5 shekel=ABL 6=TERM
'(silver) for six rings of five shekels each' (UET 3:710 2; Ur; 21)

(294) **10 *ma-na* kù-babbar / níĝ-sám-*ma* kù-sig$_{17}$ 10-*ta-šè***
10 ma.na kù.babbar níĝ.sám.ma kù.sig$_{17}$ 10=ta =še
10 pound silver merchandise gold 10=ABL=TERM
'ten pounds of silver as merchandise with ten (shekels of) gold (for) each (shekel of silver)' (AUCT 1:502 1-2; D; 21)

In this way, a noun phrase in the ablative case can even be a part of a larger noun phrase in the ablative (Wilcke 1990a: 471-475):

(295) **2 ḫar kù-babbar 8 giĝ$_4$-*ta-ta***
2 ḫar kù.babbar=ak 8 giĝ$_4$ =ta =ta
2 ring silver =GEN 8 shekel=ABL=ABL
'each (person) with four rings of (lit. "with") eight shekels of silver each' (AUCT 1:942 5; D; 21)

7.11. The comitative case

7.11.1. The comitative case marker {da}

The comitative case is expressed with the enclitic case marker {da}, which is cognate with the verbal prefix {da} (§19.2). It is also cognate with the noun **da** or **da.g** 'side' (cf. Balke 2006:

88-91). The comitative has a basic meaning '(together) with' and has a considerable overlap in usage with the verbal prefix {da}.

The basic form of the comitative case marker is /da/, which is consistently written ***da***. E.g.:

(296) **amar-ezem / ur-*nu-da* / gurum$_2$-*bé e-da*-ak**
amar.ezem ur.nu=ak =da gurum$_2$ =be=Ø ʔi -n -da -ʔak -Ø
Amarezem Urnu =GEN=COM inventory=its=ABS VP-3SG-with-make-3N.S/DO
'Their inventory was made together with Amarezem, the one of Urnu.' (CT 50:42 2:1-3; L; 24)

(297) **ama ^{d}*ba-ú* en ^{d}nin-*gír-su-da* / ki-nú *mu-da-ab*-du$_{10}$-*ge***
ama ba.ú=e en nin.ĝír.su.k=da ki.nú=Ø
mother Bau =ERG lord Ningirsu =COM bed =ABS

Ø -mu-n-da -b -du$_{10}$.g-e
VP-VENT-3SG-with-3N.DO -be.sweet-3SG.A:IPFV
'Mother Bau makes the bed sweet with lord Ningirsu.' (Cyl B 17:2-3; L; 22)

(298) **nunuz mušen-*da* ku$_4$-*ra***
nunuz mušen=ak =da ku$_4$.r-Ø -ʔa
egg bird =GEN=COM enter -NFIN-NOM
'brought in together with bird eggs' (BIN 3:199 7; D; 21)

The comitative always has the form /da/ after a consonant, but its form after a vowel varies across time.

In the Old Sumerian texts from Lagash, the comitative case marker shows the same behaviour as the dative: the scribes write its full form in forms with a preceding consonant but ignore it after a vowel. Since the dative case marker {ra} has a reduced form /r/ after a vowel (§7.5.1), we can infer from the parallel spellings that the same is true for the comitative case marker {da} and that it has a similarly reduced form /d/ after a vowel. Positing such a form also explains why the scribes ignore it: that is what they generally do with syllable-final consonants (§2.4). The Old Sumerian texts from Lagash contain many pertinent examples, but the pattern is particularly clear from ration lists, because they are so repetitive. I will quote two contrastive pairs, which can be multiplied easily:

(299a) **ú-ú / saĝĝa é-gal-*da* / *e-da*-ti**
ú.ú saĝĝa é.gal =ak =da ʔi -n -da -ti.l -Ø
U'u administrator palace=GEN=COM VP-3SG-with-live:SING-3SG.S/DO
'He lives at the place of (lit. "with") U'u, the administrator of the palace.' (STH 1:17 14:1-3; L; 24)

(b) **en-ig-gal / *nu*-banda$_3$ / *e-da*-ti**
en.ig.gal nu.banda$_3$=d(a) ʔi -n -da -ti.l -Ø
Eniggal overseer =COM VP-3SG-with-live:SING-3SG.S/DO
'He lives at the place of Eniggal, the overseer.' (STH 1:17 13:8-10; L; 24)

(300a) **agrig-*da* / *e-da*-se$_{12}$**
agrig =da ʔi -n -da -se$_{12}$ -eš
steward=COM VP-3SG-with-live:PLUR-3PL.S/DO
'They live at the steward's place.' (DP 117 7:1-2; L; 24)

(b) **^{d}nanše-*da-nu-me-a* / *e-da*-se$_{12}$**

nanše.da.nu.me.a=d(a) ʔi -n -da -se$_{12}$ -eš
Nanshedanumea =COM VP-3SG-with-live:PLUR-3PL.S/DO
'They live at the place of Nanshedanumea.' (DP 117 6:12-13; L; 24)

The reduced form /d/ only occurs in word-final position. As Claus Wilcke pointed out to me, the full form /da/ is preserved in non-final position. The name ^{d}**nanše-*da-nu-me-a*** in the previous example is a case in point, as is ***-da-*** in the following proper names:

(301) ***a-ne-da-nu-me-a***
a.ne=da nu =ʔi -me-Ø -ʔa =ʔa
he =COM NEG=VP-be-3N.S-NOM=LOC
'without him (lit. "when it is not together with him")' (RTC 19 3:3; L; 24)

(302) **a-*da*-gal-*di***
a =da gal =Ø di -ed -Ø
father=COM bigness=ABS say:IPFV:NFIN-IPFV-NFIN
'famous with father' (STH 1:26 5:5; L; 24)

(303) **ama-*da-nu*-sá**
ama =da nu =sá -Ø
mother=COM NEG=be.equal-NFIN
'incomparable to mother' (STH 1:20 7:2; L; 24)

Thus, in the Old Sumerian texts from Lagash, the comitative case marker is ignored by the scribes in word-final position after a vowel. More or less the same pattern seems to apply to Old Sumerian texts from other locations, but the number of attestations is too small to be conclusive. Yet, examples like the following are suggestive:

(304a) **ur-tur-*da* / [*an*]-*da*-ĝál**
ur.tur=da ʔa -n -da -ĝál -Ø
Urtur =COM VP-3SG-with-be.there-3N.S/DO
'It is with Urtur.' (OIP 14:76 4:4-5; A; 24)

(b) ***ì-lum-ba-ni* / *an-da*-ĝál**
ì.lum.ba.ni=d(a) ʔa-n -da -ĝál -Ø
Ilumbāni =COM VP-3SG-with-be.there-3N.S/DO
'They are with Ilum-bāni.' (ECTJ 104 3:6-7; N; 24)

(305) **lugal-sa$_6$-*ga* / *an-da-še***
lugal.sa$_6$.ga=d(a) ʔa-n -da -se$_{12}$ -Ø
Lugalsaga =COM VP-3SG-with-live:PLUR-3N.S/DO
'They live at the place of Lugalsaga.' (OSP 1:26 rev 1':3'-4'; N; 24)

(306) **nin-dam-*ĝu* / ensi$_2$-*ke$_4$* / *an-da*-tuku**
nin.dam.ĝu$_{10}$=d(a) ensi$_2$.k=e ʔa -n -da -n -tuku-Ø
Nindamgu =COM ruler =ERG VP-3SG-with-3SG.A-have -3N.S/DO
'The ruler is owed this by Nindamgu (lit. "has this with N.").' (OSP 1:18 1:4-2:2; N; 24)

But there are also clear exceptions, where the comitative is written fully after a vowel. E.g.:

(307) ***nam*-ti-*la-né-da***
nam.ti.l=ane=da
life =his =COM

'because of his life' (FAOS 5/2 p. 342 Anonym 3 6; A; 24)

As we saw in §7.5.1 above, the scribes have three different methods for dealing with the reduced form /r/ of the dative case marker {ra}. After the Old Sumerian period, they use special VC-signs to write it explicitly, or they continue to ignore it, or they write it with the sign for the full form, ***ra***. The first of these three methods was never applied to the form /d/ of the comitative case marker. As noted by Balke (2006: 87), theoretically possible spellings with ***-ad***, ***-ed***, ***-id***, or ***-ud*** never came into use to write the syllable-final /d/ of the comitative. Only the other two methods are attested and the first of them, viz. ignoring the syllable-final /d/, was used only rarely after the Old Sumerian period. E.g.:

(308) ***a-ba-*^{d}en-líl-*e* / lugal-níĝ-zu / *an-da*-tuku**
a.ba.en.líl=e lugal.níĝ.zu=d(a) ʔa-n -da -n -tuku-Ø
Aba'enlil =ERG Lugalnigzu =COM VP-3SG-with-3SG.A-have -3N.S/DO
'Aba-Enlil is owed this by Lugalnigzu (lit. "has this with L.").' (OSP 2:73 rev. 4-6; N; 23)

(309) **geme$_2$ nin-*a-né mu-da*-sá-*àm***
[geme$_2$ =Ø nin =ane=d(a)
[slave.woman=ABS lady=her=COM

Ø -mu -n -da -sá -Ø -ʔa =Ø]=ʔam
VP-VENT-3SG-with-be.equal-3SG.S/DO-NOM=ABS]=be:3N.S
'It was (the case) that a slave woman was equal to her mistress.' (St B 7:31; L; 22)

(310) **gù-dé-*a* an ki *im-da*-mú**
gù.dé.a=e an ki =d(a) ʔi-m(u) -da -n -mú -Ø
Gudea =ERG heaven earth=COM VP-VENT-with-3SG.A-grow-3N.S/DO
'Gudea let it grow with heaven and earth.' (Cyl A 24:9; L; 22)

(311) **nin *a-ne* mú-*a***
nin a.ne=d(a) mú -Ø -ʔa
lady he =COM grow-NFIN-NOM
'the lady who grew with him' (St M=St N=St O 1:2; L; 22)

The normal procedure became for the scribes to write the comitative case marker after a vowel in exactly the same way as after a consonant, viz. as ***da***. Does this mean that the final /a/ of the case marker was restored after the Old Sumerian period, its form becoming /da/ throughout, after a consonant as well as after a vowel? Perhaps it did to some extent, but there is evidence to the contrary, suggesting that the spelling with ***da*** in word-final position after a vowel is exactly that: only a spelling. The actual pronunciation seems to have remained as it was: without the final /a/.

The evidence for this comes from two types of spellings: the ones which ignore the case marker altogether (see above) and certain spelling mistakes, which we will address now. Consider the following clauses:

(312) **ur-^{d}nuska-*ke$_4$* / *na-ga-mu-ur* / *an-da*-tuku**
ur.nuska.k=e nagamu=d(a) ʔa-n -da -n -tuku-Ø
Urnuska =ERG Nagamu=COM VP-3SG-with-3SG.A-have -3N.S/DO
'Ur-Nuska is owed this by Nagamu (lit. "has this with N.").' (NRVN 1:65 2-4; N; 21)

(313) **ur-^{d}nuska-*ke$_4$* / lú-du$_{10}$-*ga-ra* / *an-da*-tuku**

ur.nuska.k=e lú.du$_{10}$.ga=d(a) ʔa-n -da -n -tuku-Ø
Urnuska =ERG Luduga =COM VP-3SG-with-3SG.A-have -3N.S/DO
'Ur-Nuska is owed this by Luduga (lit. "has this with L.").' (NRVN 1:64 2-4; N; 21)

(314) **ur$_5$ *a-ba-ra in-da-ĝál-la***
ur$_5$ a.ba=d(a) ʔi-n -da -ĝál -Ø -ʔa
debt Aba=COM VP-3SG-with-be.there-3N.S/DO-NOM
'debt which is with Aba' (NATN 131 2; N; 21)

These clauses show a dative case marker written where the syntax requires a comitative. In each instance, the case marker follows a vowel, so that the spelling is meant to represent the syllable-final form /r/ of the dative. Since syllable-final /r/ and /d/ are pronounced alike, these spellings must be due to a confusion of syllable-final /d/ with syllable-final /r/. Indeed, all instances known to me of a dative case marker instead of an expected comitative are forms with a preceding vowel or with a preceding genitive case marker. (The final /k/ of genitive {ak} was not pronounced anymore in the Ur III period, cf. §7.2.1.).

Thus, with a preceding vowel we find: **dam-*né-er*** (NRVN 1:61 5; N; 21); **ses-gal-*né-er*** (NG 101 7; L; 21); ***nu*-banda$_3$-*ra*** (NG 117 4; L; 21); ***šu-kab-tá-ra*** (MVN 11:185 2; L; 21). And after a genitive: **lú-^{d}suen-*ra*** (NRVN 1:2 2; N; 21); **ur-mes-*ra*** (TCS 1:165 4; L; 21); **ur-nigin$_3$-ĝar-*ra*** (TCL 2:5557 1; D; 21); **lú-má-gur$_8$-*ra*-[*r*]*a*** (NG 42 13; L; 21); **lú-^{d}en-líl-*lá-ra*** (PBS 13:32 2; N; 21); **lugal-ušur$_3$-*ra*** (NRVN 1:62 3; N; 21). Ambiguous between the two possibilities is: **dumu *ab-ba-ĝu$_{10}$-ra*** (NG 118 5; L; 21). The earliest attestation known to me is:

(315) **urdu$_2$ á-ĝiš-tag tuku-*ra* / lugal-*a-né* saĝ *nu-ma-da*-dúb**
urdu$_2$.d á.ĝiš.tag=Ø tuku-Ø =d(a)
slave ? =ABS have -NFIN=COM

lugal =ane=e saĝ =Ø nu =ʔi -m(u) -ba -da -n -dúb -Ø
master=his =ERG head=ABS NEG=VP-VENT-MM-with-3SG.A-tremble-3N.S/DO
'With a slave having ..., his owner did not his head (lit. "let the head tremble").' (Cyl A 13:6-7; L; 22)

All this suggests that the comitative case marker had a reduced form /d/ word-finally after a vowel until at least the end of the Ur III period. But after the Old Sumerian period, this reduced form was usually written ***da***, with a morphophonemic spelling representing the most basic form of the morpheme regardless of how the case marker was actually pronounced in the form at hand.

7.11.2. Uses

The comitative case is not restricted to a particular gender class but can be used with human and non-human noun phrases. It has the same basic meaning as the verbal prefix {da}, viz. 'together with' (§19.2). It can occur in a wide variety of senses (Balke 2006: 92-112). Noun phrases in the comitative case can be used adverbially or adnominally. Its adverbial uses are identical to those of the verbal prefix {da}, with the sole exception of the latter's abilitative use. These uses are amply documented in §19.2.2, so that a few examples will suffice here.

In its main adverbial use, the comitative means '(together) with' in the sense of 'in the company of' or 'in the presence of':

(316) **muḫaldim-*da* ĝen-*na***

muḫaldim=da ĝen -Ø -ʔa
cook =COM come-NFIN-NOM
'who came together with the cook' (MVN 7:36 rev 1; L; 21)

(317) **zú-lum ĝiš si$_4$ ĝiš gi$_6$-*da* šar$_x$**(=NE)**-*ra***
zú.lum ĝiš si$_4$ ĝiš gi$_6$.g =da šár-Ø -ʔa
date tree red tree black=COM mix-NFIN-NOM
'dates, (the ones of) brown trees mixed with (the ones of) dark trees' (VS 25:67 1:1; L; 24)

(318) **0.0.4 PN / sagi / é-gal-*la* / *i*-ti / 0.0.4 PN / šu-i / lugal-temen-*da* / *e*-*da*-ti**
0.0.4 PN sagi é.gal =ʔa ʔi -n(i)-ti.l -Ø
4.ban PN cupbearer palace=LOC VP-in -live-3SG.S/DO

0.0.4 PN šu.i lugal.temen=da ʔi -n -da -ti.l -Ø
4.ban PN barber Lugaltemen =COM VP-3SG-with-live-3SG.S/DO
'four ban (of barley) PN, the cupbearer; he lives in the palace; 4 ban (of barley) PN, the barber; he lives at Lugaltemen's place' (DP 119 5:4-11; L; 24)

(319) **e íd piriĝ-tur-*da* nú-*a*-*am*$_6$**
e.g íd piriĝ.tur=da nú -Ø -ʔa =Ø =ʔam
dike river panther =COM lie.down-NFIN-NOM=ABS=be:3N.S
'This is the (section of the) dike which lies along the Panther Canal.' (VS 25:97 2:3; L; 24)

See for more details and examples §19.2.2.

A more marginal adverbial use of the comitative is the result of a semantic shift from expressing mere accompaniment to expressing a reason, a shift which led to the sense 'because of'. E.g.:

(320) **é-an-*na*-túm / (...) / ^{d}nin-*ĝír-sú-ka-da* / ^{d}nin-*ĝír-sú* / *mu-da*-ḫúl**
é.an.na.túm ... nin.ĝír.sú.k=ak =da nin.ĝír.sú.k=Ø
Eannatum Ningirsu =GEN=COM Ningirsu =ABS

Ø -mu -n -da -ḫúl -Ø
VP-VENT-3SG-with-be.happy-3SG.S/DO
'Ningirsu rejoiced over Eannatum, the (...) of Ningirsu.' (Ean. 1 5:1-5; L; 25)

(321) ***nam*-ti / dam dumu-*na*-*da* a *mu*-ru**
nam.ti.l dam dumu=ane=da a =Ø Ø -mu -n -ru -Ø
life wife child =his =COM water=ABS VP-VENT-3SG.A-eject-3N.S/DO
'Because of the life of his wife and children, he dedicated this.' (FAOS 5/2 p. 229 AnNip. 3 3'-4'; N; 24). Note that **a—ru** is a phrasal verb meaning 'give (to a god) as a dedicatory gift'.

More examples can be found in §19.2.2. This sense 'because of' also underlies the use of the comitative with nominalized reason clauses. See §27.6.5.

One adnominal use of the comitative has already been discussed and documented in §5.4. It involves a coordinative construction where it is used together with the conjunction {be} 'and'. E.g.:

(322) **lugal-níĝ-zu / úr-*né*-*be*$_6$-*da* / ašag-*ga* kak *bí*-zi-*ge*-[*éš*]**

lugal.níĝ.zu úr.né=be =da =e
Lugalnigzu Urni =and=COM=ERG

ašag=ʔa kak=Ø Ø -bi -n -zi.g-eš
field=LOC peg=ABS VP-3N:on-3SG.A-rise-3PL
'Lugalnigzu and Urni raised the peg on the field.' (BIN 8:29 1-3; N; 23)

See §5.4 for a full discussion of such constructions.

The second attested adnominal use is in a temporal expressions like the following:

(323) **mu-*da* 7-*kam-bé ba-da*-kar**
mu =da 7-kam=be=ta Ø -ba -da -n -kar -Ø
year=COM 7-ORD=its=ABL VP-MM-with-3SG.A-take.away-3N.S/DO
'He took it away from (lit. "with") them seven years ago (lit. "since its seventh with the years").' (BIN 8:170 27; N; 23)

(324) **eger$_5$ ku$_5$-*da-ta* mu-*da* 15-*ta* / ur-ba-gara$_2$-*ke$_4$* *in*-ba-*a***
eger$_5$ ku$_5$.da=ak =ta mu =da 15=ta
back Kuda =GEN=ABL year=COM 15=ABL

ur.ba.gara$_2$.k=e ʔi -n -ba -Ø -ʔa
Urbagara =ERG VP-3SG.A-portion.out-3SG.S/DO-NOM
'that after Kuda('s death) fifteen years ago (lit. "since fifteen with the years"), Urbagara took him (a slave) as his share (in the inheritance)' (NG 34 6-7; L; 21)

The latter construction, with a cardinal, is attested more often: **mu-*da* 10-*ta*** 'ten years ago' (NG 65 6; L; 21); **mu-*da* 20-*ta*** 'twenty years ago' (NG 31 10'=NG 102 6=NG 105 8=NG 10 4; L; 21); **mu-*d*[*a* 6-*ta*]** 'six years ago' (NG 67 3; L; 21).

For the construction ***-da nu-me-a*** 'without' (lit. 'when it is/was not together with'), with a nominal predicate in the comitative case, see §29.6.4 and example 301 above.

7.12. The equative case

The equative case is expressed by the enclitic case marker {gen}. A noun phrase in the equative case expresses a comparison, so that the case marker {gen} can usually be translated with English 'like' or 'similarly as'.

The equative case marker is nearly always written with the sign GIM, which is usually transliterated as **gim** (in the older Sumerological literature) or **gin$_7$** (in more recent publications). In this grammar it is transliterated as ***gen$_7$***, because the actual form of the equative case marker is almost certainly /gen/. That it has a final /n/ is shown by spellings such as in the following example:

(325) **urim$_5^{ki}$-*ma-gen$_7$-nam***
urim$_5$=ak =gen =ʔam
Ur =GEN=EQU=be:3N.S
'It is as that of Ur.' (TCS 1:327 4; L; 21)

Determining the vowel of {gen} is less straightforward, though. The Old Babylonian and later lexical texts give forms with either /i/ or /e/. One manuscript of Proto-Ea, for instance, gives ***ge-en*** as the reading of ***gen$_7$***, while another has ***gi-in*** (MSL 14 p. 53 Proto-Ea 530). Also, the syllabically written texts from the Old Babylonian period provide forms with /i/ as well as with /e/. Mostly, they use the spelling ***ge-en*** as an alternative for ***gen$_7$*** (e.g., VS 2:1 1:2=5; ZA 71

(1981) pp. 13-16 manuscript D lines 1, 3, 7, 8, 9, 16, 17, and 18), but a spelling with /i/, ***gi$_4$-in***, is also found (VS 2:2 3:28). This ambiguity between /e/ and /i/ in the Old Babylonian evidence is probably due to interference from the Akkadian sound system, in which /e/ was a marginal phoneme. The scanty evidence from the Ur III period unambiguously points to a vowel /e/ in {gen}. In this period the sound sign ***gen$_7$*** is used to write the phonemic sequence /gen/, as variant spellings of the personal name Banzigen prove:

(326) **ki *ba*-zi-*ge*-*na*-*ta***
ki Ø -ba -n -zi.g-en =ak =ta
place VP-MM-3SG.A-rise -1SG.S/DO=GEN=ABL
'from (the place of) Banzigen ("He/She let me rise")' (Iraq 22 pl.19 MLC 42 2; D; 21)

The name Banzigen also occurs with the spellings ***ba*-zi-*gen$_7$*** (NRVN 1:67 19; N; 21) and ***ba*-an-zi-*gen$_7$*** (TCTI 1:L.950 3:19; L; 21). Therefore, taking all the evidence together, it is fairly safe to conclude that the equative case marker {gen} contains the vowel /e/ instead of /i/.

Very rarely, the case marker is written ***gé***, without the final /n/.[2] This spelling ***gé*** instead of ***gen$_7$*** occurs several times in texts from the Old Babylonian period, but the following seems, as yet, to be the only earlier example:

(327) ***a-ba* ses-*ĝu$_{10}$*-*gé***
a.ba=Ø ses =ĝu =gen
who=ABS brother=my=EQU
'Who is like my brother?' (TCS 1:143 8; L; 21)

This expression is written elsewhere ***a-ba* ses-*ĝu$_{10}$*-*gen$_7$*** (e.g., TCS 1:346 5; D; 21).

The equative case marker {gen} occurs with both human and non-human nouns, as is illustrated by the previous example (327) and the following one:

(328) **^{d}nin-*ĝír*-*su*-*ke$_4$* iri-ka-*ge*-*na*-*ra* anzu$_2^{mušen}$-*gen$_7$* á *mu*-*né*-baš$_4$-še$_6$**
nin.ĝír.su.k=e iri.ka.ge.na.k=ra anzu$_2$.d =gen á =Ø
Ningirsu =ERG Irikagena =DAT Anzu.bird=EQU arm=ABS

Ø -mu -nni -b -baš$_4$-e
VP-VENT-3SG.OO-3N.DO-open-3SG.A:IPFV
'Like the Anzu-bird, Ningirsu spreads out his wings over Irikagena.' (Ukg. 40 1; L; 24)

The equative case primarily expresses a relation of comparison between two noun phrases. Thus, like the genitive case (§7.2), it does not indicate a semantic relation with the verb. This is undoubtedly the reason why finite verbal forms never contain an affix which is coreferential with a noun phrase in the equative or genitive case. All other cases designate some semantic relation with the verb and have their counterparts in some verbal affix.

A noun phrase in the equative case expresses a standard of comparison with which something else is compared. This 'something else', the compared item, is mentioned elsewhere in the clause, usually in the form of a noun phrase but sometimes only as a verbal affix. It can only be identified from the context, because neither word order nor some other formal property give a clue. Mostly, the compared item is the subject or the object. E.g.:

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[2] Note that ***gé*** is a very rare value of the sign KID, which normally has the value ***ke$_4$***. Although ***ge*** is the normal spelling of the phonemic sequence /ge/, the value ***gé*** of KID also occurs in another Ur III text: **ĝiri$_3$-*né*-*ì*-sa$_6$-*gé*** (NG 144 3 & 16; U; 21), that is, the personal name Girine'isag with the ergative case marker {e}.

(329) **ní-*bé* kur-kur-*ra* túg-*gen*$_7$ *im*-dul$_4$**
ní =be=Ø kur -kur =ʔa túg =gen ʔi -m(u)-dul$_4$ -Ø
awe=its=ABS mountains-mountains=LOC cloth=EQU VP-VENT-cover-3N.S/DO
'Its awesomeness covered all lands like a cloth.' (Cyl A 29:18; L; 22)

(330) **é ḫur-saĝ-*gen*$_7$ *im*-mú-mú-*ne***
é =Ø ḫur.saĝ =gen ʔi -m(u)-mú:RDP -enē
house=ABS mountain=EQU VP-VENT-grow:IPFV-3PL.A:IPFV
'They were causing the house to grow like a mountain.' (Cyl A 21:19; L; 22)

(331) **ḫur-saĝ sig$_7$-*ga*-*gen*$_7$ / iri^{ki}-*né* *im*-*mi*-dab$_6$**
ḫur.saĝ sig$_7$ -Ø -ʔa =gen iri =ane=e
mountain be.green-NFIN-NOM=EQU city=his =DIR

ʔi -m(u) -bi -n -dab$_6$ -Ø
VP-VENT-3N.OO-3SG.A-surround-3N.S/DO
'He had it (viz. a wall) surround his city like a green mountain.' (FAOS 9/2 Ibbīsuen 1-2 2:2-3; Ur; 21)

(332) **é-*e* ḫur-saĝ-*gen*$_7$ an ki-*a* saĝ an-*šè* *mi*-*ni*-*íb*-íl**
é =e ḫur.saĝ =gen an ki =ʔa saĝ =Ø an =še
house=ERG mountain=EQU heaven earth=LOC head=ABS heaven=TERM

Ø -mu -ni-b -ʔíl-Ø
VP-VENT-in -3N.A-lift-3N.S/DO
'The house lifted the head upwards in heaven and earth like a mountain.' (Cyl A 21:23; L; 22)

As can be seen from the preceding examples, the case marker of the compared phrase is not copied on the phrase in the equative case. For instance, in example (332) the noun ***é*** 'house', which is in the ergative case, is compared with the noun **ḫur-saĝ** 'mountain'. Yet, the latter noun is only in the equative case, not also in the ergative case. This is normal in Sumerian, in contrast with some other languages. As a consequence, it is sometimes necessary to supply a preposition in translating a Sumerian comparison. E.g.:

(333) **iri řú-*a*-*né*-*gen*$_7$ zi-*né* *ḫa*-*ba*-*ši*-*in*-tùm**
iri řú -Ø -ʔa =ane=gen zi =ane=Ø
city erect-NFIN-NOM=his =EQU breath=his =ABS

ḫa =Ø -ba -ši-n -tùm -Ø
MOD=VP-MM-to-3SG.A-bring:IPFV-3N.S/DO
'Let him seek shelter (lit. "bring his life") in there as *in* his built-up city! (lit. "in there like his built city").' (Shulgi A 35; OB manuscript)

With stative verbs expressing a quality, the equative case indicates that the compared item has this quality to the same degree as the standard of comparison. E.g.:

(334) **^{d}*ba*-*ú*-*gen*$_7$-*a*-*ba*-sa$_6$**
ba.ú=gen a.ba=Ø ʔa -sa$_6$.g -Ø
Bau =EQU who =ABS VP-be.good-3SG.S/DO
'Who is as good as Bau?' (a personal name) (DP 112 5:6; L; 24)

(335) **lú an-*gen*$_7$ ri-*ba* ki-*gen*$_7$ ri-*ba*-*šè***

lú an =gen ri.b -Ø -ʔa ki =gen ri.b -Ø -ʔa =še
man heaven=EQU be.huge-NFIN-NOM earth=EQU be.huge-NFIN-NOM=TERM
'as for the man who was as huge as heaven, as huge as the earth' (Cyl A 5:13; L; 22)

(336) **šà an-*gen*$_7$ sù-*řá-zu***
šà.g an =gen sù.ř -Ø -ʔa =zu
heart heaven=EQU be.far-NFIN-NOM=your
'your heart, as distant as heaven' (Cyl A 9:2; L; 22)

The equative case can also occur with a demonstrative. E.g.:

(337) **é ur$_5$-*gen*$_7$ dím-*ma***
é ur$_5$=gen dím -Ø -ʔa
house this=EQU create-NFIN-NOM
'a temple created like this' (St B 6:77; L; 22)

Construed with the equative case, the verb **dím** 'create, fashion' can also have the meaning 'make similar to':

(338) **ama-*ar-gi*$_8$-*né* <*i*>-ĝar-*ra* dumu iri-*gen*$_7$ *in*-dí[m]-*m*[*a*]**
ama.ar.gi$_4$=ane=Ø ʔi -n -ĝar -Ø -ʔa
freedom =his =ABS VP-3N.A-place-3N.S/DO-NOM

dumu iri =ak =gen ʔi -n -dím -Ø -ʔa
son city=GEN=EQU VP-3N.A-create-3N.S/DO-NOM
'that he had set him (viz. a slave) free and had made him like a citizen (lit. "a son of the city")' (NG 74 5; L; 21)

An Ur III proper noun preserves an archaic construction which is otherwise obsolete in contemporary Sumerian:

(339) **nin-*gen*$_7$-*a*-b*a*-*gen*$_7$**
nin =gen a.ba=gen
lady=EQU who=EQU
'Who is like the queen? (lit. "Like the queen is like who?")' (e.g., STA 4 3:23; L; 21)

This is a nominal clause in which both noun phrases involved in the comparison are in the equative case. This construction is still productive in the Fara period, but is later replaced by one with only a single noun phrase in the equative case (Krebernik 1998: 260). That new construction is more widely attested in our corpus and even occurs in the exact counterpart of the previous, archaic, example:

(340) ***a*-b*a*-nin-*gen*$_7$**
a.ba=Ø nin =gen
a.ba=ABS lady=EQU
'Who is like the queen?' (AAICAB I/1 pl. 38 Ashm. 1911-229 1:18; U; 21)

The equative case is not the only way in which Sumerian can express a comparison. The semantic relationship between the subject and the predicate of a copular clause can also be one of comparison (§29.4.2). In addition, the adverbiative case has a meaning (viz. 'in the manner of') which involves a kind of comparison (§7.9).

For subordinate clauses in the equative case, see §27.6.7 and §28.3.4. For nominal predicates in the equative case, see §29.4.2.

8. PRONOUNS

8.1. Introduction

The pronominal system of Sumerian is only partially known. Due to the accidents of textual transmission, some pronouns are far better documented than others. A few pronouns occur so rarely in the texts that only their approximate forms and meanings can be established.

In terms of grammatical behaviour, the pronouns can be divided into three main classes which in their turn can be subdivided into several subclasses. The first main class consists of the pronouns with a noun-like grammatical behaviour. These are the independent personal pronouns (§8.2), the interrogative pronouns (§8.5), the reflexive pronoun (§8.7), and one part of the demonstrative pronouns (§8.4.3). The second major class consists of the pronouns that are phrase-final clitics. These are the possessive pronouns (§8.3) and the other part of the demonstrative pronouns (§8.4.2). The third major class consists of the indefinite pronoun, which has an adjective-like grammatical behaviour (§8.6).

The remaining sections of this chapter are each devoted to one subclass of the pronouns. The two sets of demonstrative pronouns are treated together in one section because of their similarity in function (§8.4).

8.2. Independent personal pronouns

The independent personal pronouns distinguish between three persons: the first person (the speaker), the second person (the addressee), and the third person (any other person). There is also a formal difference between the two numbers singular and plural. The third person pronouns are restricted to the human gender class and are, accordingly, only used to refer to human beings and gods. There is no non-human personal pronoun, but an independent demonstrative can be used instead (§8.4.3).

The independent personal pronouns are used far more rarely in Sumerian than in a language like English. In the latter language, pronouns frequently realize syntactic functions such as the subject and object. Sumerian uses verbal affixes instead. Its finite verbal forms contain person markers that express the subject, any objects, as well as certain adjuncts. These person markers perform thus many of the functions for which independent pronouns are used in English. The following Sumerian clause and its English translation may serve as an illustration:

(1) ***mu-ni*-túm-*ma-a***
Ø -mu -nni -n -túm-Ø -ʔa =ʔa
VP-VENT-3SG.OO-3SG.A-fit -3N.S/DO-NOM=LOC
'when *he* had made *it* befitting *her*' (En. I 9 3:10; L; 25)

Consequently, in Sumerian an independent personal pronoun is mostly used in syntactic functions that cannot be represented by a person marker in the verb. Yet, an independent personal pronoun can be used to express a participant that is expressed by a person marker in the verb as well. The pronoun's function is then to emphasize this participant and give it a more prominent role in the information structure of the clause. The precise shades of meaning added by such a pronoun are as yet poorly understood, though.

The following table gives the basic forms of the independent personal pronouns:

	Singular	*Plural*
First Person	ĝe	(?)
Second Person	ze	(?)
Third Person	anē	anēnē

The independent personal pronouns show exactly the same spellings for the ergative and the absolutive case. That is to say, the same spellings are used to express a subject of a transitive clause, a subject of an intransitive clause, or a direct object.[1] If this reflects the actual pronunciation, as it probably does, the personal pronouns follow neither an ergative nor a non-ergative pattern (cf. §11.4.3) but have a single form for all three syntactic functions. However, in order to keep things simple, I treat their case marking pattern in exactly the same way as that of the nouns. Accordingly I analyse and gloss them as if they follow an ergative pattern.

The basic forms /ĝe/ and /ze/ for the first and second person singular become /ĝa/ and /za/ before a case marker with the vowel /a/. The two second person forms are written with different signs (***zé*** and ***za***) and are therefore easily kept apart:

(2) ***zé*** **inim kù-*ba mu-da-an*-gub-*èn***
zé =Ø inim kù.g=be =ʔa Ø -mu -ʔ -da -n(i)-gub -en
you=ABS word pure=this=LOC VP-VENT-1SG-with-in -stand-2SG.S/DO
'You stand with me in this holy matter.' (Shulgi P Section b 2; ?; OB copy of Ur III royal hymn)

(3) **ès é-ninnu řú-*ba za-ra ma-ra-an*-du$_{11}$**
ès é.ninnu=ak =Ø řú -Ø =be=ʔa zé =ra
shrine Eninnu=GEN=ABS build-NFIN=its=LOC you=DAT

Ø -mu -ra -n -du$_{11}$.g-Ø
VP-VENT-2SG.IO-3SG.A-say -3N.S/DO
'He spoke to you about building the shrine Eninnu.' (Cyl A 5:18; L; 22)

(4) **^{d}šara$_2$-*za-me***
šara$_2$ =Ø zé =ak =me-en
Shara=ABS you=GEN=be -1SG.S
'Shara, I am yours.' (PN) (e.g. MVN 16:996 rev. 2; U; 21)

Unfortunately for us, however, the two first person forms are written with the same sign GÁ, transliterated as either ***ĝe$_{26}$*** or ***ĝá***. Sometimes, though, the scribes add one of the vowel signs ***e*** or ***a*** to disambiguate the spelling:

(5) ***ĝe$_{26}$-e ga-na-ab*-su**
ĝe$_{26}$=e ga -nna -b -su.g
I =ERG MOD:1SG.A/S-3SG.IO-3N.DO-repay
'I will pay it back to him.' (TCS 1:355 4; ?; 21)

[1] Sumerian personal pronouns are only rarely used to express a direct object. Our corpus lacks any example of this use, but it is attested in later texts (Thomsen 1984: 69). The small number of attestations is due to the fact that personal pronouns are much more likely to be used in subject function than in object function (Schulze and Sallaberger 2007: 179-180; Dixon 1994: 84-85).

(6) ***ĝe$_{26}$-e* ĝen-*na-ĝu$_{10}$-ne***
ĝe$_{26}$=Ø ĝen-Ø -ʔa =ĝu=ne
I =ABS go -NFIN-NOM=my=LOC2
'when I come (lit. "I, in my coming")' (TCTI 1:1036 3:4; L; 21)

(7) ***ĝá-a-kam***
ĝe$_{26}$=ak =ʔam
I =GEN=be:3N.S
'He is mine.' (PN) (BCT 1:2 4; D; 21)

By analogy with such explicit spellings and with the second person forms, we can keep the two first person forms also apart where the spelling is ambiguous:

(8) **an-*ta*-sur-*ra ĝá-kam***
an.ta.sur.ra=Ø ĝe$_{26}$=ak =ʔam
Antasurra =ABS I =GEN=be:3N.S
'The Antasurra is mine.' (En. I 29 8:5; L; 25)

(9) **sipa-*ĝu$_{10}$ ma-mu-zu ĝe$_{26}$ ga-mu-ra*-búr-búr**
sipa.d =ĝu=Ø ma.mu.d=zu =Ø
shepherd=my=ABS dream =your=ABS

ĝe$_{26}$=e ga -mu -ra -búr -búr
I =ERG MOD:1SG.A/S-VENT-2SG.IO-reveal-reveal
'My shepherd, I will explain your dreams for you.' (Cyl A 5:12; L; 22)

(10) ***ĝá-ra ḫa-mu-ù*-šub**
ĝe$_{26}$=ra ḫa =Ø -mu -e -šub-Ø
I =DAT MOD=VP-1SG.OO-2SG.A-fall -3N.S/DO
'Indeed you let it fall on me!' (Cyl A 3:17; L; 22)

For the form before the comitative case marker {da}, we lack contemporary evidence but Old Babylonian sources contain the explicit spelling ***ĝá-a-da*** (e.g., Summer and Winter 258 = ISET 2 pl. 70 Ni.4572 7:2'; N; OB), which helps us to disambiguate the following form:

(11) ***ĝá-da-nu-me-a***
ĝe$_{26}$=da nu =ʔi -me-Ø -ʔa =ʔa
I =COM NEG=VP-be-3N.S-NOM=LOC
'without me (lit. "when it is not together with me")' (PN) (TCS 1:22 6; L; 21)

Thus, the first and second person pronouns have the forms /ĝe/ and /ze/ when in the ergative or absolutive case but are /ĝa/ and /za/ when in the genitive, dative, or comitative case. Forms with other case markers are as yet not attested in Old or Neo-Sumerian sources. However, an Old Babylonian copy of an Ur III royal hymn shows that the forms with /a/ are also used before certain case markers that do not contain an /a/:

(12) ***za-gen$_{7}$ a-ba an-ga*-kalag**
za =gen a.ba=Ø ʔa -nga-kalag -Ø
you=EQU who=ABS VP-also-be.strong-3SG.S/DO
'Who is as strong as you?' (Shulgi D 14; N?; 21, OB copy)

Such forms are probably due to leveling, an extention of the /a/ to all other forms before an adverbial case marker.

The vowel /e/ of /ĝe/ and /ze/ becomes long before the enclitic copula of the first and second person (§29.2.3). This long /ē/ is often indicated by a plene spelling:

(13) ***zé-e-me*** **maškim-*a-né* / *ḫ*[*é*]-*me***
zé =Ø =me-en maškim =ane=Ø ḫa =ʔi -me-en
you=ABS=be -2SG.S commissioner=his =ABS MOD=VP-be -2SG.S
'You, yourself, should be his commissioner.' (TCS 1:128 6-7; L; 21)

(14) **ama-*ĝu*$_{10}$ *zé-me***
ama =ĝu =Ø zé =Ø =me-en
mother=my=ABS you=ABS=be -2SG.S
'You are my mother.' (Cyl A 3:6; L; 22)

(15) ***ab-ba*-kal-*la* / ur-mes-*ra* / zi lugal / *ĝe*$_{26}$-*e-me* / *ḫa-na*-šúm**
ab.ba.kal.la=Ø ur.mes=ra zi lugal=ak
Abbakalla =ABS Urmes=DAT life king =GEN

ĝe$_{26}$=Ø =me-en ḫa =ʔi -nna -ʔ -šúm-Ø
I =ABS=be -1SG.S MOD=VP-3SG.IO-1SG.A-give-3N.S/DO
'By the king's life, I, myself, gave Abbakalla to Urmes.' (TCS 1:81 3-7; L; 21)

Pronouns of the first and second person plural are not attested in our corpus, but later texts contain a variety of different forms (Edzard 2003: 55-56; van Dijk 1983). The one instance in our corpus where a pronoun for the first person plural could have been used actually contains two coordinate singular pronouns instead, assuming that the restoration of the text is correct:

(16) **[kù-babbar u]r-*tum-al*-[*ke$_4$ ĝe$_{26}$*]-*e a-ne-bé* / [*a-na* (?)] *me-da*-tuku-*a***
kù.babbar ur.tum.al.k=e ĝe$_{26}$ a.ne=be =d(a) a.na=Ø
silver Urtummal =ERG I he =and=COM what=ABS

Ø -mē -da -n -tuku-Ø -ʔa
VP-1PL-with-3SG.A-have-3N.S/DO-NOM
'the silver, whatever we, I and he, owe Ur-Tummal (lit. "whatever Ur-Tummal has with us, with me and him")' (NATN 626 5'-6'; N; 21)

The pronoun for the third person singular is written ***a-ne***. As shown by the spelling with ***ne*** its final vowel is a long /ē/ (§2.5). In contrast with the short /e/ of ***ĝe$_{26}$*** 'I' and ***zé*** 'you', it does not change under the influence of following case markers:

(17) **níĝ *ì*-zu-*a a-ne in-ga-an*-zu**
níĝ =Ø ʔi -ʔ -zu -Ø -ʔa =Ø a.ne=e ʔi -nga -n -zu -Ø
thing=ABS VP-1SG.A-know-3N.S/DO-NOM=ABS he =ERG VP-also-3SG.A-know-3N.S/DO
'The things I know, he knows too.' (TrD 1 13; ?; 21)

(18) ***a-ne*** **saĝ-*ĝá-né-šè* diĝir-*ra-àm***
a.ne=Ø saĝ =ane=še diĝir=Ø =ʔam
he =ABS head=his =TERM god =ABS=be:3SG.S
'He was a god according to his head.' (Cyl A 4:16; L; 22)

(19) ***a-ne-da-nu-me-a***
a.ne=da nu =ʔi -me-Ø -ʔa =ʔa
he =COM NEG=VP-be-3N.S-NOM=LOC
'without him (lit. "when it is not together with him")' (PN) (RTC 19 3:3; L; 24)

(20) **nin *a-ne* mú-*a***
nin a.ne=d(a) mú -Ø -ʔa
lady he =COM grow-NFIN-NOM
'the lady who grew with him' (St M=St N=St O 1:2; L; 22)

The initial vowel contracts with the preceding vowel in the following proper name, which occurs about a dozen times in texts from the Ur III period:

(21) ***a-ba-ne-gen*$_7$**
a.ba=Ø a.ne=gen
who=ABS he =EQU
'Who is like him?' (BIN 3:510 3; D; 21)

The same proper name occurs once written without any contraction: ***a-ba-e-ne-gen*$_7$** (TRU 95 4-5; D; 21), with assimilation of the initial /a/ to the vowel of the second syllable. This form ***e-ne*** becomes the norm in the texts from the Old Babylonian period and later. It is also attested in a second text from the Ur III period:

(22) ***e-ne-àm* inim *en-nu-ĝá*-[*ta*] *ma-an*-dab$_5$**
e.ne=Ø =ʔam inim en.nu.ĝ=ak =ta Ø -ma -n -dab$_5$-Ø
he =ABS=be:3SG.S word guard =GEN=ABL VP-1SG.IO-3SG.A-take -3SG.S/DO
'It is he who (lit. "(he) who is he", cf. §29.6.2) holds him for me on orders of the guard.' (TCS 1:54 6; L; 21)

The personal pronoun for the third person plural is written ***a-ne-ne***. It is made up from the singular pronoun ***a-ne*** 'he, she' followed by the plural marker {enē} (§6.3):

(23) ***a-ne-ne* lú eden bar tab-*ba al-me-a-ke*$_4$-*eš***
a.ne.ne=Ø lú eden ...=ak=Ø ʔa -me-eš -ʔa =ak =eš
they =ABS person plain ...=GEN=ABS VP-be -3PL.S-NOM=GEN=ADV
'because they are persons of the ... plain' (JAOS 103 p. 64 6N-T638 1:8; N; 21)

(24) ***a-ne-ne* dumu ennegi$_3^{ki}$ dumu urim$_2^{ki}$-*ma-me-éš***
a.ne.ne=Ø dumu ennegi$_3$=ak dumu urim$_2$=ak =me-eš
they =ABS son Ennegi =GEN son Ur =GEN=be -3PL.S
'They are citizens of Ennegi and citizens of Ur.' (Shulgi D 373; ?; 21, OB copy)

A noun phrase with a personal pronoun as its head nearly always has a very simple structure, consisting of only the pronoun and its case marker. Our corpus contains only a single more complex phrase: a personal pronoun construed with an apposition:

(25) ***ĝe*$_{26}$ ^{d}nin-*ĝír-su* (...)**
'I, Ningirsu, (...)' (Cyl A 9:20; L; 22)

But this is a very unusual construction. Normally a headless copular relative clause (§29.6.2) is used instead:

(26) **sipa-*me* é *mu*-řú**
sipa.d =Ø =me-en é =Ø Ø -mu -ʔ -řú -Ø
shepherd=ABS=be -1SG.S house=ABS VP-VENT-1SG.A-erect-3N.S/DO
'I, the shepherd, (lit. "(I) who am the shepherd") have built the temple.' (Cyl B 2:5; L; 22)

Sumerian personal pronouns cannot be used as the head of a relative clause. Instead we find headless relative clauses. E.g.:

(27) ***é-ĝu*$_{10}$ *ma*-řú-*na***
é =ĝu =Ø Ø -ma -řú -en -ʔa
house=my=ABS VP-1SG.IO-erect-2SG.S/A:IPFV-NOM
'you, who will build my temple for me' (Cyl A 9:8; L; 22)

Finite headless relative clauses are discussed in §27.4.2 and non-finite ones in §28.2.2, §28.3.3, and §28.4.3. For headless copular relative clauses, see §29.6.2.

A personal pronoun can occur in the genitive case but only as a headless genitive. As such it occurs as the predicate of a copular clause (see ex. 4 and 7f. above). For expressing the possessor of a noun, possessive pronouns are used. They are the topic of the next section.

8.3. Possessive pronouns

8.3.1. General remarks

The enclitic possessive pronouns have the following basic forms:

	Singular	***Plural***
First person	ĝu	mē
Second person	zu	*zunē(nē)
Third person human	ane	anēnē
Third person non-human	be	

The pronoun for the second person plural is not yet attested in an Old or Neo-Sumerian source, but the forms /zunē/ and /zunēnē/ occur in later texts (§8.3.4).

All the possessive pronouns are phrase-final clitics. In the relative order of such clitics, a possessive pronoun precedes all other clitics that belong to the same noun (§4.4.4):

(28) **ka dumu-*ne-ne-ka***
ka.g dumu=ane=enē=ak =ʔa
mouth child =her =PL =GEN=LOC
'in the mouth of her children' (NG 171 5; L; 21)

Because the enclitic demonstrative pronouns occupy the same position in this relative order, a noun cannot be construed with two enclitic pronouns at the same time, but a possessive pronoun can be used together with an independent demonstrative pronoun:

(29) ***a-šà* an-*na ne-en* a *ma-ra-ĝu*$_{10}$**
a.šà.g an =ak nēn a =Ø mar -Ø -ʔa =ĝu
field heaven=GEN this water=ABS place-NFIN-NOM=my
'this well-watered high field of mine (lit. "this field of heaven of mine on which water is placed")' (DI P 2:24; N; OB). Note that **mar** is Emesal dialect for **ĝar**.

The table above only lists the basic form of each possessive pronoun, but this form often changes under the influence of the preceding or following element. We will begin with a more detailed discussion of the two singular pronouns {ĝu} 'my' and {zu} 'you' (§8.3.2), and then continue with the third person pronouns {ane} 'his, her' and {be} 'its' (§8.3.3), and conclude with the human plural pronouns (§8.3.4).

8.3.2. First and second person {ĝu} ‘my’ and {zu} ‘your’

The basic forms of the possessive pronouns {ĝu} ‘my’ and {zu} ‘your’ are /ĝu/ and /zu/ and are always written ***ĝu$_{10}$*** and ***zu***:

(30) **igi-*ĝu$_{10}$***
igi =ĝu =Ø
eye=my=ABS
‘my eyes’ (Cyl A 5:8; L; 22)

(31) **gu$_4$-*zu***
gu$_4$.ř=zu =Ø
bull =your=ABS
‘your ox’ (AfO 4 p. 23 8; U; 21)

If they are followed by the genitive case marker {ak} (§7.2.1), their /u/ contracts with the following /a/. The result is written ***ĝá*** and ***za***:

(32) **kisal ^{d}nin-*ĝír-su* lugal-*ĝá-ka***
kisal nin.ĝír.su.k lugal=ĝu=ak =ak
courtyard Ningirsu king =my=GEN=GEN
‘of the courtyard of my master Ningirsu’ (St B 8:24; L; 22)

(33) **dam dab$_5$-*ba-za-ke$_4$-eš***
dam dab$_5$-Ø -ʔa =zu =ak =eš
wife take -NFIN-NOM=your=GEN=ADV
‘because of your captive wife’ (Inanna B 141; OB copy)

The /u/ similarly contracts with the locative case marker {ʔa} (§7.7.1), but uncontracted forms also occur, albeit very rarely:

(34) **iri-*ĝá***
iri =ĝu=ʔa
city=my=LOC
‘in my city’ (St B 7:34; L; 22)

(35) **bar-*ĝu$_{10}$-a***
bar =ĝu=ʔa
outside=my=LOC
‘because of me (lit. “on the outside of me”)’ (TCS 1:54 4; L; 21)

(36) **é-níĝ-*ga-za***
é.níĝ.ga.r =zu =ʔa
storeroom=your=LOC
‘on your storeroom’ (Cyl A 6:16; L; 22)

(37) **bar-*zu-a***
bar =zu =ʔa
outside=your=LOC
‘in your outside’ (Lugal-e 493; OB copy)

8.3.3. Third person {ane} 'his/her' and {be} 'its'

The basic forms of the possessive pronouns {ane} 'his, her' and {be} 'its' are /ane/ and /be/, with a final /e/ and not with a final /i/ as is generally assumed. The vowel in /be/ is certain because it is consistently written ***bé*** or ***be$_6$***, whereas /bi/ would have been written with a different sign, ***bí***. E.g.:

(38) **ašag-*bé***
ašag=be
field=its
'its field' (DP 605 3:4; L; 24)

(39) **ki-lá-*be$_6$***
ki.lá =be
weight=its
'its weight' (SRU 67 1:4; N; 23)

In the case of {ane}, the spelling is not conclusive because the scribes use the sign NI for both ***ni*** and ***né***. But here, too, decisive evidence is available. The ergative case marker {e} (§7.3) and the directive case marker {e} (§7.6.1) contract with a preceding vowel, lengthening it. With {ane} and {be} the result is always /ē/, as several plene spellings prove. E.g.:

(40) **lugal ki áĝ-*né-e***
lugal ki =Ø áĝ -Ø =ane=e
king place=ABS measure.out-NFIN=his =ERG
'his beloved master' (St B 5:24; L; 22)

(41) **mu-*bé-e***
mu =be=e
name=its=DIR
'for its fame ("name")' (Cyl A 9:18; L; 22)

The final /e/ of {ane} and {be} contracts with the /a/ of the genitive case marker {ak} (§7.2.1) and with the locative case marker {ʔa} (§7.7.1), just like the /u/ of the singular possessive pronouns {ĝu} and {zu} (see the previous section):

(42) **é diĝir-*ra-na-ta***
é diĝir=ane=ak =ta
house god =his =GEN=ABL
'out of the temple of his god' (St B 9:15; L; 22)

(43) **še šuku-*ba***
še šuku.r =be=ak =Ø
barley subsistence=its=GEN=ABS
'the barley of their subsistence fields' (ASJ 9 p. 334:9 3; L; 21)

(44) **é-*a-na***
é.j =ane=ʔa
house=his =LOC
'into his house' (Cyl B 5:4; L; 22)

(45) **é-*ba***

é.j =be=ʔa
house=its=LOC
'into its house' (Cyl A 12:26; L; 22)

Just as with {ĝu} and {zu}, we also have a few forms where pronoun and locative case marker remain uncontracted: e.g. **é-*a*-*né*-*a*** 'into his house' (St Q 2:6; L; 22), **é-*bé*-*a*** 'into its house' (St B 7:36; L; 22).

The /a/ of {ane} contracts with a preceding vowel. Because the morpheme before {ane} is usually written with a word sign, the contraction mostly shows itself only in the absence of the initial /a/ of {ane} after a vowel:

(46) **geme$_2$-*né***
geme$_2$ =ane=Ø
slave.woman=his =ABS
'his slave woman' (TSDU 12 5; N; 21)

(47) ***gáb*-ra-*né***
gáb.ra=ane
driver =his
'his driver' (DP 581 2:3; L; 24)

(48) **igi-*né*-*šè***
igi =ane=še
eye=his =TERM
'before his eyes' (Cyl A 16:30; L; 22)

(49) **kišib urdu$_2$-*dam* dumu-*na***
kišib urdu$_2$.dam dumu=ane=ak
seal Urdudam son =his =GEN
'seal of Urdudam, his son' (MVN 13:641 9; D; 21)

After a consonant the /a/ of {ane} is written with a CV-sign, or as ***a***, or it is simply ignored. Which one of these three strategies is followed depends partly on which consonant precedes and partly on other considerations.

Ignoring the /a/ of {ane} was at first the most common strategy, but over the centuries the scribes increasingly chose to spell out the /a/. This development did not proceed at an even pace for all words alike. Consider, for instance, the following proper name:

(50) **inim-*né*-*zi***
inim=ane=Ø zi.d
word=his=ABS right
'His word is right.' (e.g. SRU 10 3:4; Shuruppak; 26)

This name is consistently written **inim-*ma*-*né*-zi** from the later Old Sumerian period onwards and that spelling is the only one used in our corpus. But the spelling **é-*né*** 'his house' (*/hajane/, §3.8) remained the norm until the time of Gudea and began only then to be replaced by the more explicit writing **é-*a*-*né*** (e.g. FAOS 9/1 Gudea 17 6; L; 22) (Wilcke 1990b). And the spelling **dam-*né*** 'his wife, her husband' was even in the Ur III period still the one most frequently used by far, even though a full spelling **dam-*ma*-*na*-*šè*** 'for (the life) of her husband' occurs already in the Gudea texts (FAOS 9/1 Gudea 18 2:4; L; 22). A particularly interesting case is ***nam*-maḫ-*né***, a spelling which is attested dozens of times in our corpus, during all periods. But from the time of Gudea onwards, alternative spellings are found. Thus, we

have twice ***nam*-maḫ-*a-né*** (St B 9:29; L; 22) (TCTI 1:723 2:52; L; 21) and once ***nam*-maḫ-*ha-né*** (TCTI 1:619 3:18; L; 21). But the most interesting writing is the phonographic spelling ***nam-ḫa-né***, which occurs numerous times in the Ur III texts. It proves beyond doubt that the spelling ***nam*-maḫ-*né*** has nothing to do with the actual pronunciation of {ane} in this form, which obviously is /namḫane/.

If the scribes spell out the /a/ of {ane}, they either simply write ***a*** or they use a sign with the value ***Ca***, where C stands for the consonant preceding {ane}. For most consonants both strategies are possible in principle, but the script lacks separate CV-signs for a preceding /j/ or /ʔ/, so that after them spellings with ***a*** are the only ones found: e.g. **é-*a-né*** 'his house' (*/hajane/, §3.8) (e.g. FAOS 9/1 Gudea 17 6; L; 22) and **bala-*a-né*** 'his reign' (*balaʔane, §3.2.4) (e.g. St C 4:17; L; 22). In practice, CV-spellings are the norm after stops: e.g., **ka-*ka-né*** 'her mouth' (e.g. Ukg. 6 3:16'; L; 24), **kišib-*ba-né*** 'his seal' (e.g. TCS 1:324 6; L; 21), **urdu$_2$-*da-né*** 'his servant' (e.g. TRU 113 4; D; 21), ***a-šà-ga-né*** 'her field' (e.g. TCS 1:229 4; L; 21). In contrast, spellings with ***a*** dominate after sibilants: e.g., **ĝuruš-*a-né*** 'his ...' (En. I 19 6; L; 25). After nasals, /r/, and /l/ both spellings occur, although most forms show a preferred spelling: e.g. **inim-*ma-né*** 'his word' (e.g. DP 650 3:4; L; 24) but **dam-*a-né*** 'his wife, her husband' (e.g. PDT 1:335 3; D; 21), **alan-*na-né*** 'his statue' (e.g. St Q 2:2; L; 22) but **nin-*a-né*** 'his lady' (e.g. St E 1:19; L; 22), **saĝ-*ĝá-né*** 'his head' (e.g. St C 4:11; L; 22), **úr-*ra-né*** 'his lap' (e.g. MVN 6:40 obv 4; L; 21) but **engar-*a-né*** 'his farmer' (e.g. FAOS 17:32 8; N; 21), and ***nam*-ti-*la-né-šè*** 'for his life' (e.g. Ent. 27 18; L; 25). A particularly intriguing case is the noun **lugal** 'king, master'. If followed by the genitive case marker, the spelling is consistently with a CV-sign, e.g. **lugal-*la-na-šè*** 'for (the life) of his master' (e.g. Gutium 4 12; U; 23), but in all other forms the spelling is just as consistently with simple ***a***: e.g. **lugal-*a-né*** 'his master' (e.g. Cyl A 2:21; L; 22). Why this should be so eludes me. Are we here merely dealing with arbitrary spelling conventions or is there more to it?

The enclitic pronoun {ane} is sometimes written with double /nn/: **šu-du$_8$-*an-né*** 'his surety' (OSP 1:20 rev 3'; N; 24), **é-*an-na*** 'into his house' (e.g. TCL 5:5665 rev 11; U; 21), **šuku-*ra-an-né*** 'his subsistence field' (NG 209 95; N; 21). The proper name **inim-*ma-né*-zi** 'His-word-is-right' occurs about twenty times written **inim-*ma-an-né*-zi** (e.g. AUCT 3:331 3 + seal; U; 21). Although such spellings make up only a tiny fraction of the total number of attestations of {ane}, they are frequent enough to suggest that at least some speakers pronounced {ane} as /anne/ instead of /ane/.

In stark contrast with such spellings with double /nn/ are a few spellings with **(*Ca*)-*e*** instead of **(*Ca*)-*né***, which suggest a loss of the /n/ (Attinger 1993: 144-145). A clear example is the following clause, which occurs twice so that the presence of a simple scribal mistake is unlikely:

(51) **alan-*na-e* / *mu*-dú**
alan =ane=Ø Ø -mu -n -dú.d -Ø
statue=his =ABS VP-VENT-3SG.A-give.birth.to-3N.S/DO
'He made a statue of himself (lit. "gave birth to a statue of himself").' (St I 5:1-2 = St P 5:1-2; L; 22)

In other contemporary Lagash inscriptions, this clause is written **alan-*na-né mu*-dú** (FAOS 9/1 Urningirsu II 6 2:1-2; St M 2:7-3:1 = St N 3:2-3 = St O 2:6-3:1 = St Q 2:2-3 = St T b 3'; L; 22). A closely related example is the following (Krecher 1985: 154):

(52) **alan-*na-éš* / *mu*-dú**

alan =ane=š(e) Ø -mu -n -dú.d -Ø
statue=his =TERM VP-VENT-3SG.A-give.birth.to-3N.S/DO
'He made it into a statue of himself.' (St B 6:12-13 = St D 4:17-5:1 = St E 8:19-20 = St G 3:3-4 = St Z 1':4'-5'; L; 22)

This clause is written elsewhere **alan-*na-né-éš* / *mu*-dú** (St A 3:2-3 = St C 3:16-17 = St H 2:7-8 = St K 1:4-5; L; 22). A further example of intervocalic loss of the /n/ comes from an Ur III text:

(53) **PN ama-*e* / [inim] *in-ni*-ĝar-*ra***
PN ama =ane=e inim =Ø ʔi -nni -n -ĝar -Ø -ʔa
PN mother=his =ERG word=ABS VP-3SG.OO-3SG.A-place-3N.S/DO-NOM
'that PN, his mother, had claimed him (lit. "placed a word on him")' (NG 192 24'-25'; L; 21). Note that the ***e*** in **ama-*e*** cannot be the ergative case marker, because that case marker contracts with a preceding vowel (§7.3).

How are we to interpret these spellings with ***(Ca)-e***? Since sequences of two vowels do not occur in Sumerian (§3.10), there must be some consonant between the /a/ and the /e/. Krecher (1985: 154) assumes a glottal stop, but a change /ane/ > /aʔe/ is phonetically not very plausible. More likely is some form of palatalization, with the /n/ becoming /nj/ or even /j/ before the front vowel /e/ (§3.5.3).

While the preceding attestations all clearly involve an intervocalic /n/, others lack the /a/, at least in the spelling. E.g.:

(54) **balaĝ ki áĝ-*e* ušumgal kalam-*ma***
balaĝ ki =Ø áĝ -Ø =ane ušumgal kalam=ak
harp place=ABS measure.out-NFIN=his dragon land =GEN
'his beloved harp, the Country's Dragon' (Cyl A 7:24; L; 22)

This phrase is elsewhere written **balaĝ ki áĝ-*né* ušumgal kalam-*ma*** (Cyl A 6:24 and Cyl B 15:21; L; 22). This attestation with **áĝ-*e*** may be a simple defective spelling and thus be a simple variant spelling of the preceding forms without /n/, but it could also represent a pronunciation */ʔaĝĝe/ (< */ʔaĝne/ < /ʔaĝane/). Something similar may apply to the form **níĝ-sám**$^{!}$(ÁG)^{àm}***-e*** 'her price' (NATN 265 4; N; 21), a unique spelling for normal **níĝ-sám**^{àm}***-ma-né*** (e.g. NATN 903 3; N; 21). The spelling with simple ***e*** could also represent a pronunciation */amme/ (< */amne/ < /amane/). Suffice it to say, that the proposed explanations of these spellings with (***Ca*)-e** are quite uncertain.

8.3.4. The plural forms

The possessive pronoun {mē} for the first person plural is always written ***me***. It occurs only a few times in the corpus. E.g.:

(55) ***ḫu-ru* ama-*ar*-gi$_4$-*me in*-ĝar-*ra***
ḫu.ru=e ama.ar.gi$_4$=mē=Ø ʔi -n -ĝar -Ø -ʔa =ak
Huru =ERG freedom =our=ABS VP-3SG.A-place-3N.S/DO-NOM=GEN
'of (the fact) that Huru established our freedom' (NG 169 10; L; 21)

(56) **iri-*me-a***
iri =mē=ʔa
city=our=LOC

'in our city' (Cyl A 1:4-5; L; 22)

As this attestation shows, the vowel of {mē} does not contract with the locative case marker {ʔa}. It does, however, contract with the initial vowel of the genitive case marker, but the result is not /a/, as with the singular possessive pronouns, but /e/, as with the other plural pronouns:

(57) **eger dub-*me-ka***
eger dub =mē=ak =ʔa
back tablet=our=GEN=LOC
'on the reverse of our tablet' (UET 6/2:150 1; Ur; OB)

Because of this behaviour, I consider the vowel of {mē} to be long, just like the final vowel of {anēnē} 'their'.

The possessive pronoun for the second person plural is not attested in our corpus. In later texts it is usually ***zu-ne-ne***, but a variant form ***zu-ne*** also occurs. E.g.:

(58) **níĝ *ga-ša-an-zu-ne-ne-ka***
níĝ gašan=zunēnē=ak =ʔa(m)
thing queen=your =GEN=be:3N.S
'(it) is that ("the thing") of the queen of you guys' (Inanna's Descent 277 = JCS 4 [1950] p. 212 YBC 4621 line 4; OB)

(59) ***nam-zu-ne***
nam =zunē=Ø
status=your=ABS
'the fate of you guys' (Inanna's Descent 243 = UET 6/1:10 7; Ur; OB)

This ***zu-ne*** obviously consists of the singular pronoun {zu} 'your' (§8.3.2 above) and the plural marker {enē} (§6.3). The other form, ***zu-ne-ne***, also contains {zu} 'your' but is for the rest modelled on the plural pronoun {anēnē} 'their'.

The possessive pronoun for the third person plural is {anēnē}. It has a similar structure as ***zu-ne*** 'of you guys', consisting of the singular pronoun {ane} 'his, her' and the plural marker {enē} (§6.3). This is reflected in its general properties: the initial vowel of {anēnē} behaves just like the /a/ of {ane} and its final vowel just like that of {enē}. Thus, the locative case marker {ʔa} does not contract with the final /ē/ of {anēnē}, while the initial vowel of the genitive case marker {ak} does, with /ē/ as a result:

(60) **ka-*ga-ne-ne-a***
ka.g =anēnē =ʔa
mouth=their =LOC
'in their own mouths' (NG 99 29; L; 21)

(61) **6-*a-ne-ne-kam***
āš=anēnē=ak =ʔam
six=their =GEN=be:3N.S
'This is of the six of them.' (VS 14:172 8:9; L; 24)

As these two examples illustrate, after a consonant the /a/ of {anēnē} is written with a CV-sign or simply as ***a***, in the same way as with the /a/ of {ane} (§8.3.3). Sometimes, the scribes ignore the initial /a/ altogether, also just like the /a/ of {ane} (§8.3.3). E.g.:

(62) **é ki áĝ-*ne-ne***

é ki =Ø áĝ -Ø =anēnē=Ø
house place=ABS measure.out-NFIN=their =ABS
'their beloved temple' (Ent. 74 3:1; L; 25)

The /a/ of {anēnē} contracts with a preceding vowel, again in the same way as the /a/ of {ane} (§8.3.3):

(63) **ní-te-*ne-ne***
ní.te=anēnē=Ø
self =their =ABS
'themselves' (TMHC NF 1/2:53 8; N; 21)

(64) **inim ama-*ne-ne***
inim ama =anēnē=ak =Ø
word mother=their =GEN=ABS
'their mother's word' (NG 99 44; L; 21)

(65) **igi-*ne-ne-šè***
igi =anēnē=še
eye=their =TERM
'before their eyes' (YOS 4:32 14; U; 21)

(66) **šu-*ne-ne-a***
šu =anēnē=ʔa
hand=their =LOC
'on their hands' (VS 14:127 7:6; L; 24)

Note that the form /anēnē/ does not only represent the possessive pronoun {anēnē} 'their', but can also stand for a sequence of the possessive pronoun {ane} 'his' and the plural marker {enē}, where the latter expresses the plural of a preceding human noun. See, for instance, example (28) above.

8.4. Demonstratives

8.4.1. General remarks

Describing the Sumerian demonstratives is a task riddled with problems. To begin with, the available evidence is rather one-sided. Consisting of written texts only, it almost exclusively documents those demonstratives that have a discourse deictic function, that is to say, the demonstratives that are used to refer backward or forward within a text. Other demonstratives and other uses of demonstratives are rarely attested.[2]

Furthermore, the demonstratives identified thus far tend to be associated with interpretational problems. Most are written with quite ambiguous cuneiform signs, which can have several different readings. To make matters worse, some demonstratives are highly similar in form to other grammatical morphemes and, therefore, easily confused with them. That scribes are known to make mistakes does not help either. In short, it is not always easy to make certain that a particular demonstrative is attested at all in a given clause.

[2] For a typological perspective on the forms, meanings, and uses of demonstratives in the languages of the world, see Diessel (1999).

A final problem is that the available evidence does not give a homogeneous picture. There is a certain amount of dialectal variation, both across time and between regions.

Because of complications such as these, the following sketch of the Sumerian demonstratives must remain tentative.[3] The demonstratives identified thus far seem to make up two sets. One set consists of phrase-final clitics, making up a three-term distance-oriented system. Depending on the dialect, the first term is either {ʔe} or {be} 'this' (near the speaker). The second term is {še} 'that' (not near, but still visible to the speaker). The third is {re} 'that' (outside the view of the speaker). The following section discusses this set of demonstratives in detail (§8.4.2).

The second set consists of independent demonstrative pronouns. Attested are {nēn} 'this' and {ʔur} 'that'. Section §8.4.3 treats them more fully.

Sumerian has few adverbial demonstratives. For expressing the meanings 'here' and 'hither', it uses the ventive prefix {mu} in finite verbal forms (see chapter 22). 'There' and the like is expressed with the noun **ki** 'place', the enclitic demonstrative {be} (§8.4.2) and the appropriate case marker. The locative case form, **ki-*ba*** (Cyl A 10:26; L; 22), for instance, means 'on this place, there'. Similarly, the noun **u$_4$.d** 'day, time' is used to denote 'then' and the like. Thus, **u$_4$-*ba*** (Ent. 34 21; L; 25) means 'on this day, then'. There is special word for 'now', though: ***ì-ne-šè*** (ex. 94 below). Its internal structure is unclear, but it probably includes the terminative case marker {še}.

Two grammatical morphemes may be demonstratives in origin. One is the nominalizing suffix {ʔa}, discussed in chapter 31. The second is the plural marker {enē} (§6.3.3).

8.4.2. Enclitic demonstratives

A Middle Babylonian Grammatical Text from Ugarit has an interesting series of equations on tablet II in lines 19-21: **lú-*e*** = *an-nu-ú* / **lú-*še*** = *an-mu-ú* / **lú-re** = *ul-lu-ú* (MSL SS 1 p. 78). Clearly, these are forms of the noun **lú** 'man, person' with various enclitic demonstratives. Now, the Akkadian demonstratives make up a two-term system of *annû* 'this' and *ullû* 'that' in the Babylonian dialect and *annû* 'this' and *ammiu* 'that' in Assyrian. Since Akkadian has a system of only two terms, the series of three in the grammatical text strongly suggests that Sumerian had a three-term system. Such an analysis finds additional support in the translation of the middle term {še} with *anmû*. According to the dictionaries, *anmû* means 'this', but the word is hardly attested and thus far only occurs in a few peripheral dialects. In other words, the scribes seem to have had difficulties in finding a proper translation for {še}.

Thus, Sumerian may have had a system of three enclitic demonstratives: {ʔe} 'this', {še} 'that (nearby)', and {re} 'that (further away)'. Directing now our attention to actual Sumerian texts, we notice that such a system fits the evidence quite well, albeit with one exception: most texts have an enclitic demonstrative {be} instead of {ʔe}.

The enclitic demonstratives are only used together with a co-occurring noun. As independent pronouns other demonstrative forms are used (see §8.4.3 below). The enclitic demonstratives are phrase-final clitics: they are attached to the last word of the noun phrase to which they belong. In the relative order of clitics, they have the same position as the possessive pronouns, preceding both the plural marker {enē} and the case marker (§4.4.4). E.g.:

(67) **ki lú-*bé-ne-ta***

[3] For an alternative view, see Woods (2000), published in 2005.

ki lú =be =enē=ak =ta
place man=this=PL =GEN=ABL
'from (the place of) these men' (AUCT 3:52 4; D; 21)

The enclitic demonstratives show no gender or number distinction. Without any change in form, all four can be used with human, non-human, singular, or plural nouns. They never have a case marker. Any case marker following them belongs to the noun phrase of which they are a part (§4.4.4).

The demonstrative {re} occurs only twice in the corpus, both times in a more or less fixed expression:

(68) **u_4-*ré-a* u_4-*ré-šè* / *na-nam***
u_4.d=re =ʔa u_4.d=re =še na.nam
day =yonder=LOC day=yonder=TERM it.truly.was
'It truly was in those days, to those days.' (MBI 1 1:1-2; N; 24)

While the phrase **u_4** ***ré-a*** 'in those days' commonly refers to primeval times, **bala-*a-re*** is the standard term for referring to the opposite bank of a river or canal:

(69) ***a-šà* uku$_2$-*nu*-ti bala-*a-ré***
a.šà.g uku$_2$.nu.ti bala.a=re
field Ukunuti bank =yonder
'the Ukunuti field on the other side (of the river)' (CHEU 100 3:5; U; 21)

The field in question lies only partly on the other bank of the river, as the following phrase shows: ***a-šà* uku$_2$-*nu*-ti bala-*a* umma^{ki}** 'the Ukunuti field on the Umma side' (CHEU 100 3:1; U; 21).

The demonstrative {še} is not attested in our corpus and occurs only once in a text from the Old Babylonian period. That text is an epic about a siege of the city Uruk by Akka, the king of Kish. During a sortie, one of the Urukites is taken prisoner and is brought before Akka for interrogation. Referring to someone on the city wall, Akka says to the prisoner:

(70) **urdu$_2$ lú-*še* lugal-*zu-ù***
urdu$_2$.d lú =še =Ø lugal =zu
slave man=that=ABS master=your
'Slave! Is that man your master?' (GA 69; OB)

Clearly, {še} is here used to refer to a person which is neither near to the speaker nor to the addressee, but who is visible to both of them.

The demonstrative {ʔe} is not very frequently attested either. Like {re} and {še}, it is used with exophoric reference, referring to something outside the text, in the real or an imaginary world. It then always refers to something nearby:

(71) **lú mu sar-*ra-e* / *ab-ḫa-lam-e-a***
lú mu sar -Ø -ʔa =ʔe =Ø ʔa-b -ḫa.lam-e -ʔa =ak
man name write-NFIN-NOM=this=ABS VP-3N.DO-destroy-3SG.A:IPFV-NOM=GEN
'of the man who will destroy this inscription' (FAOS 7 Sar C 2:45-46; N; 24, OB copy)

Similarly: **mu sar-*ra-e*** 'this inscription' (FAOS 7 Sar C 1:103; N; 24, OB copy), **im sar-*ra-e*** 'this text' (FAOS 7 Rim C 9:23; N; 23, OB copy). As the spelling **sar-*ra-e*** shows, the demonstrative {ʔe} has an initial glottal stop and does not contract with a preceding vowel. In this it differs from the ergative case marker {e} (§7.3) and the directive case marker {e} (§7.6.1).

The demonstrative {ʔe} can also be used with endophoric reference, referring back to something mentioned earlier:

(72) **lú u$_4$ *na-me* / níĝ-[d]ab$_5$-*e* / *i*-[k]u$_5$-*ře$_6$*-[*a*]**
lú u$_4$.d na.me=e níĝ.dab$_5$=ʔe ʔi -b -ku$_5$.ř-e -ʔa
man time any =DIR supplies =this VP-3N.DO-cut -3SG.A:IPFV-NOM
'the man who at any time cuts these supplies (listed earlier)' (RIM E3/2.1.4.7 socle inscription 24-26; N; 21, OB copy)

(73) **inim-*e al*-til**
inim=ʔe =Ø ʔa-til -Ø
word=this=ABS VP-finish-3N.S/DO
'This matter (= the matter recorded in the deed containing this clause) is completed.' (WdO 13 p. 20 NBC 10192 4'; I; 23)

The preceding attestations of the demonstrative {ʔe} are all the certain occurrences in the corpus known to me. As we see, it is only found in texts from Nippur and Isin, which suggests that this demonstrative was restricted to Northern Sumerian.

Indeed, there is another demonstrative with uses that include those attested for {ʔe}. That demonstrative is {be}, which is the most frequently attested demonstrative by far. Like {ʔe} it can be used with exophoric reference and then refer to something nearby:

(74) **mu sar-*ra-bé***
mu sar -Ø -ʔa =be
name write-NFIN-NOM=this
'this inscription' (Ean. 62 Face A 4:4'; L; 25) = (St B 8:8; L; 22) = (FAOS 9/2 Amarsuen 12 34; Ur; 21)

(75) **kišib-*bé ze-re-dam***
kišib=be =Ø ze.r -ed -Ø =ʔam
seal =this=ABS break-IPFV-NFIN=be:3N.S
'(If he takes an oath about it,) this sealed document is to be broken (i.e., to be invalidated).' (CST 733 10; U; 21)

(76) **alan-*ba* / (...) / mu-*bé-em***
alan =be =ak (...)=Ø mu =be=Ø =(ʔa)m
statue=this=GEN (...)=ABS name=its=ABS=be:3N.S
'Of this statue (with this text on it) "..." is its name.' (FAOS 9/2 Amarsuen 3 1:10-12; Ur; 21)

Similarly: **alan-*ba*** 'of this statue' (e.g., FAOS 9/1 Gudea 81 2:7; L; 22), **bur-*ba*** 'of this bowl' (e.g., FAOS 9/2 Urninsun 1 10; L; 22/21), **TÙN.LAL-*ba*** 'of this goblet (?)' (FAOS 9/1 Gudea 89 2'; L; 22), **šita$_2$-*ba*** 'of this mace head' (FAOS 9/1 Nammaḫni 4 11; L; 22, **^{ĝiš}tukul-*b*[*a*]** 'of this mace' (FAOS 9/1 Nammaḫni 16 3'; L?; 22), **kišib-*ba*** 'of this seal' (FAOS 9/2 Šulgi 47 2:9; ?; 21). In all of these instances, the demonstrative {be} refers to the object carrying the text.

All attestations for the exophoric use of {be} come from Lagash, Umma or Ur, that is to say, from the South. Thus, while {ʔe}and {be} can both be used with exophoric reference to refer to something nearby, they show a clear regional distribution, with {ʔe} being used in the North and {be} in the South.

Directing now our attention to the endophoric uses of {be}, we find a rather different picture. It turns out that the clause **inim-*e al*-til** 'this matter has been completed' (ex. 73 above) is singular. Both in the North and the South, {be} is the normal demonstrative used for referring back to something mentioned earlier. E.g.:

(77) **inim-*bé al*-til**
inim=be =Ø ʔa -til -Ø
word=this=ABS VP-finish-3N.S/DO
'This matter (i.e., the matter recorded in the deed containing this clause) is completed' (e.g., BIN 8:66 11; I; 23)

The same clause is found in Nippur in the Old Akkadian period (e.g., OSP 2:50 2:2; N; 23) and Ur III period (e.g., NRVN 1:8 obv 7; N; 21). In a slightly different spelling, **inim-*be*$_6$ *al*-til**, it again occurs in both Isin (e.g., BIN 8:166 27; I; 23) and Nippur (OSP 2:45 14; N; 23). The same expression is also found in the South, albeit it with a slightly different verbal form:

(78) **inim-*bé ì*-til**
inim=be =Ø ʔi -til -Ø
word=this=ABS VP-finish-3N.S/DO
'This matter is completed.' (UET 3:41 12; Ur; 21)

The same clause is also attested in Umma (e.g., YOS 4:2 5; U; 21) and Lagash (BM 25203 [unpublished, courtesy Marcel Sigrist] 11; L; 21).

Having endophoric reference, {be} can refer back to a person or thing, or to the content of entire clauses:

(79) **kišib lú-*bé-ne* / ^{d}šara$_2$-*kam-e* / tùm-*dam***
kišib lú =be =enē=ak =Ø šara$_2$.kam=e tùm -ed -Ø =ʔam
seal man=this=PL =GEN=ABS Sharakam =ERG bring:IPFV-IPFV-NFIN=be:3N.S
'The sealed documents of these (two) men (mentioned earlier) are to be brought by Sharakam.' (AUCT 3:254 9-11; D; 21)

(80) **bar e-*ba-ka***
bar e.g =be =ak =ʔa
because.of dike=this=GEN=LOC
'because of these dikes (mentioned in lines 3:38 and 4:2)' (Ent. 28 4:16; L; 25)

(81) **udu-*bé gáb*-ús-*bé ba-an-la-aḫ***
udu =be =Ø gáb.ús =be=e Ø -ba -n -laḫ$_5$ -Ø
sheep=this=ABS assistant.shepherd=its=ERG VP-MM-3SG.A-bring:PLUR-3N.S/DO
'("The sheep numbered no more than thirty", he said.) "These sheep were driven off by their assistant-shepherd," (he said.)' (NG 138 13; U; 21)

(82) **u$_4$-*ba***
u$_4$.d=be =ʔa
day=this=LOC
'(When the goddess Nanshe had given him the kingship over Lagash and the god Ningirsu had given him a name,) then (lit. "on this day") (Entemena built for the god Lugalurub the latter's palace in Urub.)' (Ent. 26 19; L; 25)

The final vowel of {be} is lost before a following vowel, probably through contraction. Thus, **e.g=be=ak=ʔa** becomes **e-*ba-ka*** (ex. 80 above) and **lú=be=enē** yields **lú-*bé-ne*** (ex. 79

above). Similarly, the final vowel of {be} contracts with the locative case marker {ʔa}, so that **u$_4$.d=be=ʔa** becomes **u$_4$-*ba*** (ex. 82 above).

The demonstrative {be} and the non-human possessive pronoun {be} (§8.3.3) have the same basic form /be/, undergo the same changes in form, are both phrase-final clitics, have the same position in the relative order of clitics, and are never dependent on the same noun. In other words, they seem to be the same element. What, then, is their precise relationship?

As already suggested by Falkenstein (1959: 24), the demonstrative use of {be} developed from its more original use as a possessive pronoun, extending its usage in successive stages. In its primary usage as a possessive pronoun, {be} basically means 'of it'. It expresses a possessor through anaphoric reference, referring back to something mentioned earlier. This usage of {be} is widely attested in all periods and over all regions. The form ***gáb*-ús-*bé*** in ex. 81 above is an example (see §8.3 for more).

In a second usage, {be} basically means 'of this', referring back to the content of entire clauses in the preceding discourse. Compare the following two phrases:

(83) **mu ur-gi$_7$-*ra*-*šè***
mu ur.gi$_7$.r=ak =še
name dog =GEN=TERM
'because (lit. "for the name") of the dogs' (MVN 8:132 6; D; 21)

(84) **mu-*bé*-*šè***
mu =be=še
name=its=TERM
(He said: "She is my mother's slave". He did not produce a witness for this.) 'Because of this' (the slave was awarded to others.) (NG 82 7; L; 21)

Clearly, {be} functions here as a possessive pronoun. After all, it is used in the same way as the genitive in the first example. This usage of the possessive pronoun {be} with a meaning 'of this' is, in my view, the source of its subsequent use as a demonstrative.

The intermediate usage of {be} is represented by the form **u$_4$-*ba*** in ex. 82 above. This form, too, is widely attested in all periods and over all regions, including the North (e.g., BIN 8:39 1:2, 5; I; 24). In it {be} can be taken as a possessive or a demonstrative. It can mean simply 'on the day of this', that is to say, 'on the day of the events under discussion'. But starting from that meaning, it is a small step to a meaning 'on this day', in which the possessive aspect is completely gone. In my view, it is such a shift in meaning that underlies the development of a demonstrative use of {be} in the South.

Thus, the first usage of {be} as a demonstrative would have been with endophoric reference, referring backward or forward to the content of entire clauses. The next stage would then have been an extension in endophoric usage, namely, also referring backward or forward to persons or things mentioned. As we saw above, this usage is attested for {be} in the South. Due to a lack of evidence, it is still unknown which demonstrative was used with this function in the North. The final extension in usage of {be} will have been its use with exophoric reference. This use, too, is documented for the South, while the North has a different demonstrative: {ʔe}.

Thus, a picture arises suggesting that in the South the possessive pronoun {be} was extended in usage at the expense of a demonstrative {ʔe}, while the latter was retained in some or all of its uses in the North. Why would such an innovation have taken place in the South? The reason may have been the great resemblance in form between the demonstrative {ʔe} and the ergative and directive case markers {e}. Perhaps it became increasingly difficult to keep the

case markers and the demonstrative apart. After all, the glottal stop shows a tendency to disappear between vowels (§3.2.4).

8.4.3. Independent demonstratives

Languages such as English use the same demonstrative form both as a modifier of a noun and as an independent pronoun. One can say *This bicycle is mine* as well as *This is mine*. In other languages, among them Sumerian, these two constructions show different demonstratives. Together with nouns, Sumerian uses the enclitic demonstratives treated in the previous section. As independent pronouns completely different forms are found. They are the topic of the present section.

Sumerian has at least two independent demonstrative pronouns: {nēn} 'this' and {ʔur} 'that'. Perhaps there are more, but, if so, the texts still have to reveal them. Both {nēn} and {ʔur} behave grammatically like nouns, making up noun phrases in their own right. Accordingly, they always show the case marker appropriate for the syntactic function they perform. There are no changes in form according to gender or number, though. Either demonstrative uses the same form to refer to a single person or thing, or to a plurality of persons or things.

The texts show three different shapes of the demonstrative {nēn}: ***ne***, ***ne-e***, and ***ne-en***. The relationship between them is still unclear. The most simple solution is to take them as three different spellings of a single form /nēn/ (cf. Attinger 1993: 176). Two out of three spellings would then ignore the syllable-final consonant, while also two spellings would ignore the long vowel. Although the spelling rules for Sumerian allow for such an interpretation, the frequency of the spellings without the final consonant is quite unexpected, especially in the texts from after the Ur III period.

A different solution is suggested by some forms in the late lexical text Erim-ḫuš (MSL XVII). Tablet IV line 142 gives the equation ***ne-e*** = *an-nu-ú*, and tablet II lines 276-277 ***ne-re*** = *ul-lu-u* and ***ne-še*** = *a-num-mu-u*. On the basis of these forms, one could think that there is an independent demonstrative {ne} and that all three demonstrative clitics can be attached to it: ***ne=ʔe** 'this (one)', ***ne=še** 'that (one)', and ***ne=re** 'yonder one' (cf. French *celui*, *celui-ci*, *celui-là*). Unfortunately, such an analysis leaves the form ***ne-en*** unexplained. Moreover, as lexical texts are known to contain artificial forms, it is rather suspicious that neither ***ne-še*** nor ***ne-re*** are attested outside a lexical text.

In view of all this, it is preferable for the time being to treat ***ne***, ***ne-e***, and ***ne-en*** as being three different spellings for a single demonstrative {nēn} 'this'. Eventually, however, additional evidence may make it necessary to split up this one demonstrative into two or more different ones.

The Akkadian scribes usually translate the demonstrative {nēn} into Akkadian with *annûm* 'this'. Accordingly, 'this' is taken to be its meaning. It can be used with exophoric reference, referring to someone or something near by the speaker:

(85) ***a-na-àm ne-e***
a.na =Ø =ʔam nēn=Ø
what=ABS=be:3N.S this=ABS
'(Referring to various plants, Enki says:) "What is this?"' (ENh 199; OB)

(86) **lú gùd-*ĝá* *ne-en* *ba-e-a*-ak-*a***
lú gùd=ĝu =ʔa nēn=Ø Ø -ba -e -ʔak -e -ʔa
man nest=my=LOC this=ABS VP-MM-on-make-3SG.A:IPFV-NOM

(Returning home the mythological Anzu-bird discovers that his nest has been lavishly beautified during his absence. He says:) 'the person who has done this onto my nest' (Lugalbanda II 105; OB)

It can also be used with anaphoric reference, referring back to someone or something mentioned earlier:

(87) ***ne-me*** **urdu$_2$** ***ḫa-me***
nēn=Ø =me-eš urdu$_2$.d=Ø ḫa =ʔi -me-eš
this=ABS=be -3PL.S slave =ABS MOD=VP-be -3PL.S
(Two brothers sell their sister as a slave. If she stops working) 'it is they who shall be slaves.' (FAOS 17:45 10; N; 21)

The demonstrative {nēn} can be used as an apposition with a noun. In one construction it is accompanied by an attributive participle. Consider the following phrase:

(88) **lú-ki-sikil** ***ne-en*** **sa$_6$-*ga-ra*** ***ne-en*** **mul-*la-ra***
lú.ki.sikil nēn sa$_6$.g -Ø -ʔa =ra nēn mul -Ø -ʔa =ra
young.woman this be.beautiful-NFIN-NOM=DAT this be.splendid-NFIN-NOM=DAT
'a young woman this beautiful, this splendid' (Enlil and Ninlil 38; OB)

Although the Sumerian and English word order and meanings are here quite similar, the grammatical structure is not. While in the English *this beautiful* the demonstrative functions as an adverb with the adjective *beautiful*, in the Sumerian ***ne-en*** **sa$_6$-*ga***, the participle **sa$_6$-*ga*** functions as an adjective with the noun ***ne-en***. The sequence ***ne-en*** **sa$_6$-*ga-ra*** ***ne-en*** **mul-*la-ra*** '(lit.) this beautiful one, this splendid one (in the dative case)' consists of two appositions with **lú-ki-sikil**. The repetition of the case marker proves this, because that phenomenon is limited to appositions (§5.3). The same kind of construction with an appositive demonstrative also occurs elsewhere:

(89) **mè** ***ne-en*** **rib-*ba-šè***
mè nēn rib -Ø -ʔa =še
battle this be.huge-NFIN-NOM=TERM
'to a battle this huge' (Lugal-e 135; OB)

(90) **kaš-dé-*a*** ***ne-en*** **du$_{10}$-*ga***
kaš.dé.a nēn du$_{10}$.g -Ø -ʔa
banquet this be.sweet-NFIN-NOM
'a banquet this sweet' (Proverb Collection 8 section B 34; OB)

The demonstrative {nēn} can apparently also be used as an apposition with the noun **u$_4$.d** 'day, time', without a discernable difference in meaning with the enclitic demonstrative {be} 'this' (§8.4.2):

(91) **u$_4$** ***ne-na ḫé-*gaz**
u$_4$.d nēn=ʔa ḫa =ʔi -gaz-Ø
day this=LOC MOD=VP-kill -3SG.S/DO
'On this day let him be killed.' (St B 9:7; L; 22)

(92) **u$_4$** ***ne*** **maš ĝi$_6$-*ka***
u$_4$.d nēn maš ĝi$_6$ =ak =ʔa
day this omen night=GEN=LOC
'on this day, in a dream' (Cyl A 1:17; L; 22)

(93) **u_4-*ne*-níĝ-sa_6-*ga***
u_4.d nēn níĝ sa_6.g -Ø -ʔa
day this thing be.beautiful-NFIN-NOM
'This day is something beautiful.' (PN) (e.g., NG 193 25'; L; 21)

Note however, that the sign NE can also be read ***dè*** instead of ***ne***. As the noun **u_4.d** 'day, time' has a final /d/, the phrase **u_4** ***ne*** can also be read **u_4-*dè***, a form that could contain the enclitic demonstrative {ʔe} (§8.4.2). Such a reading does not fit ex. 91, though.

The demonstrative {ʔur} is always written ***ur_5***. The Akkadian scribes generally translate it with a form of the anaphoric pronoun *šū* 'he, the aforementioned' or, if certain case markers are attached to it, with *kīam* 'thus'. The evidence from the Sumerian texts themselves is not conclusive but points to a meaning 'that'. Firstly, the demonstrative {nēn} clearly means 'this' (see above) and it is rather unlikely that Sumerian would have yet another demonstrative with that meaning. Secondly, the following example seems to suggest that {nēn} and {ʔur} make up a pair of terms in a single system:

(94) **ĝeštu$_2$ dab$_5$-*ba-ĝu$_{10}$ ì-ne-šè ne-e ur_5-ra-àm***
ĝeštu$_2$.g dab$_5$-Ø -ʔa =ĝu ì.ne.šè nēn ur_5=Ø =ʔam
wisdom take -NFIN-NOM=my now this that=ABS=be:3N.SG
'the knowledge acquired by me, which is now this and that,' (Shulgi B 316; 21, OB copy)

Unfortunately, the interpretation and translation of this passage is not entirely certain.

The final piece of evidence pointing to a meaning 'that' of {ʔur} comes from the way it is actually used. The demonstrative {ʔur} can be used to refer back to a person or thing mentioned earlier. It then tends to refer to someone or something not physically or emotionally close to the speaker. A particularly clear example occurs in the myth about the battle between the god Ninurta and the demon Asag. At some point, someone tells Ninurta about his enemy Asag, who is active in the mountains and is therefore somewhere else. The speaker says to Ninurta:

(95) ***ur_5-re* bara$_2$ *ba*-ri**
ur_5=e bara$_2$.g=Ø Ø -ba -n -ri -Ø
that=ERG dais =ABS VP-MM-3SG.A-set.up-3N.S/DO
'That one (= Asag) set up a dais for himself.' (Lugal-e 41; OB)

Most, if not all, attestations of {ʔur} involve instances of endophoric reference, with {ʔur} referring backward or forward within the text itself. As we saw above, {ʔur} can refer back to persons or things (ex. 95). Nearly always, however, {ʔur} refers back to actions and states, that is to say, to entire clauses. E.g.:

(96) **šul-ge ama-*né-e ur_5-re ba-an*-dú**
šul.ge.r=Ø ama =ane=e ur_5=e Ø -ba -n -dú.d -Ø
Shulgi =ABS mother=his =ERG that=DIR VP-3N.IO-3SG.A-gave.birth.to-3SG.S/DO
'(In order to make Nippur fit for Enlil, in order to put the firstling offerings in order in the courtyard of the Ekur) for that his mother gave birth to Shulgi' (TMHC NF 4:11 19 (Shulgi F); 21, OB copy)

(97) ***ur_5-e* ĝ[eš]tu$_2$-*ga-na* / *ḫé-na*-[*ni-í*]*b*-r[u-g]ú**
ur_5=e ĝeštu$_2$.g=ane=ʔa ḫa =ʔi -nna -ni-b -ru.gú-e
that=ERG ear =his =LOC MOD=VP-3SG.IO-in -3N.DO-put[?] -3N.A:IPFV

‘(May this letter be before his eyes!) May that bring it (viz. the matter in question) to his attention!’ (FAOS 19 Ad 8 20-21; A; 23)

In the equative case, {?ur} means ‘like that’, ‘in that manner’, ‘thus’:

(98) **é *ur$_5$-gen$_7$* dím-*ma***
é ur$_5$ =gen dím -Ø -?a
house that=EQU create-NFIN-NOM
‘a temple thus created’ (St B 6:77; L; 22)

(99) **lá-NI *ur$_5$-gen$_7$-àm ì-da-ĝál-a***
lá.NI ur$_5$ =gen=?am ?i -n -da -ĝál -Ø -?a
shortage that=EQU=be:3N.S VP-3SG.S-with-be.there-3N.S/DO -NOM
‘that there is a shortage with him which is like that’ (MVN 2:2 tablet rev 4; L; 21)

(100) ***ur$_5$-gen$_7$ ḫu-mu-na-ab-bé-a-ka***
ur$_5$=gen ḫa =Ø -mu -nna -b -?e -e -?a =ak =?a
that=EQU MOD=VP-VENT-3SG.IO-3N.OO-say:IPFV-3SG.A:IPFV-NOM=GEN=LOC
‘after he had thus spoken to him’ (ELA 347; OB)

Similarly, {?ur} in the ablative case means ‘from that’, ‘therefore’:

(101) ***ur$_5$-ta* / (...) / bàd gal / (...) / iri^{ki}-*né im-mi*-dab$_6$**
ur$_5$=ta bàd gal=Ø iri =ane=e ?i -m(u)-bi -n -dab$_6$ -Ø
that=ABL wall big=ABS city=his =DIR VP-VENT-3N.OO-3SG.A-surround-3N.S/DO
‘Therefore he surrounded his city with a great wall.’ (FAOS 9/2 Ibbīsuen 1-2 1:11; U; 21)

8.5. Interrogative pronouns

Sumerian has five interrogatives, but only two of them are common in our texts: ***a-na*** ‘what’ and ***a-ba*** ‘who’. A third, ***a-gen$_7$*** ‘how’, occurs only once:

(102) ***gu-ti-um^{ki}* / *a-gen$_7$ ì-da*-gub**
gu.ti.um=Ø a.gen$_7$?i -? -da -gub -Ø
Gutian =ABS how VP-1SG-with-stand-3SG.S/DO
‘How can the Gutian stand by me?’ (FAOS 19 p. 63 Du 1; ?; 23)

This ***a-gen$_7$*** obviously contains the equative case marker {gen} (§7.12) and means therefore literally ‘like ...’. The first part, the ***a***, is still unexplained.

The remaining two interrogatives, ***me*** ‘where’ and ***èn*** or ***en*** ‘when’, are thus far only attested in later texts. The last-mentioned, ***èn*** or ***en*** ‘when’, may actually occur in our texts as a part of the subordinating conjunction ***en-na*** ‘until’, but that is not certain (§27.6.4).

The interrogative pronouns ***a-na*** and ***a-ba*** show a gender distinction between non-human and human, albeit one which is the exact opposite of what is found elsewhere in the Sumerian pronominal system. The non-human pronoun ***a-na*** ‘what’ contains an /n/, which elsewhere has human reference, while the human pronoun ***a-ba*** ‘who’ contains a /b/, which elsewhere has non-human reference (§6.2).

They are construed like nouns: they make up noun phrases in their own right, having the case markers appropriate for the grammatical function they perform. Their normal position in the clause is immediately before the verb, not at the beginning of the clause as in English. E.g.:

(103) ***ĝe$_{26}$ a-na mu-ù-da*-zu**
ĝe$_{26}$=e ana =Ø Ø -mu -e -da -ʔ -zu -Ø
I =ERG what=ABS VP-VENT-2SG-with-1SG.A-know-3N.S/DO
'What have I learned from you?' (Cyl A 9:4; L; 22)

(104) **dumu-*ĝu$_{10}$ a-na nu*-zu**
dumu=ĝu=e a.na =Ø nu =ʔi -n -zu -Ø
son =my=ERG what=ABS NEG=VP-3SG.A-know-3N.S/DO
'What does my son not know?' (VS 10:189 7; ?; 21)

(105) ***a-ba-an-da*-sá**
a.ba=Ø ʔa -n -da -sá -Ø
who=ABS VP-3SG-with-be.equal-3SG.S/DO
'Who equals him?' (PN) (MAD 4:70 14; I; 23)

There are two exceptions to the rule that an interrogative pronoun stands immediately before the verb. Firstly, the nominal part of a phrasal verb is always placed closer to the verb (Poebel 1923: 85-86; Attinger 2004b). E.g.:

(106) ***a-ba*-di-*ì-bé***
a.ba=e di.d =Ø ʔi -b -ʔe -e
who=ERG judgement=ABS VP-3N.OO-say:IPFV-3SG.A:IPFV
'Who will pronounce judgement?' (PN) (DP 195 8:1'; L; 24)

Secondly, a special construction with the enclitic copula puts the interrogative pronoun in clause-initial position. In our texts, this construction is found wherever ***a-na*** is used in the terminative case, meaning 'why'. E.g.:

(107) ***a-na-aš-àm* / ur-^{d}lama$_3$-*ke$_4$* / ú gu$_7$-*dè* / *nu-ub-še-ge***
a.na =š(e) =ʔam ur.lama$_3$.k=e ú =Ø gu$_7$-ed -Ø =e
what=TERM=be:3N.S Urlama =ERG grass=ABS eat -IPFV-NFIN=DIR

nu =ʔi -b -še.g -e
NEG=VP-3N.OO-allow-3SG.A:IPFV
'Why does Urlama not allow grazing?' (lit. 'It is for what (that) U. does not ...') (TCS 1:121 6-9; L; 21)

Arguably the interrogative pronoun is still placed immediately before the verb in this construction, the verb in this case being the copula, so that this construction is only seemingly an exception. See §29.7 on this kind of construction.

The interrogative pronouns can also be used in indirect questions:

(108) ***a-na íb*-ak-*na-bé nu*-zu**
a.na =Ø ʔi -b -ʔak -en -ʔa =be=Ø nu =ʔi -ʔ -zu -Ø
what=ABS VP-3N.DO-make-1SG.A/S:IPFV-NOM=its=ABS NEG=VP-1SG.A-know-3N.S/DO
'I do not know what I shall do about it (lit. "I do not know its what shall I make").' (VS 10:193 8; ?; 21)

That this usage is already quite old is suggested by the address formula of early letters. It contains the form ***na-ab-bé-a*** or one of its variant spellings, which is a fusion of the pronoun ***a-na*** and a form of the verb **e** 'say' (Poebel 1923: 205; Attinger 1993: 264). (For the loss of the initial vowel, see §3.9.4.) E.g.:

(109) **lugal-*e* / *na-ab-bé-a* / PN-*ra* / *ù-na-a*-du$_{11}$**
lugal=e (a.)na=Ø ʔa -b -ʔe -e -ʔa =Ø
king =ERG what =ABS VP-3N.OO-say:IPFV-3SG.A:IPFV-NOM=ABS

PN=ra ʔu -nna -e -du$_{11}$.g-Ø
PN=DAT REL.PAST-3SG.IO-2SG.A-say -3N.S/DO
'after you have said to PN what the king says: (...)' (TCS 1:1 1-4; U; 21)

(110) **gú-*bé* / *na-e-a* / lugal-*mu* / du$_{11}$-*ga-na***
gú.be=e a.na =Ø ʔa-b -ʔe -e -ʔa =Ø
Gube=ERG what=ABS VP-3N.OO-say:IPFV-3SG.A:IPFV-NOM=ABS

lugal.mu=r(a) du$_{11}$.g-ʔa -nna -b
Lugalmu =DAT say -VP-3SG.IO-3N.DO
'Say to Lugalmu what Gube says: (...)!' (Nik 1:177 2:2-3:1; L; 24)

An interrogative pronoun can be used in a relative clause to take up its head noun. The pronoun ***a-na*** has then the meaning 'whatever' and ***a-ba*** 'whoever':

(111) **še-ba ur-lugal-*ka* / guru$_7$-*a a-na mu-un*-taka$_4$-*a***
še.ba ur.lugal.k=ak guru$_7$ =ʔa a.na =Ø Ø -mu -n(i)-taka$_4$-Ø -ʔa
barley.ration Urlugal =GEN granary=LOC what=ABS VP-VENT-in -leave -3N.S/DO-NOM
'Urlugal's barley rations, whatever is left in the granary' (TCS 1:307 4-5; U; 21)

(112) **níĝ *a-na bí*-du$_{11}$-*ga***
níĝ a.na =Ø Ø -bi -n -du$_{11}$.g-Ø -ʔa
thing what=ABS VP-3N.OO-3SG.A-say -3N.S/DO-NOM
'the things, whatever I ordered' (TCS 1:109 19; ?; 21)

(113) ***a-šà a-na an*-uru$_4$-*a***
a.šà.g a.na =Ø ʔa -n -ʔuru$_4$-Ø -ʔa
field what=ABS VP-3SG.A-till -3N.S/DO-NOM
'the field, whatever he tills' (TCS 1:33 3; L; 21)

(114) **káb-ku$_5$ da umma^{ki}-*ka a-na* ĝál-*la***
káb.ku$_5$ da umma=ak =ʔa a.na =Ø ĝál -Ø -ʔa
regulator side Umma=GEN=LOC what=ABS be.there-NFIN-NOM
'the regulators, whatever there are in (the district of) Side of Umma' (YOS 4:235 1; U; 21)

The interrogative pronouns also occur with these meanings in headless relative clauses:

(115) ***a-ba* du$_{11}$-*ga-na***
a.ba=ak du$_{11}$.g-Ø -ʔa =ane=ʔa
who=GEN say -NFIN-NOM=his =LOC
'on whoever's command (lit. "of whoever: on his ordering")' (Ean. 1 obv. 22:11; L; 25)

(116) ***a-ba-me-a nu a-ba-me-a-né***
a.ba=Ø ʔi -me-Ø -ʔa =Ø nu a.ba=Ø ʔi -me-Ø -ʔa =ane=e
who=ABS VP-be -3SG.S-NOM=ABS NEG who=ABS VP-be -3SG.S-NOM=her =DIR
'whoever she is not, whoever she is.' (Cyl A 4:23; L; 22)

The interrogative pronouns discussed above are used to form content questions in Sumerian. Not all questions are content questions, though. In addition, there are the yes/no ques-

tions, which are questions for which the expected answer is either 'yes' or 'no'. Such questions usually have exactly the same grammatical structure as declarative clauses, differing only in intonation from the latter. Hence, a yes/no question is, as a rule, hard to identify in the texts. Nevertheless, an unambiguous example occurs in a literary text from the Old Babylonian period:

(117) **urdu$_2$ lú-*še* lugal-*zu-ù***
urdu$_2$.d lú =še =Ø lugal =zu =Ø
slave man=that=ABS master=your=ABS
'Slave! Is that man your master?' (GA 69; OB)

Here, the plene spelling ***zu-ù*** may represent a lengthening of the final short vowel under the influence of the question intonation (Römer 1980: 77). But that is not all: the same example also illustrates the one type of yes/no question that does have a different grammatical structure from a declarative clause. For, as a rule, declarative clauses with a nominal or adjectival predicate contain a copula, but interrogative clauses do not (§30.3).

8.6. Indefinite pronoun

Because Sumerian lacks a definite or indefinite article, only the context can make clear whether a given noun is definite or indefinite. Depending on the context, a word such as **lú** 'man' means either 'the man' or 'a man'. A few nouns that refer to ontological categories have usages similar to those of English indefinite pronouns. Thus, with an indefinite meaning, **lú** 'man' can also express 'someone' and **níĝ** 'thing' can also stand for 'something'.

In addition to such nouns that, in some of their uses, can be translated as indefinite pronouns, Sumerian has a special indefinite pronoun ***na-me*** 'any'. Grammatically it behaves as an adjective. It is always used attributively and never has a case marker (as a noun would have). It has no gender distinction and can be used in expressions referring to either persons or things. E.g.:

(118) **ki *na-me-a* apin-lá *ga-ba-ab*-dab$_5$**
ki na.me=ʔa apin.lá =Ø ga -ba -b -dab$_5$
place any =LOC rented.field=ABS MOD:1SG.A/S-MM-3N.DO-seize
'I want to hold a rented field anywhere!' (MVN 11:168 17; U; 21)

(119) **lú *na-me* inim *nu-um-ĝá-ĝá***
lú na.me=e inim=Ø nu =ʔi -m(u)-ĝar:RDP -e
man any =ERG word=ABS NEG=VP-VENT-place:IPFV-3SG.A:IPFV
'No one will put a claim on it.' (UET 3:51 20; Ur; 21)

(120) **níĝ *na-me nu*-zu**
níĝ na.me=Ø nu =ʔi -ʔ -zu -Ø
thing any =ABS NEG=VP-1SG.A-know-3N.S/DO
'I do not know anything.' (AOAT 25 p. 445 3:10; L; 21)

The indefinite pronoun ***na-me*** is mostly found with the nouns **lú** 'man' (**lú *na-me*** 'anyone'), **níĝ** 'thing' (**níĝ *na-me*** 'anything'), **ki** 'place' (**ki *na-me*** 'anywhere'), and **u$_4$.d** 'time' (**u$_4$ *na-me*** 'ever').

Although the phrase **lú *na-me*** and the single noun **lú** can have a similar, indefinite meaning, the two are not synonymous. Generally speaking, **lú** has the senses 'the man', 'a man', or

'someone', whereas **lú *na-me*** means 'anyone'. This basic distinction equally applies to **níĝ** ('something') and **níĝ *na-me*** ('anything').

Only **lú** 'someone' can refer to a specific (although unidentified) person, whether known to the speaker or not. E.g.:

(121) **sa-gaz lú *mu-na***
sa.gaz =Ø lú =e Ø -m(u) -n -ʔak -Ø
robbery=ABS man=ERG VP-1SG.OO-3SG.A-make-3N.S/DO
'Someone robbed me.' (NG 121 3; U; 21)

(122) ***a-na-aš-àm* / kišib-*ĝu*$_{10}$ *ḫé*-túm / lú *ba-an*-řú**
a.na =š(e) =ʔam kišib=ĝu=Ø ḫa =ʔi -b -túm -e
what=TERM=be:3N.S seal =my=ABS MOD=VP-3N.DO-bring:IPFV-3SG.A:IPFV

lú =Ø Ø -ba -n -řú -Ø
man=ABS VP-MM-3SG.OO-hold-3SG.S/DO
'Why, if he was bringing my sealed document, someone detained him?' (TCS 1:166 7-9; L; 21)

Since positive declarative clauses about past events generally involve specific participants, such clauses generally show the forms without ***na-me*** 'any'.

Phrases with ***na-me*** 'any' always have a non-specific meaning. A phrase such as **lú *na-me*** 'anyone' never refers to a specific person, whether known or unknown. Nevertheless, a non-specific meaning is not decisive for the usage of ***na-me***. The same phrases can also have non-specific reference without ***na-me***. The crucial difference between a phrase with and one without ***na-me*** is that the latter always adds the notion 'it does not matter who, what, or which'.

Because ***na-me*** always has a non-specific meaning, it occurs only in those types of clauses where such an 'open' meaning is suitable. Thus, in so far as it is attested in positive clauses, it is primarily found in clauses that involve some degree of uncertainty or doubt, that is to say, those about future events, those with a modal meaning, those involving questions, and the like. E.g.:

(123) **lú u$_4$ *na-me* / níĝ-[d]ab$_5$-*e* / *ì*-[k]u$_5$-ře$_6$-[*a*]**
lú u$_4$.d na.me=e níĝ.dím =ʔe ʔi -b -ku$_5$.ř-e -ʔa
man time any =DIR supplies=this VP-3N.DO-cut -3SG.A:IPFV-NOM
'the man who at any time cuts these supplies' (RIM E3/2.1.4.7 socle inscription 24-26; N; 21, OB copy)

(124) **ki *na-me-a* apin-lá *ga-ba-ab*-dab$_5$**
ki na.me=ʔa apin.lá =Ø ga -ba -b -dab$_5$
place any =LOC rented.field=ABS MOD:1SG.A/S-MM-3N.DO-seize
'I want to hold a rented field anywhere!' (MVN 11:168 17; U; 21)

(125) **[n]íĝ *na-me ì*-ĝál-[*l*]*a*$^!$ / *en*$_6$-*bé ḫé*-tar-*e***
níĝ na.me ʔi -n(i)-ĝál -Ø -ʔa èn=be=Ø ḫa =ʔi -b -tar-e
thing any VP-in -be.there-3N.S/DO-NOM ? =its=ABS MOD=VP-3N.DO-cut-3SG.A:IPFV
'He should investigate anything which is in there!' (FAOS 19 Gir 20 12-13; L; 23). Note that the phrasal verb **èn—tar** means 'ask, investigate'.

Phrases with ***na-me*** are quite often found in conditional clauses:

(126) **tukum-*bé* / kišib lugal-me-lám / ki *na-me-ta* / *ì-im*-ře$_6$**
tukum.be kišib lugal.me.lám=ak =Ø ki na.me=ta
if seal Lugalmelam =GEN=ABS place any =ABL

ʔi -m(u) -ře$_6$ -Ø
VP-VENT-bring-3N.S/DO
'if Lugalmelam's sealed document is brought from anywhere' (LB 3118 4'-7'; D; 21)

(127) **tukum-*bé* lú *na-me* inim *bí-in*-[ĝar]**
tukum.be lú na.me=e inim=Ø Ø -bi -n -ĝar -Ø
if man any =ERG word=ABS VP-3N:on-3SG.A-place-3N.S/DO
'if anyone lays a claim on it' (TCS 1:80 7; ?; 21)

Note that phrases without ***na-me*** are also found in such clauses, albeit with a different meaning:

(128) **tukum-*bé* / lú inim *ba-an*-ĝar**
tukum.be lú =e inim=Ø Ø -ba -n -ĝar -Ø
if man=ERG word=ABS VP-MM-3SG.A-place-3N.S/DO
'if someone lays a claim (on them) for himself' (FAOS 17:26 6-7; N; 21)

Although ***na-me*** occurs in a variety of positive clauses, it is mostly found in negative clauses. E.g.:

(129) **ki *na-me-šè na-an*-tùm**
ki na.me=še na -n -tùm -Ø
place any =TERM NEG.MOD-3SG.A-bring:IPFV-3N.S/DO
'He must not bring it anywhere else!' (TCS 1:77 5; N; 21)

(130) **níĝ *na-me nu-mu-da-a*-tuku**
níĝ na.me=Ø nu =Ø -mu -ʔ -da -e -tuku-Ø
thing any =ABS NEG=VP-VENT-1SG-with-2SG.A-have -3N.S/DO
'I do not owe you anything (lit. "you don't have anything with me")." (SNAT 535 obv 13; U; 21)

(131) **lú *na-me na-na-ab*-šúm-*e***
lú na.me=r(a) na -nna -b -šúm-e
man any =DAT NEG.MOD-3SG.IO-3N.DO-give-3SG.A:IPFV
'He must not give this (field) to anyone else!' (TCS 1:68 6; L; 21)

(132) **lú *na-me* inim *nu-um-ĝá-ĝá***
lú na.me=e inim =Ø nu =ʔi -m(u)-ĝar:RDP -e
man any =ERG word=ABS NEG=VP-VENT-place:IPFV-3SG.A:IPFV
'No one will put a claim on it.' (UET 3:51 20; Ur; 21)

In negative clauses, too, phrases without ***na-me*** may be used, again with a different meaning:

(133) **ur-*lum-ma-ra* / lú *ba-ra-ba*-řú**
ur.lum.ma.k=ra lú =Ø ba.ra -ba -n -řú -Ø
Urlumma =DAT man=ABS CAT.NEG-MM-3SG.OO-hold-3SG.S/DO
'Nobody is to detain Urlumma!' (MVN 6:1 4-5; L; 23)

(134) **lú ì-ĝiš *na-ne*-zi-zi**

lú =e ì.ĝiš =Ø na -nnē -zi.g:RDP-e
man=ERG sesame.oil=ABS NEG.MOD-3PL.IO-rise:IPFV -3SG.A:IPFV
'Nobody must issue sesame-oil to them!' (TCS 1:142 5; N; 21)

(135) **níĝ *na-me* lú-*ù nu-bí-na***
níĝ na.me=Ø lú =e nu =Ø -bi -n -ʔak -Ø
thing any =ABS man=ERG NEG=VP-3N.OO-3SG.A-make-3N.S/DO
'Nobody let them do anything.' (AuOr 17-18 p. 224:26 6; L; 21)

Although the indefinite pronoun ***na-me*** is mostly attested with one of the nouns **lú** 'man', **níĝ** 'thing', **u_4.d** 'time', and **ki** 'place', it is also found with other nouns:

(136) **é-*a* še *na-me nu*-ĝál**
é =ʔa še na.me=Ø nu =ʔi -n(i)-ĝál -Ø
house=LOC barley any =ABS NEG=VP-in -be.there-3N.S/DO
'There is no barley whatsoever in the house.' (MVN 11:168 13; U; 21)

(137) **kišib *ba*-sa_6-*ga na-me* / ki-*na nu*-ĝál-*la***
kišib ba.sa_6.g=ak na.me=Ø ki =ane=ʔa
seal Basa =GEN any =ABS place=his =LOC

nu =ʔi -n(i)-ĝál -Ø -ʔa
NEG=VP-in -be.there-3N.S/DO-NOM
'that there was no receipt whatsoever of Basa at his place' (BCT 2:156 2-3; U; 21)

(138) **ki-$duru_5$ *na-me ha-[m]a-ab*-šúm-*mu***
ki.$duru_5$ na.me=Ø ḫa =Ø -ma -b -šúm-e
wet.land any =ABS MOD=VP-1SG.IO-3N.DO-give-3SG.A:IPFV
'He should give me any irrigated land (available)!' (PPAC 1:A.874 rev 3'; A; 23)

Ever since Poebel (1923: 95) connected ***na-me*** with the interrogative pronoun ***a-na*** 'what' (§8.5 above) and the verb **me** 'be', etymologies along these lines have circulated in Sumerology. Indeed, such an etymology perfectly fits what is known about the possible historical sources of indefinite pronouns (cf. Haspelmath 1997: 135-140). Yet, there is one problem with deriving ***na-me*** 'any' from an earlier ****a-na ì-me*** 'whatever it is'. The interrogative pronoun ***a-na*** has only non-human reference, while ***na-me*** can be used for both non-human and human. However, this need not invalidate the suggested etymology, because it is perfectly imaginable that, in an earlier stage of the language, ***a-na***, too, could be used with both non-human and human reference. See §6.2 for a discussion of (the prehistory of) the Sumerian gender system.

8.7. Reflexive pronoun

The Sumerian reflexive pronoun is **ní(-te)** 'self'. It behaves grammatically like a noun in that it is the head of a noun phrase, having the case marker appropriate for the grammatical function it performs (§5.2). It has two forms, **ní** and **ní-te**, which are in complementary distribution: **ní-te** is used before a possessive pronoun of the third person human and **ní** before any other possessive pronoun or if there is no possessive pronoun at all. As a rule, **ní(-te)** 'self' is followed by a possessive pronoun specifying the person referred to. Thus, the pronoun's full forms are **ní-*ĝu$_{10}$*** 'myself', **ní-*zu*** 'yourself', **ní-*bé*** 'itself', **ní-te-*né*** 'himself', and **ní-te-*ne-ne*** 'themselves'. Forms of the first and second person plural are as yet unattested. Forms without a

possessive pronoun are only found when **ní** is part of a phrasal verb, as for example in **ní—te.n** 'cool oneself' or **ní—gíd** 'stretch oneself' (Attinger 1993: 175; Karahashi 2000: 130):

(139) **ĝissu-*zu-šè* / ní *ga-ma-ši-íb*-te**
ĝissu =zu =še ní =Ø ga -m(u) -ba -ši -b -te.n
shadow=your=TERM self=ABS MOD:1SG.A/S-VENT-MM-to-3N.DO-cool
'Let me cool myself in your shadow!' (Cyl A 3:14-15; L; 22)

(140) **(...) ú-šim-*ma* ní *nu-mu*-gíd-*e***
ú.šim =ʔa ní =Ø nu =Ø -mu -n(i)-gíd -e
greenery=LOC self=ABS NEG=VP-VENT-in -be.long-3N.A:IPFV
'It did not stretch itself out (lit. "make itself long") in vegetation.' (AOAT 25 p. 129 9; ?; 21)

Functionally, Sumerian **ní(-te)** 'self' has not only much in common with the English reflexive pronouns (with *self*) but also with the English adjective *own*. The primary use of **ní(-te)** is to signal that a certain participant is coreferential with the subject of the clause. The possessive pronoun attached to **ní(-te)** 'self' then refers to the same person or thing as the subject. In this use, the reflexive pronoun is mostly found in the syntactic function of direct object, but it can occur in other functions, too:

(141) **ní-*zu nàb*-uš$_x$**(MUNŠUB)
ní =zu =Ø na -b -ʔúš-en
self=your=ABS NEG.MOD-3N.DO-die -2SG.A/S:IPFV
'Do not kill yourself!' (Instr.Shur., Adab Segm 2.10; A; 24)

(142) **ní-te-*ne-ne ba-ra-an*-sa$_{10}$-*aš***
ní.te=anēnē=Ø Ø -ba -ta -n -sa$_{10}$ -eš
self =their =ABS VP-MM-from-3SG.A-barter-3PL
'They sold themselves.' (TMHC NF 1/2:53 8; N; 21)

(143) **ní-te$^{!}$-*n*[*é*] / *in*-d[uḫ]**
ní.te=ane=Ø ʔi -n -duḫ -Ø
self =her=ABS VP-3SG.A-loosen-3SG.S/DO
'She (a slave woman) bought herself free.' (UET 3:51 4-5; Ur; 21)

(144) **ḫur-saĝ uruda-*ke$_4$* ki-maš-*ta* / ní-*bé mu-na-ab*-pà**
ḫur.saĝ uruda =ak =e ki.maš =ta ní =be=Ø
mountain copper=GEN=ERG Kimash=ABL self=its=ABS

Ø -mu -nna -b -pà.d-Ø
VP-VENT-3SG.IO-3SG.A-find -3N.S/DO
'A copper mountain from Kimash revealed itself to him (lit. "found itself for him").' (Cyl A 16:15-16; L; 22)

(145) **ní-*ĝu$_{10}$-ta en-nu-ĝá ga-ba-an*-ku$_4$**
ní =ĝu =ta en.nu.ĝ=ʔa ga -ba -n(i)-ku$_4$.r
self=my=ABL guard =LOC MOD:1SG.A/S-MM-in -enter
'I shall be brought into the guard(house) by myself.' (SANTAG 6:154 6; U; 21)

(146) **uš-*bé* ní-*ba ḫa-mu-ta*-è-*dé***
uš$_{11}$ =be =Ø ní =be=ʔa ḫa =Ø -mu -n -ta -ʔè -ed -e
poison=this=ABS self=its=LOC MOD=VP-VENT-3SG-from-go.out-IPFV-3SG.A:IPFV

'He must let that poison come out of him by itself ("on its own").' (VS 10:193 14; ?; 21)

The reflexive pronoun is not used as an indirect object, because an indirect reflexive is expressed with the prefix {ba} (see §21.3.2).

The reflexive pronoun can also be used as the subject of a clause. It then has an emphatic effect:

(147) **á-*ba* ĝiš *bí*-ĝar ní-te-*né* *mu*-zu**
á =be=ʔa ĝiš =Ø Ø -bi -n -ĝar -Ø
arm=its=LOC wood=ABS VP-3N:on-3SG.A-place-3N.S/DO

ní.te=ane=e Ø -mu -n -zu -Ø
self =his =ERG VP-VENT-3SG.A-know-3N.S/DO
'He put in wooden pegs at its sides and verified them himself.' (Cyl A 17:27; L; 22)

The reflexive pronoun can optionally be used to express a possessor who is identical to some other participant in the same clause, but a simple possessive pronoun can also be used in this way, as examples like the following show:

(148) **níĝ-*ú-rum-e* ka-*ga-na* *ba-ni-ge-en*$_6$**
níĝ.ú.rum=e ka.g =ane=ʔa Ø -ba -ni-n -ge.n -Ø
Nigurum =ERG mouth=his =LOC VP-MM-in -3SG.A-be.firm-3N.S/DO
'Nigurum confirmed it with (lit. "in") his own mouth.' (NG 17 11; L; 21)

(149) **alan-*na-né-éš* / *mu*-dú**
alan =ane=š(e) Ø -mu -n -dú.d -Ø
statue=his =TERM VP-VENT-3SG.A-give.birth.to-3N.S/DO
'He made it into a statue of himself (lit. "gave birth to it as a statue of himself").' (e.g. St C 3:16-17; L; 22)

If a reflexive form is used instead of a simple possessive pronoun, this has an emphatic effect:

(150) **é-šà ní-*ĝá-šè* / *mu-šè*-ĝen-*na-am*$_6$**
é.šà.g ní =ĝu =ak =še Ø -mu -ʔ -ši -ĝen-Ø -ʔa =Ø =ʔam
inner.room own=my=GEN=TERM VP-VENT-1SG-to-go -3SG.S/DO-NOM=ABS=be:3SG.S
'It was he who came to me, to my own inner room.' (En. I 29 10:1-2; L; 25)

(151) **túg ní-*ba* tuku$_5$-*a***
túg ní =be=ak =Ø tuku$_5$ -Ø -ʔa
cloth self=its=GEN=ABS weave-NFIN-NOM
'(slave women) who weaved their own clothes' (UTAMI 5:3035 obv 3; U; 21)

(152) **lugal-iri-*da* sám ní-te-*na* / [š]u-*na-a* si-*ga***
lugal.iri.da=r(a) sám ní.te=ane=ak =Ø šu =ane=ʔa si.g-Ø -ʔa
Lugalirida =DAT price self =his =GEN=ABS hand=his =LOC put -NFIN-NOM
'that the price for himself had been put into Lugalirida's hand' (NG 38 7-8; L; 21)

(153) **2 ĝír mí-ús ní-*ba***
2 ĝír mí.ús ní =be =ak
2 knife sheath self=its=GEN
'two knives and their own sheaths' (UET 3:321 3; Ur; 21)

Thus far, the Sumerian reflexive pronoun has been described as **ní(-te)**. However, **ní** is a conventional transliteration based on evidence from later texts. In the time of our texts, its form was probably not /ni(te)/ but rather /ne(te)/, as spellings with sound signs suggest:

(154) **igi an kù-*ga-ke*$_4$ / *ne-te-né bí*-zu**
igi an kù.g=ak =e ní.te=ane=Ø Ø -bi -n -zu -Ø
eye An pure=GEN=DIR self =his =ABS VP-3N.OO-3SG.A-know-3N.S/DO
'He made himself known to the eye of holy An (lit. "He caused the eye ... to know himself").' (Cyl B 18:15-16; L; 22)

(155) **lugal-*ne-te-na***
lugal ní.te=ane=ak
king self =his =GEN
'his own master' (PN) (TCL 5:5674 2:24=11:16; U; 21)

Note also the Old Babylonian spellings ***ne-za*** for **ní-*za*** (ZA 71 [1981] p. 15 line 8; N; OB) and ***ne-ta-ni*** for **ní-te-*né*** (ZA 85 [1995] p. 22 MA line 17; Meturan; OB) and ***ne*** for **ní** (Alster (2005: 270) Ni. 2763 = SLTNi 128 2:4; N; OB).

Thus, the transliteration **ní(-te)** reflects a later pronunciation of a form pronounced as /ne(te)/ until the Old Babylonian period. The spelling **ní(-te)** itself, however, is also an innovation and was preceded by a variety of more archaic writings with the sign **ME** (Alster 1974). The change in spelling came about during the second half of the third millennium and can be traced in our sources.

The first spelling change was from **me** to **ní**. Thus, where ex. (141) above has **ní-*zu***, an earlier version of the same literary text has **me-*zu***:

(156) **me-*zu na*-uš$_x$**(MUNŠUB)
ní =zu =Ø na -b -ʔúš-en
self=your=ABS NEG.MOD-3N.DO-die -2SG.A/S:IPFV
'Do not kill yourself!' (Instr.Shur., AbSt 17'; Abu Salabikh; 26)

The earliest spellings with **ní** date back to the Old Sumerian period. E.g.:

(157) **bar níĝ ní-*ba-ka-ka***
bar níĝ ní =be=ak =ak =ʔa
outside thing self=its=GEN=GEN=LOC
'because of its own things (lit. "on the outside of the things of itself")' (Ean. 1 obv. 3:20; L; 25)

The spelling **ní-te** was introduced much later, though. The earliest attestation known to me is from the Old Akkadian period:

(158) **lugal-ní-te-*na***
lugal ní.te=ane=ak
king self =his =GEN
'his own master' (PN) (Nik 2:69 5; U; 23)

Earlier, a spelling with the ligature **mete** (TE+ME) was used. E.g.:

(159) **niĝir-mete-*na***
niĝir ní.te=ane=ak
herald self =his =GEN
'his own herald' (PN) (TSŠ 78 4:5; Shuruppak; 26)

(160) ***nam*-ti / en-mete-*na-ka-šè***
nam.ti.l en ní.te=ane=ak =ak =še
life lord self =his =GEN=GEN=TERM
'for the life of Enmetena ("His-own-lord")' (Ent. 1 4:6-7; L; 25)

This writing **mete** was consistently used throughout the Old Sumerian period but was replaced during the Old Akkadian period by two competing spellings: **ní-te** and **me-te**, the latter an adaptation of the earlier spelling with the signs ME.TE in the non-inverted order. Thus, the name of the Old Sumerian Lagashite ruler Enmetena from ex. (160) is written with **me-te** in a later text:

(161) **1 sila$_4$ alan en-me-te-*na***
1 sila$_4$ alan en ní.te=ane=ak (=ak)
1 lamb statue lord self =his =GEN=GEN
'one lamb (as an offering for) Enmetena's statue' (ITT 1:1081 rev 1; L; 22)

The same spelling is still attested in Ur III texts from Lagash, where individuals with the name **en-me-te-*na*** occur (e.g. CT 9 pl.42 BM 18425 2:1; L; 21).

Up to and including the Ur III period, **ní-te** and **me-te** exist side by side as alternative spellings of the reflexive pronoun, but later **ní-te** becomes the norm, with **me-te** only occurring as a clear archaism:

(162) **me me-te-*na-ke$_4$* kiri$_3$ šu ĝál**
me ní.te=ane=ak =e kiri$_3$=e šu =Ø ĝál -Ø
essence self =his =GEN=DIR nose=DIR hand=ABS be.there-NFIN
'(lit. "who lets (his) hand be to (his) nose for" =) who reveres his own attributes' (TCL 15:14 AO 5380 1:4 (Shulgi E); 21, OB copy). Note that holding one's hand to one's nose is a gesture of worship.

The first part of this line is written **me ní-te-*na-k*[*e$_4$*]** in a different manuscript of the same literary text (PBS 10/2:7 4; ?; 21, OB copy). Here the spelling **me-te-*na*** is an archaism, a retention of an earlier orthography and **ní-te-*na*** its modernized version (Klein 2000: 137).

How are we to interpret the conventional transliterations **me**, **mete** and **me-te**? Are they simply different spellings for the same linguistic form as **ní(-te)**? This is clearly the view taken by Krecher (1978b: 389), who transliterates the name **en-mete-*na*** as **en-nite$_x$-na**. His view becomes even more plausible if we recognize that the earlier form was not /ni(te)/ but /ne(te)/ (see above). The Old Sumerian scribes are known to use signs for one sound to write another similar sound (§2.3). Thus, they wrote /ʔam/ as ***am$_6$*** with the sign AN, using a sign with /n/ to write an /m/. Writing /ne(te)/ with the signs ME and TE would involve the same principle, but now in the opposite direction, using a sign with /m/ to write an /n/.

Yet, there is an alternative and perhaps equally plausible explanation: we may simply be dealing with two different forms of the reflexive pronoun. We would then have a purely linguistic change from /me(te)/ to /ne(te)/ to /ni(te)/ (for the change of /e/ to /i/, see §3.9.3). This explanation remains closer to the actual spelling but its weakness is that a change of /m/ to /n/ is as yet not documented elsewhere. But this is not a very strong objection, because we hardly know anything about sound changes in the third millennium, due to the limitations of the script.

As unsatisfactory a conclusion as it may be, the only thing we know for certain is that **me(-te)** is gradually replaced by **ní(-te)**, but not whether this is merely a spelling change or also a change in the language, whereby one linguistic form replaces the other.

This leaves us with one more question to discuss: what is the relationship between the short form **ní** and the long form **ní-te**?[4] Unfortunately, it is only possible to speculate. Yet, two things are notable. First, the two forms are in complementary distribution, making up a single paradigm. Second, the form **ní** is never found before a vowel, but the form **ní-te** always so, since it only occurs before the two enclitic pronouns {ane} 'his' and {anēnē} 'their'. On the basis of these observations, I would like to suggest the following hypothesis: the original form of the pronoun was */net/. The final /t/ was subsequently lost, because a /t/ does not occur (anymore) as a syllable-final consonant in historical Sumerian (§3.10). This loss yielded the short form. In the long form the /t/ was not in syllable-final position and was therefore retained. The final /e/ after the /t/ developed from the initial /a/ of the possessive pronouns {ane} 'him' and {anēnē} 'their' through assimilation to the /e/ in the preceding syllable. Thus, */netane/ became /netene/, written **ní-te-*né***, and */netanēnē/ became /netenene/, written **ní-te-*ne-ne***.

[4] In the following discussion, I will ignore the forms with **me** for the sake of simplicity.

9. NUMERALS

9.1. Introduction

As to their syntax, numerals behave very much like nouns. Like a noun, a numeral makes up a noun phrase in its own right, having the case marker appropriate for the grammatical function it performs. In their morphology, however, numerals differ from nouns. With the sole exception of the numeral for 'one', all numerals can occur with the suffix {kamma} or {kam}, which turns a cardinal numeral into an ordinal. Also, on the basis of less than a dozen simple numerals, an endless sequence of new numerals can be formed through composition.

Numerals also differ from nouns in their meaning: a numeral always expresses a number. It is true that nouns like **zà-*ta*** 'all' (§6.5.5) and ***é-ba-an*** 'pair' express quantities, but they cannot be used as counting words for counting. This qualifies them as nouns, not numerals.

The grammatical properties of the numerals will be treated more fully in the following sections. The next, second, section is devoted to the Sumerian numeral system. It discusses how a few basic numerals are used to form an infinite series of counting words (§9.2). The third section discusses the syntax of the cardinals (§9.3). The fourth section treats the ordinals (§9.4), while the expression of fractions is the topic of the fifth and final section of this chapter (§9.5).

9.2. Numeral system

Numerals are written with word signs, which do not provide any information about how they are pronounced. Although we have an endless number of numerals in our corpus, we learn preciously little about their linguistic form and structure. The spelling of certain clitics after a numeral may reveal whether that numeral has a final consonant and perhaps even what that final consonant is. Or it may tell us instead that the numeral has a final vowel. Also, the numbers 1, 10, 60, and 3600 have their own word signs, which suggests that they are bases in the Sumerian numeral system. Finally, how these word signs are combined to write other numerals reflects to some extent the linguistic structure of these numerals, as we shall see in the conclusion of this section.

If this covered the full extent of our evidence, it would be impossible to describe the Sumerian numeral system from a linguistic point of view. Fortunately, however, we have additional data, albeit not from the Sumerians themselves. In learning and using Sumerian as a written language, Akkadian scribes sometimes wrote Sumerian numerals with sound signs. They provided us with our main sources, the most important being a few lexical and mathematical texts from the first millennium BCE.

Basing himself on these sources, Powell (1971) gave a reconstruction of the Sumerian numeral system and his is the most thorough treatment to date. But he, too, had to work with incomplete data and several aspects of the Sumerian numeral system remain uncertain. As new data come available, progress is made. Thus, Edzard (1980; 2005) published and analysed a lexical text from 24th century Ebla which gives the pronunciation of the numerals two to ten. This source is particularly important because it predates our main sources by many centuries. A further new source is given by Hunger (1998), who discusses a newly published astronomical text containing Sumerian numerals written out with sound signs.

The numerals for 1 through 5, 8, 10, 20, 60, and 3600 are expressed by simple, unanalysable words. All other numbers are expressed by compound numerals made up from simple numerals. Compound numerals are either additive or multiplicative. An additive compound is a

numeral which expresses a number through the addition of two smaller numerals (e.g. English *twenty-one*). A multiplicative compound is a numeral which expresses a number through the multiplication of two smaller numerals (e.g. English *two hundred*).

The lexical texts that write out the numerals with sound signs do not always agree in every detail on the phonemic make-up of the simple numerals. The forms given below of the individual numerals are therefore only approximate. The numerals from 'one' through 'ten' are the following (Powell 1971: 13-44; Edzard 2005):

Numeral	***Form***	***Earlier form***	***Explanation***
one	diš		
two	min		
three	eš		
four	limmu		
five	ja, i	*ja	
six	āš	*i-aš (?)	= 5+1 (?)
seven	umin	*i-min	= 5+2
eight	ussu		
nine	ilimmu	*i-limmu	= 5+4
ten	u	*ju	

Lexical texts give also **aš** and **dili** as equivalents of Akkadian *ištēn* 'one', but as Powell (1971: 18-21) noted, **diš** is the only one used as a counting word. The words **aš** and **dili** seem to have meanings like 'single' and 'alone' and are no true numerals. However, **aš** may be part of the numeral for 'six', if the latter really is a compound (see below). Also, **dili** is attested once in a variant form for Sumerian 'twelve' (see below).

The late lexical and mathematical texts are unanimous in assigning a form /ja/ (written ***ia***) to the numeral for 'five'. At the same time, the sign for 'five' is in Old Akkadian used as a sound sign for /ji/ (Hasselbach 2005: 87) and later for /i/. The numeral for 'nine', /ilimmu/, obviously contains /limmu/ 'four', which gives us an /i/ 'five'. Thus, we get three different forms for Sumerian 'five', which can be harmonized by assuming the following development: /ja/ > /ji/ > /i/, a development which is attested for Akkadian in the third millennium (von Soden 1995: §22c). This does not explain, however, why the oldest form (/ja/) is predominantly found in the most recent sources, so that the precise relationship between the three forms remains uncertain. Perhaps the earlier form /ja/ for 'five' was somehow retained in some dialect or scribal tradition.

Some of the numerals for 'six' through 'none' are additive compounds with /ja/ or /i/ 'five' as a base. This analysis is widely accepted for /ilimmu/ 'nine' (from /i-limmu/) and /umin/ 'seven' (from /i-min/). The initial /u/ of /umin/ is due to analogy with the initial /u/ of /ussu/ 'eight' (Edzard 2005: 102). Thus, both /umin/ 'seven' and /ilimmu/ 'nine' are without doubt additive compounds. The numeral /āš/ 'six' is also often taken as an additive compound, but from /ja-aš/ or /i-aš/, which Powell (1971: 37-38) translates as 'five (plus) a single one'. Instead of the expected /diš/, we would have here a form /aš/, which lexical texts also translate with the Akkadian numeral 'one', but which appears to be no numeral (see above). The nu-

meral /āš/ ‘six’ may therefore be no compound at all. A derivation of /ussu/ ‘eight’ from /ja-eš/ or /i-eš/ is phonologically impossible.

Powell (1971: 43-44) reconstructed a form /u/ for ‘ten’ on the basis of a wide range of later lexical texts and other sources. The Ebla text published by Edzard (1980) has led Edzard (2005: 103) to reconstruct an earlier form /haw/. However, since Sumerian lacks a phoneme /w/ (§3.1), a different interpretation of the Ebla source is called for. I propose to read the form as ***u$_9$-wa-mu*** instead of ***ha***(U_9)***-wa-mu***, with /u/ representing the numeral ‘ten’ and /w/ as a glide inserted by the Semitic scribe between the /u/ and the following copula. Since the sign for ‘ten’ is used in Old Akkadian as a sound sign for /ju/ (Hasselbach 2005: 88), the original form for Sumerian ‘ten’ probably was /ju/.

The phonemic make-up of the numerals as listed above fits the scanty evidence from the corpus. The final /n/ of /min/ ‘two’ is confirmed by spellings such as **2-*nam*** ‘which are two (in number)’ which consist of the numeral /min/ and the enclitic copula /ʔam/ (e.g., Ean. 1 obv 18:2; L; 25). The final /n/ of /umin/ is similarly confirmed by the following spelling:

(1) **é ub 7-*na-né***
é ub umin=ane
house corner seven=his
‘his seven-cornered house’ (St D 2:11; L; 22).

A passage from a literary text (Cyl A 21:1-12; L; 22) supports the syllable structure of the numerals for 2 through 7. In a series of parallel clauses, the enclitic copula /ʔam/ is added for rhythmical reasons to the monosyllabic numerals /min/, /eš/, /ja/, and /āš/, while it is absent from the bisyllabic /limmu/ and /umin/ (Heimpel 1970).

Since the /a/ of the possessive suffix /anēnē/ ‘their’ contracts with a preceding vowel (§8.3), forms with /anene/ confirm that /eš/ ‘three’ and /āš/ ‘six’ end in a consonant, while /limmu/ ‘four’ and /ja/ ‘five’ are shown to end in a vowel:

(2) **6-*a-ne-ne-kam***
āš=anēnē=ak =ʔam
six=their =GEN=be:3N.S
‘This is of the six of them.’ (VS 14:172 8:9; L; 24)

(3) **4-*ne-ne***
limmu=anēnē
four =their
‘the four of them’ (NRVN 1:224 8; N; 21)

Similarly: **3-*a-ne-ne-kam*** ‘This is of the three of them.’ (DP 223 10:5'; L; 24), **5-*ne-ne-kam*** ‘This is of the five of them.’ (Nik 1:25 7:7; L; 24).

The /a/ of the genitive case marker /ak/ also contracts with a preceding vowel, so that the retention of this /a/ proves that the preceding word ends in a consonant. In this way it can be confirmed that /eš/ ‘three’ ends in a consonant:

(4) **šuku lú 3-*a-kam***
šuku.ř lú eš =ak =Ø =ʔam
prebend person three=GEN=ABS=be:3N.S
‘It is the prebendal land of three persons.’ (NG 215 1; U; 21)

Most of the numerals above 10 are additive compounds and their make-up is still poorly understood. We will therefore first list the main and better-known numerals from 20 onwards (Powell 1971: 45-82; Steinkeller 1980; Wilcke 2005):

Numeral	*Form*	*Earlier form*	*Explanation*
20	niš		
30	ušu	*eš-u	= 3x10
40	nimin	*niš-min	= 20x2
50	ninnu	*nimin-u	= 40+10
60	ĝešd		
120	ĝeš-min		= 60x2
240	ĝeš-limmu		= 60x4
420	ĝeš-umin	*ĝešd-umin	= 60x7
600	ĝešd-u		= 60x10
1200	ĝeš-u-min	*ĝešd-u-min	= 600x2
3600 (60x60)	šar		
36000	šar-u		= 3600x10
216000 (60x60x60)	šar-gal		= 'big 3600'

Apart from /niš/ 'twenty', /ĝešd/ 'sixty', and /šar/ '3600', all these numerals are compounds. The form /ušu/ 'thirty' comes from /eš-u/, a multiplicative compound of /eš/ 'three' and /u/ 'ten'. The numeral /nimin/ 'forty' is also a multiplicative compound, consisting of /niš/ 'twenty' and /min/ 'two' and coming from /niš-min/. The numeral /ninnu/ 'fifty' was perhaps originally an additive compound of /nimin/ 'forty' and /u/ 'ten'.

As shown by Steinkeller (1980), /ĝešd/ is the basic form of Sumerian 'sixty', even though later sources generally give a form /ĝeš/ (e.g. Ea II 242-265 = MSL 14 pp. 257-258). The final /d/ is, for instance, shown by Ur III spellings of the genitive case marker {ak} after /ĝešd/ 'sixty', such as in the common expression **ugula 60-*da*** 'foreman of sixty' (NG 51 21-23; U; 21). It is still unclear how and when earlier /ĝešd/ became later /ĝeš/, but the final /d/ is still attested before vowels in texts from the Old Babylonian period. As most of the spellings with sound signs come from later sources, the table above shows mainly forms with /ĝeš/.

From /ĝešd/ 'sixty' onwards, counting starts anew with exponents of sixty: /ĝešd/ '60^1', /šar/ '60^2', and /šar-gal/ '60^3'. This role of the number sixty in the numeral system is typical for Sumerian and there is no other known language with which Sumerian shares this property. The numeral /šar/ '3600' is written **šár** and is cognate with the verb **šár** 'be numerous' and the noun **šár** 'circle, totality'. The numeral **šár-gal** '216000' literally means 'big 3600' (Wilcke 2005).

In our texts, there is some evidence that supports the forms of the numerals as listed above. The final /n/ of /nimin/ 'forty' is shown by the following form:

(5) **šà kišib 40-*na***
šà.g kišib nimin=ak
heart seal forty =GEN

'among forty sealed documents' (AUCT 3:153 2; D; 21)

The general make-up of /ĝešd-umin/ (= 60x7) '420' is confirmed by an Old-Sumerian spelling:

(6) **ninda-*né* 420-*nam***
ninda=ane=Ø /ĝešd-umin/=Ø =ʔam
bread =his =ABS sixty-seven=ABS=be:3N.S
'His loaves of bread are 420 (in number).' (Ukg. 4 6:6; L; 24)

Among the numerals treated thus far have been several compounds, additive as well as multiplicative. In all multiplicative compounds, the multiplier follows the base, as quite a few spellings with sound signs prove. The only exception is the numeral /ušu/ 'thirty' (3x10), in which the multiplier precedes the base, unless Powell (1972: 9) is right with his etymology 'ten threes' for Sumerian 'thirty', which takes ten as the multiplier.

We have far fewer spellings with sound signs for additive compounds, but at least some of these compounds seem to have exactly the same structure as the multiplicative compounds: /umin/ 'seven' (5+2), /ilimmu/ 'nine' (5+4), and /ninnu/ 'fifty' (40+10). If we compare this with multiplicative compounds like /ĝešdu/ '600' (60x10), we observe that a simple sequence of two numerals can be used for either an additive or a multiplicative compound. If we take this as a general rule, as some Sumerologists do, we get a great many homonymous forms in the Sumerian numeral system, a little bit as if English *twenty-three* were both '23' (20+3) and '60' (20x3). In actual fact, we have no positive evidence for such homonyms in the Sumerian numeral system.

Take, for instance, /umin/ 'seven' (5+2). It can clearly not be confused with */u-min/ 'twenty' (10x2), because 'twenty' is /niš/. But what about 'twelve' (10+2)? As it happens, we have three different spellings for Sumerian 'twelve', all three different from /umin/ 'seven', but also all three different from each other. A Neo-Babylonian text from Sippar has ***ú-ù-mi-in-n*[*u*]** and a Neo-Assyrian text from Huzirina has **u-*iá*-min** (ST 399 11) (Powell 1971: 55, 68). And a Neo-Assyrian text from Nimrud has ***ú-du-li-me-in*** (CTN 4:10 obv. 6) (Hunger 1998: 179). All three have /u/ 'ten' as their first element and /min/ 'two' as the third element. They differ in what they have in between. The third is the clearest: as Hunger observed, it contains **dili**, a word which lexical texts also translate with the Akkadian numeral 'one', but which is otherwise not attested as a numeral (see above under 'one'). It also occurs in spellings for the Sumerian numeral 'fifteen': ***ú-di-li-ia*** (Hunger 1998: 181) and ***u-du-li-ia*** (CTN 4:10 obv. 3, see Hunger 1998: 179). Both spellings reflect a form /udilija/ 'fifteen', consisting of /u/ 'ten', **dili** 'single, alone', and /ja/ 'five'.

The other two spellings for Sumerian 'twelve', ***ú-ù-mi-in-n*[*u*]** and **u-*iá*-min**, show a linking element between /u/ 'ten' and /min/ 'two', although they disagree on the form of this link. The ***ù*** of the first one has been interpreted as the conjunction ***ù*** 'and', which would explain the form as 'ten and two'. But this conjunction is a loanword from Akkadian and entered the language as late as the Old Akkadian period (§5.4). One can hardly expect such a loanword to function in numerals as low as 'twelve' (Powell 1971: 57-58). In my view, the two spellings reflect the presence of case markers. The first contains the directive case marker {e}, which contracts with a preceding vowel. According to this spelling, the numeral for 'twelve' is /ū-min/ lit. 'two to ten', with the plene spelling representing the long vowel. The other spelling includes the locative case marker {ʔa} and gives for 'twelve' the form /uja-min/ lit. 'two on ten'.

This does not exhaust the attested structures for additive compounds. Take the Sumerian numeral 24. The Neo-Assyrian text from Huzirina writes it out as ***ni-ši* 4 diri-*«da»-ga*** (ST 399

16) (Powell 1971: 68), whereas the Neo-Assyrian text from Nimrud has ***ni-il lam-ma di-ri-g[a]*** (CTN 4:10 obv. 17) (Hunger 1998: 179). These two spellings reflect something like the following:

(7) ****ni-iš lim-mu di-ri-ga***
niš limmu=Ø diri.g -Ø -ʔa
twenty four =ABS exceed-NFIN-NOM
'twenty exceeded by four'

All this gives us a bewildering range of possible forms for additive compounds. The small number of spellings with sound signs and their inconsistency make it impossible to reconstruct any of the additive compounds above /u/ 'ten', which make up the largest portion of the Sumerian numeral system. But we have enough data to cast doubt on this particular part of Powell's reconstruction, which contains many homonymous forms. Although he only had an explicit spelling for /ĝeš-limmu/ '240' (60x4), he posited the same form for '64' (60+4). And while he had an explicit spelling for /ĝeš-u/ '600' (60x10), he reconstructed the same form for '70' (60+10) (Powell 1971: 70). In actual fact, we do not have any proof for such homonymous forms. All suggested cases involve hypothetical forms. We simply do not know how additive compounds were formed in Sumerian. We only have data which suggest some possibilities.

The internal structure of the numerals is partly reflected in the way they are written. There are separate numerical signs for: /diš/ 'one', /u/ 'ten', /ĝešd/ 'sixty', and /šar/ '3600'. The sign for /ĝešd-u/ (= 60x10) '600' is a ligature of the signs for /ĝešd/ 'sixty' and /u/ 'ten'. Similarly, the sign for /šar-u/ (= 3600x10) '36000' is a ligature of the ones for /šar/ '3600' and /u/ 'ten'.

The writing system often uses an element **lá** 'minus'. The numeral 19, for example, is nearly always written as: **20 lá 1** (NATN 503 7; N; 21). This use of **lá** 'minus' is probably only a spelling convention. Writing '10 10 lá 1' is evidently more efficient than writing '10 1 1 1 1 1 1 1 1 1'. Nevertheless, the latter spelling is also found occasionally: **19** (NRVN 1:140 7; N; 21). Not only the numeral 9 but also 8 and sometimes even 7 can be written with **lá**: e.g., **20 lá 2** (AUCT 1:52 2; D; 21) and **50 lá 3** (MVN 12:109 1; L; 21). Full spellings are also found: e.g., **18** (SACT 1:136 4; D; 21) and **47** (MVN 12:110 1; L; 21).

9.3. Syntax of the cardinals

9.3.1. Attributive use: quantifying nouns

Cardinal numerals are used attributively or independently. When used attributively, a cardinal is part of a noun phrase and quantifies a noun. It is then grammatically dependent on the counted noun. We start by discussing this attributive use: first the basic construction of a cardinal with a counted noun and then, in the next section, metrological expressions, which involve a numeral and two nouns – a measure and a measured item. The independent use of cardinals – without any counted noun – will be the topic of §9.3.3 below.

An attributive cardinal always follows its head noun, but the precise grammatical relationship between the two depends on which of two possible constructions is used. In the first, the cardinal is construed as the nominal predicate of a relative copular clause (see also §29.6.2 and §29.4.3):

(8) **šà-*ba* iti diri 5-*àm* ì-ĝál**

šà.g =be=ʔa iti.d diri.g ja =Ø =ʔam ʔi-n(i)-ĝál -Ø
heart=its=LOC month extra five=ABS=be:3N.S VP-in -be.there-3N.S/DO
'In this, there are five intercalary months. (Lit. "In its heart there are extra months which are five (in number).")' (RA 9 p.158 obv 5; U; 21)

(9) **mu udu é-gal 3-*àm* udu-*na* *ba-an-*dab$_5$-*ba-šè***
mu udu é.gal =ak eš =Ø =ʔam udu =ane=ʔa
name sheep palace=GEN three=ABS=be:3N.S sheep=his =LOC

Ø -ba -n(i)-dab$_5$-Ø -ʔa =ak =še
VP-MM-in -take -3N.S/DO-NOM=GEN=TERM
'because (lit. "for the name of that") three sheep of the palace were caught among his sheep' (AAICAB I/2 pl. 104 Ashm. 1937-61 3-4; D; 21)

(10) **mu dumu-*né* 3-àm *ba*-gub-*ba-šè***
mu dumu=ane eš =Ø =ʔam Ø -ba -gub -Ø -ʔa =ak =še
name son =his three=ABS=be:3N.S VP-3N.IO-stand-3N.S/DO-NOM=GEN=TERM
'because his three sons were on duty for it' (MVN 6:293 3:9'; L; 21)

In the second construction, the cardinal is simply placed after the head noun without any further marking other than word order. The cardinal is then positioned between its head noun and the phrase-final clitics that belong to the head noun (§5.2). Since the enclitic plural marker {enē} is never used together with a numeral (§6.3.3), case markers and enclitic pronouns are the only phrase-final clitics found. E.g.:

(11) **máš mu 3-*a-bé***
máš mu eš =ak =be
interest year three=GEN=its
'its interest over (lit. "of") three years' (NG 144 2; U; 21)

The cardinal precedes a genitive governed by the head noun of this cardinal:

(12) **dumu-maš 7 ^{d}*ba-ú-me***
dumu.maš umin ba.ú=ak =Ø =me-eš
twin seven Bau =GEN=ABS=be -3PL.S
'They are Bau's septuplets.' (Cyl B 11:11; L; 22)

If the head noun of a cardinal governs other attributes beside a cardinal, this cardinal follows those other attributes:

(13) **mu gu$_4$ niga sig$_5$ é-gal-*ta* è-*a* 1-*a-šè***
mu gu$_4$.ř niga sig$_5$ é.gal =ta è -Ø -ʔa diš =ak =še
name bull barley.fed good palace=ABL go.out-NFIN-NOM one=GEN=TERM
'because of one good barley-fed bull that went out of the palace' (TPTS 1:171 2; U; 21)

Scribal conventions often obscure the actual word order of numerical expressions. In lists, for instance, the numeral is always written before the counted noun, throughout the period of our corpus. E.g.: **10 udu-nita / 2 sila$_4$ / 1 ud$_5$ / 1 ^{munus}áš-gàr / 5 maš** 'ten rams, two lambs, one she-goat, one young she-goat, five he-goats' (DP 218 7:1-5; L; 24); **4 udu-nita / 1 máš** 'four rams, one he-goat' (ECTJ 162 1:1-2; N; 23); **6 udu / 1 u$_8$ / 26 máš-gal / 7 ud$_5$** 'six rams, one ewe, twenty-six fullgrown he-goats, seven she-goats' (MVN 13:386 1-4; D; 21).

In other contexts, the written order of numeral and counted noun may also differ from the actual word order in the spoken language. But in spite of the variety in the orders as written,

the word order counted noun – cardinal numeral is quite certain for a number of reasons (Powell 1971: 1-6). Firstly, all known phonographic writings have this order. Secondly, there is the evidence from language typology. As we saw in the previous section, the base precedes the multiplier in numeral compounds that are formed on the basis of multiplication. Cross-linguistically this order base – multiplier in complex numerals invariably corresponds to the order noun – quantifier in noun phrases (Greenberg 1989: 105-106). Thirdly, wherever the spellings of case markers or other grammatical morphemes make the actual word order clear, the numeral is always shown to be following the counted noun. E.g.:

(14) **á *en-te* iti 2-*na-šè***
á en.te.n=ak iti.d min=ak =še
labour winter =GEN month two=GEN=TERM
'for winter work for (lit. "of") two months' (NATN 622 2; N; 21)

Since the discrepancy between written and spoken order is particularly great in metrological expressions, we will take up this topic again below in §9.3.2.

Cardinals can also be used to quantify a noun in a construction with the demonstrative clitic {be} (§8.4.2). This clitic is attached to the cardinal and together they quantify the noun. The expression as a whole is always definite. Thus, the following example can never mean 'four statues (...)' but always denotes '*the* four statues (...)'. In contrast with what Poebel (1923: 112-113) thought, the counted noun is *not* in the genitive case, nor does this construction involve an anticipatory genitive (Zólyomi 1996: 39-40). E.g.:

(15) **alan ur-^{d}namma-*ka* 4-*bé***
alan ur.namma.k=ak limmu=be
statue Urnamma =GEN four =this
'the four statues of Ur-Namma' (MVAG 21 p.22 FH 5 obv 1:12; U; 21)

(16) **balaĝ 7-*ba-kam***
balaĝ umin=be =ak =ʔam
harp seven=this=GEN=be:3N.S
'This is of the seven harps.' (Nik 1:23 11:10; L; 24)

(17) **alan é-šà-*ga* 8-*ba-kam***
alan é.šà.g =ak ussu=be =ak =ʔam
statue Inner.room=GEN eight=this=GEN=be:3N.S
'This is of the eight statues of the Inner Room.' (DP 53 9:14; L; 24)

(18) **di til-*la* / di-ku$_5$ lugal 7-*ba***
di.d til -Ø -ʔa di.ku$_5$.ř lugal=ak umin=be =ak
judgement end-NFIN-NOM judge king =GEN seven=this=GEN
'completed trial of the seven royal judges (lit. "of the king")' (NG 117 20'-21'; L; 21)

(19) **a-nun-*na* eridu^{ki} 50-*bé***
a.nun.na.k eridu.g=ak ninnu=be
Anunna Eridu =GEN fifty =this
'the fifty Anunna-gods of Eridu' (TrD 1 4 = 11; ?; 21)

The numerals /limmu/ 'four' and above never have the nominalizing suffix {ʔa} in this construction, but the two cardinals /min/ 'two' and /eš/ 'three' always do (§31.3.3):

(20) **igi 2-*na-bé***

igi min-ʔa =be
eye two-NOM=this
'both eyes' (VS 14:66 3:2; L; 24)

(21) **é ^{d}*ba-ú* 3-*a*-*bé***
é ba.ú=ak eš -ʔa =be
house Bau =GEN three-NOM=this
'the three Bau temples' (TLB 3:167 1:6; L; 21)

(22) **mu ^{ĝiš}*gu-za* 3-*a*-*ba*-*šè***
mu gu.za eš -ʔa =be=ak =še
name throne three-NOM=this=GEN=TERM
'because (lit. "for the name") of the three thrones' (CST 455 1; D; 21)

The numeral /diš/ 'one' is not attested in this construction, so that we do not know how it behaves.

When used attributively, cardinal numerals quantify nouns. This can be done in two different ways. Firstly and most commonly, a cardinal can express how many there are of a certain item (cf. the English cardinal 'two' in 'two chapters'). Secondly, a cardinal can express the position of a certain item in a series (cf. English 'Chapter Two'). These two different uses are not formally distinguished in the texts. They may have had different accentual patterns but that cannot be determined.

As in English, cardinals rarely express a position in a series. The normal way to do this is to use an ordinal (§9.4). Nevertheless, our texts offer a few instances. E.g.:

(23) **é-*a* sá min-*nam* *nam*-*mi*-sì**
é =ʔa sá min=ʔam na -m(u) -bi -n -sì.g-Ø
house=LOC square two=be:3N.S PFM-VENT-3N:on-3SG.A-put -3N.S/DO
'It was square number two (lit. "the square which is two") that he put on the temple.' (Cyl A 21:1; L; 22)

This clause is the first of a sequence that goes on with **é-*a* sá eš-*àm* *nam*-*mi*-sì** 'It was the square three that he put on the temple' (Cyl A 21:3; L; 22) and continues with similar clauses until the last one: **é-*a* sá umin *nam*-*mi*-sì** 'He put square seven on the temple' (Cyl A 21:11; L; 21).

In the Old-Sumerian texts from Lagash, the following phrase occurs frequently as a subscript of a list of monthly supplies:

(24) **12 ĝar-*am*$_6$**
ĝar -Ø 12=Ø =ʔam
place-NFIN 12=ABS=be:3N.S
'This is the twelfth furnishing of supplies (lit. "it is placing number twelve").' (DP 145 11:5; L; 24)

A similar subscript is **8 ba-*am*$_6$** 'This is the eighth distribution (lit. "portioning out number eight").' (DP 151 2:7; L; 24).

The phrasing of dates provides a further instance of cardinals expressing a position in a series. Days do not have names in Sumerian but are numbered with cardinals from one through thirty for each month. E.g.:

(25) **u$_4$ 24 *nu*-*ub*-tuku / u$_4$ 25 *nu*-*ub*-tuku / u$_4$ 26 *nu*-*ub*-tuku**

u_4.d 24/25/26=e nu =ʔi -b -tuku-Ø
day 24/25/26=ERG NEG=VP-3N.A-have-3N.S/DO
'Day 24/25/26 does not have it (i.e., expenditures).' (UET 3:243 1-3; Ur; 21)

After these three lines, the document proceeds to list the expenditures of the twenty-seventh day. Expressions like **u_4 24** 'the twenty-fourth day (lit. "day twenty-four")' are, of course, particularly frequent in dates. A typical date formula is the following:

(26) **iti-*ta* u_4 2 *ba-ra-*zal**
iti.d =ta u_4.d min=Ø Ø -ba -ta -zal -Ø
month=ABL day two=ABS VP-MM-from-pass-3N.S/DO
'The second day of the month has passed (lit. "out of the month, day two has passed").' (SACT 1:61 3; D; 21)

Thus a phrase like **u_4 2** can mean either 'two days' or 'day two'. Only the context can give a clue to which one applies in a given case. E.g.:

(27) **iti 4 u_4 15-*šè* / ĝuruš-*bé* 405 u_4 1-*šè***
iti.d 4 u_4.d 15=še ĝuruš =be 405 u_4.d 1=še
month 4 day 15=TERM labourer=its 405 day 1=TERM
'(three labourers) for four months and fifteen days; its (total number of) labourers: 405 for one day' (TMHC NF 1/2:293 6-7; N; 21)

(28) **iti NN_1 u_4 18 zal-*la-ta* / iti NN_2-*šè* / iti 7 u_4 12-*kam***
iti.d NN_1 u_4.d 18 zal -Ø -ʔa =ta iti.d NN_2 =še
month NN_1 day 18 pass-NFIN-NOM=ABL month NN_2=TERM

iti.d 7 u_4.d 12=ak =Ø =ʔam
month 7 day 12=GEN=ABS=be:3N.S
'From month NN_1 when day 18 had dawned to month NN_2: this is that of seven months and twelve days.' (BCT 1:120 6-8; D; 21)

One important set of constructions with cardinals remains to be discussed. The noun phrase of which the attributive cardinal is a part can be a nominal predicate in the genitive case. As the last word of the nominal predicate, the cardinal can then be followed by the genitive case marker {ak} and the form /ʔam/ 'it is' of the enclitic copula. E.g.:

(29) **ku_6 bansur-*ra* lú 1-*a-kam***
ku_6 bansur=ak lú diš =ak =Ø =ʔam
fish table =GEN man one=GEN=ABS=be:3N.S
'This is the table fish of one man.' (DP 294 2:3; L; 24)

(30) **sá-du_{11} iti 1-*a-kam***
sá.du_{11}.g iti.d diš =ak =Ø =ʔam
provisions month one=GEN=ABS=be:3N.S
'These are the provisions of one month.' (HSS 4:54 39; L; 21)

Usually, however, the /a/ of the genitive case marker is left unwritten. Example (30) is, for instance, also written **sá-du_{11} iti 1-*kam*** (MVN 7:12 obv 2; L; 21). Such spellings without the /a/, however, are ambiguous from the time of Gudea onwards. By then the ordinal suffix {kamma} had become {kam} (§9.4), so that the spelling ***kam*** could stand for either the ordinal suffix or the sequence /akam/. The following are further instances with the spelling ***kam*** for the latter:

(31) **á urdu$_2$ mu 3-*kam***
á urdu$_2$.d=ak mu eš =ak =Ø =ʔam
wages slave =GEN year three=GEN=ABS=be:3N.S
'These are the slave wages of three years.' (NG 204 9; L; 21)

(32) **120 sar al 6 sar-*ta* / á-*bé* u$_4$ 20-*kam***
sar 120 al sar 6=ta á =be=Ø u$_4$.d niš=ak =ʔam
plot 120 hoe plot 6=ABL labour=its=ABS day 20 =GEN=be:3N.S
'120 plots (of) hoe-(work) with six plots (per person per day): its labour (expense) is that of twenty days.' (SNAT 350 obv 9-10; U; 21)

(33) **2.1.1 gur / še-ba geme$_2$-kín-kín / iti 1-*kam* / iti gu$_4$-řá-izi-mú-mú-*ta* / iti šu-numun-*šè* / še-*bé* 6.3.3 gur / iti 3-*kam***
2.1.1 gur še.ba geme$_2$.kín.kín =ak iti.d 1=ak =ʔam
2.1.1 *gur* barley.ration mill.slave.woman=GEN month 1=GEN=be:3N.S

iti.d NN=ak =ta iti.d NN=ak =še še =be=Ø 6.3.3 gur
month II =GEN=ABL month IV =GEN=TERM barley=its=ABS 6.3.3 *gur*

iti.d eš=ak =ʔam
month 3 =GEN=be:3N.S
'Two *gur*s and seventy litres: the barley rations of the mill workers. These are of one month. From month II until month IV: the barley for this: six *gur*s and 210 litres. This is of three months.' (MVN 6:287 obv 3:14-20; L; 21)

As a rule, ordinals are not used in this construction with /akam/ (§9.4). Instead cardinals frequently express a position in a series:

(34) **u$_4$ 2-*kam***
u$_4$ min=ak =ʔam
day two=GEN=be:3N.S
'These are the ones (i.e., offerings) of the second day (lit. "day two").' (VS 14:34 4:2; L; 24)

(35) **u$_4$ 3-*a*-*kam***
u$_4$.d eš =ak =ʔam
day three=GEN=be:3N.S
'This is of the third day (lit. "day three").' (UET 3:117 9; Ur; 21)

(36) **15 udu *mu*-DU u$_4$ 2-*kam* / 7 udu u$_4$ 3-*kam***
15 udu mu.DU.r u$_4$.d min=ak =ʔam 7 udu u$_4$.d eš =ak =ʔam
15 ram income day two=GEN=be:3N.S 7 ram day three=GEN=be:3N.S
'Fifteen rams: this is income of the second day (lit. "day two"); seven rams: this is of the third (lit. "day three").' (CTMMA I 8 1-2; D; 21)

9.3.2. Attributive use: metrological expressions

As stated in the previous section, the numeral follows the counted noun in the language as spoken but may precede it in the language as written. In metrological expressions, this discrepancy between speech and script becomes even more complicated, because they involve two different nouns besides the numeral, not only a counted noun expressing the measure, but also the noun that expresses the item measured.

Just like with any other counted noun, the numeral follows the measure. This is clear from all available spellings with sound signs. A late lexical text, for instance, gives several such spellings:

- with the capacity measure *ban*: ***ba-an mi-in*** 'two *ban*', ***ba-an eš*** 'three *ban*', ***ba-an lim-mu*** 'four *ban*', ***ba-an iá*** 'five *ban*' (MSL 14 pp. 192-193),
- with the area measure *bur*: ***bur di-iš*** 'one *bur*', ***bur ni-iš*** 'twenty *bur*', ***bur ni-nu-ú*** 'fifty *bur*', ***bur i-lim-mu*** 'nine *bur*', ***bur ni-mìn*** 'forty *bur*' (MSL 14 pp. 254-255),
- with the area measure *eše*: ***e-še mìn*** 'two *eše*' (MSL 14 p. 251),
- with the area measure *iku*: ***i-ku mìn*** 'two *iku*', ***i-ku eš*** 'three *iku*', ***i-ku lim-mu*** 'four *iku*', ***i-ku ia*** 'five *iku*', ***i-ku a-áš*** 'six *iku*' (MSL 14 pp. 252-253).

That the numeral follows the measure noun is also clear from those instances where the spelling of a following clitic reveals the actual word order. E.g.:

(37) **gur sila$_3$ 60-*da-ta***
gur sila$_3$ ĝešd=ak =ta
gur litre sixty=GEN=ABL
'with the *gur* of sixty litres' (e.g., MVN 12:489 1; L; 21)

While this example clearly reflects the actual spoken word order, exactly the same phrase is also attested with the numeral written before the counted noun: **gur 60 sila$_3$-*da-ta*** (MVN 9:10 2; L; 21). Since **sila$_3$** 'litre' ends in a vowel and /ĝešd/ 'sixty' in a /d/, the spelling ***-da-ta*** proves that written order here deviates from the spoken one. Something similar occurs with the following phrase:

(38) **má gur 60-*da***
má gur ĝešd=ak
boat *gur* sixty=GEN
'(a wooden part) of a sixty-*gur* boat' (ITT 5:8225 1; L; 21)

Here the spelling with ***da*** proves that the numeral follows the measure. Yet, elsewhere the phrase for 'sixty-*gur* boat' is nearly always written **má 60 gur** (e.g., ITT 3:6617 3; L; 21), with a written order contrary to the spoken one.

Thus, the available evidence points to a regular word order in the spoken language whereby the numeral follows the measure. The position of the noun expressing the measured item is more difficult to ascertain. Before the Old Akkadian period, we find a bewildering variety of written orders. Subsequently, the written order becomes very regular in that the numeral always comes first, then the measure, and finally the measured item. Yet, however regular this written order may be, it also clearly contrary to the actual word order in the spoken language, as the position of the numeral proves beyond doubt, it being written *before* instead of *after* the measure.

The linguistic structure of metrological expressions can be deduced from two facts, though. Firstly, the regular word order in Sumerian noun phrases is that modifying elements follow the head noun (§5.2). Secondly, whatever the written word order is in a metrological expression, there is never a case marker or some other morpheme linking the parts of the metrological expression. These two facts prove, in my view, that the normal word order in Sumerian is one where the measured item comes first and is followed by an apposition consisting of the measure and the numeral, in that order. This sequence is attested in examples like the following:

(39) **kù giĝ$_4$ 1-*a* / siki *ma-na* 2-*ta***

kù.g giĝ$_4$ diš =ʔa siki ma.na min=ta
silver shekel one=LOC wool pound two=ABL
'with two pounds of wool per (lit. "in one") shekel of silver' (Nik 1:300 3:4-4:1; L; 24)

(40) **lú 1-*šè* / kíĝ kùš 3 šu-řú-*a* 2-*ta***
lú diš=še kíĝ kùš eš šu.řú.a min=ta
man one=TERM work cubit three ⅓.of.a.cubit two =ABL
'with three and two-thirds cubits of work for one man' (DP 650 1:2-3; L; 24)

(41) **kas sig$_{15}$ *ku-li* 1-*ta***
kas sig$_{15}$ ku.li 1=ta
beer yellow jar 1=ABL
'with one jar of yellow beer' (VS 14:137 2:1; L; 24)

Thus, in the spoken language, the word order is measured item – measure – numeral. As stated above, what we find written in the texts generally deviates from this spoken order. Several written orders are found, particularly in the earlier periods. Over time, however, the standard written order in metrological expressions becomes one where the numeral precedes both the measure and the measured item, in that order. This can be illustrated with the expression for '*n* shekels of silver'. In the Old-Sumerian texts from Lagash, five different written orders are attested. E.g.:

(42) **kù giĝ$_4$ 2-*a* / kuš 5-*ta***
kù.g giĝ$_4$ min=ʔa kuš ja =ta
silver shekel two=LOC hide five=ABL
'with five hides per (lit. "in") two shekels of silver' (Nik 1:230 5:2-3; L; 24)

(43) **kù 5 giĝ$_4$-*ta***
kù.g giĝ$_4$ ja =ta
silver shekel five=ABL
'with five shekels of silver (for each sheep)' (JCS 26 p.11 3:1; L; 24)

(44) **10 kù giĝ$_4$**
kù.g giĝ$_4$ u
silver shekel ten
'ten shekels of silver' (BIN 8:352 2:5; L; 25)

(45) **⅓^{ša} giĝ$_4$ 3 kù bar dúb-*ba***
kù.g bar dúb -Ø -ʔa =ak šuššana giĝ$_4$ eš
silver fleece damage-NFIN-NOM=GEN one.third shekel three
'one-third of a pound and three shekels of silver (as payment) for damaged fleeces' (Nik 1:295 1:1; L; 24)

(46) **15 giĝ$_4$ kù**
kù.g giĝ$_4$ /ūja/
silver shekel fifteen
'fifteen shekels of silver' (VS 14:20 1:1; L; 24)

The last of these five different Old-Sumerian written word orders becomes the norm in Lagash from the Old-Akkadian period onwards. The standard order is then one whereby the numeral comes first and **kù.g** or **kù.babbar** 'silver' last. E.g.:

(47) **15 giĝ$_4$ kù-babbar**

kù.babbar giĝ$_4$ /ūja/
silver shekel fifteen
'fifteen shekels of silver' (ITT 1:1042 5; L; 23)

The scribal conventions in Nippur develop in the same direction. Around the Old-Akkadian period the standard written order in Nippur is as in **16 kù giĝ$_4$** 'sixteen shekels of silver' (OSP 2:58 1; N; 23), that is, the numeral is written before the measured item and the measure, while the latter two are written in the same order as they are spoken. By the Ur III period, the standard written order in Nippur has become the same as the one found in Lagash: e.g., **16 giĝ$_4$ kù-babbar** 'sixteen shekels of silver' (NATN 31 1; N; 21). In other words, the written order is in the end numeral – measure – measured item, which is the exact mirror of the actual order in the spoken language (measured item – measure – numeral). This is not as unusual as it may seem. After all, written $2.50 also shows an order that differs from spoken 'two dollars and fifty cents'.

But why would the scribes write metrological expressions in the 'wrong' order, one which goes so much against the spoken order? Two considerations may have played a role. In the first place, there was already a firmly established scribal convention to write numerals before the counted noun (§9.3.1), a practice which helped in accounting. But a second point may have played a more crucial role. The standard written order in metrological expressions as it becomes the norm at the end of the third millennium is also the normal spoken word order in Akkadian, Mesopotamia's dominant language, which replaced Sumerian when it became obsolete.

In one type of phrase, the numeral 'one' is sometimes written before the counted noun, even though it is not pronounced at all. An example of this is the following phrase, which frequently occurs in loan documents:

(48) **máš 1 gur-*ra* 0.1.4-*ta***
máš (diš) gur=ʔa 0.1.4 =ta
interest (one) *gur*=LOC 100.litres=ABL
'the interest a hundred litres in a *gur*' (AUCT 3:329 2; N; 21)

Here, the spelling **gur-*ra*** proves that there is no numeral between the noun **gur** and the locative case marker. This does not mean, however, that the numeral precedes the noun **gur**. In this phrase, the 'one' before **gur** '*gur*' is only optional, because the same phrase can also be written without the numeral (e.g., NRVN 1:160 2; N; 21). In other words, 'a *gur*' is expressed by **gur** alone but can be written **1 gur**. The following phrases are similar instances with other measures:

(49) ***ab-sín-bé* 1 nindan-*na* 12-*ta***
ab.sín=be (1) nindan=ʔa 12=ta
furrow=its (1) nindan=LOC 12=ABL
'its furrows: with twelve in a *nindan* (= ca. six metres)' (CT 1 pl. 12-13 BM 18041 4:11; L; 21)

(50) **1 na$_4$ 1 *gú-na***
na$_4$ (1) gú.n =ak
stone (1) talent=GEN
'one weight stone of a talent' (Berens 89 4:1; L; 21)

Metrological expressions can be used in the genitive case to express something's value. E.g.:

(51) **níĝ-sám-*ma-né* kù 15 giĝ$_4$-*kam***
níĝ.sám=ane=Ø kù.g giĝ$_4$ ūja =ak =ʔam
price =his =ABS silver shekel fifteen=GEN=be:3N.S
'His price is (that of) fifteen shekels of silver.' (VS 14:144 2:1; L; 24)

(52) **3 uruda *ma-na* / 2 kù giĝ$_4$-*kam***
uruda ma.na eš kù.g giĝ$_4$ min=ak =ʔam
copper pound three silver shekel two=GEN=be:3N.S
'three pounds of copper: it is of two shekels of silver.' (RA 73 p.1-22 2:1-2; I; 24)

9.3.3. Independent use of the cardinals

This section treats the constructions where the cardinals are used independently, that is, where they are not dependent on a noun. The cardinal is the head of a noun phrase and has the case marker appropriate for the function it performs. The most common construction by far is for a cardinal to be used as the nominal predicate of a copular clause, a construction which is impossible in English (§29.4.3):

(53) **absin$_3$-*bé* 25-*am*$_6$**
absin$_3$=be=Ø 25=Ø =ʔam
furrow=its=ABS 25=ABS=be:3N.S
'Its furrows are 25 (in number).' (DP 395 1:7; L; 24)

(54) **300 ^{kuš}*e-sír é-ba-an* / kuš gu$_4$-*bé* 30-*àm***
300 e.sír é-ba-an kuš gu$_4$.r=ak =be=Ø 30=Ø =ʔam
300 shoe pair hide bull =GEN=its=ABS 30=ABS=be:3N.S
'Three hundred pairs of shoes: its bull's hides are thirty (in number).' (TuT 83 1-2; L; 21)

(55) **540 sa ge / gu-niĝin$_2$-*ba* 36-*ta* / gu-niĝin$_2$-*bé* 15-*àm***
ge sa 540 gu.niĝin$_2$=be=ʔa 36=ta gu.niĝin$_2$=be=Ø 15=Ø =ʔam
reed bundle 540 bale =its=LOC 36=ABL bale =its=ABS 15=ABS=be:3N.S
'540 bundles of reed; with 36 (bundles) in each of its bales: its bales are 15 (in number).' (BAOM 2 p. 39:116 1-3; U; 21)

(56) **dub-*bé* 2-*am*$_6$**
dub =be=Ø 2=Ø =ʔam
tablet=its=ABS 2=ABS=be:3N.S
'There are two tablets about this (lit. "its tablets are two").' (VS 14:71 3:4; L; 24)

This last expression occasionally occurs as the subscript of a Old-Sumerian document and implies that the document is the second about a certain topic.

Cardinal numerals can be used with enclitic possessive pronouns. As in the attributive construction with the demonstrative {be} (§9.3.1), the nominalizing suffix {ʔa} is used with the numerals /min/ 'two' and /eš/ 'three' but not with the higher numerals from /limmu/ 'four' onwards. E.g.:

(57) **2-*na-ne-ne-šè* / é *in-ne-ši*-sa$_{10}$**
min-ʔa =anēnē=še é =Ø ʔi -nnē-ši-n -sa$_{10}$ -Ø
two -NOM=their =TERM house=ABS VP-3PL -to-3SG.A-barter-3N.S/DO
'He bought the house from the two of them.' (FAOS 17 88* 13-14; U; 21)

(58) **3-*a-ne-ne* / šu *ba*-ti-*éš***

eš -ʔa =anēnē=e šu =e Ø -ba -n -ti -eš
three-NOM=their =ERG hand=DIR VP-3N.IO-3SG.A-approach-3PL
'The three of them received this (lit. "let this approach the hand").' (Nik 1:317 2:12-13; L; 24)

(59) **geme$_2$ *ù* 3-*a-bé* / PN-*ra* / *ba-na-ge-en$_6$***
geme$_2$ ù eš -ʔa =be=Ø PN=ra Ø -ba -nna -ge.n -Ø
slave.woman and three-NOM=its=ABS PN =DAT VP-MM-3SG.IO-be.firm-3N.S/DO
'The slave woman and the three of them (i.e., her children) were assigned (by the court) to PN.' (NG 72 23'-25'; L; 21)

(60) **4-*ne-ne***
limmu=anēnē
four =their
'the four of them' (NRVN 1:224 8; N; 21)

(61) **5-*ne-ne-kam***
ja =anēnē=ak =ʔam
five=their =GEN=be:3N.S
'This is of the five of them.' (DP 57 4:3; L; 24)

Similarly: **6-*a-ne-ne-kam*** 'This is of the six (/āš/) of them.' (VS 14:172 8:9; L; 24) and **8-*ne-ne-kam*** 'This is of the eight (/ussu/) of them.' (VS 14:172 4:2; L; 24). Note that the /a/ of {anene} 'their' contracts with a preceding vowel.

9.4. Ordinals

With the sole exception of the ordinal for 'first' (see below), all ordinals were originally formed by adding the suffix {kamma} to the corresponding cardinal. But between the Old Sumerian period and the time of Gudea, the final /ma/ of {kamma} was lost in word-final position, so that from then on the ordinal suffix was {kam}. This change is nicely illustrated by the following two examples, one Old Sumerian with {kamma} and one from the Ur III period with {kam}. In both examples the ordinal is used to distinguish between two persons with the same name:

(62) **0.0.4 é-kù / 0.0.4 é-kù / 2-*kam-ma***
'four *ban*(-units of barley for) Eku; four *ban* (for) Eku the second' (STH 1:23 3:13-15; L; 24)

(63) **1 ur-nigin$_3$-ĝar / 1 ur-nigin$_3$-ĝar 2-*kam***
'1 Urnigingar; 1 Urnigingar the second' (TCL 5:6036 2:12-13; U; 21)

Note that the spelling ***kam*** for the ordinal suffix {kam} can also be used to write the string of clitics /akam/, which consists of the genitive case marker /ak/ followed by the enclitic copula /ʔam/ 'it is' (§9.3.1).

The /ma/ of {kamma} was only lost in word-final position. Elsewhere the full suffix {kamma} is retained. E.g.:

(64) ***a-řá* 3-*kam-ma-aš***
a.řá eš -kamma=š(e)
time three-ORD =TERM
'for the third time' (PDT 1:502 8; D; 21)

Although by the time of Gudea the ordinal suffix had become {kam}, spellings with ***kam-ma*** are still sometimes found. E.g.:

(65) **2-*kam-ma* ur-saĝ-*àm***
min-kamma=Ø ur.saĝ =Ø =ʔam
two-ORD =ABS warrior=ABS=be:3SG.S
'The second was a warrior.' (Cyl A 6:3; L; 22).

In a different line of the same text, this clause is written **2-*kam* ur-saĝ-*ĝá-àm*** (Cyl A 5:2; L; 22).

An ordinal can make up a noun phrase in its own right. In the previous example, for instance, the ordinal functions as the subject of a copular clause. An ordinal can also be be modified by an attributive participle:

(66) **3-*kam-ma* šu ti-*a-am*$_6$**
eš -kamma šu =e ti -Ø -ʔa =Ø =ʔam
three-ORD hand=DIR approach-NFIN-NOM=ABS=be:3N.S
'These are the third ones that were received.' (VS 14:162 4:3; L; 24)

(67) **2-*kam-ma* / é-gal-*šè* / ře$_6$-*a-am*$_6$**
min-kamma é.gal =še ře$_6$ -Ø -ʔa =Ø =ʔam
two -ORD palace=TERM bring-NFIN-NOM=ABS=be:3N.S
'These are the second ones that were brought to the palace.' (VS 14:48 2:4-6; L; 24)

(68) **2-*kam-ma* ĝen-*na-a* / *ba*-ře$_6$**
2-kamma ĝen-Ø -ʔa =ʔa Ø -ba -ře$_6$ -Ø
2-ORD go -NFIN-NOM=LOC VP-MM-bring-3N.S/DO
'This was taken away among the second ones that went.' (DP 313 2:2-3; L; 24)

(69) **3-*kam-ma* ús**
eš -kamma ús -Ø
three-ORD be.next.to-NFIN
'third quality (lit. "the third which is next")' (DP 382 1:3; L; 24)

(70) **2 udu niga 4-*kam* ús**
udu niga limmu-kam ús -Ø min
ram barley-fed four -ORD be.next.to-NFIN two
'two fourth-quality (lit. "the fourth which is next") barley-fed rams' (PDT 2:907 rev 2; D; 21)

An ordinal can also make up an adverbial phrase. The following phrase, for instance, occurs frequently:

(71) **2-*kam-ma-šè***
min-kamma=še
two-ORD =TERM
'secondly' (Cyl A 9:5; L; 22)

An ordinal must be put into the genitive case before a locative case marker can be attached to it. As noted by Marchesi (1999: 108-110), the resulting form is a headless genitive in the locative case:

(72) **á-*né*-kur-*ra* / 3-*kam-ma-ka* / šu *ba*-ti**

á.ne.kur.ra=e 3-kam.ma=ak =ʔa šu =e
Anekurra =ERG 3-ORD =GEN=LOC hand=DIR

Ø -ba -n -ti -Ø
VP-3N.IO-3SG.A-approach-3N.S/DO
'Anekurra received them (=a number of implements) in the third transaction (lit. "in that of the third one").' (DP 497 1:4-2:2; L; 24)

(73) **2-*kam-ma-ka* / *nu*-kiri$_6$-*ke$_4$-ne* / šu-*a bí*-gi$_4$-*a-am$_6$***
2-kamma=ak =ʔa nu.kiri$_6$.k=enē=e šu =ʔa
2-ORD =GEN=LOC gardener =PL =ERG hand=LOC

Ø -bi -n -gi$_4$ -eš -ʔa =Ø =ʔam
VP-3N:on-3SG.A-turn-3PL-NOM=ABS=be:3N.S
'This is what the gardeners turned over in the second transfer (lit. "turned on the hands in that of the second one").' (VS 14:113 2:2-4; L; 24)

An ordinal is also be put in the genitive case before a locative case marker if the locative belongs to the head noun of that ordinal:

(74) **u$_4$ 7-*kam-ma-ka* é-*e im-mi*-dab$_6$**
u$_4$.d umin-kamma=ak =ʔa é.j =e
day seven-ORD =GEN=LOC house=DIR

ʔi -m(u)-bi -n -dab$_6$ -Ø
VP-VENT-3N.OO-3SG.A-surround-3N.S/DO
'On the seventh day he had them (=stelas) stand around the temple.' (Cyl A 23:4; L; 22)

(75) **ur-^{d}lama$_3$ / u$_4$ 3-*kam-ka* / túm-*mu-dam***
ur.lama$_3$.k=Ø u$_4$.d eš -kamma=ak =ʔa túm -ed -Ø =ʔam
Urlama =ABS day three-ORD =GEN=LOC bring-IPFV-NFIN=be:3SG.S
'Urlama is to be brought on the third day.' (MVN 11:52 1-3; L; 21)

Note that spelling ***kam-ka*** instead of ***kam-ma-ka*** is typical for the Ur III period. In that period the sequence /kamma=ak=ʔa/ was apparently reanalysed as /kam=ak=ʔa/, taking the /a/ before the /k/ as belonging only to the genitive case marker {ak}. In the Ur III period the /a/ of the genitive case marker is commonly left unwritten, particularly if the presence of the genitive is already made clear by writing out the /k/ (§7.2.1).

If the phrase **u$_4$ 3-*kam-ma*** 'the third day' lacks the locative case marker, the genitive case marker is also absent:

(76) **u$_4$ 3-*kam-ma-àm***
u$_4$.d eš -kamma=Ø =ʔam
day three-ORD =ABS=be:3N.S
'This is the third day.' (PPAC 1:A.839 rev 1'; A; 23)

The previous example illustrates the most common use of ordinals: usually they are placed as appositions after nouns. The following are further instances of this construction:

(77) **še-ba iti 2-*kam-ma-šè***
še.ba iti.d 2-kamma=ak =še
barley.ration month 2-ORD =GEN=TERM
'as barley rations of the second month' (DP 548 3:5; L; 24)

(78) **50 saĝ / 50 4 ge saĝ 2-*kam-ma***
50 saĝ 50 ge 4 saĝ min-kamma
50 head 50 reed 4 head two -ORD
'fifty (*nindan*, a unit of length) the width, fifty (*nindan*) and four reeds the second width (i.e., of the opposite side)' (VS 14:156 1:4-5; L; 24)

(79) **guru$_7$ 2-*kam-ma-am$_6$***
guru$_7$ min-kamma=Ø =ʔam
heap two -ORD =ABS=be:3N.S
'This is the second heap.' (MVN 3:5 4:1; L; 24)

(80) **dumu 2-*kam-ma-né***
dumu min-kamma=ane
son two -ORD =his
'his second son' (RTC 76 2:4; L; 24)

(81) **šagina 2-*kam-né***
šagina min-kamma=ane
general two -ORD =his
'his second general' (Cyl B 8:7; L; 22)

The last example provides another instance of reanalysis: the sequence /kamma=ane/ is taken to be /kam=ane/, with the /a/ before /ne/ as belonging only to the possessive pronoun {ane} 'his'. The spelling ***né*** is used as an abbreviation for the entire form /ane/ (§8.3.3). Both this reanalysis of /kamma=ane/ as /kam=ane/ and that of /kamma=ak=ʔa/ as /kam=ak=ʔa/ (see above) presuppose the development of the ordinal suffix from {kamma} to {kam} in word-final position.

The ordinal for 'first' is a separate specialized word, although its form remains as yet unknown (it is always written with a word sign). That the ordinal for 'first' is not formed with the suffix {kamma} is obvious from the following two examples, which have parallel expressions for 'first' and other ordinals:

(82) **(...) gana$_2$ 1-*am$_6$* / (...) gana$_2$ 2-*kam-ma-am$_6$* / (...) gana$_2$ 3-*kam-ma-am$_6$***
gana$_2$ 1 =Ø =ʔam (...) gana$_2$ min-kamma=Ø =ʔam
land first=ABS=be:3N.S (...) land two-ORD =ABS=be:3N.S

(...) gana$_2$ eš -kamma=Ø =ʔam
(...) land three-ORD =ABS=be:3N.S
'(An amount of land:) This is the first plot; (another amount:) This is the second plot; (yet another amount:) This is the third plot.' (DP 577 6:9-11; L; 24)

(83) **(...) / 1 bala-*a-am$_6$* / (...) 2-*kam-ma* bala-*a-am$_6$***
1 balaʔ-Ø -ʔa =Ø =ʔam min-kamma balaʔ-Ø -ʔa =Ø =ʔam
first cross-NFIN-NOM=ABS=be:3N.S two -ORD cross -NFIN-NOM=ABS=be:3N.S
'(An amount of barley:) This was the first (barley) that was turned over; (another amount of barley:) This was the second (barley) that was turned over.' (Nik 1:98 1:1-3; L; 24)

One text from the Old Akkadian period contains several forms where an ordinal is followed by the sequence /akam/, consisting of the genitive case marker /ak/ followed by the enclitic copula /ʔam/ 'it is' (§9.3.1). E.g.:

(84) ***a-řá* 3-*ka-ma-kam***

a.řá eš -kamma=ak =Ø =ʔam
time three-ORD =GEN=ABS=be:3N.S
'This is what belongs to (lit. "that of") the third time.' (TMTIM 26 2:4; U; 23)

The forms from this text are exceptional, though. As a rule, the ordinal suffix {kamma} does not occur together with this sequence /akam/. That is to say, the construction **NN 2-*kam-ma-kam*** 'This is of the second NN.' is avoided, if not outright ungrammatical. Instead a construction with a cardinal is used: **NN 2-*kam*** 'This is of NN (number) two.' (§9.3.1). Compare the following two phrases, either of which occurs frequently:

(85) ***a-řá* 2-*kam-ma-aš***
a.řá min-kamma=š(e)
time two -ORD =TERM
'for the second time' (MVN 3:125 15; U; 21)

(86) ***a-řá* 2-*kam***
a.řá min=ak =ʔam
time two=GEN=be:3N.S
'This is that of the second time (lit. "of time two").' (PPAC 1:A.745 12; A; 23)

The following is another contrasting pair:

(87) **u_4 2-*kam-ka***
u_4.d min-kamma=ak =ʔa
day two-ORD =GEN=LOC
'on the second day' (AOAT 25 p.438 BM 19356 6; L; 21)

(88) **u_4 2-*a-kam***
u_4.d min=ak =ʔam
day two=GEN=be:3N.S
'This is that of the second day (lit. "of day two").' (UET 3:117 6; Ur; 21)

9.5. Fractions

9.5.1. Preliminaries

Little is known about the fractions. With few exceptions, they too are written with word signs. The fractions that are attested are, as a rule, found in metrological expressions. Several different cuneiform signs express some fraction of some metrological measure. In many instances, however, it remains unclear whether a particular written fraction stands for a real fraction in the spoken language or is merely some notation for bookkeeping purposes. Because of the many uncertainties, the treatment below must remain provisional. It owes a great deal to Powell (1971: 54-69, 84-165), which remains the most thorough discussion to date.

9.5.2. The phrase igi-...-ĝál 'one-...th'

Many fractions are expressed by a form of the phrase **igi-N-ĝál**, where **N** represents a cardinal. The numerator is always 'one', e.g., **igi-5-ĝál** 'one-fifth', **igi-8-ĝál** 'one-eighth', and so on. This **igi-N-ĝál** behaves grammatically as a noun phrase and has a case marker expressing its syntactic function. E.g.:

(89) **igi-5-ĝál-*bé a-gù-ba ì-íb*-ĝál**
igi.ja.ĝál=be=Ø a.gù=be=ʔa ʔi -b(i) -ĝál -Ø
one.fifth =its=ABS top =its=LOC VP-3N:on-be.there-3N.S/DO
'One-fifth of this is on top of it.' (RA 76 p.28 1:2; U; 21)

(90) **igi-60-ĝál-*šè ĝír-su*^{ki}*-ta* ře$_6$*-a***
igi.ĝešd.ĝál=še ĝír.su=ta ře$_6$ -Ø -ʔa
one.sixtieth=TERM Girsu =ABL bring-NFIN-NOM
'(barley) that was taken out of Girsu as one-sixtieth' (BM 15308 1:4; L; 21)

(91) **igi-60-ĝál-*bé íb-ta*-zi**
igi.ĝešd.ĝál=be=Ø ʔi -b -ta -zi.g-Ø
one.sixtieth=its=ABS VP-3N-from-rise-3N.S/DO
'One-sixtieth of this (barley flour) was raised from this.' (MVN 12:306 2; L; 21)

If used to quantify a noun, it always follows the counted noun. E.g.:

(92) **níĝ-*ga ad-da* / igi-3-ĝál *in*-ba-*a-na***
níĝ.ga.r ad.da igi.eš.ĝál=Ø ʔi -n -ba -Ø -ʔa =ane=ʔa
property father one.third =ABS VP-3SG.A-portion.out-3N.S/DO-NOM=his =LOC
'on his one-third (of his) father's property, which he took as (his) share' (RA 71 p.126 3:7-8; N; 21)

(93) **1 sila$_3$ igi-4-ĝál**
sila$_3$ diš igi.limmu.ĝál
litre one one.fourth
'one and a quarter of a litre' (BIN 8:340 5; U; 23)

(94) **máš igi-3-ĝál-*bé* si-*gi$_4$-dè***
máš igi.eš.ĝál=be =Ø si.g -ed -Ø =e
interest one.third =its=ABS put.into-IPFV-NFIN=DIR
'(He took an oath) to put its (i.e., of a barley loan) one-third of interest.' (AUCT 3:249 2; U; 21)

While with the cardinals the written order differs from the word order in the spoken language (see §9.3.1 and §9.3.2), the fractions of the type **igi-N-ĝál** are always written after the counted noun, so that the written word agrees with the spoken one. In metrological expressions, **igi-N-ĝál** also always follows the measure, regardless of whether the latter is written before or after the measured item:

(95) **4 sila$_3$ igi-3-ĝál ì**
ì sila$_3$ limmu igi.eš.ĝál
oil litre four one.third
'four and one-third of a litre of oil' (Nik 1:261 2:7; L; 24)

(96) **1 é šar / igi-4-ĝál**
é sar diš igi.limmu.ĝál
house plot one one.fourth
'one and a quarter plot of house' (RTC 18 5:1-2; L; 24)

(97) **1 giĝ$_4$ igi-3-ĝál kù-babbar**
kù.babbar giĝ$_4$ diš igi.eš.ĝál
silver shekel one one.third

'one and a third shekel of silver' (MVN 7:455 obv 3; L; 21)

In the system of Sumerian weight measures, the fractions of the type **igi-N-ĝál** play an important role in expressing fractions of the **giĝ$_4$** 'shekel'. If the amount is less than one shekel, the word **giĝ$_4$** is, as a rule, not expressed:

(98) ***na-bí-ḫu-um* igi-4-ĝál-*ta* 4-*šè***
na.bí.ḫu.um igi.limmu.ĝál=ta limmu=še
an.ornament one.fourth =ABL four =TERM
'(gold) for four pieces of jewelry (weighing) one-fourth (of a shekel) each (lit. "with one-fourth")' (UET 3:438 4; Ur; 21)

(99) **kù igi-4-ĝál-*kam***
kù.g igi.limmu.ĝál=ak =ʔam
silver one.fourth =GEN=be:3N.S
'This is (the equivalent) of one-fourth (of a shekel) of silver.' (BIN 8:175 1:11; N; 23)

(100) **kù-*bé* ⅔ *ma-na* igi-4-ĝál**
kù.g =be ma.na ⅔ igi.limmu.ĝál
silver=its pound ⅔ one.fourth
'its silver (equivalent): two-thirds of a pound and one-fourth (of a shekel)' (TCL 5:5680 3:17; U; 21)

Similarly: **kù-*bé* igi-6-ĝál** 'Its silver (equivalent): one-sixth (of a shekel)' (TMHC NF 1/2:59 5; N; 21).

Sometimes a shorter form **igi-N** replaces the normal **igi-N-ĝál**:

(101) **7 giĝ$_4$ igi-4 kù-babbar**
kù.babbar giĝ$_4$ umin igi.limmu
silver shekel seven one.fourth
'seven and a quarter shekel of silver' (OIP 14:168 3:5; A; 23)

(102) **2 sila$_3$ lá igi-3 ì-ĝiš**
ì.ĝiš sila$_3$ min lá igi.eš
sesame.oil litre two minus one.third
'one and two-thirds of a litre of sesame oil' (BIN 8:156 12; I?; 21)

(103) **11 kù giĝ$_4$ igi-3**
kù giĝ$_4$ 11 igi.eš
silver shekel 11 one.third
'eleven and one-third shekels of silver' (OSP 2:68 1; N; 23)

(104) **60-*da* igi-2-*bé* 30**
ĝešd=ak igi.min=be ušu
sixty=GEN one.half=its thirty
'Of sixty its half: thirty' (AfO 50 p.356 BM 106425 1; U; 21)

The literal meaning of the phrase **igi-N-ĝál** is uncertain but late spellings with sound signs prove its reading beyond any doubt. E.g.:

(105) **MIN (= *i-gi*)-*lim-mu-gal***
igi limmu ĝál -Ø
eye four be.there-NFIN

'one-fourth (lit. "four eyes being there")' (Ist. S 485 line 5 = Powell (1971: 55))

I cannot explain how something like 'four eyes' could come to express 'one-fourth', but both spelling and form of the **igi** in **igi-N-ĝál** are the same as those of the noun **igi** 'eye'. Since the **ĝál** is clearly optional, **igi** must be the crucial part of the phrase.

9.5.3. The expression šu-ru-*a* 'one-half'

Instead of **igi-2-ĝál** 'one-half', we mostly find the expression **šu-ru-*a*** 'one-half'. As all other numerals, **šu-ru-*a*** follows the counted noun:

(106) **^{ĝiš}pèš šu-ru-*a* ^{ĝiš}ḫašḫur šu-ru-*a***
pèš šu.ru.a ḫašḫur šu.ru.a
fig half apple half
'half (a string of) figs, half (a string of) apples' (DP 196 3:6, 4:6; L; 24)

It can, however, be written before the counted noun: **šu-ru-*a* ^{ĝiš}ḫašḫur / šu-ru-*a* ^{ĝiš}pèš** 'half (a string of) apples; half (a string of) figs' (DP 224 11:8'-9'; L; 24).

An alternative form of **šu-ru-*a*** occurs in a text from Adab:

(107) **šu-*rí-kam***
šu.rí=ak =ʔam
half =GEN=be:3N.S
'These (loans) are with 50% interest (lit. "These are of one-half").' (OIP 14:192 9; A; 23)

By the Old Babylonian period, a third form, **šu-ri-*a***, has become the standard form. The two forms **šu-ru-*a*** and **šu-ri-*a*** surely reflect the same word, because the shift from **ru** to **ri** is also attested in other expressions.[1] The precise etymology of **šu-ru-*a*** is as yet uncertain, but it consists of the noun **šu** 'hand' and the past participle of a verb **ru** 'direct towards' (Sallaberger 2005a: 233 note 6). Thus, **šu-ru-*a*** may literally mean something like 'directed hand', which could refer to some manual gesture standing for 'one-half'.

As the previous example and the following one show, **šu-ru-*a*** can have its own case marker and thus make up an noun phrase in its own right.

(108) **3.0.0 še ur$_5$ šu-ru-*a* gur-saĝ-ĝál**
še ur$_5$ =ak šu.ru.a=ak gur.saĝ.ĝál eš
barley loan=GEN half =GEN heaped.*gur* three
'three heaped *gur*s of barley, a loan with 50% interest (lit. "a barley loan of one-half")' (VS 25:89 10:2; L; 24)

Mostly, the fraction for 'one-half' is written with a word-sign. Since I do not know whether that word sign does or does not stand for **šu-ru-*a***, I will refrain from giving a Sumerian form in the following examples:

(109) **lú 1-*šè* / kíĝ šu-si 7 ½-*ta***
lú diš=še kíĝ šu.si umin ½=ta
man one=TERM work finger seven ½=ABL
'with seven and a half finger of work for one man' (VS 25:84 1:2-3; L; 24)

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[1] E.g.: **gaba-ru** = **gaba-ri** 'rival, copy', PSD **a-ri-*a*** A = PSD **a-ru-*a*** B.

(110) **á-*bé* u_4 20 ½-*kam***
á =be =Ø u_4.d niš ½ =ak =?am
labour=its=ABS day twenty ½=GEN=be:3N.S
'Its labour (expense) is that of twenty and a half days.' (SACT 2:136 10; U; 21)

This fraction always follows any cardinals and is always written in the same position as cardinals. Consequently, the written order (numeral – counted noun) usually differs from the spoken one (counted noun – numeral) (compare §9.3.1 and §9.3.2). E.g.:

(111) **3 dug 3 ½ $sila_3$ ì**
ì dug eš $sila_3$ eš ½
oil pot three litre three ½
'three pots and three and a half litre of oil' (Nik 1:257 2:1; L; 24)

9.5.4. The *ma-na* system

An important set of fractions has its origin in the system of weight measures. This system is sexagesimally structured, using sixty as the base: one **gú.n** 'talent' equals sixty ***ma-na*** 'pound', one ***ma-na*** equals sixty **giĝ$_4$** 'shekel', and one **giĝ$_4$** equals 180 **še** 'barleycorns', which is three times sixty **še**. This central role of the base sixty is obviously due to the Sumerian numeral system (§9.2). Yet, the system shows some Akkadian influence as well. Not only is the word ***ma-na*** 'pound' is a loan from Akkadian *manû* 'mina, pound', but two terms for fractions of the ***ma-na*** are loans from Akkadian as well: Sumerian /šuššana/ 'one-third' comes from Akkadian *šuššān* 'one-third' (actually 'two-sixths', as it is the dual of *šuššu* 'one-sixth'), and Sumerian /šanabe/ comes from some older form of Akkadian *šinipu* 'two-thirds'. Since these two terms express fractions of the ***ma-na***, the latter term does not have to be explicitly used with them.

In the Nippur texts from the Old Sumerian and Old Akkadian periods, the fraction /šanabe/ 'two-thirds' is written out fully with sound signs in combination with a sign for 'two':

(112) **2 kù *ša-na-bé* 2 giĝ$_4$**
kù.g šanabe giĝ$_4$ min
silver two.thirds shekel two
'two-thirds of a pound and two shekels of silver' (OSP 2:49 4:12; N; 23)

Similarly, but with a different spelling of the fraction: **2 kù *ša-na-be$_6$*** 'two-thirds of a pound of silver' (OSP 2:62 1:1; N; 23). The fraction /šanabe/ can also be used with other measures:

(113) **2 é *ša-na-bé sar***
é sar šanabe
house plot two.thirds
'two-thirds plot of house' (OSP 2:58 1; N; 23)

In the same group of texts, the fraction /šuššana/ is written out with sound signs in combination with a sign for 'one'. The fraction is spelled in two parts that need not be continuous, the first part being ***šú*+1**, and the second ***ša-na***:

(114) **3 kù *ma-na šú*+1 *ša-na***
kù.g ma.na eš šuššana
silver pound three one.third
'three and a third pound of silver' (PBS 9:33 1:1; N; 23)

(115) ***šú*+1 3 kù *ša-na* giĝ$_4$**

kù.g šuššana giĝ$_4$ eš
silver one.third shekel three
'one-third of a pound and three shekels of silver' (BIN 8:37 1:1; N; 24)

In contemporary texts from other regions than Nippur and in later texts, the fractions /šuššana/ 'one-third' and /šanabi/ 'two-thirds' are written with the signs **šú+1** = ⅓ and **šú+2** = ⅔, in the older texts with the addition of a gloss ***ša***:

(116) **ki-lá-*bé* ⅓^{ša} *ma-na***
ki.lá =be šuššana ma.na
weight=its one.third pound
'its weight: one-third of a pound' (VS 14:176 11:12; L; 24)

(117) **⅓^{ša} giĝ$_4$ 3 kù bar dúb-*ba***
kù.g bar dúb -Ø -ʔa =ak šuššana giĝ$_4$ eš
silver fleece damage-NFIN-NOM=GEN one.third shekel three
'one-third of a pound and three shekels of silver (as payment) for damaged fleeces' (Nik 1:295 1:1; L; 24)

(118) **é-bé ⅔^{ša} 5 giĝ$_4$**
é =be šanabe giĝ$_4$ ja
house=its two.thirds shekel five
'its house (area): fourty-five shekels' (DP 612 6:5; L; 24)

(119) **4 dug 4 sila$_3$ ⅓^{ša} ì-šáḫ**
ì.šáḫ dug limmu sila$_3$ limmu šuššana
pig.fat pot four litre four one.third
'four pots and four and two-thirds litre of pig-fat' (OIP 14:119 12; A; 23)

(120) **ud$_5$-*da* maš ⅔^{ša}-*ta***
ud$_5$ =ʔa maš šanabe =ta
she-goat=LOC kid two.thirds=ABL
'with two-thirds of a kid per she-goat' (DP 95 7:7; L; 24)

By the Ur III period, most texts lack the gloss ***ša***. E.g.:

(121) **mu kù-babbar ⅓ *ma-na-šè***
mu kù.babbar ma.na šuššana=ak =še
name silver pound one.third=GEN=TERM
'because of one-third of a pound of silver' (AUCT 2:188 1; D; 21)

At some point in time before the Ur III period, the fraction **5/6** (written: **šú+3**) was added to the system. The earliest spellings known to me include the gloss ***ša*** and are written **5/6^{ša}** (ITT 2:4355 3 & CT 50:138 1; L; 23). This ***ša*** is a simple copy from the spellings for 'one-third' and 'two-thirds' and has nothing to do with the actual linguistic form of the fraction **5/6**, which late lexical texts spell out as follows:

(122) ***kin-gu-si-la***
giĝ$_4$ u si.il -Ø -ʔa
shekel ten split.off-NFIN-NOM
'ten shekels (= ten sixtieths) split off' (MSL 14 p.195 and 254; MSL 3 p.134)

What we have here is an instance of the word **giĝ$_4$** ‘shekel’ used to express a fraction of sixty. This use is also rooted in the system of weight measures. One shekel (**giĝ$_4$**) equals one-sixtieth of a pound (***ma-na***). Thus, ‘ten shekels split off’ stands for ‘fifty-sixtieths’, which equals ‘five-sixths’. This fraction could also be expressed using the phrase **lá 10 giĝ$_4$** ‘minus ten shekels’, also standing for ‘minus ten-sixtieths’. E.g.:

(123) **7 sila$_3$ lá 10 giĝ$_4$**
sila$_3$ umin lá giĝ$_4$ u
litre seven minus shekel ten
‘six and five-sixths of a litre (lit. translation of the text as written: “seven litres minus ten shekels = ten sixtieths”)’ (PPAC 1:A.727 3; A; 23)

A later text writes this: **6 5/6 sila$_3$** (ITT 5:10011 2:3; L; 21).

As we have seen, words such as /šanabi/ ‘two-thirds’ that express in origin fractions of the ***ma-na*** are used to express fractions in general. The same is true for the word **giĝ$_4$**, which is widely used to express fractions below ‘one-third’. E.g.: **u$_4$ 28 10 giĝ$_4$** ‘twenty-eight days and one-sixth (lit. “ten shekels = ten-sixtieths”)’ (SACT 2:138 6; U; 21). The word **giĝ$_4$** is used in combination with the fractions one-third and two-thirds to express the fifths:

(124) **á eren$_2$-*na-bé* u$_4$ 72 ⅔ 8 giĝ$_4$-*kam***
á eren$_2$ =ak =be=Ø u$_4$.d 72 ⅔ giĝ$_4$ 8=ak =ʔam
labour troops=GEN=its=ABS day 72 ⅔ shekel 8=GEN=be:3N.S
‘The labour of the troops for this is that of seventy-two days and four-fifths (lit. “two-thirds and eight-sixtieths”).’ (Civil FI p.191 A.5835 1:7; U; 21)

Similarly: **u$_4$ 31 12 giĝ$_4$** ‘thirty-one days and one-fifth’ (TCL 5:5676 5:4; U; 21); **u$_4$ 60 ⅓ 4 giĝ$_4$** ‘sixty days and two-fifths’ (TCL 5:5676 5:14; U; 21); **u$_4$ 8 ½ 6 giĝ$_4$** ‘eight days and three-fifths’ (TCL 5:6036 4:32; U; 21).

10. ADJECTIVES

10.1. Introduction

Sumerian has only a few dozen adjectives. In this it differs from languages such as English, where the number of adjectives is basically unlimited. English not only has primary adjectives such as *great* and *good*, but it also has several means to form new adjectives from other words. Adjectives can be derived from verbs (e.g., *drinkable*), from nouns (e.g., *childish*, *blue-eyed*, *healthy*), and from other adjectives (e.g., *undrinkable*, *yellowish*). Sumerian lacks such means to derive adjectives from existing words and, as a result, has only a small number of basic adjectives. This property of Sumerian is far from unique and is also found in many other languages (Dixon 1982: 1-62).

The adjectives of Sumerian express various properties and qualities, including such as have to do with dimensions (e.g., **daĝal** 'wide', **sig** 'narrow', **gal** 'big', **tur** 'small', **maḫ** 'great', **sukud** 'high'), colours (**bar$_6$** 'white, light', **gi$_6$.g** 'black, dark', **si$_4$** 'red, brown'), age (**gibil** 'new', **sumun** 'old', **libir** 'of old, former'), values (**zi.d** 'right, true', **lul** 'false', **ḫulu** 'bad'), and physical properties (e.g., **dugud** 'heavy', **du$_{10}$.g** 'sweet, good', **kù.g** 'pure, holy', **sikil** 'clean', **silim** 'healthy, intact', **sis** 'bitter').

Since Sumerian has far fewer adjectives than English, it often uses other types of words to express concepts which are adjectival from an English point of view. Sumerian can, for instance, use nouns in the genitive case:

(1) **túg *nam*-lugal**
túg nam.lugal=ak
cloth kingship =GEN
'royal clothes (lit. "clothes of kingship")' (Enz. 1 6:2; L; 24)

(2) **aga$_3$-ús lugal-*me***
aga$_3$.ús lugal=ak =Ø =me-eš
guard king =GEN=ABS=be -3PL.S
'They are royal guards (lit. "guards of the king")." (MVN 7:13 rev 2; L; 21)

Mostly, however, Sumerian uses verbs to express meanings for which it lacks special adjectives. Such verbs are, for instance, **kalag** 'be strong', **sa$_6$.g** 'be beautiful', and **gíd** 'be long'. The past participles (§28.3) of these and similar verbs can be used attributively to express the meanings 'strong', 'beautiful', and 'long':

(3) **nita kalag-*ga***
nita kalag -Ø -ʔa
man be.strong-NFIN-NOM
'strong man (lit. "man who is strong")' (AUCT 3:285 seal 1:2; U; 21)

(4) **munus sa$_6$-*ga***
munus sa$_6$.g -Ø -ʔa
woman be.beautiful-NFIN-NOM
'beautiful woman (lit. "woman who is beautiful")' (FAOS 9/1 Gudea 8 2; L; 22)

(5) **1 ^{gi}ḫal gíd-*da* / 1 ^{gi}ḫal šu niĝin$_2$-*na***
1 ḫal gíd -Ø -ʔa 1 ḫal šu =Ø niĝin$_2$ -Ø -ʔa
1 basket be.long-NFIN-NOM 1 basket hand=ABS go.around-NFIN-NOM

‘one elongated basket (lit. “basket which is long”), one round basket (lit. “basket which one’s hand goes around”)’ (MVN 13:823 1-2; U; 21)

In one instance, a participial expression seems to have become a true adjective: the word **niga** ‘barley-fed’ comes from the phrase **níĝ gu$_7$-*a*** ‘fed something’ (Bauer 1972: 174-175), as it is used in the following example:

(6) **16 udu níĝ gu$_7$-*a***
16 udu níĝ =Ø gu$_7$-Ø -ʔa
16 ram thing=ABS eat -NFIN-NOM
‘sixteen barley-fed rams’ (STH 1:33 8:1; L; 24)

Elsewhere and in more recent texts, this is written **16 udu niga** (e.g., BIN 5:125 1; U; 21).

Adjectival morphology is very straightforward. Adjectives have only two possible forms: the simple stem, without any modification, or the reduplicated stem. The latter is discussed in §10.3. Sumerian adjectives do not agree with the nouns they modify, with one very limited exception, though. A few adjectives have a reduplicated form if they modify a plural noun (§10.3).

Adjectives are used attributively, modifying nouns, or predicatively (§10.4). Nearly all adjectival stems also occur as verbal stems, in finite as well as in non-finite verbal forms. Such forms have many uses for which in English adjectives are employed (§10.5). Some adjectival stems also occur as the stems of abstract nouns. Such nouns may be used to convey meanings for which English uses adverbs (§10.6).

Adjectives are not specified for degree, as in English (e.g., *big*, *bigger*, *biggest*; *beautiful*, *more beautiful*, *most beautiful*). However, comparison can be expressed by a variety of constructions (§10.7).

The word class of the adjectives is closely related to the word class of the verbs. So closely, in fact, that some Sumerologists view them as a subclass of the verbs (Gragg 1968: 91; Michalowski 2004: 37). The present grammar, however, retains the traditional and more commonly held view that the adjectives make up a word class of their own. The following section explains why.

10.2. The adjectives as a distinct word class

The Sumerian adjectives are very verb-like. Most adjectival stems are also attested as verbal stems. Black (2000) was able to quantify this, using the Electronic Text Corpus of Sumerian Literature (ETCSL), which primarily contains literary texts from the Old Babylonian period. Having compiled a list of fifty-eight adjectives (2000: 12-14), he investigated their use in finite verbal forms. Only for nine he did not find any such use (Black 2000: 6). However, for one of them we can now quote the finite form ***nu*-zi** ‘it is not right’ (Proverbs collection 9 Sec. A 2 = Proverbs collection 10.2; OB). In other words, fifty out of his fifty-eight adjectives are also attested in finite verbal forms.

But that number ignores adjectival stems used in *non*-finite verbal forms. As it is, Black’s list of adjectives includes forms with the suffix {ʔa}, which are better analysed as past participles and are thus verbal forms as well (§10.5.3). We then find that five of Black’s nine non-verbal adjectives are in fact attested in past participles: **ḫuš-*a*** ‘fierce’ (Cyl A 9:25; L; 22), **libir-*ra*** ‘former, of old’ (Cyl A 17:29; L; 22), **sis-*a*** ‘bitter’ (FAOS 12 p. 38 338; OB), **uru$_{16}$-*na*** ‘august’ (Enlil and Ninlil 146; OB), **zi-*da*** ‘right’ (Cyl A 5:10; L; 22). This leaves only four

out of fifty-eight adjectives unattested in verbal forms, a mere seven per cent of the adjectives on his list.

Thus, more than ninety per cent of the adjectival stems is also attested as the stem of a finite verbal form or a past participle. Could the remaining adjectival forms – the simple stem and the reduplicated stem – be non-finite verbal forms as well? Present participles can have such forms and they can have a stative meaning, as shown by the participles **tuku** 'having' and **zu** 'knowing' (§28.2.4). Is **gal** 'big' then to be analysed as a present participle, with a literal meaning 'being big'? The answer to that question must be negative, because however much adjectives may look like present participles, the two are clearly distinct categories.

To begin with, there is a crucial formal difference. Whereas present participles can be negated, adjectives cannot. Thus, while there are present participial forms like ***nu*-tuku** 'not having' and ***nu*-zu** 'not knowing', a form like ****nu*-gal** 'not (being) big' simply does not exist.

Moreover, in one case the adjectival and verbal stems are clearly different. Whereas the adjective 'big' is /gal/, the verb 'be big' is /gul/. Thus, the simple and reduplicated adjectival stems are **gal** and **gal-gal**, but the past participle is ***gu-la*** and an example of a finite verbal form is ***ba-na-gu-ul-gu-ul***, with a reduplicated stem (§10.5.1). If the two adjectival forms were non-finite verbal forms as well, we would expect them to have the same stem as all other verbal forms.

Clearly, adjectives are not present participles. But there is more to show that adjectives are not verbs but make up a distinct word class of their own. The normal attributive verbal form expressing an adjectival concept is the past participle, which has a suffix {ʔa} (see §10.1 above and §28.3), while an attributive adjective always shows the simple or reduplicated stem, without any suffix. E.g.:

(7) **8 udu gal 6 udu lugud$_2$-*da***
8 udu gal 6 udu lugud$_2$ -Ø -ʔa
8 ram big 6 ram be.short-NFIN-NOM
'eight big rams, six short rams (lit. "rams which are short")' (TuT 71 1; L; 21)

A similar contrast between adjectives and verbs occurs if they are used as predicates of copular clauses. E.g.:

(8) ***za-e* maḫ-*me-en* *za-e* gur$_4$-*ra-me-en***
za.e=Ø maḫ=me-en za.e=Ø gur$_4$ -Ø -ʔa =me-en
you=ABS great=be -2SG.S you =ABS be.fat-NFIN-NOM=be -2SG.S
'You are great; you are important.' (Inanna C 268; OB manuscript)

In the Old Sumerian texts from Lagash, the derived nouns designating dimensions show a similar contrast. The de-adjectival nouns (e.g., **daĝal** 'width' from **daĝal** 'wide', cf. §10.6) display the simple stem, while the deverbal noun **gíd-*da*** 'length' (from **gíd** 'be long') is again a past participle. E.g.:

(9) **1 é-šà / gíd-*da-bé* (...) / daĝal-*bé* (...)**
1 é.šà.g gíd -Ø -ʔa =be ... daĝal=be ...
1 inner.room be.long-NFIN-NOM=its ... width=its ...
'one inner room: its length ..., its width ...' (DP 613 2:8-3:1; L; 24)

Note that after the Old Sumerian period, the word **gíd-*da*** 'length' is formally brought into line with the other terms for dimensions and becomes **gíd**, as is shown by forms such as **gíd-*bé*** 'its length' (CT 50:61 1; U; 23).

10.3. Reduplication

Adjectives occur in only two different forms: (1) the simple stem, without any modification, or (2) the reduplicated stem. The unmodified stem is the primary form for nearly all adjectives and is the one which occurs most frequently. The reduplicated stem is more restricted in usage, because reduplication does not apply to all adjectives in the same way. Some adjectives occur quite often with a reduplicated stem but most adjectives never or hardly ever. Also, the reduplicated form does not have the same meaning for all adjectives. As a result, there are no rules for the use and meaning of the reduplicated stem which apply to all adjectives, only rules which apply to subsets of the adjectives.

The texts of the corpus usually spell a reduplicated stem by writing the logogram twice and thus give no information about its actual pronunciation. However, the reduplicated stem seems to be formed through repetition of the entire root. This is suggested by Old Babylonian phonographic spellings such as ***tu-ur-tu-ur*** for the reduplicated form of **tur** 'small' (MSL 15 p. 14 Diri Nippur 057; OB) and ***ba-ab-ba-ar*** for the reduplicated form of **bar$_6$** 'white' (MSL 14 p. 38 Proto-Ea 157; OB), the last form coming from /barbar/ through assimilation of the /r/ to the /b/. But the number of such phonographic spellings is quite small and the few we have differ among themselves. For **tur-tur** we not only have the spelling ***tu-ur-tu-ur***, but, for instance, also ***tu-tu-ur*** (ZA 92 p. 28 line 22 and p. 30 line 16; OB) and ***tu-tu-ĝu$_{10}$*** (PRAK C 121 2:8; OB), the last for the form **tur-tur-*ĝu$_{10}$***. Because of all this, the formal details of adjectival reduplication are still largely unknown.

The general meaning of adjectival reduplication also remains somewhat obscure, although for individual adjectives the meaning of their reduplicated forms is fairly clear. With the adjectives **gal** 'big' and **tur** 'small', for instance, the reduplicated forms express plurality. If these adjectives modify a plural noun, they are reduplicated, but if they modify a singular noun, they are not. E.g.:

(10a) **2 ^{uruda}zabar$_3$-šu tur-tur**
2 zabar$_3$.šu tur -tur
2 hand.mirror small-small
'two small copper hand-mirrors' (BIN 8:388=AWAS 114 1:1; L; 24). Note that the auxiliary sign **uruda** signals copper objects.

(b) **1 ^{uruda}*gáb*-lá tur**
1 gáb.lá tur
1 hanger small
'one small copper hanger' (Ibidem 2:2; L; 24)

(11a) **51 maš gal-gal**
51 maš gal-gal
51 he.goat big-big
'fifty-one full-grown he-goats' (DP 91 1:1; L; 24)

(b) **alan gal lugal-an-*da***
alan gal lugal.an.da=ak
statue big Lugalanda =GEN
'the large statue of Lugalanda' (DP 66 6:8; L; 24)

(12a) **diĝir gal-gal lagas^{ki}-*a-ke$_4$-ne***

diĝir gal-gal lagas =ak =enē
god big-big Lagash=GEN=PL
'the great gods of Lagash' (Cyl A 10:28; L; 22)

(b) **é kur gal-*gen*$_7$ an-*né* ús-*sa***
é kur gal=gen an =e ús -Ø -ʔa
house mountain big=EQU heaven=DIR be.next.to-NFIN-NOM
'the temple, which, like a large mountain, reaches heaven' (Cyl B 24:9; L; 22)

In the administrative documents from the Ur III period, however, the scribes do not always write the reduplicated form explicitly. The phrases **gú gal-gal** 'big pulses' and **gú tur-tur** 'small pulses', for instance, designate specific types of vegetables and may occur spelled out fully (e.g., MVN 6:130 rev 5-6; L; 21). Yet, they are found quite often written as **gú gal** and **gú tur** (e.g., ASJ 15 p. 123f 2:9-10; L; 21). Such abbreviated writings are without doubt due to economizing, because the scribes knew that the reduplicated form (with plural meaning) was the only possible form in the context. How often will they have registered single pulses?

The reduplicated forms of **sumun** 'old' and **gibil** 'new' are also restricted to plural head nouns but are even there only optional. Where they are used, they seem to have a individualizing force. Accordingly, **gibil-gibil** may mean something like 'each of them new' or 'all new'. Each of the following two examples gives a section from a document listing ploughs, ploughing implements, and parts of harnesses for draught animals:

(13) **(...) 4 áb-úr gibil / sá-pa sá-LAGAB ad-tab gibil-gibil *i*-sì**
4 áb.úr gibil sá.pa sá.LAGAB ad.tab gibil-gibil=Ø ʔi -sì.g-Ø
4 bottom.straps new a.strap a.strap bridle new -new =ABS VP-put-3N.S/DO
'(...), four new bottom straps; ... straps, ... straps, and bridles, all these (straps and bridles) new, are provided' (DP 492 6:6-7:1; L; 24)

This example has **4 áb-úr gibil** 'four new bottom straps' as opposed to **sa-pa sá-LAGAB ad-tab gibil-gibil** 'new ... straps, (new) ... straps, and (new) bridles'. The basic and reduplicated forms of the adjective **sumun** 'old' show a similar difference in usage:

(14) **4 áb-saĝ sumun / 4 áb-úr / ad-tab sá-pa sá-LAGAB sumun-sumun *i*-sì**
4 áb.saĝ sumun 4 áb.úr ad.tab sá.pa sá-LAGAB
4 halter old 4 bottom.strap bridle a.strap a.strap

sumun-sumun=Ø ʔi -sì.g-Ø
old -old =ABS VP-put-3N.S/DO
'(...), four old halters, four bottom straps; bridles, ... straps, and ... straps, each of them old, are provided' (DP 493 3:10-4:1; L; 24)

(15) **4 šu$_4$-dul$_5$ gu$_4$-apin 1 *i*-diri sumun-sumun**
4 šu$_4$.dul$_5$ gu$_4$.apin =ak 1 =Ø ʔi -diri.g -Ø sumun-sumun
4 yoke ploughing.team=GEN one=ABS VP-be.in.excess-3N.S/DO old -old
'four yokes for ploughing teams, one which is in excess, all of them old' (TSA 28 4:2; L; 24)

The adjective **bar$_6$** 'white' is always reduplicated, regardless of whether there is any plurality involved or not. E.g.:

(16) **1 maš bar$_6$-bar$_6$**

1 maš bar$_6$ -bar$_6$
1 kid white-white
'one white kid' (CTNMC 3 11:3; L; 24)

Similarly: **zíz bar$_6$-bar$_6$** 'white emmer-wheat' (BIN 8:353 6:2; L; 24), **eren bar$_6$-bar$_6$** 'white cedar' (VS 14:38 1:2; L; 24), and **kù-bar$_6$-bar$_6$** 'silver (lit. "white precious metal")' (Ent. 26 24; L; 25). However, such explicit spellings are largely restricted to the Old Sumerian period. Later, the spelling of **bar$_6$-bar$_6$** changes and writing the logogram twice becomes optional. The spelling **kù-UD-UD** (transliterated as **kù-bar$_6$-bar$_6$**) 'silver', for instance, is increasingly replaced by the spelling **kù-UD** (transliterated as **kù-babbar**), so that by the Ur III period the former spelling occurs only in isolated instances.

Other colour terms seem to behave differently and do not reduplicate even where **bar$_6$** 'white' is. E.g.:

(17) **3 maš bar$_6$-bar$_6$ / 2 maš si$_4$ / 3 maš gi$_6$**
3 maš bar$_6$ -bar$_6$ 2 maš si$_4$ 3 maš gi$_6$.g
3 kid white-white 2 kid red 3 kid black
'three white kids, two brown kids, three black kids' (Nik 1:188 2:1-3; L; 24).

However, it is not easy to assess such forms. Although the colour terms **si$_4$** 'red' and **gi$_6$.g** 'black' are consistently found written with unreduplicated forms, this absence of reduplicated forms may be due to scribal conventions only.[1] In the case of **gi$_6$.g**, there is much evidence that the unreduplicated spelling **gi$_6$.g** stood for the reduplicated form. One text from Ebla, for instance, contains the phrase **áb gi$_6$** 'black cow' written with sound signs: ***ab ki-ki*** (MEE 3:62 1:4; Ebla; 24) (Krecher 1983: 180). This Ebla spelling seems to reflect a reduplicated form. Lexical texts from the second and first millennium provide even stronger evidence. They give reduplicated forms as the normal value of the word sign **gi$_6$.g** 'black'.[2] Thus, while the spelling generally disregards the reduplication of **bar$_6$** 'white' after the Old Sumerian period, it may actually have ignored the reduplication of other adjectives from the beginning.

10.4. Syntax

10.4.1. Attributive use

Adjectives are mostly used attributively to modify nouns. The normal word order is then for an adjective to follow the modified noun and to precede all other parts of the noun phrase. E.g.:

(18) **bàd iri kù-*ga-ka-né***
bàd iri kù.g=ak =ane
wall town pure=GEN=her
'her wall in (lit. "of") the Holy City' (FAOS 9/1 Gudea 4 12; L; 22)

(19) **dub daĝal-*a nu*-ĝar**

[1] But note the exceptional spellings **du$_6$ gi$_6$-gi$_6$** 'black hill' (MVN 7:318 obv. 2; L; 21) and **kaš gi$_6$-gi$_6$** 'dark beer' (AAICAB I/2 pl. 134 Ashm. 1971-324 2; U; 21).

[2] E.g., ***gi-gi*** (MSL 14 p. 58 Proto-Ea 672) and **[*gi-i*]*k-ki*** (MSL 3 p. 25 Syllabar A 154). The sign MI, which is used as the word sign for **gi$_6$.g** 'black', has a name which is something like ***gi-ik-ki-ga*** (cf. Gong 2000: 159-160). This name clearly reflects the reduplicated form of the adjective **gi$_6$.g**. See also the evidence collected by Krecher (1969: 190).

dub daĝal=ʔa nu =ʔi -b(i) -ĝar -Ø
tablet wide =LOC NEG=VP-3N:on-place-3N.S/DO
'This is not placed on the broad tablet (a kind of document).' (DP 104 3:3; L; 24)

(20) **dub daĝal gurum$_2$-*ma-ka***
dub daĝal gurum$_2$ =ak =ʔa
tablet wide inventory=GEN=LOC
'on the broad tablet of the inventory' (DP 214 4:4; L; 24)

(21) **ès gibil ^{d}nanše-*ka***
ès gibil nanše =ak =ʔa
shrine new Nanshe=GEN=LOC
'into Nanshe's new shrine' (RTC 48 4:3; L; 24)

Although an attributive adjective normally precedes a genitive, there is one clear exception to this rule. The adjective follows the genitive if the head noun and the genitive depending on it form a semantic unit which the attributive adjective modifies as a whole. E.g.:

(22) **20 túg gú anše-*ka* gibil / 26 túg gú anše-*ka* sumun**
20 túg gú anše =ak =ak gibil 26 túg gú anše =ak =ak sumun
26 cloth neck donkey=GEN=GEN new 26 cloth neck donkey=GEN=GEN old
'twenty new donkey-neck-cloths, twenty-six old donkey-neck-cloths' (TSA 31 2:3-4; L; 24)

(23) **4 usan$_3$ mar gibil**
4 usan$_3$ mar =ak gibil
4 whip wagon=GEN new
'four new wagon whips' (VS 14:162 3:2; L; 24)

(24) **5 ^{ĝiš}eme tugur$_x$** (=LAK483) **si-*ga* gibil**
5 eme tugur$_x$ =Ø si.g -Ø -ʔa =ak gibil
5 tongue plough=ABS put.into-NFIN-NOM=GEN new
'five new ploughshares for deep-ploughing' (VS 14:67 2:1; L; 24). Note that there is also a category ^{ĝiš}**eme numun-*na*** 'ploughshares for seeding (lit. "of seed")' (e.g., DP 501 1:3; L; 24).

(25) **36 ĝiš-ùr zà-gú-lá tur-tur**
36 ĝiš.ùr zà.gú.lá =ak tur -tur
36 beam a.type.of.building=GEN small-small
'thirty-six small *zagula* beams (i.e., beams suitable for a *zagula*)' (VS 14:107 1:3; L; 24)

(26) **2 ma-dul$_{10}$ ^{ĝiš}*gul-bu* sumun-sumun**
2 ma.dul$_{10}$ gul.bu =ak sumun-sumun
2 wagon.pole plane.tree=GEN old -old
'two old *plane*-wooden wagon poles' (DP 482 1:4; L; 24)

In all the such cases, the genitive construction which precedes the adjective is a semantic unit and the attributive adjective modifies this genitive construction as a whole, not only its head noun.

Although an attributive adjective, as a rule, follows its head noun, there are a few instances where an attributively used **kù.g** 'pure, holy' precedes it. An example is the following year name, which occurs in many different texts:

(27) **mu kù *gu-za* ^{d}en-líl-*lá ba*-dím**
mu kù.g gu.za en.lil=ak =Ø Ø -ba -dím -Ø
year pure throne Enlil =GEN=ABS VP-MM-create-3N.S/DO
'The year: Enlil's holy throne was fashioned.' (e.g., AUCT 2:42 7; D; 21)

The same adjective tends to precede certain proper names, such as, for instance, the name of the goddess Gatumdug. E.g.:

(28) **kù ^{d}ĝá-tùm-du$_{10}$-*ra mu-na*-ĝen**
kù.g ĝá.tùm.du$_{10}$.g=ra Ø -mu -nna -ĝen-Ø
pure Gatumdug =DAT VP-VENT-3SG.IO-go -3SG.S/DO
'He came to holy Gatumdug.' (Cyl A 2:26; L; 22)

Outside such expressions as the preceding ones, however, the adjective **kù.g** 'pure' follows its head noun, just like any other adjective. E.g.: **iri kù** 'the Holy City' (BIN 8:348 3:4; L; 24), **mes kù** 'the holy *mes*-tree' (Cyl A 25:18; L; 22), **dusu kù** 'the holy corvee-basket' (Cyl A 6:6; L; 22), ***ù*-šub kù** 'the holy brick mold' (Cyl A 6:6; L; 22), and so on. Hence, **kù.g** 'pure' only precedes its head noun in a few fixed expressions.

The adjective **kù.g** 'pure' is not alone in showing an abnormal word order in certain expressions. The Old Sumerian texts from Lagash contain quite a few compounds like **gal-nar** 'chief musician' (§6.5.3), which consists of an adjectival stem (**gal** 'big') and a noun (**nar** 'musician'). Such compounds do not occur anymore in later texts. Although these compounds are *words*, their internal make-up almost certainly reflects an earlier phrase structure where attributive adjectives could precede their head nouns. Thus, in view of such compounds and the expressions in which **kù.g** 'pure' precedes its head noun, it seems likely that in an earlier form of Sumerian it was (more) normal for an attributive adjective to precede its head noun.

An attributively used adjective can have a – from an English point of view – adverb-like function. This occurs particularly often with idiomatic combinations of verbs and nouns. Whenever the verb and its object make up a semantic unit, an attributive adjective modifying the object must often be translated into English as an adverb. E.g.:

(29) **igi zi *mu-ši*-bar**
igi zi.d =Ø Ø -mu -n -ši-n -bar -Ø
eye right=ABS VP-VENT-3SG-to-3SG.A-be.out-3N.S/DO
'He looked approvingly at him (lit. "brought out (his) rightful eye").' (Cyl A 23:17; L; 22)

(30) **šu gal *ma*-du$_7$-du$_7$**
šu gal=Ø Ø -ma -n -du$_7$-du$_7$-Ø
hand big=ABS VP-1SG.IO-3SG.A-? -? -3N.S/DO
'He performs them very perfectly (lit. "...s a big hand at them").' (Cyl A 10:18; L; 22). The phrasal verb **šu—du$_7$** means 'make perfect'.

(31) **zi-šà-ĝál-*la* šu daĝal du$_{11}$-*ga***
zi.šà.ĝál=ʔa šu daĝal=Ø du$_{11}$.g-Ø -ʔa
life =LOC hand wide =ABS do -NFIN-NOM
'abundantly provided with life (lit. "one to whom has been applied a wide hand with life")' (St B 3:1; L; 22)

Nearly all adjectival stems can also be used as verbal stems. The past participles of such de-adjectival verbs can be used attributively and then often have an adjective-like meaning. In addition, they are used in constructions like English 'the *young* and the *old*' (§10.5.3).

10.4.2. Predicative use

In English, the typical predicative use of an adjective is in a construction with a copula, as in *The house is old*. Sumerian has three different predicative constructions. How the three differ in usage is only partly clear. As we shall se below, context clearly plays a role. There may also be a preference for certain stems to be used in a certain construction, but the number of attestations is too small to be sure of that.

The most frequent predicative construction involves a finite verbal form: a de-adjectival verb is used in an intransitive verbal form with a stative meaning, e.g., ***al*-maḫ** 'he is great'. This construction will be dealt with in §10.5.2 below.

The other two predicative constructions involve the use of an adjective, but they are found in different contexts. In one construction an adjective is used as the predicate of a purely nominal clause, which lacks a form of the copula. This usage only occurs in proper nouns which consist of a clause (§6.8.3). E.g.:

(32) **di-^{d}utu-zi**
di.d utu=ak =Ø zi.d
judgement Utu=GEN=ABS right
'The judgement of the god Utu is right.' (OSP 2:185 5:3; N; 23)

(33) **inim-^{d}utu-zi**
inim utu =ak =Ø zi.d
word Utu=GEN=ABS right
'The word of the god Utu is right.' (OSP 2:50 1:3; N; 23)

The latter name is written **inim-utu-zi** in the Old Sumerian texts from Lagash (e.g., VS 25:26 3:4; L; 24).

The other construction only occurs outside of proper nouns and involves the use of an adjective as the predicate of a copular clause (§29.4.5). E.g.:

(34) **du$_{11}$-*ga-zu* zi-*dam***
du$_{11}$.g-Ø -ʔa =zu =Ø zi.d =ʔam
say -NFIN-NOM=your=ABS right=be:3N.S
'What you say is true.' (Cyl A 4:10; L; 22)

(35) ***za-e* maḫ-*me-en***
za.e=Ø maḫ=me-en
you =ABS great=be -2SG.S
'You are great.' (Inanna C 218; OB manuscript)

(36) **me-*né* gal-gal-*la-àm***
me =ane=Ø gal-gal=ʔam
being=his =ABS big-big=be:3N.S
'whose qualities are great' (Cyl A 7:7; L; 22)

Nearly all adjectival stems can also be used as verbal stems. This is the source of other predicative uses, which will be discussed in the following section.

10.5. De-adjectival verbs

10.5.1. Overview

In English only a handful of adjectival stems can also be used as verbal stems, e.g., *to dirty, to dry, to empty, to humble*, and *to narrow*. But, as we saw in §10.2 above, in Sumerian most adjectival stems occur as verbal stems as well.

In principle, the stem of a de-adjectival verb is identical to the stem of the corresponding adjective. However, two such verbs show discrepancies. The verbal counterpart of the adjective **gal** 'big' is /gul/, written ***gu-ul*** or ***gu.l*** (Krecher 1978b: 384). E.g.:

(37) **gù-dé-*a* en ^{d}nin-*ĝír-su-ra* / níĝ *ba-na-gu-ul-gu-ul***
gù.dé.a=e en nin.ĝír.su.k=ra níĝ =Ø
Gudea =ERG lord Ningirsu =DAT thing=ABS

Ø -ba -nna -n -gu.ul -gu.ul -Ø
VP-MM-3SG.IO-3SG.A-be.big-be.big-3N.S/DO
'Gudea enlarged all things for lord Ningirsu.' (Cyl B 2:12-13; L; 22)

The de-adjectival verb of **tur** 'small' also shows a discrepancy in form between adjective and verb. Mostly, the verb has the expected form **tur** 'be small'. E.g.:

(38) **mu *i*-tur-tur-*re-a-šè***
mu ʔi -tur -tur -eš -ʔa =ak =še
name VP-be.small-be.small-3PL.S-NOM=GEN=TERM
'because they were (too) young' (ASJ 10 p. 88:2 obv 2':5'; L; 21)

(39) **tur-*re-dam***
tur -ed -Ø =ʔam
be.small-IPFV-NFIN=be:3N.S
'This is to be deducted (lit. "made small(er)").' (AUCT 1:857 9; D; 21)

However, the reduplicated form of the past participle is not ***tur-tur-*ra*** but **di$_4$-di$_4$-*la***, written **di$_4$-di$_4$-*lá*** after the Ur III period. E.g.:

(40) **še-ba lú di$_4$-di$_4$-*la-ne***
še.ba lú di$_4$.di$_4$.l -Ø -ʔa =enē=ak
barley.ration man be.small:be.small-NFIN-NOM=PL =GEN
'barley rations of the children' (TSA 22 2:2; L; 24)

(41) **[...] x di$_4$-di$_4$-*lá-ĝu$_{10}$-ne***
di$_4$.di$_4$.l -Ø -ʔa =ĝu=ne
be.small:be.small-NFIN-NOM=my=LOC2
'when I had made young [...]' (IE tablet I 1:15; OB manuscript)

It has also been suggested that **bàn-*da*** is a suppletive form replacing **tur-*ra*** (Krecher 1978b: 384), but this can hardly be correct, as the form **tur-*ra*** is frequently attested in Ur III texts. E.g.:

(42) **zi-*ga-ta* tur-*ra***
zi.g-Ø -ʔa =ta tur -Ø -ʔa
rise-NFIN-NOM=ABL be.small-NFIN-NOM

‘deducted from the expenditures (lit. “made small(er) out of what was raised”)’ (CT 3 pl. 44-47 BM 21338 7:151; L; 21)

It seems therefore more probable that **bàn-*da*** is a basic adjective and a near-synonym of **tur** (cf., e.g., the pair **gal** ‘big, large’ and **maḫ** ‘great’). Note, by the way, that the final /a/ of **bàn-*da*** must belong to the stem, because no Sumerian word can have a final consonant cluster (§3.10).

De-adjectival verbs have, in principle, the same morphological and syntactic possibilities as other verbs, but they have their own typical meanings, which is stative (‘be ...’), inchoative (‘become ...’), or causative (‘make ...’). Which one applies depends on the construction used. Intransitive forms normally have a stative meaning (see the following section, §10.5.2), but intransitive finite forms with the middle marker {ba} have an inchoative meaning (§21.3.3). E.g.:

(43) **é *a-ba*-sumun**
é =Ø ʔu -ba -sumun-Ø
house=ABS REL.PAST-MM-be.old -3N.S/DO
‘after the temple has become old’ (FAOS 9/2 Amarsuen 12 32; Ur; 21)

In Sumerian, the causative of an intransitive verb is a transitive verb (§18.3.2). Thus, transitive forms of de-adjectival verbs always have a causative meaning. A transitive form of the verb **sikil** ‘be pure’, for instance, has the meaning ‘make pure, purify’:

(44) **é-ninnu *im-ta*-sikil-*e-ne***
é.ninnu=Ø ʔi -m(u) -ta -sikil -enē
Eninnu =ABS VP-VENT-with-be.pure-3PL.A:IPFV
‘They were cleaning the Eninnu with it.’ (Cyl B 4:11; L; 22)

The following two sections focus on those forms and usages where de-adjectival verbs are closest to the adjectives. The first (§10.5.2) discusses the intransitive finite forms with a stative meaning which are more or less synonymous with predicative adjectives. The second (§10.5.3) treats the past participles of de-adjectival verbs, which have functions performed by adjectives in some other languages.

10.5.2. Intransitive statives

Sumerian has three predicative constructions for conveying a meaning as in English *The house is old*. Two have been discussed above and involve the predicative use of adjectives in a copular or a nominal clause (§10.4.2). The third construction involves the use of an intransitive finite form of a de-adjectival verb. This form is always perfective and contains just a single prefix, the vocalic prefix {ʔa} or {ʔi}. Which of the two prefixes appears depends on the period and the dialect of the text. In the oldest forms, the prefix is {ʔa}, as, for instance, in the following proper nouns, which contain de-adjectival verbs derived from **maḫ** ‘great’ and **dugud** ‘heavy’:

(45) **nin-*al*-maḫ**
nin =Ø ʔa-maḫ -Ø
lady=ABS VP-be.great-3SG.S/DO
‘The lady is great.’ (DP 111 5:7; L; 24)

(46) **šu-*né-al*-dugud**

šu =ane=Ø ʔa -dugud -Ø
hand=his =ABS VP-be.heavy-3N.S/DO
'His hand is heavy.' (En. I 30 2:3; L; 25)

In the Southern dialect {ʔa} is gradually replaced by {ʔi} (§24.4), which yields forms like the following:

(47) **nin-*ì*-maḫ**
nin =Ø ʔi -maḫ -Ø
lady=ABS VP-be.great-3SG.S/DO
'The lady is great.' (ITT 3:5047 2; L; 21)

Due to the small number of attestations, it is as yet unclear how such finite forms differ in meaning from predicatively used adjectives (cf. §10.4.2). Nor is it always easy to keep the constructions apart. Take, for instance, the following proper noun:

(48) **mu-*né*-*ì*-maḫ**
mu =ane=Ø ʔi -maḫ -Ø
name=his =ABS VP-be.great-3N.S/DO
'His name is great.' (e.g., TCTI 2:2815 3:23'; L; 21)

The same name is written elsewhere **mu-*né*-maḫ** (e.g., MVN 13:432 4; L; 21), with a contraction of the vocalic prefix with the preceding vowel (§6.8.3). If we had not had forms with an explicit spelling, we would probably have analysed **mu-*né*-maḫ** as a nominal clause with a predicative adjective instead of recognizing it as the verbal clause it is.

10.5.3. Forms with the nominalizing suffix {ʔa}

Adjectival stems may occur with the nominalizing suffix {ʔa}. Thus, there is an adjective **zi.d** 'right' but also a form **zi-*da***. Such forms with {ʔa} are to be analysed as non-finite verbal forms. Already Poebel (1923: 61) took this view and it is no coincidence that his first example is **gu-*la***. For this is the only unambiguous form available. As we saw above (§10.5.1), the adjective 'big' is /gal/, but the verb 'be big' is /gul/. A form ***gal-*la*** with the nominalizing suffix {ʔa} does not exist, but **gu-*la*** does, which proves that the form with {ʔa} is a verbal form and not adjectival. But there is even more evidence for its verbal character. Adjectives cannot be negated (§10.2), but the forms with {ʔa} can, as is for instance shown by ***nu*-sa$_6$-*ga*** '(being) not good' (DP 387 3:1; L; 24). Adjectival stems with the nominalizing suffix {ʔa} are non-finite verbal forms; they are the past participles of de-adjectival verbs.

The past participle of a de-adjectival verb can have the same uses as those found with other verbs (§28.3). E.g.:

(49) **zi-*ga-ta* tur-*ra***
zi.g-Ø -ʔa =ta tur -Ø -ʔa
rise-NFIN-NOM=ABL be.small-NFIN-NOM
'deducted from the expenditures (lit. "made small(er) out of what was raised")' (CT 3 pl.44-47 BM 21338 7:151; L; 21)

(50) **ki-*gen*$_7$ daĝal-*la-za* ḫé-zu-*àm***
ki =gen daĝal -Ø -ʔa =zu =ʔa ḫa =ʔi -zu -Ø =ʔam
earth=EQU be.wide-NFIN-NOM=your=LOC MOD=VP-know-3N.S/DO=be:3N.S
'About that you are wide as the earth – let it be known!' (Inanna B 124; OB manuscript)

German has de-adjectival nouns like *der Alte* 'the old one' and *das Gute* 'the good thing(s)'. Sumerian expresses such notions with the past participles of de-adjectival verbs, e.g., **tur-*ra*** 'small one' (lit. 'one who is small'), **di$_4$-di$_4$-*la*** 'small ones' (lit. 'ones who are small'), **sukud-*řá*** 'long one' (lit. 'one who is long'), and **du$_{10}$-*ga*** 'sweet/good one' or 'sweet/good thing' (lit. 'one who/which is sweet/good'):

(51) **buluĝ-*ĝá* tur-*ra-šè* *nu-ù-ši*-gíd-*da***
buluĝ -Ø -ʔa =Ø tur -Ø -ʔa =še
grow.up-NFIN-NOM=ABS be.small-NFIN-NOM=TERM

nu =ʔi -b -ši-n -gíd -Ø -ʔa
NEG=VP-3N-to-3SG.A-register-3N.S/DO-NOM
'that he had not registered a grown-up as a young one' (BM 22859 4:10; L; 21)

(52) **di$_4$-di$_4$-*la* dub-sar-*e-ne***
di$_4$.di$_4$.l -Ø -ʔa dub.sar=enē=ak
be.small:be.small-NFIN-NOM scribe =PL =GEN
'children ("small ones") of the scribes' (MVN 11:208 6; ?; 21)

(53) **sukud-*řá***
sukuř -Ø -ʔa
be.long-NFIN-NOM
'long one' (PN) (NG 18 26; L; 21)

(54) **du$_{10}$-*ga*-*ĝu$_{10}$***
du$_{10}$.g -Ø -ʔa =ĝu
be.sweet-NFIN-NOM=my
'my sweet one' (PN) (TCS 1:58 1; L; 21)

(55) **du$_{10}$-*ga* iri-ka-ge-*na-ka***
du$_{10}$.g -Ø -ʔa iri.ka.ge.na.k=ak
be.sweet-NFIN-NOM Irikagena =GEN
'the sweet things of Irikagena' (Ukg. 41 1; L; 24)

Past participles of de-adjectival verbs can also be used attributively, just like adjectives (§28.3.3). Such attributive past participles have a restrictive meaning, while attributive adjectives simply characterize. Consider the following phrase:

(56) **é libir-*ra-áš***
é libir -Ø -ʔa =š(e)
house be.of.old-NFIN-NOM=TERM
'to the former temple (lit. "the house which is of before")' (Cyl A 17:29; L; 22)

The phrase **é libir-*ra*** 'the former temple', which includes a past participle of a de-adjectival verb, implies that there is also an **é** 'house, temple' which is not **libir** 'of old' (viz. the new temple under construction which is the topic of the text Cyl A). A phrase like **é gibil** 'the new temple' (e.g., St E 7:16; L; 22), which includes the attributive adjective **gibil** 'new', has no such implications. It leaves completely open whether another **é** exists or not.

In having a restrictive meaning, the past participles of de-adjectival verbs show shades of meaning which are not found with other verbs. Having a certain property among other people or things (e.g., being long, small, old, etc.) is often a matter of degree. Thus, being the long one

among others implies being the longer or the longest one. Accordingly, a past participle of a de-adjectival verb must often be translated with a comparative or superlative. E.g.:

(57) **lú sukud-*da* an-*šè nu-mu-un-da*-lá**
lú sukud -Ø -ʔa =Ø an =še nu =Ø -mu -n -da -lá -Ø
man be.high-NFIN-NOM=ABS heaven=TERM NEG=VP-VENT-3SG-with-stretch-3SG.S/DO
'The highest man cannot reach out until heaven.' (GH A 28 = JCS 1 p. 23 YBC 9857 28; OB manuscript)

Thus **lú sukud-*da*** 'the highest man' means literally 'the man who is high (among the other men)'. The following examples show a similar usage:

(58) **lú daĝal-*la* kur-*ra la-ba-an*-šú-šú**
lú daĝal -Ø -ʔa =Ø kur =ʔa nu =Ø -ba -n(i)-šú -šú -Ø
man be.wide-NFIN-NOM=ABS mountains=LOC NEG=VP-MM-in -cover-cover-3SG.S/DO
'The widest man does not cover the mountain lands.' (GH A 29 = JCS 1 p. 23 YBC 9857 29; OB manuscript)

(59) **lú di_4-di_4-*lá* lú tur-tur-*ra-ke_4-ne***
lú di_4.di_4.l -Ø -ʔa lú tur -tur =ak =enē
man be.small:be.small-NFIN-NOM man small-small=GEN=PL
'the smallest of the small ones' (Ed B 75; OB)

The following examples also clearly illustrate the restrictive meaning of a de-adjectival past participle. The phrases **bur *gu-la*** 'larger bowl' and **ašag gibil *gu-la*** 'the larger New Field' imply the existence of another **bur** 'bowl' and another **ašag gibil** 'New Field':

(60) **1 bur *gu-la* / 1 bur tur**
1 bur gu.l -Ø -ʔa 1 bur tur
1 bowl be.big-NFIN-NOM 1 bowl small
'one larger bowl (lit. "one bowl which is large"), one small bowl' (DP 70 1:2-3; L; 24)

(61a) **ašag gibil *gu-la***
ašag gibil gu.l -Ø -ʔa
field new be.big-NFIN-NOM
'the larger New Field (lit. "the New Field which is large")' (DP 582 5:1; L; 24). Compare:

(b) **ašag gibil tur-*ra***
ašag gibil tur =ʔa
field new small=LOC
'in the small New Field' (DP 396 5:4; L; 24)

The same difference in meaning between an attributive past participle and an attributive adjective can be illustrated with the stem **silim** 'healthy, intact':

(62) **3 ^{ĝiš}apin silim-*ma* / 1 ^{ĝiš}apin ḫaš-*$ša_4$***
3 apin silim -Ø -ʔa 1 apin ḫaš -Ø -ʔa
3 plough be.intact-NFIN-NOM 1 plough break-NFIN-NOM
'three intact ploughs, one broken plough (lit. "three ploughs which are intact, one plough which is broken") (out of the four of one chief ploughman)' (Nik 1:287 2:2-3; L; 24)

(63) **20 lá 1 gu_4 gal-gal igi silim**

20 lá 1 gu$_4$.ř gal-gal igi silim
20 minus 1 ox big-big eye intact
'19 full-grown oxen with both eyes healthy' (VS 14:66 2:1; L; 24). Other lines of the same text list animals which are blind in one or both eyes.

The de-adjectival past participle **zi-*da***, which comes from the adjective **zi.d** 'right, true', has acquired a specialized meaning. The form **zi-*da*** has come to mean 'right' in the sense of 'not left' and is attested particularly often in the expression **á zi-*da*** 'right arm', 'right side', often contrasting with **á gabu$_2$** 'left arm', 'left side'. E.g.:

(64) **á zi-*da*-ĝu$_{10}$ (...) / á gabu$_2^{bu}$-ĝu$_{10}$ (...)**
á zi.d -Ø -ʔa =ĝu ... á gabu$_2$=ĝu ...
arm be.right-NFIN-NOM=my ... arm left =my ...
'my right arm (...); my left arm (...)' (Angim 129-130; OB manuscript)

(65) **šár-ùr á zi-*da* lagas^{ki}-*a***
šár.ùr á zi.d -Ø -ʔa lagas =ak
Sharur arm be.right-NFIN-NOM Lagash=GEN
'the Sharur(-weapon), the right arm of Lagash' (Cyl A 15:23; L; 22)

(66) **šu zi-*da*-né-*ta* (...) / šu *ga*-bu-né-*ta* (...)**
šu zi.d -Ø -ʔa =ane=ta šu gabu$_2$=ane=ta
hand be.right-NFIN-NOM=his =ABL hand left =his =ABL
'with his right hand (...); with his left hand (...)' (TrD 1 rev 5-6; ?; 21)

10.6. De-adjectival nouns

Some adjectival stems are also used as stems of nouns (§6.6.3). Such de-adjectival nouns have an abstract meaning. E.g.: **sukud** 'height' (from **sukud** 'high'), **daĝal** 'width' (from **daĝal** 'wide'), **tur** 'smallness' (from **tur** 'small'), **maḫ** 'greatness' (from **maḫ** 'great'), and **gal** 'bigness' (from **gal** 'big'). Because they are nouns, their syntactic function is indicated with an enclitic case marker.

A variety of constructions is found, some common to nouns in general, others typical of de-adjectival nouns. Like other nouns, a de-adjectival noun can be a part of a noun-noun compound: ***nam*-maḫ** 'greatness' (§6.5.2, §6.6.3). Also, a de-adjectival noun can be used as a common noun. E.g.:

(67) **4 ge daĝal-*bé* 2 ge / sukud-*bé* 1 ge**
4 ge daĝal=be=Ø 2 ge sukud=be=Ø 1 ge
4 reed width=its=ABS 2 reed height=its=ABS one reed
'(a stretch of dike of) four reeds: its width two reeds, its height one reed' (DP 654 1:3-4; L; 24)

Like other nouns, they can be conjoined with the conjunction {be} 'and' (§5.4):

(68) **100 lá 2 lú še-ba *e*-taka$_4$-*a* tur maḫ-*ba***
98 lú še.ba =Ø ʔi -b -taka$_4$-Ø -ʔa tur maḫ =be =ak
98 man barley.ration=ABS VP-3N.A-leave -3N.S/DO-NOM smallness greatness=and=GEN
'ninety-eight persons who left behind barley rations, of all sizes (lit. "those of smallness and greatness")' (STH 1:19 10:1; L; 24)

Other constructions are typical of de-adjectival nouns. Thus, if a de-adjectival noun is construed as the direct object of a verb, it conveys an adverbial meaning. E.g.:

(69) **gal *mu*-zu gal *ì-ga*-túm-*mu***
gal =Ø Ø -mu -n -zu -Ø gal =Ø ʔi -nga -túm -e
bigness=ABS VP-VENT-3SG.A-know-3N.S/DO bigness=ABS VP-also-bring-3SG.A:IPFV
'He knows in a big way (lit. "knows bigness") and brings (about) in a big way as well.' (Cyl A 12:20; L; 22)

(70) **mè gal zu-*bé***
mè =ak gal =Ø zu -Ø =be
battle=GEN bigness=ABS know-NFIN=its
'an expert of battle (lit. "of battle its one who knows bigness")' (Cyl A 17:21; L; 22)

(71) **ensi$_2$ kù zu-*àm***
ensi$_2$.k=Ø kù.g =Ø zu -Ø =ʔam
ruler =ABS purity=ABS know-NFIN=be:3SG.S
'the ruler was wise (lit. "knowing purity" > "knowing in a pure way")' (Cyl B 1:12; L; 22)

Similarly, but as the head noun of a non-finite relative clause:

(72) **tur du$_{11}$-*ga-zu* maḫ du$_{11}$-*ga-àm* šu *ba-a-ši-íb*-ti**
tur du$_{11}$.g-Ø -ʔa =zu maḫ du$_{11}$.g-Ø -ʔa =Ø =ʔam
smallness say -NFIN-NOM=your greatness say -NFIN-NOM=ABS=be:3N.S

šu =e Ø -ba -e -ši-b -ti -e
hand=DIR VP-3N.IO-2SG-to-3N.DO-approach-3SG.A:IPFV
'What you say in a small way he will accept from you as what is said in a big way (lit. "Your stated smallness which is a stated bigness – he will let it approach (his) hand for you").' (Cyl A 7:3; L; 22)

But this is not the only construction in which a de-adjectival noun can be used to convey an adverbial meaning. There are two more, one involving the adverbiative case and the other the directive case. The latter is illustrated by the following clause:

(73) **lú tur gibil-*bé* é řú-*gen$_7$***
lú tur gibil =be=e é =Ø řú -ed -Ø =gen
man small newness=its=DIR house=ABS erect-IPFV-NFIN=EQU
'like a young man who is building a house from scratch' (Cyl A 19:22; L; 22)[3]

This clause contains the form **gibil-*bé*** 'newly' (lit. 'at its newness'). It consists of the de-adjectival noun **gibil** 'newness' (from **gibil** 'new'), followed by the enclitic possessive pronoun {be} 'its' (§8.3.3) and the directive case marker {e} (§7.6.1). The following is a further instance of such a de-adjectival noun, in this case one from **ḫulu** 'bad':

(74) **šed$_9$ ḫulu-*bé ì-ĝál-àm***
šed$_9$ =Ø ḫulu =be =e ʔi -ĝál -Ø =ʔam
coldness=ABS badness=its=DIR VP-be.there-3N.S/DO=be:3N.S
'There was a terrible cold! (lit. "a cold at its badness").' (PPAC 1 A.988 3; A; 23)

[3] For the non-finite verbal form, see ex. 196 in chapter 28.

The construction with the adverbiative case is illustrated by the form **zi-*dè-éš*** 'in the right way' in the following clause:

(75) **é lugal-*na* zi-*dè-éš mu*-řú**
é lugal =ane=ak =Ø zi.d =eš Ø -mu -n -řú -Ø
house master=his=GEN=ABS rightness=ADV VP-VENT-3SG.A-erect-3N.S/DO
'He built his master's temple in the right way.' (Cyl A 24:8; L; 22)

This **zi-*dè-éš*** 'rightly' contains the de-adjectival noun **zi.d** 'rightness' (from **zi.d** 'right') and the adverbiative case marker {eš}, but it lacks the possessive pronoun {be} 'its'. Thus, while **gibil-*bé*** means literally 'at *its* newness', **zi-*dè-éš*** means merely 'in the manner of rightness'. The difference in usage between the two forms is still unclear.

One de-adjectival noun underwent a semantic shift from an abstract noun to an object noun: **kù.g** 'pureness, purity' (from **kù.g** 'pure') came to be used as the word for 'precious metal, silver' and became a part of the compounds **kù-bar$_6$-bar$_6$** 'silver' (lit. 'white purity') and **kù-sig$_{17}$** 'gold' (lit. 'yellow purity').

10.7. Comparison

Sumerian adjectives are not specified for degree. In this they differ from the English adjectives, which have special comparative and superlative forms (e.g., *big*, *bigger*, *biggest*; *beautiful*, *more beautiful*, *most beautiful*). However, if a Sumerian verb has an adjectival meaning, its past participle must sometimes be translated as a comparative or a superlative (§10.5.3). E.g.:

(76) **udu-*ba* udu sa$_6$-*ga-bé* / lú *ba-ta*-túm-*mu***
udu =be =ak udu sa$_6$.g -Ø -ʔa =be=Ø
sheep=this=GEN sheep be.good-NFIN-NOM=its=ABS

lú =e Ø -ba -ta -túm -e
person=ERG VP-MM-from-carry-3SG.A:IPFV
'Someone would carry off the best of those sheep.' (Ukg. 6 1:3'-4'; L; 24)

Various structures are used for comparing. Constructions with the equative case are used for expressing equality. They occur, for instance, with attributive adjectives:

(77) **nin-*e-rib-ba-né-gen7*-munus-zi**
nin$_9$ =Ø e.rib =ane=gen munus zi.d =Ø
sister=ABS sister.in.law=her =EQU woman right=ABS
'The sister is as true a woman as her sister-in-law (lit. "is a true woman like").' (a proper name) (Nik 1:19 4:10; L; 24)

(78) **é ^{d}nin-*ĝír-su-ka* / eridu^{ki}-*gen$_7$* / ki sikil-*la bí*-řú**
é nin.ĝír.su.k=ak =Ø eridu=gen ki sikil=ʔa
house Ningirsu =GEN=ABS Eridu=EQU place pure=LOC

Ø -bi -n -řú -Ø
VP-3N:on-3SG.A-erect-3N.S/DO
'He built Ningirsu's temple on a place as pure as Eridu (lit. "on a pure place like Eridu").' (St B 4:7-9; L; 22)

But such comparative constructions are also found with predicative adjectives and de-adjectival verbs:

(79) **eden-^{d}amar-^{d}suen-*gen$_7$*-du$_{10}$**
eden=Ø amar.suen=gen du$_{10}$.g
plain=ABS Amarsuen =EQU good/sweet
'The plain is as good as Amar-Suen.' (a field name) (SAT 1:301 5; L; 21)

(80) **utu-*gen$_7$*-*a-ba*-sa$_6$**
utu=gen a.ba=Ø sa$_6$.g
Utu=EQU who=ABS good/beautiful
'Who is as good as Utu?' (a proper name) (DP 138 4:15; L; 24)

(81) ***za-gen$_7$ a-ba an-ga*-kalag**
za =gen a.ba=Ø ʔa -nga-kalag -Ø
you=EQU who=ABS VP-also-be.strong-3SG.S/DO
'Who is as strong as you?' (Shulgi D 36; N?; 21, OB copy)

(82) **šà an-*gen$_7$* sù-*řá-zu***
šà.g an =gen sù.ř -Ø -ʔa =zu
heart heaven=EQU be.far-NFIN-NOM=your
'your heart, as distant as heaven' (Cyl A 9:2; L; 22)

For expressing inequality either the verb **diri.g** 'exceed' is used or the noun **diri.g** 'excess'. E.g.:

(83) ***me-bé me* gal-gal *me-me-a* diri-*ga***
me =be=Ø me gal-gal me -me =ʔa diri.g -Ø -ʔa
being=its=ABS being big-big being-being=LOC exceed-NFIN-NOM
'whose properties are greater than all others (lit. "are great properties surpassing all properties")' (Cyl A 9:12; L; 22)

(84) **nin *nam*-gal-*la-né* kur-*ra* diri-*ga***
nin nam.gal=ane=Ø kur =ʔa diri.g -Ø -ʔa
lady bigness =her =ABS mountains=LOC exceed-NFIN-NOM
'lady who is greater than the mountains (lit. "whose bigness exceeds the mountains")' (LW 12:1; OB)

(85) ***a-na-aš-àm* diri-*zu-šè* níĝ *ab*-gur$_4$-*re-en***
a.na =še =ʔam diri.g =zu =še níĝ =Ø ʔa-b -gur$_4$ -en
what=TERM=be:3N.S excess=your=TERM thing=ABS VP-3N.DO-be.thick-2SG.A/S:IPFV
'Why is it that you make things bigger than yourself? (lit. "big to your excess")' (Two scribes: CT 42:47 2:7 // ISET 2 pl. 97 Ni. 4194 rev. 4; N; OB)

11. VERBS AND VERBAL CLAUSES

11.1. Introduction

The nouns and verbs are the two major word classes of Sumerian (§4.5.2). Either word class plays a key role in Sumerian grammar, nouns in the make-up of noun phrases and verbs in the make-up of clauses. The previous chapters have focused on the noun and on various parts of the noun phrase. With the present chapter, the centre of attention shifts to the verb and to the parts of the clause.

Verbs have grammatical properties which differ from those of the other word classes. They have a different inflection as well as a distinct syntactic function.

As for their inflection, Sumerian verbal forms are either finite or non-finite. The non-finite verbal forms (the participles) have a different inflection from the finite forms. Also, they are used in different kinds of constructions. This chapter as well as the following ones will focus on the finite forms. The non-finite forms will be dealt with in chapter 28.

A finite verbal form can contain up to nine prefixes and three suffixes. In addition, one or more clitics can be attached to it. The prefixes and suffixes express a large variety of meanings, including several for which English uses pronouns, adverbs, and auxiliary verbs. The following section (§11.2) gives an overview of the prefixes and suffixes of the finite verb, as well as of the various clitics which may be attached to a verbal form.

In contrast to this rich verbal inflection, the make-up of the verbal stem itself is quite simple. It is not possible in Sumerian to create new verbal stems through composition or through the use of affixes. The verbal stem can only be modified through reduplication, of which there are two kinds. It will be treated in chapter 12. Because Sumerian lacks the means to create new verbal stems, it has only a limited number of verbs. Section 11.3 briefly sketches which types of verbs Sumerian has and which not.

As for their syntax, verbs play a central role in the make-up of clauses. With the exception of copular and nominal clauses, every clause contains a verbal form which functions as its predicate. This predicate is the nucleus of the clause and all other parts of the clause are in some way dependent upon it. Section 11.4 discusses the general make-up of the Sumerian clause and, more specifically, the verb's role in it. This discussion is continued in section 11.5, which deals with the mechanisms by which the normal construction of a verb can be changed. Among such mechanisms are passive and causative constructions.

For several verbal prefixes and syntactic functions the present grammar does not use the same labels as other Sumerian grammars do. Section 11.6 explains why.

11.2. Morphology of the finite verb

11.2.1. General remarks

As Sumerian finite verbal forms can be quite complex, their structure takes up a major portion of any Sumerian grammar. For the same reason, their analysis has been the focus of much previous research. The present grammar departs in a number of central issues from Sumerological tradition and the choices made need to be pointed out and justified.

A highly influential tradition in Sumerian grammatical studies divides the verbal morphemes before the stem into the following four basic categories:

(1) the preformatives,

(2) the conjugation prefixes,
(3) the dimensional infixes,
(4) the pronominal infixes.

Nearly all Sumerian grammars analyse the finite verb in terms of these four categories, although their exact labels and contents may differ somewhat from one grammar to the other. Falkenstein (1949), for instance, distinguishes between (1) 'Präformative', (2) 'Konjugationspräfixe und Präfixe', (3) 'dimensionale Verbalinfixe', and (4) 'Akkusativinfix', a classification followed by several other grammars, including Römer (1999). Thomsen (1984) uses the modernized labels (1) 'modal prefixes', (2) 'conjugation prefixes', (3) 'case prefixes', and (4) 'pronominal prefixes'. Even Jacobsen (1965), who in so many respects goes his own way, largely follows the same tradition with his (1) 'profixes', (2) 'prefixes', and (3+4) 'infixes'. The roots of the four categories lie in Poebel (1923), who distinguishes between (1) 'Partikeln', (2) 'Präfixe', (3) 'dimensionale Infixe', and (4) 'Kausativ- und Subjektselemente'.

The principle underlying this classification is stated most clearly by Jacobsen (1965: 72): the preformatives are affixes that must begin the verbal form in which they occur, the conjugation prefixes are affixes that may begin the verbal form but do not have to do so, and the infixes are affixes that cannot begin the verbal form. Other grammarians give similar definitions, for instance, Poebel (1923: §486 and §532). In essence, the reasoning behind the classification has to do with the relative order of the verbal morphemes. Only the distinction between (3) and (4) is based on functional considerations as well.

Determining the relative order of morphemes is a well-established procedure in descriptive linguistics and is a vital step in any linguistic analysis of the Sumerian finite verb. Where the traditional approach goes wrong, however, is in also giving weight to whether a given morpheme can be the first element of a finite form or not. It is a crucial flaw, because the distinction between morphemes which can and cannot begin a verbal form separates morphemes which clearly belong to the same category: the 'conjugation prefix' {bi} and the 'dimensional infix' {nni}, for example, both belong to the oblique-object prefixes (see chapter 18).

Not only separates this distinction morphemes which clearly belong together, it also unites morphemes which clearly do not. The defining property of 'being able to begin the verbal form but not having to do so' created the category of the 'conjugation prefixes' and brought about a long and largely fruitless search for what unites these prefixes and how they differ among themselves. In actual fact, the so-called conjugation prefixes are mutually independent prefixes, each with its own unrelated function. Accordingly, the present grammar treats the traditional conjugation prefixes separately, in different chapters. They are the vocalic prefixes {ʔi} and {ʔa} (chapter 24), the ventive prefix {mu} (chapter 22), the middle marker and indirect-object prefix {ba} (chapter 21 and §17.2.1), and the local and oblique-object prefix {bi} (§18.2.2 and §20.3).

The other three traditional categories recur in the present grammar, albeit modified. Most importantly, whether they can or cannot begin the verbal form plays no role anymore in how they are defined. Similarly, the traditional Sumerological division of verbal affixes into 'prefixes' and 'infixes' has been dropped in favour of the designation 'prefixes'. This division is based on the flawed distinction between affixes which can and cannot begin a verbal form. It also goes against well-established linguistic terminology to call affixes which precede the verbal stem anything else but 'prefixes'.

The present grammar also departs from Sumerological tradition in how it analyses several verbal affixes. This will be pointed out and justified in the chapters about these specific affixes. But one such divergence from tradition needs to be mentioned here already, because it has far-

reaching effects on the analysis of finite verbal forms. The present grammar views the traditional conjugation prefixes {ʔi} and {ʔa} as preformatives. A full justification for this analysis can be found in §24.1. Here it suffices to say that in the relative order of prefixes, {ʔi} and {ʔa} precede the prefix {nga}, just like all other preformatives.

11.2.2. Basic structure of a finite verbal form

A finite verbal form consists of a verbal stem preceded by one or more prefixes and followed by one or more suffixes. In addition, one or more clitics may be attached to it. Infixes (affixes which are inserted into the stem) do not occur in Sumerian.

Most finite verbal forms are either perfective or imperfective. Perfective and imperfective forms differ in meaning and have a different inflection, a different stem, or both (see chapter 15). Neither perfective nor imperfective are imperatives (§25.3) and forms with the modal prefix {ga} (§25.6). Imperatives are also irregular in that they have all verbal prefixes positioned *after* the stem instead of before as in all other finite forms.

A finite verbal form has at least one prefix but it may, at least in theory, contain up to nine different prefixes. In addition, a finite verbal form may have up to three suffixes. These prefixes and suffixes have a wide range of meanings and uses. Some refer to participants such as the subject and the various objects. Others express negation or have a modal, aspectual, or tense meaning. They are always found in the same relative order.

The following overview lists the various obligatory and optional parts of a finite verbal form, in the same order as they occur in actual forms (see also the diagram of the finite verb in the appendix on p. 743 of this grammar):

1. The preformatives

Any grammatical morpheme which in the relative order of verbal prefixes precedes the prefix {nga} will be called a preformative. A preformative which precedes another preformative will be called a proclitic. By definition, the preformatives precede all other verbal prefixes. Every finite verbal form contains at least one preformative, but some forms contain two. There are ten different preformatives, which can be divided into three groups on the basis of their functions.

The first group consists of the vocalic prefixes and has three members: the relative-past prefix {ʔu} and the prefixes {ʔi} and {ʔa}, whose uses differ according to region and period. E.g.:

(1) **pisaĝ-*ĝá ù-mu-ni-ĝá-ar***
pisaĝ =ʔa ʔu -mu -ni-n -ĝar -Ø
basket=LOC REL.PAST-VENT-in-3SG.A-place-3N.S/DO
'after he has put them into a basket' (TCS 1:290 4; U; 21)

The vocalic prefixes are treated in chapter 24.

The second group consists of five modal and negative preformatives. Among them are the only two proclitics, {ḫa} and {nu}, which are always used in combination with a following vocalic prefix. The negative proclitic {nu} has a non-modal meaning and negates both finite and non-finite verbal forms. E.g.:

(2) **im ur-níĝ-*ta* / *nu-ù-ta*-zi**
im ur.níĝ=ak =ta nu =ʔi -b -ta -zi.g-Ø
clay Urnig =GEN=ABL NEG=VP-3N-from-rise-3N.S/DO
'This was not raised from Urnig's tablet.' (MVN 6:57 rev 1-2; L; 22)

The other preformatives of this group express positive or negative wishes, commands, and assertions. They are the proclitic {ḫa} and the prefixes {na(n)}, {ga}, and {bara}. E.g.:

(3) **0.1.4 duḫ / ur-^{d}nun-gal-*ra* / *ḫa-mu-na-ab*-šúm-*mu***
0.1.4 duḫ =Ø ur.nun.gal=ra ḫa =Ø -mu -nna -b -šúm-e
0.1.4 bran=ABS Urnungal =DAT MOD=VP-VENT-3SG.IO-3N.DO-give-3SG.A:IPFV
'He must give one hundred litres of bran to Ur-Nungal!' (TMHC NF 1/2:355 3-5; N; 21)

The preformatives of this group are discussed in chapter 25, together with the imperative.

The third group consists of the two preformatives {ši} and {na}, which are rare and have obscure meanings. They are treated in chapter 26.

2. The prefix {nga}

Very rarely a finite verbal form contains the prefix {nga}. Its function is not fully understood but it seems to mean something like 'also'. E.g.:

(4) **ur-^{d}nin-*ĝír-su* / *ù nam*-erim$_2$ / *nu-ga-ma*-ku$_5$**
ur.nin.ĝír.su.k=e ù nam.erim$_2$=Ø nu =ʔi -nga-ma -n -ku$_5$.ř-Ø
Urningirsu =ERG also oath =ABS NEG=VP-also-1SG.IO-3SG.A-cut -3N.S/DO
'(Someone took an oath but) Ur-Ningirsu, he did not take an oath for me as well.' (ITT 2/2:5758 rev 2'-4'; L; 23)

See chapter 23 for details.

3. The ventive prefix {mu}

A finite verbal form may contain the ventive prefix {mu}, which indicates that the form refers to an action or state which is oriented towards the speaker. E.g.:

(5) **an-*ta ḫé*-ĝál *ḫa-mu-ra-ta*-ĝen**
an =ta ḫé.ĝál =Ø ḫa =Ø -mu -ra -ta -ĝen-Ø
heaven=ABL abundance=ABS MOD=VP-VENT-2SG.IO-from-go -3N.S/DO
'May abundance come from above for you!' (Cyl A 11:8; L; 22)

The ventive prefix is dealt with in chapter 22.

4. The prefix {ba}

A finite verbal form may contain the prefix {ba}, which has two main uses. Its use as a middle marker will be treated in chapter 21 and its use as the indirect-object prefix non-human in chapter 17. It cannot occur together with the initial person-prefix non-human {b}.

5. The initial person-prefixes

A finite verbal form may contain one of the seven initial person-prefixes. They have different forms according to gender (human/non-human), person (first/second/third), and number (singular/plural). They are the third person prefix non-human {b} and the following prefixes human: {ʔ} for the first person singular, {e} for the second person singular, {n} for the third person singular, {mē} for the first person plural, {enē} (?) for the second person plural, and {nnē} for the third person plural.

The initial person-prefixes are person markers which are used to refer to a wide variety of participants with a role in the action or state expressed by the verb. Such a prefix is nearly always used together with a dimensional prefix immediately following it. E.g.:

(6) ***a-da-làl-e ba-an-da-an*-kar**

a.da.làl=e Ø -ba -n -da -n -kar -Ø
Adalal =ERG VP-MM-3SG-with-3SG.A-take.away-3SG.S/DO
'Adalal took her away from him.' (NG 214 32; U; 21)

The initial person-prefixes are treated in chapter 16.

6. The dimensional prefixes

The dimensional prefixes are the prefixes which can occur between an initial and a final person-prefix. A finite verbal form can contain any number of them from zero to four. All dimensional prefixes are cognate with a case marker. They are used to refer to a wide variety of participants with a role in the action or state expressed by the verb. As a rule, the first dimensional prefix of the verbal form is used together with an initial person-prefix, which specifies the gender, number, and person of what or whom the dimensional prefix refers to. The dimensional prefixes can be divided into five groups on the basis of the relative order in which they occur.

A finite verbal form may contain an indirect-object prefix, which then always comes first. The attested forms are {ma} for the first person singular, {ra} for the second person singular, {nna} for the third person singular, {mē} or {mēʔa} for the first person plural, and {nnē} or {nnēʔa} for the third person plural. The prefix {ba} (see above) is used as the indirect-object prefix non-human. E.g.:

(7) ***mu-un-na-ni-in*-ku$_4$**
Ø -mu -nna -ni-n -ku$_4$.r-Ø
VP-VENT-3SG.IO-in-3SG.A-enter -3SG.S/DO
'He let her enter it for him.' (FAOS 9/2 Amarsuen 8 10; ?; 21)

The indirect-object prefixes are treated in chapter 17.

A finite verbal form may contain the dimensional prefix {da}, which has the meaning '(together) with' and is cognate with the comitative case marker {da}. E.g.:

(8) **še é-*a nu-mu-da*-ĝál**
še =Ø é =ʔa nu =Ø -mu -ʔ -da -n(i)-ĝál -Ø
barley=ABS house=LOC NEG=VP-VENT-1SG-with-in -be.there-3N.S/DO
'I have no barley in the house (lit. "There is no barley with me in the house").' (MVN 11:168 19; U; 21)

The dimensional prefix {da} is discussed in chapter 19.

A finite verbal form may contain one of the dimensional prefixes {ta} or {ši}. The prefix {ta} means 'from' and is cognate with the ablative case marker {ta}. The prefix {ši} means 'to(wards)' and is cognate with the terminative case marker {še}. These two dimensional prefixes are also treated in chapter 19.

A finite verbal form may contain one of two local prefixes {e} 'on' and {ni} 'in'. The latter prefix is an abnormal dimensional prefix because it is never combined with an initial person-prefix. The following clause illustrates the local prefix {ni} (note that the sign NI is here to be read either ***ni*** or ***né***):

(9) **e-*bé* íd-nun-*ta* / gú eden-*na-šè* / *éb-ta-NI*-è**
e.g =be=Ø íd.nun=ta gú.eden.na.k=še ʔi -b -ta -ni-n -ʔè -Ø
dike=its=ABS Idnun =ABL Guedena =TERM VP-3N-from-in-3SG.A-go.out-3N.S/DO
'He let its dike (viz. the dike indicating the border between Lagash and Umma) go from the Idnun into the Guedena.' (Ent. 28 2:1-3; L; 25)

The local prefixes are discussed in chapter 20.

A finite verbal form may contain a dimensional prefix used as oblique-object prefix. Such a dimensional prefix cannot occur together with another dimensional prefix and is therefore always the only dimensional prefix in the verbal form. The prefixes in question are {ri} for the second person singular, {nni} for the third person singular, {mē} for the first person plural, {enē} for the second person plural, {nnē} for the third person plural, and {bi} for the third person non-human. The ventive prefix (see above) is used as the oblique-object prefix for the first person singular. The oblique-object prefixes are treated in chapter 18.

7. The final person-prefixes

A finite verbal form may contain one of the final person-prefixes. Their forms are {ʔ} for the first person human, {e} for the second person human, {n} for the third person human, and {b} for the third person non-human. In the perfective inflection (§15.2.2), a final person-prefix expresses either the transitive subject or the oblique object. In the imperfective inflection (§15.2.3), it expresses either the direct object or the oblique object. E.g.:

(10) **níĝ-*na-me nu-mu-da-a*-tuku**
níĝ.na.me=Ø nu =Ø -mu -ʔ -da -e -tuku-Ø
anything =ABS NEG=VP-VENT-1SG-with-2SG.A-have-3N.S/DO
'I owe you nothing (lit. "You have nothing with me").' (SNAT 535 obv 13; U; 21)

The final person-prefixes are treated in chapter 13.

8. The verbal stem

Every verbal form contains a stem, which may or may not be reduplicated. Stem alternation and reduplication are used to express verbal number and to distinguish between perfective and imperfective forms. See chapter 12 and §15.3 for details.

9. The imperfective suffix {ed}

Certain types of imperfective forms contain a suffix {ed} immediately after the stem. This suffix signals that the form is imperfective (§15.3).

10. The person suffixes

Almost every finite verbal form contains a person suffix. The only finite forms without such a suffix are singular imperative forms (§25.3) and singular forms with the modal prefix {ga} (§25.6). The person suffixes for the first and second person singular human are identical in form, being {en}. Other person suffixes are {enden} for the first person plural human and {enzen} for the second person plural human. The forms of the suffixes for the third person depend on the type of verbal form. The suffix for the third person plural human is {enē} in transitive imperfective forms but {eš} in all other forms. The person suffixes for the third person singular human and the third person non-human have the same form. It is {e} in transitive imperfective forms but {Ø} in all other forms.

In imperfective forms the person suffixes express the subject. In perfective forms they have several different uses, but their main function is then to express the subject in intransitive forms and the direct object in transitive forms. E.g.:

(11) **kaskal-*šè ì-su-bé-eš***
kaskal=še ʔi -su$_8$.b -eš
road =TERM VP-go:PLUR:IPFV-3PL.S:IPFV
'They will go on an expedition.' (TCS 1:173 9; L; 21)

The person suffixes are discussed in detail in chapter 14.

11. The nominalizing suffix

A finite verbal form may contain the nominalizing suffix {ʔa}. Such a form is always the predicate of a subordinate clause. E.g.:

(12) ***ì-bí-za-aš*** **é-gal-*e* *ma-ab*-šúm-*ma***
ì.bí.za =š(e) é.gal =e Ø -ma -b -šúm-Ø -ʔa
compensation=TERM palace=ERG VP-1SG.IO-3N.A-give -3SG.S/DO-NOM
'that the palace gave her to me as compensation' (NG 89 6; L; 21)

Finite verbal forms with the nominalizing suffix are treated in chapter 27, together with other kinds of subordinate clauses. For the nominalizing suffix {ʔa} in general, see chapter 31.

12. Clitics

Most subordinate clauses are nominalized clauses and are either part of a noun phrase or make up a noun phrase in their own right. Clitics which can be attached to a noun phrase can also be attached to a finite verbal form which is used as the predicate of a nominalized clause. Thus, such a finite verbal form may have one or more clitics attached to it, in the following order:

(a) an enclitic possessive (§8.3) or demonstrative pronoun (§8.4.2),
(b) the plural marker {enē} (§6.3),
(c) an enclitic case marker (chapter 7),
(d) a form of the enclitic copula (chapter 29).

In the following example, the finite verbal form is the final word of two different noun phrases and it has therefore two different case markers attached to it, one for each noun phrase:

(13) **alan lú é ^{d}*ba-ú mu*-řú-*a-kam***
alan lú é ba.ú=ak =Ø Ø -mu -n -řú -Ø -ʔa =ak =Ø =ʔam
statue man house Bau=GEN=ABS VP-VENT-3SG.A-erect-3N.S/DO-NOM=GEN=ABS=be:3N.S
'This is the statue of the man who built the temple of Bau.' (St E 9:6-8; L; 22)

11.3. Semantic types of verbs

Just like any other language, Sumerian has a word class of verbs, but its composition differs in important ways from its English counterpart. To begin with, Sumerian has only a few hundred verbal stems and has no grammatical means to create new ones. This stands in sharp contrast with English, which has various means to coin new verbs and has therefore, in theory, an unlimited number of verbs. Section 12.2 will discuss this difference in more detail and point out some methods which Sumerian uses to express a verbal meaning for which it does not have a specific verbal stem.

A further difference with English is that Sumerian also completely lacks what Dixon (2005: 96-101) calls *secondary* verbs, that is, verbs that modify the meaning of some other verb, with which they are in construction. The concepts expressed by such English secondary verbs are generally realized in Sumerian by other means. Take, for instance, the English modal verbs, which are construed with other verbs to add a modal meaning (e.g., *He should come*). Sumerian expresses such concepts mostly with verbal affixes (see chapter 25). And instead of secondary verbs like *cause*, *make*, or *let* (e.g. *He made her do it*), Sumerian uses other kinds of causative constructions (see §18.3.2). In other cases, it is not always clear how Sumerian realizes the concepts expressed by English secondary verbs. How, for example, does a Sumerian say *He began to cry*, *She tried to work*, *He continued playing*, or *It ceased to exist*? Perhaps the Sumerian imperfective expresses some of these notions (§15.4.3).

With the sole exception of the copula verb **me** 'be' (see chapter 29), all Sumerian verbs are what Dixon (2005: 96) calls *primary* verbs, that is, verbs which refer directly to some action or state and can make up a clause by themselves. Because Sumerian has only a small number of verbs, many have a much wider range of use than their English equivalents. Loosely following Dixon's semantic types of English verbs (Dixon 2005: 102-171), we can tentatively sketch and illustrate the main types of Sumerian verbs:
– motion verbs, e.g., **bala** 'cross', **dal** 'fly', **è** 'go out', **e$_{11}$.d** 'go up or down', **ga$_6$.ĝ** 'carry', **ĝen** 'go, come', **gur** 'go back', **kas$_4$** 'run', **ku$_4$.ř** 'enter, bring in', **ře$_6$** 'bring, fetch', **šub** 'fall', **te** 'approach', **ús** 'follow';
– rest verbs, e.g., **dab$_6$** 'surround', **gam** 'bow', **ĝál** 'be (somewhere)', **ĝar** 'place', **gub** 'stand', **nú** 'lie', **si** 'fill', **tuš** 'sit';
– affect verbs that refer to manufacture and cooking, e.g., **ak** 'make', **dím** 'create', **řú** 'erect, plant, build', **ḫi** 'mix', **keše$_2$.ř** 'tie, bind', **lu** 'stir', **sa** 'roast', **šeĝ$_6$** 'bake', **tuku$_5$** 'weave';
– other affect verbs, e.g., ***ba-al*** 'dig', **bíl** 'burn', **dul$_5$** 'cover', **gul** 'destroy', **ḫaš** 'break', **ku$_5$.ř** 'cut', **ra** 'hit', **sìg** 'strike', **sub$_6$** 'rub', **sur** 'press', **tag** 'touch', **ùr** 'sweep over';
– giving verbs, e.g., **sa$_{10}$** 'barter, buy, sell', **su.g** 'repay', **šúm** 'give';
– verbs that refer to bodily functions, e.g., **buluĝ$_3$** 'grow up', **dú.d** 'give birth to', **gu$_7$** 'eat', **mú** 'grow', **naĝ** 'drink', **sub** 'suck', **úš** 'die';
– weather verbs: **ĝír** 'flash', **šèĝ** 'rain'.

But here, too, are differences with English. Dixon's Attention verbs, for example, seem to be all but absent from Sumerian. There are **kíĝ** 'search for' and **pà.d** 'find', but that seems to be all. Concepts like *see*, *hear*, *look*, *watch*, *show*, *recognise*, *examine* and so on, are expressed with more general verbs, construed with nouns like **igi** 'eye' and **ĝeštu$_2$.g** 'ear'., e.g., **igi—bar** 'look at' (lit. 'bring out the eye (to)').

A subclass of verbs which is small in English but quite large in Sumerian is that of the de-adjectival verbs. In Sumerian most adjectival stems occur as verbal stems as well. See §10.5 for details.

Only a small number of Sumerian verbs can be construed with a complement clause. The corpus contains only these four: **du$_{11}$.g** and **e** 'say', **ge.n** 'confirm', and **zu** 'know'. See §27.5.2.

11.4. Basic clause structure

11.4.1. Introduction

A clause is a grammatical unit that consists of a predicate and the elements that accompany it. The nature of these accompanying elements primarily depends on the type of predicate, so that different types of predicate are associated with different types of clauses. Thus, the most basic distinction is that between nominal, copular, and all other clauses. A nominal clause has a nominal or adjectival predicate, accompanied by a subject and a number of adjuncts. Such clauses are discussed in chapter 30. A copular clause has the same structure as a nominal clause but also includes a form of the copula **me** 'be'. Copular clauses are treated in chapter 29.

Every other clause has a finite or non-finite verbal form as its predicate (but not a form of the verb **me** 'be', which only occurs in copular clauses). The remainder of this chapter will be about this third and most common type of clause. Its verbal predicate is accompanied by a subject, a number of objects, and a number of adjuncts. The verbal predicate is the nucleus of the

clause, because it determines the type of subject and the types and number of objects the clause contains. Section 11.4.2 explains this in more detail.

Various elements combine with the verbal predicate to make up a clause. Among them are first of all the transitive subject, the direct object, and the intransitive subject. Their use defines two universal clause types:

- transitive clauses, which consist of a predicate, a transitive subject and a direct object, and
- intransitive clauses, which consist of a predicate and an intransitive subject.

How these two clause types are formally related differs from one part of the Sumerian grammatical system to the other. Section 11.4.3 explains this, showing that Sumerian is a split-ergative language.

Transitive and intransitive clauses may also contain three other clause elements accompanying the verbal predicate. Among them are two kinds of indirect object, each with its own uses and formal properties. One will be called the indirect object and the other, for lack of a better term, the oblique object. Their presence, too, is determined by the verbal predicate. The indirect and oblique objects are the topic of section 11.4.4.

Apart from a predicate, a subject, and a number of objects, a clause may contain a number of adjuncts. An adjunct is any clause element that is not a predicate, subject, or object. The presence of some adjuncts is determined by the predicate (see §16.3.2 and the chapters 19 and 20), but in most cases their use is optional. They then give information about the circumstances of the action or state expressed by the verb.

Subjects, objects, and certain types of adjuncts are expressed by a noun phrase, by a verbal affix, or by both at the same time. If by both, the relationship between the noun phrase and the verbal affix is not one of agreement or concord, but one of coreference, one of two separate linguistic units which refer to the same person or thing. Section §11.4.5 discusses this in more detail.

Some Sumerian clauses consist of a verbal form only, but most contain one or more noun phrases as well. In the latter, most frequent, case the various parts of the clause occur in a relative order whose conventions are still poorly understood. Section 11.4.6 formulates a few tentative rules for the word order in the clause.

There is more than one way in which one can divide clauses into types. Section 11.4.7 gives an overview of the main types of clauses, with crossreferences to the chapters and section in this grammar with more information about them.

11.4.2. The verb as the centre of the clause

Verbs refer to a large variety of actions and states. An action involves a number of participants who have roles in that action and a state involves a participant who experiences that state (Dixon 2005: 9-12). The number and kinds of participants involved differ between different actions and states and thus between different verbs. The verb **šúm** ‘give’, for instance, refers to an action which involves a donor, a gift, and a recipient. Other actions or states involve other types of participants. The verb **dím** ‘create’ refers to an action which involves a maker and a product. The verb **ĝen** ‘go, come’ refers to an action which involves a moving person. And, as a final example, the verb **nú** ‘lie’ refers to a state which involves a non-moving person.

In this way different verbs refer to different actions or states which in their turn involve different sets of participants. Because there is a wide variety of actions and states, there are also many kinds of participants. Languages express these participants with a limited number of syntactic functions, so that a single syntactic function is used to express different kinds of participants. Thus, Sumerian uses the intransitive subject to express the moving person with

the verb **ĝen** ‘go, come’ but also to express the non-moving person with the verb **nú** ‘lie’. This is done in a consistent way: in principle a verb always combines with the same set of syntactic functions expressing the same set of participants. Thus, the verb **gu$_7$** is always accompanied by a transitive subject expressing the eater and by a direct object expressing what is eaten.

Thus, every verb is construed with a specific set of syntactic functions expressing the participants who have roles in the specific action or state the verb refers to. Take, again, the verb **šúm** ‘give’. For expressing its three participants, **šúm** ‘give’ is construed with a transitive subject (the donor), a direct object (the gift), and an indirect object (the recipient). In this way, the verb determines the basic structure of the clause and can therefore be said to be the centre of it.

A subject, object, or adjunct is expressed by using a noun phrase, a verbal affix, or both. If a syntactic function is expressed by using a noun phrase, this function is indicated by the case of the noun phrase. The verb **dé** ‘pour’, for instance, may have three participants, a person pouring (the transitive subject), a fluid poured (the direct object), and a beneficiary (the indirect object). A transitive subject is expressed by a noun phrase in the ergative case, a direct object by a noun phrase in the absolutive case, and a human indirect object by a noun phrase in the dative case:

(14) **^{d}en-líl-*ra* ^{d}šul-ge-*re* kaš dé-*a***
en.líl=ra šul.ge.r=e kaš =Ø dé -Ø -ʔa =ʔa
Enlil =DAT Shulgi =ERG beer=ABS pour-NFIN-NOM=LOC
‘when Shulgi poured beer for Enlil’ (OIP 115:433 3; D; 21)

Because non-finite verbal forms lack person markers of any sort (§28.1), this method for expressing a subject, object, or adjunct is the only possible one in non-finite clauses.

Alternatively, a subject, object, and some kinds of adjunct can be expressed by using only a verbal affix. This method is restricted to finite verbal forms. Every finite verbal form includes at least one person marker but may actually contain up to three different person markers, each of them referring to a different syntactic function:

(15) **tukum-*bé* / *nu-na-an*-šúm / *íb*-tab-*be$_6$-a***
tukum.be nu =ʔi -nna -n -šúm-Ø ʔi -b -tab -e -ʔa
if NEG=VP-3SG.IO-3SG.A-give -3N.S/DO VP-3N.DO-double-3SG.A:IPFV-NOM
‘that he (**-e-**) would double it (**-b-**) if he (**-n-**) did not give it (**-Ø-**) to him (**-nna-**)’ (BE 3/1:13 tablet 8-10; N; 21)

The prefixes and suffixes of these two finite verbal forms suffice to express the three participants of the verb **šúm** ‘give’ and the two participants of the verb **tab** ‘double’. As a result neither of the two clauses contains any noun phrase. That a clause can lack noun phrases altogether distinguishes Sumerian from a language such as English, where every participant must be referred to with a noun phrase, if need be with one which merely consists of a pronoun (cf. *John read the book* and *He read it*). This difference between English and Sumerian is due to a difference in verbal inflection. English finite verbal forms lack the person markers which the Sumerian forms have.

Finally, a syntactic function can be expressed by a noun phrase and a verbal affix at the same time. This method, too, is limited to finite clauses. For the use of the various verbal affixes it does not matter whether some syntactic function is already referred to by a noun phrase or not. If a verb is construed with a certain syntactic function, the finite verbal form expresses it always in the same way. For this reason the finite form in the following clause contains exactly the same person markers as the finite form in the previous example:

(16) **di-ku$_5$ lugal-*ke$_4$* / lú-ès-sá-*ra* bala *in-na-an*-šúm**
di-ku$_5$ lugal=ak =e lú.ès.sá.k=ra bala =Ø ʔi -nna -n -šúm-Ø
judge king =GEN=ERG Lu'essa =DAT prebend=ABS VP-3SG.IO-3SG.A-give-3SG.S/DO
'The royal judge gave the prebend to Lu'essa.' (NG 113 37-38; L; 21)

In this clause, the transitive subject (donor) is referred to by a noun phrase in the ergative case, **di-ku$_5$ lugal-*ke$_4$***, as well as by the final person-prefix {n}. The direct object (gift) is expressed by a noun phrase in the absolutive case, **bala**, as well as by the absence of an explicit verbal suffix. The indirect object (recipient), finally, is indicated by a noun phrase in the dative case, **lú-ès-sá-*ra***, as well as by the indirect-object prefix {nna}. Thus, in this example, all three participants are expressed twice, once by a noun phrase and once by a verbal affix.

Section 11.4.5 below will discuss this third method in some more detail, but first we will look more closely at how the individual syntactic functions are expressed.

11.4.3. Ergative and non-ergative patterns

All languages distinguish between intransitive and transitive clauses (Dixon 1994: 6). A transitive clause is a construction with a transitive subject, a direct object, and a predicate. An intransitive clause is a construction with an intransitive subject and a predicate.

Languages differ in how transitive and intransitive clauses are formally related. Three grammatical patterns are possible. An ergative grammatical pattern treats the intransitive subject in the same way as the direct object, and differently from the transitive subject. An accusative grammatical pattern treats the intransitive subject in the same way as the transitive subject, and differently from the direct object. A tripartite grammatical pattern treats all three functions differently (Dixon 1994: 1, 39).

Depending on the language involved, such ergative, accusative, or tripartite patterns can be found in morphology, in syntax, or in both. Many languages have different patterns in different parts of their grammatical system. A 'split-ergative' language is one which displays an ergative pattern in one subsystem of its grammar and an accusative pattern in another. Sumerian is such a split-ergative language. It displays all three patterns in its morphology:

Sumerian case marking is entirely on an ergative basis. The transitive subject is in the ergative case (§7.3), while both the direct object and the intransitive subject are in the absolutive case (§7.4).

The perfective inflection also displays an ergative system (§15.2.2). The final person-prefixes mark the transitive subject, while a single set of person suffixes mark both the direct object and the intransitive subject.

The imperfective inflection follows partly an accusative, partly a tripartite system (§15.2.3). The final person-prefixes mark the direct object, but the marking of the transitive and intransitive subject differs according to person. A transitive subject and intransitive subject of the first and second person are marked by a single set of person suffixes. This makes up an accusative system. A transitive and intransitive subject of the third person are marked by different person suffixes, a transitive subject by one set, and an intransitive subject by another. This makes up a tripartite system.

Imperative forms show an accusative system (§25.3). The final person-prefixes mark the direct object, while the transitive subject and the intransitive subject are treated in the same way, but differently from the direct object. A singular transitive or intransitive subject is left unmarked, while a plural transitive or intransitive subject is marked by the suffix {zen}.

Verbal forms with the modal prefix {ga} show an accusative system as well (§25.6). Again the final person-prefixes are used to mark the direct object, while the prefix {ga} itself marks both the transitive subject and the intransitive subject.

The indirect reflexive with the prefix {ba} also follows an accusative pattern. The prefix is used in all finite verbal forms construed with an indirect object which refers to the same person or thing as the transitive subject or the intransitive subject (§21.3.2).

Finally, an archaic non-finite construction also displays an accusative system. The so-called pronominal conjugation involves the use of an enclitic possessive pronoun to express the subject of the non-finite form. In this construction, the same set of pronouns is used to express both the transitive subject and the intransitive subject, but never to express the direct object (§28.6).

Some languages display ergative or accusative patterns in their syntax (Dixon 1994: 143-181). Syntactic ergativity occurs when a language has a syntactic rule which treats the direct object in the same way as the intransitive subject, but differently from the transitive subject. Syntactic accusativity occurs when a language has a syntactic rule which treats the transitive subject in the same way as the intransitive subject, but differently from the direct object. Syntactic ergativity or accusativity can play a role in, for instance, clause coordination and relative clause formation. In Sumerian no such syntactic rules apply. As long as the result is semantically acceptable, any types of clauses can be joined in a coordinate or subordinate construction, and any type of noun phrase can be replaced by a person marker at a later occurrence. Syntactically Sumerian is neither ergative nor accusative.[1]

Thus, ergativity only plays a role in Sumerian morphology. But that part of the Sumerian grammatical system follows partly an ergative, partly an accusative, and partly a tripartite pattern. The syntax of the clause must therefore be described in terms of three different syntactic functions (transitive subject, intransitive subject, and direct object) instead of two. Analysing Sumerian clausal structure in terms of only a subject and an object, or of only an ergative and an absolutive does not do justice to the actual structure of the language, because it forces the properties of one pattern upon the other two. Sumerian is neither fully ergative nor fully accusative. Ignoring this can only lead to confusion.

11.4.4. Indirect and oblique objects; Adjuncts

As stated in the previous section, a transitive clause is a construction with a transitive subject, a direct object, and a predicate; and an intransitive clause is a construction with an intransitive subject and a predicate. Both types of clauses may contain additional elements: an indirect object, an oblique object, and a number of adjuncts.

While direct objects are by definition only found in transitive clauses, indirect and oblique objects may occur in transitive and intransitive clauses alike. These two types of object show some overlap in form but are nevertheless formally and functionally quite distinct. Their main properties are as follows.

If an indirect object is expressed by a noun phrase, it is in the dative case when human (§7.5) and in the directive case when non-human (§7.6). An indirect object is expressed on the verb by an indirect-object prefix. Indirect objects are primarily used to express a beneficiary or a recipient. See chapter 17 for details.

If an oblique object is expressed by a noun phrase, this happens in exactly the same way as an indirect object: it is in the dative case when human (§7.5) and in the directive case when

[1] See Schulze and Sallaberger (2007: 175), with earlier literature.

non-human (§7.6). On the verb, however, it is expressed by an oblique-object prefix. Oblique objects are used to express the causee in a causative construction or a location with the meaning 'in(to) contact with'. See chapter 18 for details.

Thus, indirect objects and oblique objects are expressed by exactly the same kinds of noun phrases. Only their expression on the verb differs. But even there they show some overlap in form. On the verb, an indirect object is only expressed with a dimensional prefix, but an oblique object either by a dimensional prefix or by a final person-prefix. The two sets of dimensional prefixes overlap, because the plural forms are mostly the same. Their singular forms are clearly distinct, although in most instances the distinctions can plausibly be shown to be secondary ones from a historical point of view. See §17.2.5 and §18.2.7 for details.

An indirect and an oblique object are not mutually exclusive. A clause may contain both at the same time:

(17) **kar za-gìn ká-sur-*ra-ke*$_4$ / *mu-na*-ús**
kar za.gìn =ak ká.sur.ra=ak =e Ø -mu -nna -n -ʔús -Ø
quay lapis.lazuli=GEN Kasurra =GEN=DIR VP-VENT-3SG.IO-3SG.A-be.next.to-3N.S/DO
'He let it (a boat) moor at the lapis-lazuli quay of the Kasurra gate for her.' (St D 3:6-7; L; 22)

Here, the indirect object is expressed by the verbal prefix {nna} and the oblique object by the noun phrase in the directive case.

An adjunct is any clause element that is not a predicate, subject, or object. They, too, may occur in both transitive and intransitive clauses. Adjuncts are usually expressed by a noun phrase in the appropriate case (see chapter 7), but some types can also be expressed by a dimensional prefix (see chapter 16), as in the following example:

(18) **bara$_2$-si-*ga*^{ki}-*a* *ab*-tuš**
bara$_2$.si.ga=ʔa ʔa-b(i) -tuš-Ø
Barasiga =LOC VP-3N:on-sit -3SG.S/DO
'He lives in (lit. "sits on") Barasiga.' (ITT 1:1100 12; L; 23)

In contrast with subjects and objects, adjuncts are as a rule optional clause elements. Some verbs, however, have a meaning which calls for the presence of certain types of adjuncts. This applies, for instance, to a locational verb like **tuš** 'sit'. See §16.3.2 for more details.

11.4.5. Coreference

A participant can be referred to with a noun phrase, with a verbal affix, or with both at the same time. The last of these three possibilities raises the question of what the relationship is between a noun phrase and a verbal affix which refer to the same participant. This relationship is usually described as one where the verbal affix is somehow dependent on the noun phrase. Falkenstein (1978b: §118) states this thesis as follows: 'Verbalinfixe [i.e., prefixes, B.J.] und -suffixe besorgen die für das Sumerische charakterische Aufnahme nominaler Satzglieder beim finiten Verbum.' Falkenstein does not define the term 'Aufnahme', so that it is open to several interpretations. Gragg took it as describing a kind of concord. In his discussion of the function of the dimensional prefixes, he 'agree[s]' with Falkenstein 'that concord with adverbial complements is frequently involved' (Gragg 1973a: 10).

Whatever Falkenstein may have intended with 'Aufnahme', the presence of a verbal affix is obviously not due to the presence of some noun phrase. As stated above in §11.4.2, an affix can refer to a participant regardless of whether there is or there is not some noun phrase which

refers to that participant. Conversely, there can be a noun phrase which refers to some participant without there being a verbal affix referring to that participant. The presence of the verbal affix is therefore not triggered by the presence of some noun phrase. Because of this, the term 'concord' is not really appropriate for describing the relationship between a noun phrase and a verbal affix which refer to the same participant.

Indeed, this relationship is not one of concord but one of coreference, that is, identity of reference. The verbal affixes in question have a deictic or anaphoric function, like pronouns. What they refer to must be identified from the context. They can refer to a person or thing that must be identified from the context of the speech situation. An affix for the first person singular, for instance, refers to the person who utters that particular verbal form. But the verbal affixes can also refer to a person or thing that has been mentioned earlier. In that case they have the same anaphoric function as the pronouns *he* and *it* in the second of the two English clauses *John is reading a book. He wants to finish it today*. There is one important difference, though, between the English pronouns and the Sumerian verbal affixes. While the English pronouns can only refer to something which has been mentioned in an earlier clause, the verbal affixes of Sumerian can also refer to something which has been mentioned earlier in the same clause. E.g.:

(19) **udu-*bé kur-bi-la-ak-e* / ki-*ba bí-in-ĝá-ar***
udu =be =Ø kur.bi.la.ak=e ki =be =ʔa Ø -bi -n -ĝar -Ø
sheep=this=ABS Kurub.ilak =ERG place=its=LOC VP-3N:on-3SG.A-place-3N.S/DO
'These sheep *Kurub-ilak* replaced (lit. "placed on their place").' (BCT 1:100 4-5; D; 21)

When a single clause contains both a noun phrase and a verbal affix referring to the same participant, the phrase and the affix nearly always show corresponding markings. Thus, an affix expressing a transitive subject will be coreferential with a phrase in the ergative case, and the verbal prefix {da} will be coreferential with a phrase showing the comitative case marker {da}. However, since verbal affixes do not agree with noun phrases but are only coreferential with them, they do not have to refer to a given participant in exactly the same way as the noun phrase does. There may, at times, be discrepancies.

Indeed, all possible kinds of discrepancies are attested to some extent. There may be mismatches in gender, in person, in case, or in number. The first type, mismatches in gender, have already been discussed in §6.2 and discrepancies in person and case will be documented in §16.3. This leaves mismatches in number to be illustrated here. Such mismatches are very rare, but they do occur: sometimes two coordinated nouns are coreferential with a singular verbal affix (Wilcke 2000: 282):

(20) **á-zi-*da* / *ù* ses-*da-da-ke*$_4$ / ses-kal-*la-ra* / *in-na*-áĝ-*e***
á.zi.da ù ses.da.da.k=e ses.kal.la=ra ʔi-nna -ʔáĝ -e
Azida and Sesdada =ERG Seskalla =DAT VP-3SG.IO-measure.out-3SG.A:IPFV
'Azida and Ses-dada will measure it out for Ses-kalla.' (NRVN 1:56 4-7; N; 21)

(21) **ur-*tum-al-ke*$_4$ / lugal-má-gur$_8$-*re* / *ù bu-lu*$_5$-*lu*$_5$ *dam-né-er* / *an-da*-tuku**
ur.tum.al.k=e lugal.má.gur$_8$.re ù bu.lu$_5$.lu$_5$ dam=ane=d(a)
Urtummal =ERG Lugalmagurre and Bululu wife=his =COM

ʔa -n -da -n -tuku-Ø
VP-3SG-with-3SG.A-have-3N.S/DO
'Ur-tummal is owed this by Lugalmagure and his wife Bululu.' (NRVN 1:61 3-6; N; 21)

The previous example also seems to show a mismatch between case marker and verbal prefix, as the text has the form /r/ of the dative case marker instead of the comitative case marker. This is only a spelling matter, though. Word-final /r/ and /d/ were pronounced alike and the scribes sometimes confuse the two (§7.11.1). The language as spoken had here only a homophony of two case markers and no actual substitution of one for the other.

11.4.6. Word order

In Sumerian the order of the clause elements plays no role in the marking of syntactic functions, as it does for instance in English *John hits Peter*, where only the position in relation to the verb makes clear who is doing the hitting and who is being hit. Accordingly, Sumerian is described as having a rather free word order in clauses (Thomsen 1984: 51). This is certainly true compared with the relatively rigid word order in English. But it is only a matter of degree. In Sumerian, too, there are clear rules in clausal word-order. Unfortunately, there has, as yet, been little research into such rules, so that the present section will have to remain somewhat sketchy.

Because so many syntactic functions can be realized by verbal affixes, a verbal form alone is sufficient to make up a complete clause:

(22) ***mu-ni*-túm-*ma-a***
Ø -mu -nni -n -túm -Ø -ʔa =ʔa
VP-VENT-3SG.OO-3SG.A-be.fit.for-3N.S/DO-NOM=LOC
'when he had made it befitting her' (En. I 9 3:10; L; 25)

Most clauses contain more words, though. The verbal form is then always the last word of the clause, being preceded by a number of noun phrases. The relative order of these noun phrases is not fixed, but follows certain rules nonetheless.

The basic order in a transitive clause is SOV, that is to say, the transitive subject comes first, then the direct object, and finally the verbal form. E.g.:

(23) **gù-dé-*a* é-ninnu *mu*-řú**
gù.dé.a=e é.ninnu=Ø Ø -mu -n -řú -Ø
Gudea =ERG Eninnu =ABS VP-VENT-3SG.A-erect-3N.S/DO
'Gudea built the Eninnu.' (Cyl B 17:13; L; 22)

The verbal form always comes last and marks in this way the end of the clause. But the transitive subject and the direct object may have other clause elements before or after them. E.g.:

(24) **^{d}nin-*ĝír-su* / ur-saĝ ^{d}en-líl-*lá-ke$_4$* / inim si-sá-*né-ta* / umma^{ki}-*da* / *dam-ḫa-ra* / *e-da*-ak**
nin.ĝír.su.k ur.saĝ en.líl=ak =e inim si.sá =ane=ta
Ningirsu warrior Enlil=GEN=ERG word straight=his =ABL

umma?=da dam.ḫa.ra=Ø ʔi -b -da -n -ʔak -Ø
Umma =COM battle =ABS VP-3N-with-3SG.A-make-3N.S/DO
'Ningirsu, Enlil's warrior, did battle with Umma with his (Enlil's) direct order.' (Ent. 28 1:22-27; L; 25)

(25) **u$_4$-*ba* en-mete-*na-ke$_4$* / alan-*na-né* / *mu*-dú**
u$_4$.d=be =ʔa en.mete.na.k=e alan =ane=Ø Ø -mu -n -dú.d -Ø
day=this=LOC Enmetena =ERG statue=his =ABS VP-VENT-3SG.A-give.birth.to-3N.S/DO
'At this time Enmetena made a statue of himself.' (Ent. 1 3:8-10; L; 25)

(26) **urim$_5^{ki}$-*e* / gu$_4$-*gen$_7$* saĝ an-*šè* / *mu-dab$_6$*-íl**
urim$_5$=e gu$_4$.ř=gen saĝ =Ø ʔan =še Ø -mu -e -da -b -ʔíl-Ø
Ur =ERG bull =EQU head=ABS heaven=TERM VP-VENT-2SG-with-3N.A-lift-3N.S/DO
'Like a bull, Ur lifts its head upwards with you.' (FAOS 5/2 Luzag. 1 2:30-32; N; 24)

The beginning and the end of the clause attract certain types of linguistic units, which we will henceforth call the clause-initial and clause-final elements. Let us begin by listing the latter in the order in which they are always found:

1. any interrogative pronoun,
2. the nominal part of a phrasal verb,
3. the verbal form,
4. any right-dislocated noun phrase.

The only clause-final element that is present in every single clause is the verbal form. As a rule, it is the last word of the clause, but very rarely it is followed by one more word or phrase belonging to the same clause (Falkenstein 1950: 6 with note 3). Such a word or phrase will be called right-dislocated. E.g.:

(27) **ì-*ĝu$_{10}$* *ì*-gu$_7$-*e* ^{d}nisaba-*ke$_4$***
ì =ĝu =Ø ʔi -gu$_7$-e nisaba.k=e
fat=my=ABS VP-eat -3SG.A:IPFV Nisaba =ERG
'She will eat my cream, Nisaba.' (EEs 189; OB)

In front of the finite verbal form, we can detect two more fixed positions, both of which are filled in the following clause:

(28) **^{d}en-líl-*da a-ba* á *mu-da-an*-áĝ**
en.líl=da a.ba=e á =Ø Ø -mu -n -da -n -ʔáĝ -Ø
Enlil =COM who=ERG power=ABS VP-VENT-3SG-with-3SG.A-measure.out-3N.S/DO
'Whoever gave orders to Enlil?' (Shulgi G 8; OB copy)

The nominal part of a phrasal verb is always immediately before the finite form. Lexicalized combinations such as **á—áĝ** 'order' (lit. 'measure out power') function not only as semantic but also as syntactic units, and no other clause element is allowed between the parts of such a verbal idiom.

The normal position of an interrogative pronoun is, as the previous example shows, immediately before the nominal part of a phrasal verb, or, if the verb is non-phrasal, immediately before the finite verbal form itself (§8.5).

Shifting our attention now from the clause-final to the clause-initial elements, the first thing to note is that their relative positions are far less clear. It is possible to list which units are always found at the beginning of a clause, but their relative order is not always known through the lack of pertinent examples. What is clear, though, is that we must distinguish between those clause-initial elements which have a specific syntactic relation with the rest of the clause and those elements which have not. To the second type belong the interjections (§4.5.2), vocatives (§7.4), and exclamations:

(29) **^{d}*ba-ú-ĝu$_{10}$* *á-mi-zu* *ma-ra*-ĝar**
ba.ú=ĝu=Ø é.mí =zu =Ø Ø -mu -ra -ʔ -ĝar -Ø
Bau =my=ABS women's.quarters=your=ABS VP-VENT-2SG.IO-1SG.A-place-3N.S/DO
'My Bau, I established your women's quarters for you.' (Cyl B 2:23; L; 22)

(30) **mu lugal tukum-*bé* é-*ĝá* *mu*-ku$_4$-ku$_4$ / *ga-ra-an*-túm**
mu lugal=ak tukum.bé é =ĝu =ʔa mu -n(i)-ku$_4$.r-ku$_4$.r-Ø
name king =GEN if house=my=LOC VENT-in -enter -enter-3SG.S/DO

ga -ra -n -túm
MOD:1SG.A/S-2SG.IO-3SG.DO-bring
'By the king's name, if he (a slave) ever entered my house, I will bring him to you!' (SNAT 360 obv. 13-14; U; 21)

Most clause-initial elements, however, belong to the first type and have a specific syntactic relation to the rest of the clause. Among them are the adverbial subordinate clauses (see §27.6 for examples) and some conjunctions. If the coordinating conjunction ***ù*** 'and' joins two clauses, it always precedes the entire second clause. E.g.:

(31) ***ù* tukum-*bé* / máš *íb*-tuku**
ù tukum.be máš =Ø ʔi -b -tuku-Ø
and if interest=ABS VP-3N.A-have -3N.S/DO
'and if it bears (lit. "has") interest' (SAT 2:1085 4-5; U; 21)

The subordinating conjunctions **u$_4$-*da*** 'if', **tukum-*bé*** 'if', and ***en-na*** 'until' tend to be in first position, but they do not have to be and may be preceded by one or more noun phrases (§27.3.2).

Finally, various kinds of noun phrases can be placed in clause-initial position to give them more prominence in the information structure of the clause. Falkenstein (1950: 7-12) lists many such cases for the Gudea texts. Thus, the direct object can come to precede the transitive subject:

(32) **dusu-*bé* munus-*e* *nu*-íl**
dusu =be=Ø munus=e nu =ʔi -n -ʔíl -Ø
basket=its=ABS woman=ERG NEG=VP-3SG.A-carry-3N.S/DO
'Its basket was not carried by a woman (lit. "Its basket a woman did not carry").' (St B 4:5; L; 22)

Even noun phrases in the genitive case can thus be put into clause-initial position. This is done with a special construction, the so-called anticipatory genitive (§7.2.4). E.g.:

(33) **nam-nun-*da*-ki-ĝar-*ra* / úr-*bé* na$_4$-*a* *mu-na-ni*-řú**
nam.nun.da.ki.ĝar.ra=ak úr =be na$_4$ =ʔa
Namnundakigara =GEN foundation=its stone=LOC

Ø -mu -nna -ni-n -řú -Ø
VP-VENT-3SG.IO-in-3SG.A-erect-3N.S/DO
'Of the Namnundakigarra, he built its foundation in stone for him.' (Ent. 28 5:35-36; L; 25)

11.4.7. Clause types

There is more than one way in which one can divide clauses into types and some of them we have already met in the preceding sections. In §11.4.1 above, for instance, we classified clauses in terms of their predicates, making a distinction between nominal, copular, and all other clauses:

1. A nominal clause has a nominal or adjectival predicate, accompanied by a subject and a number of adjuncts. This type of clause is discussed in chapter 30.
2. A copular clause has the same structure as a nominal clause but also includes a form of the copula **me** 'be'. Copular clauses are the topic of chapter 29.

Every other clause has a finite or non-finite verbal form as its predicate and this third type has therefore two subtypes:

3a. A finite clause has a finite verbal form as its predicate. Finite clauses are the main focus of the present chapter and of most of the following ones.
3b. A non-finite clause has a non-finite verbal form as its predicate. Non-finite clauses are treated in chapter 28.

A second way to classify clauses in terms of their internal grammatical structure has been introduced in §11.4.1 and discussed in §11.4.3 above. A clause is either transitive or intransitive:

1. A transitive clause is a clause which consists of a predicate, a transitive subject and a direct object.
2. An intransitive clause is a clause which consists of a predicate and an intransitive subject.

Both types of clauses may also contain an indirect object, an oblique object, and/or a number of adjuncts (§11.4.4).

Clauses can also be classified in terms of their external grammatical relationships. A clause may be grammatically independent and will then be called a simple sentence. But a clause may also be a part of a complex sentence, which is a grammatical unit containing two or more clauses. Such a clause is a coordinate, subordinate, or superordinate clause. These types of clauses will be the topic of chapter 27, which deals with the complex sentence.

Clauses can also be classified according to the kinds of speech acts for which they are used:

1. A declarative clause is a clause which is used to make a statement. Declarative clauses are the normal, unmarked type of clause.
2. An interrogative clause is a clause which is used to express a question. Questions are the topic of §8.5.
3. A modal clause is a clause which is used to express a wish, a command, or an emphatic assertion. This type of clause is treated in chapter 25.

Finally, we need to point out a type of clause which Sumerian does *not* have. Some languages have so-called 'subjectless' verbs: verbs that refer to actions which effectively are without any participants. An example is English *It rains*, in which the *it* does not refer to anything at all. Sumerian construes such weather verbs differently, using an explicit intransitive subject. E.g.:

(34) **IM *al*-šèĝ**
IM =Ø ʔa-šèĝ-Ø
wind=ABS VP-rain-3N.S/DO
'It rained (lit. "The wind rained").' (Proverb collection 3.149; N; OB)

(35) **šed$_9$ ḫulu-*bé ì*-ĝál-*àm***
šed$_9$ =Ø ḫulu =be =e ʔi -ĝál -Ø =ʔam
coldness=ABS badness=its=DIR VP-be.there-3N.S/DO=be:3N.S

'It was extremely cold! (lit. "it was (the case) that coldness existed at its badness").' (PPAC 1 A.988 3; A; 23)

11.5. Voice and valency-changing mechanisms

11.5.1. Introduction

As explained above in §11.4.2, verbs refer to actions and states which involve participants. The number and kinds of participants involved differ between different actions and states and thus between different verbs. While 'giving' typically involves a donor, a gift, and a recipient, 'sleeping' merely involves a sleeper. Clauses express these participants in predictable ways as subjects or objects. Thus, with the verb **šúm** 'give', the donor is expressed by the transitive subject, the gift by the direct object, and the recipient by the indirect object. In this way every verb combines with a specific set of grammatical relations (subject and objects). This set is called its *valency*.

Sumerian has several mechanisms which change the normal valency of a verb. For reducing its valency, it has a middle (§11.5.2) and a variety of passives (§11.5.3). For increasing the valency of a verb, it has causative constructions (§11.5.4).

Many ergative language have an antipassive, which is an intransitive construction derived from a transitive one by changing the transitive subject into an intransitive subject while deleting the direct object or changing it into an adjunct. Sumerian lacks such a construction, but Schulze and Sallaberger (2007) argue that the Sumerian imperfective (chapter 15) comes from an earlier antipassive construction. If they are right, an earlier form of Sumerian had an antipassive but lost it some time before the earliest texts available to us.

11.5.2. Middle

Sumerian has a middle marker {ba} which has several uses, including two which affect the valency of the verb. This {ba} will be discussed in detail in chapter 21. Here it suffices to mention its two valency-changing uses. The first is to express the indirect reflexive. It then indicates that two participants, the indirect object and the subject, are one and the same. See §21.3.2 for examples and details. The second valency-changing use of the middle marker {ba} is to express a kind of passive. It will be among the topics of the following section.

11.5.3. Passives

A passive is an intransitive construction derived from a transitive one by changing the direct object into an intransitive subject while deleting the transitive subject or changing it into an adjunct. Sumerian has more than one passive, but all of them are what Keenan and Dryer (2007) call *basic passives*: they never include an agent phrase. In Sumerian, passivisation always involves deleting the transitive subject, never changing it into an adjunct. In this, Sumerian differs from, for instance, English. It only has passive constructions like English *The book was borrowed*, without an agent phrase, while English also has passive constructions like *The book was borrowed by a fellow-student*, with an agent phrase.

Sumerian has more than one passive and the distinction between two of them closely resembles that between the German dynamic passive (*Vorgangspassiv*) and stative passive (*Zustandspassiv*). German has *Es wurde eingedrückt* (dynamic passive) beside *Es war eingedrückt* (stative passive). The former has a dynamic meaning, expressing an event, while the

latter refers to a state. The English passive *It was impressed* is ambiguous between the two meanings and can express either an event or a state. Thus, while German and Sumerian have different forms for the dynamic passive and the stative passive, English has not. As a consequence, the distinction between the two is lost in the English translation and to remove any ambiguity the examples below indicate explicitly which of the two meanings applies.

The most common passive in Sumerian is a dynamic passive. It is formed with the middle marker {ba} (chapter 21). This verbal prefix is often used as a passive marker, a usage which is discussed in detail in §21.3.4. Here two examples will suffice, each with a transitive clause and a passive counterpart:

(36a) **mu PN lugal-*e* má-gur$_8$ maḫ *mu*-dím**
mu PN lugal=e má.gur$_8$ maḫ =Ø Ø -mu -n -dím -Ø
year PN king =ERG barge great=ABS VP-VENT-3SG.A-create-3N.S/DO
'The year: PN, the king, fashioned the great barge.' (ITT 2:2413 9; L; 21)

(b) **mu má-gur$_8$ maḫ *ba*-dím**
mu má.gur$_8$ maḫ=Ø Ø -ba -dím -Ø
year barge great=ABS VP-MM-create-3N.S/DO
'The year: The great barge was fashioned.' (dynamic passive) (MVN 7:276 rev 4; L; 21)

(37a) ***da-ge-ĝu$_{10}$* / kišib *bí-in*-ra**
da.ge.gu$_{10}$=e kišib=Ø Ø -bi -n -ra-Ø
Dagegu =ERG seal =ABS VP-3N.OO-3SG.A-hit-3N.S/DO
'Dagegu rolled (his) seal over it.' (YOS 18:83 7-8; U; 21)

(b) **kišib UŠ-*ĝu$_{10}$* *ba-ab*-ra**
kišib UŠ.ĝu$_{10}$=ak =Ø Ø -ba -b -ra-Ø
seal Ushgu =GEN=ABS VP-MM-3N.OO-hit-3N.S/DO
'The seal of Ushgu was rolled over it.' (dynamic passive) (MVN 14:231 rev 7; U; 21)

Such passive forms with the middle marker {ba} always have a dynamic, non-stative meaning. They express events, not states.

For expressing a passive with a stative meaning, a regular intransitive construction is used which is derived from the transitive construction by simply eliminating the transitive subject and changing the direct object into the intransitive subject. The following clause illustrates such a stative passive and its construction is to be compared with those of the previous two examples:

(38) **kišib ur-^{d}*ba-ú* ses-*na* *íb*-ra**
kišib ur.ba.ú ses =ane=ak =Ø ʔi -b -ra -Ø
seal Urbau brother=his=GEN=ABS VP-3N.OO-hit-3N.S/DO
'The seal of his brother Ur-Bau is rolled over this.' (stative passive) (MVN 22:91 rev 2; L; 21)

Some other verbs also provide constrastive examples for both passives:

(39a) ***a-gu* níĝ-ka$_9$-*a* / *ba-na-an*-zi**
a.gu=r(a) níĝ.ka$_9$=ʔa Ø -ba -nna -n(i)-zi.g-Ø
Agu=DAT account=LOC VP-MM-3SG.IO-in -rise-3N.S/DO
'It was registered as expended in the account for Agu.' (dynamic passive) (SAT 2:1154 3-4; U; 21)

(b) **níĝ-ka$_9$-*a* *nu-un*-zi**
níĝ.ka$_9$ =ʔa nu =ʔi -n(i)-zi.g-Ø
account=LOC NEG=VP- in -rise-3N.S/DO
'It is not registered as expended in the account.' (stative passive) (CST 803 14; U; 21)

(40a) **má zíd-*da-ka* *ba-a*-ĝar**
má zíd =ak =ʔa Ø -ba -e -ĝar -Ø
boat flour=GEN=LOC VP-MM-on-place-3N.S/DO
'It was placed on a flour boat.' (dynamic passive) (UTAMI 4:2614 3; U; 21)

(b) **igi-6-ĝál-*bé* *ì-íb*-ĝar**
igi.6.ĝál =be=Ø ʔi -b(i) -ĝar -Ø
one.sixth=its=ABS VP-3N:on-place-3N.S/DO
'Its one-sixth is included (lit. "is placed on it").' (stative passive) (TCL 5:5665 rev 8; U; 21)

(41) **kišib-*bé* *nu-um*-ře$_6$ / tukum-*bé* / *im-ma*-ře$_6$ / gaba ri-*dam***
kišib=be=Ø nu =ʔi -m(u) -ře$_6$ -Ø tukum.be
seal =its=ABS NEG=VP-VENT-bring-3N.S/DO if

ʔi -m(u) -ba -ře$_6$ -Ø gaba =Ø ri -Ø -ed =ʔam
VP-VENT-MM-bring-3N.S/DO breast=ABS direct-NFIN-IPFV=be:3N.S
'The sealed document about this is not brought (stative passive). If it is brought (dynamic passive), it is to be copied (?).' (AUCT 1:28 10-13; D; 21)

Such stative passives are always perfective forms, because the imperfective cannot have a stative meaning (§15.4). They also regularly show the vocalic prefix {ʔi}.

The two passives discussed thus far are restricted to Southern Sumerian, but they occur widely in the Ur III period, because Southern Sumerian then functioned as a kind of standard language. Sumerian has a further passive which is restricted to Northern Sumerian. This Northern passive combines the uses of the two Southern passives and can be used both as a dynamic passive and as a stative passive. It is formed with the vocalic prefix {ʔa}. Since the use of this prefix as a passive marker is discussed in detail in §24.5.2, one example of either usage will suffice here:

(42) **10 ĝiš-ùr / íl šitim-*ra* / é ^{d}nin-urta-*šè* / *an-na*-šúm**
10 ĝiš.ùr=Ø íl šitim =ra é nin.urta=ak =še ʔa -nna -šúm-Ø
10 beam =ABS Il builder=DAT house Ninurta =GEN=TERM VP-3SG.IO-give-3N.S/DO
'Ten beams were given to Il, the builder, for the Ninurta temple.' (dynamic passive) (ECTJ 145; N; 24)

(43) ***ís-gana$_2$-be$_6$* / šà-*ba* *an*-šid**
ís.gana$_2$ =be=Ø šà.g =be=ʔa ʔa-n(i)-šid -Ø
additional.payment=its=ABS heart=its=LOC VP-in -count-3N.S/DO
'Its additional payment is counted among this.' (stative passive) (TMTIM 4 15:17'-18'; I; 24)

Thus, we have three passives in Sumerian which differ in form and function. Moreover, their use is also restricted as to dialect. The following table gives an overview:

Kind of passive	Dialect	
	Southern Sumerian	*Northern Sumerian*
Stative passive	{ʔi}	{ʔa}
Dynamic passive	{ba}	{ʔa}

This somewhat confusing situation can be shown to be the outcome of fairly recent changes in the language. To begin with, we know that the prefix {ʔi} almost completely replaced {ʔa} in Southern Sumerian (§24.4). Indeed, that dialect still shows the prefix {ʔa} in its earliest forms expressing a stative passive. E.g.:

(44) **im-nun é en-ku$_4$ ab-řú-a**
im.nun é en.ku$_4$=ak =Ø ʔa-b(i) -řú -Ø -ʔa
? house Enku =GEN=ABS VP-3N:on-erect-3N.S/DO-NOM
'the ... on which Enku's house is built' (DP 454 2:4; L; 24)

Furthermore, the use of the middle marker {ba} to express a dynamic passive clearly is an extension of its use to express a change of state. It must therefore be a secondary development (§21.3.4). Similarly, the use of the prefix {ʔa} to express a dynamic passive is an extension of its use to express a state. It, too, must therefore be a secondary development (§24.5.2). Thus, only the use of {ʔa} to express a stative passive is attested in all early Sumerian dialects and only this passive among the three discussed can be considered old.

The original dynamic passive was neither the Southern one with {ba} nor the Northern one with {ʔa}, but a fourth passive, which still occurs in both dialects in forms with the preformative {ʔu}. E.g.:

(45) **kišib gu-du-du / *ù-um*-ře$_6$ / kišib a-kal-*la* / *ze-re-dam***
kišib gu.du.du=ak =Ø ʔu -m(u) -ře$_6$ -Ø
seal Gududu =GEN=ABS REL.PAST-VENT-bring-3N.S/DO

kišib a.kal.la=ak =Ø ze.r -ed -Ø =ʔam
seal Akalla =GEN=ABS destroy-IPFV-NFIN=be:3N.S
'When Gududu's sealed document is brought (dynamic passive), Akalla's sealed document is to be destroyed.' (UTAMI 3:Um. 2247 3-6; U; 21)

(46) ***ù-um-re-re / ze-re-dam***
ʔu -m(u) -ře$_6$ -ře$_6$ -Ø ze.r -ed -Ø =ʔam
REL.PAST-VENT-bring-bring-3N.S/DO destroy-IPFV-NFIN=be:3N.S
'Whenever one (of Ur-Enlila's sealed documents) is brought (dynamic passive), it is to be destroyed.' (NRVN 1:235 3-4; N; 21)

This fourth, dynamic passive is also attested in forms with the preformative {ḫa} and in imperfective forms. E.g.:

(47) **bala-*a-né ḫé*-ku$_5$**
balaʔ=ane=Ø ḫa =ʔi -ku$_5$.ř-Ø
reign =his =ABS MOD=VP-cut -3N.S/DO
'May his reign be cut off!' (St C 4:17; L; 22)

(48) **mu *nu-da*-su-su-*da-šè***

mu nu =ʔi -n -da -su.g:RDP -ed -Ø -ʔa =ak =še
name NEG=VP-3SG-with-repay:IPFV-IPFV-3N.S-NOM=GEN=TERM
'because he cannot repay this (lit. "for the name of that it will not be repaid with him")'
(PIOL 19:344 3; U; 21)

This fourth, dynamic passive is a regular intransitive construction which is derived from the transitive construction by simply eliminating the transitive subject and changing the direct object into the intransitive subject. It thus has exactly the same structure as the Southern stative passive with {ʔi} (< {ʔa}) treated above. Obviously, the prefix {ʔa} contributes to this stative passive only the stative meaning, a meaning {ʔa} also has in non-passive forms (§24.4 and §24.5.2).

Thus, the oldest of the attested Sumerian passives is a regular intransitive construction which is derived from the transitive construction by simply eliminating the transitive subject and changing the direct object into the intransitive subject. It is the exact mirror of how Sumerian derives a causative from an intransitive construction (see the following section). It is also how passives are formed with non-finite forms (§28.1).

Coghill and Deutscher (2002) suggest that ergativity arose in Sumerian, when a passive structure was reanalysed as active-transitive, and when this structure became what the present grammar calls the perfective inflection. The passive structure they posit as the first stage in the reanalysis of a passive to ergative is quite similar to the Sumerian passive we argued to be the oldest of the actually attested ones. The only difference is that they also reconstruct the presence of an agent phrase, something which is not attested (any more) in the Sumerian texts we have.

11.5.4. Causatives

Sumerian has two causative constructions, one derived from an intransitive construction and the other from a transitive construction. In both cases the valency of the verb is increased by one participant: the causer. The causative of an intransitive construction is a regular transitive construction: the intransitive subject becomes the direct object, while the causer is expressed by the transitive subject.

The causative of a transitive construction is derived in a slightly different way. The causer is likewise expressed by the transitive subject, but the original transitive subject becomes the oblique object. The original direct object remains unchanged.

Both causative constructions can be passivized. See §18.3.2 for a full discussion of the various causative constructions.

11.6. A note on grammatical terms in Sumerology

There is a long-standing tradition in Sumerology to use case terminology for far more grammatical categories than nominal cases alone. For instance, while treating Sumerian verbal inflection, Poebel not only speaks of 'Subjektselemente' (1923: 173) but also of 'Dativinfixe' (1923: 191), 'Lokativinfixe' (1923: 193), and 'Akkusativische Personalelemente' (1923: 206). Also, in syntax, he refers to a 'Dativobjekt' (1923: 188). Falkenstein, in his turn, significantly expanded such use of case terminology. For instance, where Poebel simply speaks of the verbal affixes {da}, {ta}, and {ši}, Falkenstein (1959: 48-49) has a 'Komitativinfix', 'Ablativinfix', and 'Terminativinfix'. Likewise, Poebel's prefixes {ba} and {bi} have become 'Lokativpräfix' and 'Lokativ-Terminativpräfix' (Falkenstein 1959: 46).

Moreover, the discovery of ergativity in Sumerian has caused some Sumerologists to replace terms like 'subject' and 'transitive' also by expressions associated with nominal cases. Thus, Attinger (1985: 161) writes about 'les préfixes absolutifs … dans les formes *marû* ergatives', that is, about how the direct object is marked in certain transitive verbal forms. Likewise, what Falkenstein (1959: 44) calls 'Präteritum des transitiven Verbums' is labelled 'ergativische *hamṭu*-Konjugation' by Krecher (1995: 183). And, as a final example, Edzard (2003: 81) speaks of 'ergative' and 'absolutive person elements' when discussing subject and object marking in finite verbal forms.

Now, terms are just labels and it does not seem to matter very much which labels are used as long as it is clear to everybody what they stand for. And, of course, the grammarians mentioned above know exactly what they are referring to, whether the grammatical category in question is a nominal or a verbal one, or whether it belongs to morphology or to syntax.

However, using the same or highly similar terms for different things is bound to cause some confusion. And that risk increases even further, when similar terms are used for categories which are quite different, as is for instance the case with Falkenstein's (1959: 46) 'Lokativpräfix' {ba}, which has completely different uses from the locative case. And although this is an extreme example, there is arguably not a single verbal affix which has exactly the same uses as its nominal namesake.

The verbal prefixes {e} 'on' and {ni} 'in', for example, distinguish between two meanings for which there is only one locative case marker {ʔa} (see chapter 20). Or take the dative (§7.5) and directive (§7.6) cases, which are used to express two different syntactic functions, for which there are two different sets of verbal prefixes (chapter 17 and 18). Similarly, how the transitive subject, intransitive subject, and direct object are expressed in the verb runs only partly parallel to the nominal case marking (see §11.4.3 above). Even a verbal prefix such as {da} (§19.2.2) has not precisely the same functions as the comitative case marker {da} (§7.11), however similar the two may be.

Thus, there are numerous smaller and greater discrepancies between the nominal and verbal morphological categories and the syntactic functions they express. Because of that, the use of nominal case terminology for naming verbal affixes and syntactic categories is not only confusing, but is also a real hindrance in working out the exact role each of these categories plays. Giving different grammatical categories the same or highly similar names is hardly the best way to make things clearer.

12. THE VERBAL STEM

12.1. Introduction

An unmodified, simple verbal stem consists of one or two syllables. Its phonemic shape matches therefore a small number of structures:

- CV, e.g. **sa$_{10}$** 'barter', **si** 'fill'
- CVC, e.g. **dub** 'heap up', **ĝen** 'go'
- CVCV, e.g. ***ḫa-la*** 'divide'
- CVCVC, e.g. ***ḫa-lam*** 'destroy'

Simple stems with a medial consonant cluster, that is with a structure CVCCV or CVCCVC, do not seem to occur. If a stem contains two vowels, there is a strong tendency for them to be or become identical. Thus, the verb ***ḫa-luḫ*** 'be frightened' (Cyl A 12:13; L; 22) has become ***ḫu-luḫ*** by the Old Babylonian period. Unfortunately we know preciously little about this phenomenon, because stems are nearly always written with word signs. What we know about their pronunciation mostly comes from lexical texts written in the second or first millennium. We rarely know which two vowels a given bi-syllabic stem contained earlier.

The morphology of the verbal stem is quite simple. It is not possible in Sumerian to create new verbal stems through composition or through the use of affixes, although there are alternative ways to express new verbal meanings (§12.2).

The verbal stem can be modified through reduplication, of which there are two kinds. The first type of reduplication, a partial reduplication of the stem, is found in the imperfective forms of some verbs (§12.3). The second type of reduplication, a full reduplication of the stem, indicates that the verbal form refers to a plural action or state (§12.4.3). It is one of two ways in which Sumerian expresses verbal number (§12.4), the other being stem alternation (§12.4.2).

There are also two stem-modifying suffixes. The first, {ed}, indicates that the verbal form is imperfective. It is primarily used in participles (§28.4.2) and in intransitive finite verbal forms (§15.3.2). The second suffix, {en}, is very rare and seems to be the relict of an old and no longer productive suffix that used to express a kind of plurality (§12.5).

Little is known about stem modifications under the influence of preceding or following affixes. Variant spellings of the verb **ak** 'make' show that such changes do occur (§12.6).

12.2. Verb formation

In English, there are several ways to make new verbs on the basis of existing words. It is, for example, possible to create new verbs from other words through composition (e.g., *to typewrite*). Also, a wide range of derivational affixes allow the creation of new verbs from other verbs (e.g., *to decentralize* from *to centralize*), from adjectives (e.g., *to centralize*, *to deafen*), and so on. In addition, new verbs can be created through conversion (e.g., *to butter (bread)* from the noun *butter*). Because of such possibilities for making new verbs, the word class of verbs is an open class in English. In theory, the number of English verbs has no limit.

In Sumerian, the number of verbs is limited. There are only a few hundred verbal stems and Sumerian lacks the grammatical means to create new ones. There is not a single word-formation rule for creating a new verbal stem on the basis of another word. There are no verb compounds, no derivational affixes for the formation of new verbs, and there is no conversion. In this respect, Sumerian differs from languages such as English.

Still, although Sumerian lacks the means for creating new verbal stems, it has several alternative methods for expressing a verbal meaning for which there is no specific verbal stem. One such method is the use of phrasal verbs. Sumerian has a great many idiomatic combinations of verbs and nouns. The verb **bala** 'cross', for instance, expresses together with the noun **šu** 'hand' the meaning 'alter'. E.g.:

(1) **di ku$_5$-*a-ĝá* / šu *ni-íb*-bala-*e-a***
di.d ku$_5$.ř-Ø -ʔa =ĝu=ʔa šu =Ø Ø -ni-b -balaʔ-e -ʔa
judgement cut -NFIN-NOM=my=LOC hand=ABS VP-in-3N.DO-cross -3SG.A:IPFV-NOM
'the one who will alter the judgement passed by me (lit. "will let (his) hand go across in the judgement")' (St B 8:17-18; L; 22)

Other verbs occur similarly in all kinds of idiomatic combinations. Consider, for example, the verb **tag** 'touch'. The phrasal verb **ĝiš—tag**, with the noun **ĝiš** 'wood' means 'sacrifice', while the phrasal verb **šu—tag**, with the noun **šu** 'hand', stands for 'decorate'. Another example is the verb **áĝ** 'measure out'. The phrasal verb **ki—áĝ**, with the noun **ki** 'place', means 'love', while **á—áĝ**, with the noun **á** 'arm, power', signifies 'order, command'. A special case is the verb **za** 'make the noise', which is construed with ideophones expressing various kinds of noises, which results in combinations like ***bu-ud-ba-ad*—za** 'clatter' (§4.5.4).

In Sumerology, such fixed combinations of verbs and nouns with idiomatic meanings are commonly called 'compound verbs'. In linguistics, however, the term 'compound' is only used to refer to a certain type of word, viz. one that is made up from two or more other words. The Sumerian 'compound verbs' only have a unitary meaning, but their composite parts (a verb and a noun) remain separate words. They are therefore no compounds in the linguistic sense. For this reason, the present grammar uses the term 'phrasal verb' (Black 2007: 18) in order to refer to a fixed combination of a verb and a noun with an idiomatic meaning.

A second method for expressing a verbal meaning for which there is no specific verbal stem applies specifically to nouns. A noun may be construed with the verb **ak** 'make' in order to bring about a verbal meaning. The phrasal verb **garig—ak** 'comb', for example, includes the noun **garig** 'comb'. The following are similar instances of nouns construed with **ak** 'make':

(2) **(...) umma^{ki}-*da* / *dam-ḫa-ra* / *e-da*-ak**
umma^{ki}=da dam.ḫa.ra=Ø ʔi -b -da -n -ʔak -Ø
Umma =COM battle =ABS VP-3N-with-3SG.A-make-3N.S/DO
'(He) did battle with Umma.' (Ent. 28 1:25-27; L; 25)

(3) ***a-šà-bé* ur-diĝir-*ra-ke$_4$* / kíĝ *bí-in-na***
a.šà.g=be =e ur.diĝir.ra.k=e kíĝ =Ø Ø -bi -n -ʔak -Ø
field =its=DIR Urdingir =ERG work=ABS VP-3N.OO-3SG.A-make-3N.S/DO
'Urdingir worked their field.' (TCS 1:148 13-14; U; 21)

The same phenomenon occurs with the verb **du$_{11}$.g** 'do'. In order to bring about a verbal meaning, a noun may be construed with **du$_{11}$.g** or with one of its two suppletive stem forms **e** and **di.d** (§12.3). E.g.:

(4) **ki-sur-*ra* / ^{d}nin-*ĝír-su-ka-ta* / a-ab-*šè* / maškim lú *nu-e***
ki.sur.ra nin.ĝír.su.k=ak =ta a.ab.ba.k=še maškim =Ø
border Ningirsu =GEN=ABL sea =TERM commissioner=ABS

lú =e nu =ʔi -ʔe -e
man=ERG NEG=VP-do:IPFV-3SG.A:IPFV

'From Ningirsu's border to the sea, nobody acts as a commissioner anymore.' (Ukg. 4 9:22-25; L; 24)

(5) ***a-šà-ge* a du$_{11}$-*ga***
a.šà.g=e a =Ø du$_{11}$.g-Ø -ʔa
field =DIR water=ABS do -NFIN-NOM
'who irrigated the field' (TENS 83 1-2; U; 21)

Such phrasal verbs with **ak** 'make' and **du$_{11}$.g** 'do' are extremely numerous. Thus these two verbs are effectively used to express verbal meanings that are derived from nouns. Unfortunately, it is as yet unclear in what way the two verbs differ from each other.

A third method for expressing verbal meanings for which there are no specific verbal stems involves the use of certain verbal prefixes that modify the basic meaning of a verb. The ventive prefix {mu}, for instance, indicates that the action expressed by the verb is oriented towards the speaker. For instance, if a finite form of the verb **ĝen** contains the ventive prefix, **ĝen** means 'come', but without the ventive prefix it has the meaning 'go'. The dimensional prefixes can have a similar function. Although they are primarily used to refer to participants, in certain forms they do not refer but are used instead to modify the basic meaning of the verb (§16.3.2).

12.3. Imperfective stems

Some verbs have in the imperfective a special stem which differs in form from the stem in the perfective.[1] Which verb has such a stem and which not is completely unpredictable. Certain verbs show it and these have the special stem in all their imperfective forms. All other verbs (the majority of the verbs, in fact) have the same stem in the imperfective as in the perfective. The presence or absence of such a special stem seems to be the result of a historical development which can not be traced anymore.

A few of the verbs with special stems in the imperfective have paradigms with suppletive stems. They show a stem in the imperfective which is not related in form with the stem in the perfective. One such verb is **ĝen** 'go', which has a stem **du** in the imperfective. Such an alternation between suppletive stems also occurs in the paradigm of the English verb 'be'. For that verb it can be shown that forms such as 'be', 'is', and 'were' come historically from different verbs. It can be assumed that the alternation between suppletive stems such as **ĝen** and **du** in Sumerian has similarly resulted from a merger of the paradigms of originally different verbs. However, for Sumerian the process leading to such a merger can not be documented anymore.

The verb **ĝen / du** 'go' is not the only verb with suppletive stems. The verb **du$_{11}$.g** 'say, do' has an imperfective participle with the form **di.d** as well as a suppletive stem **e**, /ʔe/, which serves in all imperfective forms except the imperfective participle. (Note that the stem **e** also alternates as a plural verb with the singular verb **du$_{11}$.g** in perfective forms (§12.4.2).) The stem **er**, /ʔer/, 'go, come (said of more than one person or animal)' is restricted to perfective forms and alternates with the stem **su$_8$.b** which only occurs in the imperfective. The stem **ře$_6$** 'bring' (perfective) is replaced by **tùm** in the imperfective (§15.2.5). Finally, the stem **te** 'approach' (perfective) alternates with **te.ĝ** (imperfective).

Most verbs with a special stem in the imperfective have one which is reduplicated. Their special stem is thus related in form to the stem used in the perfective. The reduplication which

[1] For a detailed discussion of the verbal stems which occur in the imperfective, see Krecher (1995).

makes a special stem for the imperfective involves only a partial reduplication of the stem. It differs therefore in form from the full reduplication expressing a plural action (§12.4.3).

The writing system nearly always ignores the formal distinction between the full reduplication expressing a plural action and the partial reduplication found in imperfective stems. Either type of reduplication is usually spelled by writing the word sign twice. Thus a repeated word sign can stand for two completely different types of reduplicated stems. This scribal convention produces problems for a linguistic analysis of the reduplication in the stems for the imperfective.

Most importantly, this scribal habit of writing a reduplicated stem with two word signs hides the precise phonemic make-up of the reduplicated stem. What is certain, though, is that all such stems have a final vowel. So much is clear from the behaviour of the person suffixes (§14.10), which always have their post-vocalic forms after a reduplicated stem.

The sparse spellings with sound signs show that there are at least two different reduplication patterns. One pattern follows the formula $C_1V_1C_2C_1V_1$, with C_1 being the first consonant of the unreduplicated stem, V_1 the first vowel, and so on. This pattern applies, for instance, to the verbs ***ḫa-la*** 'divide' and **ḫulu** 'be bad', which have the reduplicated stems /ḫalḫa/ and /ḫulḫu/:

(6) ***ḫal-ḫa-dam***
ḫa.la:RDP-ed -Ø =ʔam
divide:IPFV-IPFV-NFIN=be:3N.S
'This is to be distributed.' (e.g., RTC 58 12:2; L; 24)

(7) ***ì-ḫulu^{ul}-ḫu-da***
ʔi -ḫulu:RDP -ed -Ø =ak
VP-be.bad:IPFV-IPFV-3SG.S:IPFV=GEN
'about that he will have acted badly' (BPOA 1:1086 10; U; 21)

The second pattern seems to follow the formula $C_1V_1C_1V_1$. It applies, for instance, to the verbs **ĝar** 'place', **gi$_4$** 'turn', **ku$_4$.ř** 'enter', **ga$_6$.ĝ** 'carry', and **niĝin$_2$** 'go round'.[2] The reduplicated stem of **ĝar** is consistently written ***ĝá-ĝá***, while those of the other four are usually written with word signs (**gi$_4$-gi$_4$**, **ku$_4$-ku$_4$**, **ga$_6$-ga$_6$**, **niĝin$_2$-niĝin$_2$**) but sometimes with sound signs:

(8) ***ĝá-ĝá-dè***
ĝar:RDP -ed -Ø =e
place:IPFV-IPFV-NFIN=DIR
'for placing' (MVN 3:234 19; D; 21)

(9) ***nu-ki-ki-dè***
nu =gi$_4$:RDP -ed -Ø =e
NEG=turn:IPFV-IPFV-NFIN=DIR
'not to revoke it' (FAOS 17:45 11; N; 21)

(10) ***nu-ku-ku-da***
nu =ku$_4$.ř:RDP-ed -Ø =ak
NEG=enter:IPFV -IPFV-NFIN=GEN
'about not going to enter it' (NRVN 1:5 7; N; 21)

(11) ***ga-ga-dè***

[2] Note that **niĝin$_2$** is a conventional transliteration. The actual stem may have been /neĝen/ (cf. ***né-ĝe$_6$-en*** (MSL 14 p. 31 Proto-Ea 30)).

ga$_6$.ĝ:RDP-ed -Ø =e
carry:IPFV -IPFV-NFIN=DIR
'for carrying it' (SAT 2:1005 3; U; 21)

(12) ***a-šà ne-ne-dè* ĝen-*na***
a.šà.g=Ø niĝin$_2$:RDP -ed -Ø =e ĝen-Ø -ʔa
field =ABS go.round:IPFV-IPFV-NFIN=DIR go -NFIN-NOM
'who went to make a round (?) of the fields' (BM 18305 12; L; 21)

The form of the last example recurs elsewhere written with word signs: ***a-šà* niĝin$_2$-niĝin$_2$-*dè* ĝen-*na*** (e.g., TCTI 2:L. 2773 rev 12'; L; 21).

Since the orthography tends to ignore syllable-final consonants (§2.4), spellings such as ***ĝá-ĝá*** and ***ne-ne*** do not have to stand for /ĝaĝa/ and /nene/ but, in theory, could also represent /ĝaĝĝa/ and /nenne/. The latter two forms could come from */ĝarĝa/ and */neĝne/, the expected forms according to the first reduplication pattern. Unfortunately, the available evidence is far too scanty to support such an analysis. Thus, it is as yet impossible to say how the second pattern relates to the first or whether the former developed from the latter (e.g., $C_1V_1C_2C_1V_1$ > $C_1V_1C_1C_1V_1$ with assimilation of C_2 to the following C_1).

The scribal habit of writing a plural and an imperfective reduplication in exactly the same way makes it far from easy to identify verbs which have a reduplicated stem in the imperfective. The messenger texts from the Ur III period, for instance, often contain the imperfective participle **dab$_5$-dab$_5$-*dè*** 'in order to seize (runaways)'. Such a form could be taken as evidence that the verb **dab$_5$** 'seize' has a reduplicated stem in the imperfective. Only the numerous imperfective forms of **dab$_5$** without the reduplication make clear that the form **dab$_5$-dab$_5$-*dè*** is an instance of a plural reduplication. Unfortunately, such cross-checks are not always possible in the case of less frequently occurring verbs.

The following verbs are among those with a reduplicated stem in the imperfective: **ĝar** 'place', **gi$_4$** 'turn', **gur$_{10}$** 'reap', **ḫa-la** 'divide', **kara$_2$** '... (?)', **kíĝ** 'seek', **ku$_4$.ř** 'enter', **mú** 'grow', **naĝ** 'drink', **niĝin$_2$** 'go around', **ra** 'hit', **sa$_{10}$** 'barter', **su.g** 'repay', **taka$_4$** 'leave behind', **te.n** 'cool off', **tu$_5$** 'bathe in', **tuku** 'have', **tuku$_5$** 'weave', **zi.g** 'rise'. Although this list includes the more frequently occurring verbs, it is certainly not exhaustive. However, it is the task of a dictionary to indicate for every verb whether it has a reduplicated stem in the imperfective or not.

The texts from after the third millennium treat the verb **šéš** 'anoint' as a verb with a reduplicated stem in the imperfective. In earlier texts, this verbs certainly has no special stem in the imperfective. The directive case of the imperfective participle is, for instance, **šeš$_4$-*dè*** 'in order to anoint' (DAS 233 3; L; 21). That the verb is later treated as having a reduplicated stem is probably due to a reanalysis. As it happens, in imperfective forms all possible suffixes after the stem begin with the vowel /e/. This /e/ was probably taken as belonging to the stem /šeš/, thus reanalysing the old form /šeš+e/ as /šeše/.

In conclusion of this section, one more problem due to spelling habits must be mentioned. Some texts indicate an imperfective form by writing the verbal stem with two word signs, regardless whether the stem is actually reduplicated or not (Krecher 1995: 165-169). Compare, for instance, the following three spellings of a single verbal form:

(13a) **kišib-*ba-né* šu *ḫa-ba-ši-íb*-ti-*ĝe$_{26}$***
kišib=ane=Ø šu =e ḫa =Ø -ba -n -ši -b -te.ĝ -e
seal =his =ABS hand=DIR MOD=VP-3N.IO-3SG-to-3N.DO-approach-3SG.A:IPFV
'He should receive his sealed document from him.' (TCS 1:52 8; U; 21)

(b) **kišib-*ba-né* šu *ḫa-ba-ši-íb*-ti** (TCS 1:162 7; L; 21)

(c) **kišib-*ba-né* šu *ḫa-ba-an-ši-íb*-TI.TI** (TCS 1:207 7; L; 21)

Only the example (a) writes the verbal stem in a way which approximates the actual form /teĝ/. Example (b) has an abbreviated spelling, giving no indication whatsoever that a special stem-form is involved. Example (c) writes a reduplication which does not exist in the actual stem-form. All three kinds of spellings occur also in other texts, both with the verb **ti** and with other verbs. Also, the phenomenon is not restricted to Ur III texts but also occurs earlier. E.g.:

(14) **140.0.0 še gur / ḫa-mu-ra-ÁG.ÁG**
140 še gur=Ø ḫa =Ø -mu -ra -ʔáĝ -e
140 barley *gur* =ABS MOD=VP-VENT-2SG.IO-measure.out-3SG.A:IPFV
'He should measure out for you 140 *gur* of barley.' (BIN 8:47 2-3; U; 24)

12.4. Verbal number

12.4.1. Introduction

Sumerian expresses number in a variety of ways. The plural of human nouns is marked with the clitic {enē} (§6.3), whereas nouns of both genders may occur reduplicated (§6.4). Pronouns also have a number distinction, but only for the human gender (chapter 8). All of these methods express nominal number: they indicate the number of nominals.

In Sumerian nominal number is also marked on the verb. A finite verbal form may contain a final person-prefix (chapter 13), an initial person-prefix (chapter 16), and a person suffix (chapter 14). All these verbal affixes have different forms depending on whether they refer to a single person or to multiple persons. But again the number distinctions are restricted to the human gender. Although marked on the verb, this still is nominal number, because the only relevant factor is the number of persons involved (cf. Corbett 2000: 5-6).

Nominal number is well-known from languages such as English, where it is far more pervasive than in Sumerian. In the latter language it is largely restricted to the human gender, so that most nominals show no number distinction at all. But Sumerian does not only have nominal number. It shows verbal number as well, a grammatical category, which, although absent from European languages, is found in many languages across the world.[3]

Verbal number differs crucially from nominal number. Whereas the latter is about counting entities, verbal number is concerned with quantifying actions and states (Corbett 2000; Mithun 1988; Mithun 1999: 83). Thus, verbal plurality indicates that the verb expresses an action or state which is in some respect a plural one. In the Dravidian language Kui, for instance, 'special forms of the verb are sometimes used to express the following modes of plural action: One person doing a number of things. One person doing one thing many times. More than one person doing a number of things. More than one person doing one thing many times.' (Winfield 1928: 142-3).

Several different aspects of actions or states may be quantified. Accordingly, there may be different ways to express verbal number in a language. In Sumerian, verbal number may be expressed in two different ways: through lexical means and through grammatical means.

[3] See Corbett (2000: 243-264) for a general overview, Mithun (1999: 83-87) for verbal number in Native North American languages, Newman (1990: 53-106) for Chadic languages, and Steever (1987: 584-6) for Dravidian languages.

A few Sumerian verbs specify number as part of their lexical meanings. These verbs usually, but not exclusively, refer to actions or states which are singular or plural in the sense that its most directly affected participant is singular or plural (§12.4.2).

A verbal stem may be reduplicated and then usually expresses an action or state which is plural in the sense that it occurs at multiple times and/or multiple locations (§12.4.3).

12.4.2. Stem alternation

Sumerian has a few verbs that specify number as part of their basic meanings:

gub	'stand (singular)'
šu$_4$.g = su$_8$.g	'stand (plural)'
ĝen	'go, come (singular, perfective)'
er	'go, come (plural, perfective)'
du	'go, come (singular, imperfective)'
su$_8$.b	'go, come (plural, imperfective)'
tuš	'sit (singular, perfective)'
dúr	'sit (singular, imperfective)'
durun	'sit (plural)'
lu$_5$.k	'live (singular) (said of animals)'
ti.l	'live (singular) (said of persons)'
se$_{12}$	'live (plural)'
túm	'bring (singular)'
laḫ$_5$	'bring (plural)'
du$_{11}$.g	'say, do (singular, perfective)'
e	'say, do (plural, perfective)'[4]
úš	'die, kill (singular)'
ug$_7$	'die, kill (plural)'

What, then, is the relationship between forms such as **ti.l** 'live (singular)' and **se$_{12}$** 'live (plural)'? Mostly it is described as a relation of suppletion: in the same way as the German verb *sein* has a first person singular form *bin* but a first person plural form *sind*, the Sumerian verb for 'live' is viewed as having a singular form **ti.l** but a plural form **se$_{12}$**. As Thomsen (1984: 131) puts it: 'A small number of verbs have two separate roots denoting singular and plural'.

Strictly speaking, though, we are not dealing with suppletion here (Corbett 2000: 258-9; Mithun 1988: 214). Suppletion is something that belongs to inflections, to paradigms. Only because German verbs are inflected for number and thus regularly have different singular and plural forms, we speak of suppletion in the paradigm of the verb *sein*. And only because English verbs are regularly inflected for tense (*call* versus *called*), we speak of suppletive forms in the paradigm of the verb *to go* (present tense *go* and past tense *went*). This is not what we have here. Sumerian verbal stems do not regularly have different singular and plural forms, with the verbal stems listed above just showing an irregular inflection. Indeed, in so far as Sumerian verbs are inflected for number distinctions at all, the verbs listed above behave just like all other verbs, showing exactly the same person affixes and occasionally having a reduplicated stem (§12.4.3).

[4] Note that the stem **e** is also used for 'say, do' in finite forms of the imperfective, without a number distinction (§12.3).

Rather than with suppletion, we are dealing here with separate verbs which specify number as part of their lexical meanings, in the same way as the English verb *to massacre* implies multiple victims as part of its basic meaning. Unfamiliar as this may seem for a speaker of English or German, Sumerian is not at all unusual in making such lexical distinctions. Compare, for instance, Mithun's description (1999: 84-5): 'A large number of North American languages show lexical distinctions of number. (…) The verbs that show such alternations tend to represent situations in which the number of participants is viewed as significantly affecting the nature of the action or state, such as sitting or living, standing, lying, eating, talking, walking, running, coming, going, dying, killing, and various kinds of handling.' This description of an entirely unrelated group of languages also fits Sumerian quite well.

Precisely because these verbs are separate lexical items, the difference in meaning between them can be quite unpredictable. For English 'live', for instance, Sumerian has three different verbs, two singular verbs and one plural: **ti.l** 'live (said of one person)', **lu_5.k** 'live (said of one animal)', and **se_{12}** 'live (said of more than one person or animal)'. E.g.:

(15) **PN / gurušta-*da* / *mu-da*-lu_5-*ka-am*$_6$**
PN gurušta=da Ø -mu -n -da -lu_5.k -Ø -ʔa =Ø =ʔam
PN fattener =COM VP-VENT-3SG-with-live:SING-3N.S/DO-NOM=ABS=be:3N.S
'It (viz. one lamb) is one that lives at PN, the fattener's place.' (DP 338 1:2-4; L; 24)

(16) **lugal-*ì*-kúš / *e-da*-se_{12}**
lugal.ì.kúš =d(a) ʔi-n -da -se_{12} -Ø
Lugalikush=COM VP-3SG-with-live:PLUR-3N.S/DO
'They (viz. 82 sheep) live at Lugal-ikush's place.' (CST 1 4:2-3; L; 24)

(17) **PN / *nu*-banda$_3$ / *e-da*-ti**
PN nu.banda$_3$=d(a) ʔi -n -da -ti.l -Ø
PN overseer =COM VP-3SG-with-live:SING-3SG.S/DO
'He lives at PN, the overseer's place.' (DP 115 13:13-15; L; 24)

(18) **PN / *gáb*-kas$_4$-*da* / *e-da*-se_{12}**
PN gáb.kas$_4$=da ʔi -n -da -se_{12} -Ø
PN runner =COM VP-3SG-with-live:PLUR-3N.S/DO
'They (viz. three men) live at PN, the runner's place.' (DP 115 13:9-11; L; 24)

What, then, do the words 'singular' and 'plural' stand for when used to describe the meanings of the verbs listed above? The prevailing answer is something like this: the plural verb is used with a plural subject in intransitive forms and with a plural object in transitive forms; and the singular verb is similarly used with a singular subject or object (cf. Thomsen 1984: 131; Edzard 2003: 74; Zólyomi 2005: 29). E.g.:

(19) **1 PN_1 / 1 PN_2 / 1 PN_3 / *ba*-ug$_7$-*ge-éš***
PN_1 PN_2 PN_3=Ø Ø -ba -ʔug$_7$ -eš
PN_1 PN_2 PN_3=ABS VP-MM-die:PLUR-3PL.S/DO
'PN_1, PN_2, and PN_3 have died.' (Nik 1:7 1:1-4; L; 24)

(20) **eger$_4$ kèš^{ki}-*ta* / *ba*-úš-*ša$_4$-ta***
eger$_4$ kèš.ta =Ø Ø -ba -ʔúš -Ø -ʔa =ak =ta
back Keshta=ABS VP-MM-die:SING-3SG.S/DO-NOM=GEN=ABL
'after Keshta had died' (DP 482 6:1-2; L; 24)

(21) **mu 1 gu$_4$ niga *šu-da-da ba-an*-túm-*ma-šè***

mu 1 gu$_4$.ř niga
name 1 bull barley.fed

šu.da.da=e Ø -ba -n -túm -Ø -ʔa =ak =še
Shudāda=ERG VP-MM-3SG.A-bring:SING-3N.S/DO-NOM=GEN=TERM
'because (lit. "for the name") of one barley-fed bull which Šu-Dāda took with him' (PDT 2:1263 obv 3; D; 21)

(22) **2 ud$_5$ / 1 máš-nita$_2$ / é-gal-*šè la-ḫa***
2 ud$_5$ 1 máš.nita$_2$ é.gal =še la.ḫ -Ø -ʔa
2 goat 1 he.goat palace=TERM bring:PLUR-NFIN-NOM
'two goats, one he-goat, brought to the palace' (MVN 13:438 1-3; D; 21)

This rule fits the available data quite well. Still, it is rather misleading, because it treats the number of certain syntactic functions (subject, object) as the determining factor. In actual fact, the crucial factor is not the number of a certain syntactic function but that of a certain semantic role. For this reason the use of one and the same plural verb can be triggered by two different syntactic functions. Take, for example, the plural verb **su$_8$.g** 'stand', also written as **šu$_4$.g**:

(23) **udu níĝ-gu$_7$-*a* / *ba*-su$_8$-*ge-éš***
udu níĝ.gu$_7$.a =e Ø -ba -su$_8$.g -eš
sheep barley.fed=DIR VP-3N.IO-stand:PLUR-3PL.S/DO
'They are on duty (lit. "stand") for the barley-fed sheep.' (DP 115 14:4-5; L; 24)

(24) **dub-lá-*bé* am-*gen$_7$* *mu*-šu$_4$-šu$_4$**
dub.lá =be=Ø am =gen Ø -mu -n -šu$_4$.g -šu$_4$.g -Ø
gate.post?=its=ABS wild.bull=EQU VP-VENT-3SG.A-stand:PLUR-stand:PLUR-3N.S/DO
'He let its gate posts (?) stand like wild bulls.' (Cyl A 24:18; L; 22)

Thus, used intransitively (ex. 23) it goes with a plural subject, but used transitively (ex. 24) it is associated with a plural object. In either construction, though, it is one and the same semantic role that is plural, viz. that of the most directly affected participant, the one doing the actual 'standing'.

In the same way we can explain the apparent exceptional behaviour of the transitive verbs **du$_{11}$.g** and **e** 'say, do'. In contrast with the other transitive singular and plural verbs, which are associated with the number of the object, their use is associated with the number of the subject and not with that of the object. E.g.:

(25) **… *bí-in*-du$_{11}$**
Ø -bi -n -du$_{11}$.g -Ø
VP-3N.OO-3SG.A-say:SING-3SG.S/DO
'He said: "…".' (NG 47 4; L; 21)

(26) **… *bí-né-eš***
Ø -bi -n -ʔe -eš
VP-3N.OO-3SG.A-say:PLUR-3PL
'They said: "…".' (NG 84 14; L; 21)

For these verbs, too, the crucial factor is the number of the most directly affected participant.

Thus, the choice between a singular or a plural verb seems to be associated with the number of the participant most directly affected by the action or state expressed by the verb. This participant is mostly, but not always, the one expressed by the subject of an intransitive verbal

form or by the object of a transitive verbal form. This is, of course, an ergative pattern. Yet, there is no relation with the fact that Sumerian is also in many other respects an ergative language. Verbal number regularly works on an ergative basis, also in languages that are otherwise non-ergative (Corbett 2000: 253; Mithun 1988: 214).

Even though the use of a singular and plural verb tends to be associated with the number of the most directly affected participant, it is not determined by it. Take, for instance, the singular verb **ĝen** 'go, come (perfective)'. Although, generally speaking, it is only used if the action is performed by only one person, there are clear exceptions. E.g.:

(27) **alan-*da* ĝen-*na-me***
alan =da ĝen -Ø -ʔa =Ø =me-eš
statue=COM go:SING-NFIN-NOM=ABS=be -3PL.S
'They (viz. three craftsmen) are the ones who came with the statue.' (RTC 395 15; L; 21)

(28) **ki ensi$_2$-*šè* ĝen-*na-ne-ne***
ki ensi$_2$.k=ak =še ĝen -Ø -ʔa =anēnē=e
place ruler =GEN=TERM go:SING-NFIN-NOM=their =DIR
'when they went to the ruler's place' (RTC 335 8; L; 21)

(29) **4 ĝuruš u$_4$ 3-*šè* / umma^{ki}-*ta* / a-pi$_4$-sal$_4^{ki}$-*šè* / ĝiri$_3$-*a* ĝen-*na***
4 ĝuruš u$_4$.d 3=še umma=ta a.pi$_4$.sal$_4$=še ĝiri$_3$=ʔa ĝen -Ø -ʔa
4 man day 3=TERM Umma=ABL Apisal =TERM foot =LOC go:SING-NFIN-NOM
'four men for three days: who went on foot from Umma to Apisal' (UTAMI 4:2857 7-10; U; 21)

In all these examples, which can be multiplied easily, the singular verb **ĝen** is used, although each time multiple goers are involved. Clearly, this singular verb can also be used when the number of the most directly affected participant is plural. The same is true for the singular verb **du** 'go, come (imperfective)'. E.g.:

(30) **susin^{ki}-*šè* du-*ne-ne***
susin=še du =anēnē=e
Susa =TERM go:SING:IPFV=their =DIR
'when they were going to Susin' (MVN 6:555 6; L; 21)

It is instances like this that show us the true nature of the singular and plural verbs: these verbs do not primarily express the plurality of some participant. First of all, they express the plurality of some action or state. And, of course, multiple actions or states tend to involve multiple participants, but that is only a secondary implication.

Hence, the primary distinction between the singular verb **ĝen** 'go, come (perfective)' and the plural verb **er** 'go, come (perfective)' is that with the verb **ĝen** the action is viewed as a single going and with **er** as multiple goings. E.g.:

(31) **gu$_4$ *ĝír-su*^{ki}-*ta* ĝen-*na***
gu$_4$.ř ĝír.su=ta ĝen-Ø -ʔa
bull Girsu =ABL go -NFIN-NOM
'(128) heads of cattle which came (as a single group) from Girsu' (ASJ 7 p. 189 3; D; 21)

(32) **gu$_4$ é-gal-*ta er-ra***
gu$_4$.ř é.gal =ta er -Ø -ʔa
bull palace=ABL go:PLUR-NFIN-NOM

'(fourteen) oxen which went out of the palace (to several different individuals)' (BM 21486 10; L; 21)

Thus, the plural and singular verbs primarily express verbal number, indicating the number of events. But as multiple events tend to imply multiple participants, in practice they mostly express the number of the most directly affected participant.

12.4.3. Reduplication

Stem alternation (§12.4.2) is not the only way by which verbal number is marked in Sumerian. In addition to such lexical means, there are also grammatical means to express verbal number: viz. reduplication of the verbal stem. As far as we can tell, the plural verb forms are built through a full reduplication of the verbal stem, that is, by repeating the verbal stem completely. This is suggested by the rare instances where a plural stem is written with sound signs (Note, however, that all examples involve verbal stems with the structure CVC. Examples with other types of stems seem to be lacking in our corpus.).[5]

(33) **gù-dé-*a* en ^{d}nin-*ĝír-su-ra* / níĝ *ba-na-gu-ul-gu-ul***
gù.dé.a=e en nin.ĝír.su.k=ra níĝ =Ø
Gudea =ERG lord Ningirsu =DAT thing=ABS

Ø -ba -nna -n -gu.ul -gu.ul -Ø
VP-MM-3SG.IO-3SG.A-be.big-be.big-3N.S/DO
'Gudea enlarged all things for lord Ningirsu.' (Cyl B 2:12-13; L; 22)

(34) **kalam *ḫu-mu-ge-en-ge-en***
kalam =Ø ḫa =Ø -mu -? -ge.en -ge.en -Ø
country=ABS MOD=VP-VENT-1SG.A-be.firm-be.firm-3N.S/DO
'I did fully consolidate the country.' (Shulgi A 91; OB copy of Ur III royal hymn)

(35) ***mu-ĝá-ar-ĝá-ar***
Ø -mu -n -ĝar -ĝar -Ø
VP-VENT-3SG.A-place-place-3N.S/DO
'He instituted it fully.' (Shulgi R 42; OB copy of Ur III royal hymn)

Unfortunately, such spellings with sound signs are extremely rare. Nearly all plural stems are written by repeating the word sign for the verb. This scribal convention produces two problems for the modern reader. One is that this spelling can be ambiguous. A number of verbs have a special, partially reduplicated stem in the imperfective (§12.3). Although such a stem differs from a plural stem, which involves a full reduplication, both types of reduplication are usually spelled by writing the word sign twice. Thus a repeated word sign can stand for two completely different types of reduplicated stems.

The second problem with the normal spelling of plural stems is that the word signs, as always, hide all phonological phenomena. A few non-standard spellings from the Old Babylonian period suggest that reduplicated stems could undergo changes such as assimilations or a reduction of syllable-final stops. In one text, the plural stem of the verb **du$_{11}$.g**, for instance, occurs as ***du-ṭú*** (TIM 9:1 = ZA 65 [1975] p. 194:159). This reflects a pronunciation [duttu]. Following the documented sound changes to the Sumerian stops (§3.2.2), that pronunciation

[5] For a more detailed discussion which includes the more plentiful data from later texts, see Krecher (1995).

originates from an earlier form **du$_{11}$.g-du$_{11}$.g**, pronounced as [tuktuk], through the intermediate stages [tuktuk] > [tuʔtuʔ] > [tuttu] > [duttu]. A similar sequence of phonological changes across time can be reconstructed for two other attested plural stem forms with the suffix {ed} (§15.3.2): ***gu-qú-bu*** for **gub-gub-*bu(.d)*** and ***di-ṭe$_4$-bé*** for **dib-dib-*bé(.d)*** (ZA 83 p. 177). For these two forms, the following two series of changes can be reconstructed: [kupkuput] > [kuʔkupuʔ] > [kukkupu] > [gukkubu] and [tiptipet] > [tiʔtipeʔ] > [tittipe] > [dittibe]. Thus, such Old Babylonian spellings with sound signs make clear that plural stems could be subject to secondary phonological changes, even though their basic forms, at least in origin, consisted of fully reduplicated verbal stems.

The plural stem indicates that the verb refers to a multiple action or state. It expresses that the action or state occurs at different times and/or different places. E.g.:

(36) **é ensi$_2$-*ka* / gana$_2$ ensi$_2$-*ka-ke$_4$* / é é-mí / gana$_2$ é-mí-*ke$_4$* / é *nam*-dumu / gana$_2$ *nam*-dumu-*ke$_4$* / zà *ì*-ús-ús-*am$_6$***
é ensi$_2$.k=ak gana$_2$ ensi$_2$.k=ak =e é é.mí=ak gana$_2$
house ruler =GEN field ruler =GEN=DIR house Emi =GEN field

é-mí=ak =e é nam.dumu=ak gana$_2$ nam.dumu=ak =e
Emi =GEN=DIR house princedom =GEN field princedom =GEN=DIR

zà.g =Ø ʔi -b -ʔús -ʔús -Ø =Ø =ʔam
border=ABS VP-3N.OO-be.next.to-be.next.to-3N.S/DO=ABS=be:3N.S
'It was the case that the ruler's buildings and the ruler's fields, the queen's buildings and the queen's fields, as well as the prince's buildings and the prince's fields, each one of them was adjoining the other.' (Ukg. 4 7:5-11; L; 24)

(37) **zi-*da* gabu$_2$-*na* piriĝ *ì*-nú-nú**
zi.d -Ø -ʔa gabu$_2$=ane=ʔa piriĝ=Ø ʔi-b(i) -nú-nú-Ø
be.right-NFIN-NOM left =his =LOC lion =ABS VP-3N:on-lie-lie -3N.S/DO
'Lions lay on his right as well as on his left.' (Cyl A 4:19; L; 22)

(38) ***ù-um-re-re* / *ze-re-dam***
ʔu -m(u) -ře$_6$ -ře$_6$ -Ø ze.r -ed -Ø =ʔam
REL.PAST-VENT-bring-bring-3N.S/DO destroy-IPFV-NFIN=be:3N.S
'Whenever one (of Ur-Enlila's sealed documents) is brought, it is to be destroyed.' (NRVN 1:235 3-4; N; 21)

Thus, a plural stem can indicate that a single person is performing an action separately on several objects. E.g.:

(39) **e-*ba na*-rú-*a* / *e-me*-sar-sar**
e.g =be =ʔa na.rú.a=Ø ʔi -m(u)-bi -n -sar -sar -Ø
dike=this=LOC stela =ABS VP-VENT-3N:on-3SG.A-write-write-3N.S/DO
'He inscribed several stelas on this dike.' (Ent. 28 2:4-5; L; 24)

(40) **lú *be$_6$-lu$_5$-da* diĝir-*re-ne-ke$_4$* / si *bí*-sá-sá-*a***
lú be$_6$.lu$_5$.da diĝir=enē=ak =e si =Ø
man custom god =PL =GEN=DIR horn=ABS

Ø -bi -n -sáʔ -sáʔ -Ø -ʔa
VP-3N.OO-3SG.A-be.equal-be.equal-3N.S/DO-NOM

'the person who put in order every one of the rituals of the gods' (St R 1:6-7; L; 22). Note that the phrasal verb **si—sá** means 'put in order'.

(41) **KIB *mu*-dím-dím**
KIB =Ø Ø -mu -n -dím -dím -Ø
clay.nail=ABS VP-VENT-3SG.A-create-create-3N.S/DO
'He fashioned several clay nails.' (En. I 30 2:7; L; 25)

(42) **ad-*šè* *mu*-ak-ak**
ad =še Ø -mu -n -ʔak -ʔak -Ø
raft=TERM VP-VENT-3SG.A-make-make-3N.S/DO
'He made them (viz. several kinds of trees) into rafts.' (St B 5:35, 58; L; 22)

A plural stem can indicate that a single person performs the same action several times. E.g.:

(43) **ḫur-saĝ 5 ḫur-saĝ 6 ḫur-saĝ 7 *im-me-re*-bala-bala**
ḫur.saĝ 5 ḫur.saĝ 6 ḫur.saĝ 7 ʔi -m(u) -ba -ta -e -balaʔ-balaʔ-Ø
mountain 5 mountain 6 mountain 7 VP-VENT-MM-from-on-cross -cross -3SG.S/DO
'Five mountains, six mountains, seven mountains – he crossed each one of them.' (Lugalbanda II 344; OB)

A plural stem can indicate that several persons perform the same action once. E.g.:

(44) **mu 5-*kam-ka* / dam dumu *ku-li* / dumu PN_1-*ke*$_4$-*ne* *ba-an-da*-zàḫ-zàḫ-*éš***
mu 5-kamma=ak =ʔa dam dumu ku.li=Ø dumu PN_1=ak =enē=d(a)
year 5-ORD =GEN=LOC wife child Kuli =ABS child PN_1=GEN=PL =COM

Ø -ba -n -da -zàḫ-zàḫ-eš
VP-MM-3SG-with-flee-flee -3PL.S/DO
'In the fifth year, the wife and children of Kuli ran away from the children of PN_1.' (NG 41 10'-12'; L; 21)

A plural stem can indicate that a single person performs an action several times on a single object. E.g.:

(45) **(...) PN / *nu*-banda$_3$ / *i*-gul-gul**
PN nu.banda$_3$=e ʔi -n -gul -gul -Ø
PN overseer =ERG VP-3SG.A-destroy-destroy-3N.S/DO
'(These are the pieces of equipment of the boat of Madam on which NN had sailed.) PN, the overseer, took it (viz. the boat) apart piece by piece.' (VS 27:35 6:5-7; L; 24)

It is not a great shift in meaning from 'doing repeatedly' to 'doing thoroughly'. It comes therefore as no surprise that a plural stem may have an intensive meaning:

(46) **kalam *ḫu-mu-ge-en-ge-en***
kalam =Ø ḫa =Ø -mu -ʔ -ge.en -ge.en -Ø
country=ABS MOD=VP-VENT-1SG.A-be.firm-be.firm-3N.S/DO
'I did fully consolidate the country.' (Shulgi A 91; OB copy of Ur III royal hymn)

There is only one **kalam**, viz. Sumer, and no king is going to boast about having consolidated his country repeatedly, which is hardly good propaganda. But having consolidated it thoroughly, of course, is.

An action or state can be plural in more than one respect. Accordingly, the lexically plural verbs treated in the previous section (§12.4.2) may also occur with reduplicated stems:

(47) **diĝir an-*na* diĝir k[i]-*a* *nu-ù-m*[*a*]-su$_8$-su$_8$-*ge-éš***
diĝir an =ʔa diĝir ki =ʔa =Ø
god heaven=LOC god earth=LOC=ABS

nu =ʔi -m(u)-ba -su$_8$.g -su$_8$.g s-eš
NEG=VP-VENT-3N.IO-stand:PLUR-stand:PLUR-3PL.S/DO
'The gods in heaven and the gods on the earth were not yet on duty for it (lit. "did not stand for it").' (AOAT 25 p. 129 13; ?; 21)

(48) **é-*a* dub-lá-*bé* šu$_4$-šu$_4$-*ga-bé* / *la-ḫa-ma* abzu-*da* šu$_4$-*ga-àm***
é =ak dub.lá =be=Ø šu$_4$.g -šu$_4$.g -Ø -ʔa =be=e
house=GEN gate.post?=its=ABS stand:PLUR-stand:PLUR-NFIN-NOM=its=DIR

la.ḫa.ma abzu =da šu$_4$.g -Ø -ʔa =Ø =ʔam
Hairy.One Abzu=COM stand:PLUR-NFIN-NOM=ABS=be:3N.S
'As the gate posts (?) of [each of the gates of] the temple are standing, they are like the [two] Hairy Ones standing [as door-men] beside the Abzu.' (Cyl A 24:26-27; L; 21)

Both these examples contain reduplicated forms of the plural verb **su$_8$.g** = **šu$_4$.g** 'stand'. In example 47 the standing is done by multiple entities (gods) on each of multiple locations (heaven and earth). Something similar seems to apply to example 48, although the interpretation of its first part is very tentative: in the second part, without reduplication, multiple entities (door-men) stand on a single location, but in the first part, with reduplication, multiple entities (gate posts (?)) stand on each of multiple locations (gates?).

12.5. The plural suffix {en}

Krecher (1965: 29-30) published evidence for an until then unrecognized stem suffix {en}. He included one attestation from our corpus, a form of the verb **ku$_4$.ř** 'enter, bring in':

(49) **PN *nu*-banda$_3$ / *ba-ni-in*-ku$_4$-*re-èn***
PN nu.banda$_3$=e Ø -ba -ni-n -ku$_4$.r-en -Ø
PN overseer =ERG VP-MM-in -3SG.A-enter -PLUR-3N.S/DO
'PN, the overseer, brought them (viz. eight labourers) in.' (UET 3:1410 3-4; Ur; 21)

In Krecher (1987a: 14-15), he provided additional evidence, including a possible second early form, from the same verb:

(50) **maš-da-ri-*a* / PN-*ra* / (...) / *mu-na*-ku$_x$(=DU)-*ře$_6$-na-am$_6$***
maš.da.ri.a PN=ra Ø -mu -nna -ku$_4$.ř-en -Ø -ʔa =Ø =ʔam
gift PN=DAT VP-VENT-3SG.IO-enter -PLUR-3N.S/DO-NOM=ABS=be:3N.S
'These (sheep and goats) are gifts that came in for PN (during the festival Nanshe's Barley Eating).' (VS 14:179 9:4-10:3; L; 24)

The spelling of this form is too ambiguous, though, to be completely certain of its interpretation.

In the two articles mentioned, Krecher does not discuss the possible meaning of this suffix {en} beyond the statement that its function is unknown (1987a: 14). Following a suggestion by Krecher in a personal communication, however, I would like to propose tentatively that {en} is a kind of pluralizer and that it may be the same /en/ which is found in verbal suffixes such as {enden} and {enzen}. The suffix {enzen} for the second person plural is simply /zen/ in imperative forms (§25.3). The form /enzen/ that occurs in other finite verbal forms may therefore

have arisen from *en+zen and thus include the suffix {en}. By analogy, the suffix {enden} of the first person plural could be taken as coming from *en+den. Perhaps one might even go so far as to analyse the plural suffix {enē} (§6.3 and §14.9) as *en+ē.

Cavigneaux (1987: 47-48) discussed some later modal verbal forms containing a plural suffix {en} that is probably identical to Krecher's stem suffix, even though Cavigneaux himself does not make this connection in any way:

(51) ***ga-na-ab-bé-en***
ga -nna -b -ʔe -en
MOD:1SG.A/S-3SG.IO-3N.OO-say:PLUR-PLUR
'Let us say: (…)!' (Iddin-Dagan A 1; N; OB)

(52) ***ga-i-*re$_7$*-en***
ga -ʔer -en
MOD:1SG.A/S-go:PLUR-PLUR
'Let us go!' (ASJ 9 [1987] p. 48; Tell-Haddad; OB)

Another possible instance of {en} is found in the verbal stem **durun** 'sit (said of more than one person or animal)', which might be analysed as ***dur-en**, deriving it from the non-plural verb **dúr** 'sit (said of one person or animal)'.

Clearly, the plural suffix {en} is only rarely attested and seems to be restricted to a few fixed expressions. This rather limited use suggests that it is an old suffix that was no longer productive in the second half of the third millennium, the period to which the texts of our corpus belong. Under the present circumstances, the status of this suffix {en} remains far from clear and the various observations in this section should not be taken as anything more than hypothetical.

12.6. Stem modifications under inflection: the verb ak 'make'

Verbal stems are usually written with word signs. These signs only represent the stems as such, not specific stem forms, so that for most verbal forms the precise phonemic make-up of the stem remains hidden. However, the fact that the verbal stem is always written in the same way does not necessarily mean that it is always pronounced in the same way too. Indeed, occasional spellings with sound signs make it absolutely clear that certain verbal stems change under the influence of preceding and following morphemes. A good example is the verb **ak** 'make'. The stem of this verb is nearly always written with the word sign **ak**, but there are many spellings with sound signs which show how the stem changes in certain environments (Attinger 2005: 53-63).

The full stem of **ak** 'make' is /ʔak/. E.g.:

(53) **ĝuruš 1-*e* u$_4$ 1-*a* 2 nindan-*ta* / *ì-a-ke$_4$***
ĝuruš 1=e u$_4$.d 1=ʔa 2 nindan=ta ʔi -ʔak -e
labourer 1=ERG day 1=LOC 2 *nindan*=ABL VP-make-3SG.A:IPFV
'One labourer makes it with (a work load of) two *nindan* in one day.' (TMHC NF 1/2:294 6-7; N; 21)

The same expression occurs numerous times with a logographic spelling of the verbal stem: e.g., **geme$_2$ 1-*e* u$_4$ 1-*a* 10 še-*ta* *ì*-ak-*ke$_4$*** 'one slave woman makes it with (a work load of) ten grains in one day' (TCTI 2:L.2819 5:2'; L; 21).

The /k/ of /ʔak/ is lost in word-final position. E.g.:

(54) **pa è *ba-ni-a***
pa =Ø è -Ø =Ø Ø -ba -ni-n -ʔak -Ø
branch=ABS go.out-NFIN=ABS VP-MM-in -3SG.A-make-3N.S/DO
'He let it make an appearance therein.' (Cyl A 26:19; L; 21)

Note that word-final /k/ is generally lost (§3.2.2).

The initial glottal stop of /ʔak/ assimilates to a preceding consonant. E.g.:

(55) ***zi-iš-da* udu zuḫ*-a-šè in-na***
zi.iš.da udu zuḫ -Ø -ʔa =še ʔi -n -ʔak -Ø
compensation sheep steal-NFIN-NOM=TERM VP-3SG.A-make-3N.S/DO
'He made them into a compensation for the stolen sheep.' (SNAT 373 obv 8; U; 21)

(56) **al *ì-íb-ba***
al =Ø ʔi -b -ʔak -Ø
hoe=ABS VP-3N.A-make-3N.S/DO
'They (i.e., five labourers) did hoe-work.' (NATN 873 9; N; 21)

This change, too, is not restricted to the verb **ak**. A glottal stop generally assimilates to a preceding consonant (§3.2.4).

The stem /ʔak/ may lose the initial /ʔa/ (cf. §3.9.4) when followed by the vowel /e/ and a consonant. E.g.:

(57) **u_4 ki ^{d}utu na-rú-*a* maḫ *in-ke$_4$-eš-ša-a***
u_4.d ki utu =ak na.rú.a maḫ =ak =Ø ʔi -n -ʔak -eš -ʔa =ʔa
day place Utu=GEN stela great=GEN=ABS VP-3SG.A-make-3PL-NOM=LOC
'when they performed the 'Place of Utu'-rite of the Great Stela' (PDT 1:528 19; D; 21)

(58) ***ke$_4$-dè***
ak -ed -Ø =e
make-IPFV-NFIN=DIR
'in order to make' (e.g., CUSAS 3:33 23; Garshana; 21)

The same form /ked/ of the imperfective participle occurs in the compound written **kar-ak** or **kar-*ked*** 'prostitute (lit. "the one making the quay")' (cf. Powell 1982: 317).

The /ʔa/ of /ʔak/ may contract with a preceding /a/ to /ā/ (cf. §3.2.4). E.g.:

(59) ***é-e-na-ba-ka***
é =e a.na Ø -ba -ʔak-Ø =ak
house=DIR what VP-MM-do -3N.S/DO=GEN
'What has been done for the house?' (PN, here in the genitive case) (NG 113 5, 19, 49; L; 21)

The same proper name, but without a following genitive case marker, is written elsewhere ***é-e-a-na-ba*** (ASJ 18 p. 77:10 1:3; U; 21) and ***é-e-a-na-ba*-ak** (e.g., UET 3:1118 3; Ur; 21). The first two spellings with sound signs point to a pronunciation /bā/ (< baʔak) of the last form ***ba*-ak**, where the stem is written with a word sign.

While the verb **ak** serves as a good example of what kind of stem modifications the use of word signs may actually hide, it is not unique in undergoing such changes. Nor does it illustrate all the changes that may apply to verbal stems. Changes are also documented for verbal stems with final /d/ or /g/ (§3.2.3), with a final /ř/ (§3.3.2), or with a final glottal stop (§3.2.4). Moreover, certain suffixes contract with a preceding vowel, so that stems with a final vowel

undergo all sorts of modifications. See the sections about the stem suffix {ed} (§15.3.2 and §28.4.2), the person suffixes (chapter 14), and the nominalizing suffix {ʔa} (§31.2).

13. THE FINAL PERSON-PREFIXES

13.1. General remarks

The final person-prefixes are always found immediately before the verbal stem. They can be preceded by all kinds of other prefixes but are never followed by any further prefix (§11.2.2). The following table lists their basic forms:

	Final person-prefix	***Treated in section:***
First person human	ʔ	§13.2.5
Second person human	e	§13.2.4
Third person human	n	§13.2.3
Third person non-human	b	§13.2.2

The basic forms of the prefixes for the first and second person are not directly attested in our corpus, only the effects they have upon other prefixes. Also, the spelling of each of the four prefixes varies (§13.2). In addition to the prefixes listed in the table above, there is a very rarely found final person-prefix {nnē} (§13.3.2).

The final person-prefixes have a variety of uses. Depending on the type of verbal form (transitive or intransitive, perfective or imperfective), they can express the transitive subject, the direct object, or the oblique object. Because of this wide range of uses, the final person-prefixes occur in many verbal forms and play a crucial role in Sumerian syntax. Here only an overview of these usages will be given. For the details the reader will be referred to other chapters.

In transitive forms of the perfective, the final person-prefix always expresses the transitive subject (§15.2.2). E.g.:

(1) **lugal-*e* *in*-šum**
lugal=e ʔi -n -šum -Ø
king =ERG VP-3SG.A-slaughter-3N.S/DO
'The king slaughtered them (viz. two animals).' (AUCT 3:206 5; D; 21)

In intransitive forms of the perfective, the final person-prefix always expresses the oblique object (chapter 18). E.g.:

(2) **i-ti-mu-*ra* kišib *ba-an*-ra**
i.ti.mu=ra kišib=Ø Ø -ba -n -ra -Ø
Itimu =DAT seal =ABS VP-MM-3SG.OO-hit-3N.S/DO
'Itimu was caused to impress his seal.' (OrSP 47/49:165 4-5; U; 21)

In transitive forms of the imperfective, the final person-prefix is used to express the direct object (§15.2.3). E.g.:

(3) **mu sar-*ra-ba* šu *bí-íb*-ùr-*a***
mu sar -Ø -ʔa =be =ʔa šu =Ø Ø -bi -b -ʔùr-e -ʔa
name write-NFIN-NOM=this=LOC hand=ABS VP-3N:on-3N.DO-rub-3SG.A:IPFV-NOM
'whoever shall efface this inscription' (St C 4:8; L; 22)

However, this usage is only optional for the non-human prefix {b} (§15.2.4). If in a transitive imperfective form, a non-human direct object is left unexpressed, the final person-prefix can be used to express the oblique object (chapter 18). E.g.:

(4) **ses-*ĝu$_{10}$* bar-*ĝu$_{10}$-a* / šu *ḫa-mu*-bar-*e***
ses =ĝu=r(a) bar =ĝu =ʔa šu =Ø ḫa =Ø -mu -n -bar -e
brother=my=DAT exterior=my=LOC hand=ABS MOD=VP-VENT-3SG.OO-open-3SG.A:IPFV
'May he release my brother for my sake!' (TCS 1:54 4-5; L; 21)

(5) **mu sar-*ra-bé* / šu *íb-ta-ab*-ùr-*a***
mu sar -Ø -ʔa =be =e šu =Ø ʔi –b -ta -b -ʔùr-e -ʔa
name write-NFIN-NOM=this=DIR hand=ABS VP-3N-from-3N.OO-rub-3SG.A:IPFV-NOM
'whoever shall erase this inscription from it' (St B 8:8-9; L; 22)

In imperative forms (§25.3) and in verbal forms with the modal prefix {ga} (§25.6), the final person-prefix has the same functions as in imperfective forms. In transitive forms, it expresses either the direct object or the oblique object, while, in intransitive forms, it always expresses the oblique object. E.g.:

(6) **kù-*ĝu$_{10}$* šúm-*ma-ab***
kù.g =ĝu =Ø šúm-Ø-ma -b
silver=my=ABS give-VP-1SG.IO-3N.DO
'Give me my silver!' (NRVN 1:49 3; N; 21)

(7) ***ga-na-ab*-du$_{11}$**
ga -nna -b -du$_{11}$.g-Ø
MOD:1SG.A/S-3SG.IO-3N.OO-say -3N.S/DO
'I should say it to her!' (Cyl A 1:24; L; 22). Note that the finite forms of the verb **du$_{11}$.g** 'say' have, as a rule, an oblique-object prefix.

Thus, the final person-prefixes can express three different syntactic functions, viz. the transitive subject (§15.2), the direct object (§15.2), and the oblique object (chapter 18). Historically, these uses are at least partly connected. Compare, for instance, the following transitive and intransitive perfective forms:

(8) **mu *a-šà* gu$_4$ é-gal-*ke$_4$ íb*-uru$_4$-*a-šè***
mu a.šà.g gu$_4$.r é.gal =ak =e ʔi -b -ʔuru$_4$ -Ø -ʔa =ak =še
name field ox palace=GEN=ERG VP-3N.A-plough-3N.S/DO-NOM=GEN=TERM
'because of a field that the oxen of the palace had ploughed' (RA 80 p. 14:12 46; L; 21)

(9) **^{ĝiš}kiri$_6$ lú-diĝir-*ke$_4$* / *ab*-ús**
kiri$_6$ lú.diĝir.ra.k=ak =e ʔa-b -ʔús -Ø
orchard Ludingira =GEN=DIR VP-3N.OO-be.next.to-3N.S/DO
'This (plot of land) borders on Ludingira's orchard.' (TMTIM 4 17:7'-8'; I; 24)

In the first, transitive, clause, the non-human final person-prefix {b} expresses the transitive subject and is coreferential with a noun phrase in the ergative case (case marker {e}). In the second, intransitive, clause, the non-human final person-prefix {b} expresses the oblique object and is coreferential with a noun phrase in the directive case (case marker {e}). The close likeness in form between these two clauses is not accidental, because the transitive construction arose from an earlier passive contruction which closely resembled the intransitive construction (Coghill and Deutscher 2002). In that earlier passive construction, the directive

case was used to express an agent phrase. A close semantic parallel is the English preposition *by* in the following two constructions: *a field that had been ploughed* ***by*** *the oxen* and *This plot of land is* ***by*** *the river*. See for the ergative case also §7.3 and for the earlier passive §11.5.3.

13.2. Forms and spellings

13.2.1. General remarks

In the relative order of verbal prefixes, the final person-prefixes always come last, immediately before the verbal stem. E.g.:

(10) **lugal-*e* / šu *in-ni-in-ba***
lugal=e šu =Ø ʔi -nni -n -bar -Ø
king =ERG hand=ABS VP-3SG.OO-3SG.A-open-3N.S/DO
'The king released her (lit. "opened the hand upon her").' (BRM 4 pl.3 5:3-4; ?; 21)

Because all verbal stems begin with a consonant and, therefore, with a new syllable (§3.10), a final person-prefix is always the last segment of the last syllable before the stem. In practice this means that a final person-prefix is found in syllable-final position. This fact is crucial for understanding how the writing system handles them.

Some of the final person-prefixes are always syllable-final consonants and tend therefore to be ignored by the writing system (§2.4). As we shall see below, the other final person-prefixes manifest themselves as lengthened vowels, which are similarly disregarded by the script. Indeed, before the time of Gudea, the final person-prefixes are hardly ever written. From then onwards full spellings occur every now and then, but they do not become the norm before the Old Babylonian period. Usually, the presence of a final person-prefix must be inferred from the context in some way. Apart from the general context, the form of the preceding prefix can be of help, because some prefixes differ in form depending on what follows.

One such prefix is the ventive {mu}, which never has the form /mu/ immediately before the stem (§22.2). Thus, a spelling ***mu-*** immediately before the stem proves that the verbal form has one more prefix after {mu}, even if that prefix is not written out explicitly. Because of the make-up of verbal forms, that further prefix can only be a local prefix (chapter 20) or a final person-prefix.

Similarly, the forms /bi/ and /mi/ of the local prefix {e} (§20.3.1) and of the oblique-object prefix non-human (§18.2.2) prove the presence of a final person-prefix. The same is true for the form /ni/ of the local prefix {ni} (§20.2.1), for the form /nni/ of the oblique-object prefix of the third person singular human (§18.2.3), and for the form /ri/ of the oblique-object prefix of the second person singular human (§18.2.4).

13.2.2. The final person-prefix {b}

The basic form of the final person-prefix non-human is /b/. E.g.:

(11) **PN-*da* / kur-kur-*ré* / saĝ *e-dab$_6$*-sìg**
PN=da kur -kur =e saĝ =Ø ʔi -n -da -b -sìg-Ø
PN=COM mountains-mountains=ERG head=ABS VP-3SG-with-3N.A-hit -3N.S/DO
'The mountain lands tremble before PN.' (e.g., Ean. 3 5:5-9; L; 25)

(12) **mu *ab*-ús-*a***

mu =Ø ʔa-b -ʔús -Ø -ʔa
year=ABS VP-3N.OO-be.next.to-3N.S/DO-NOM
'the year that follows it' (OSP 2:96 8:7; N; 23)

(13) **é-*e* me gal-*la* saĝ *mi-ni-íb*-íl**
é =e me gal=ʔa saĝ =Ø Ø -mu -ni-b -ʔíl-Ø
house=ERG being big=LOC head=ABS VP-VENT-in -3N.A-lift-3N.S/DO
'The temple lifted (its) head in great form.' (Cyl B 15:3; L; 22)

(14) ***ì-bí-za-aš* é-gal-*e* *ma-ab*-šúm-*ma***
ì.bí.za =š(e) é.gal =e Ø -ma -b -šúm-Ø -ʔa
compensation=TERM palace=ERG VP-1SG.IO-3N.A-give-3SG.S/DO-NOM
'that the palace gave her to me as compensation' (NG 89 6; L; 21)

(15) **é diĝir-*e-ne-ke*$_4$ *ba-ab*-dab$_5$**
é diĝir=enē=ak =e Ø -ba -b -dab$_5$-Ø
house god =PL =GEN=ERG VP-MM-3N.A-take-3N.S/DO
'The temples of the gods took this for themselves.' (PDT 2:1240 obv 2; D; 21)

(16) **še-ba *ḫé-bí-íb*-dab$_5$-*bé***
še.ba =Ø ḫa =Ø -bi -b -dab$_5$-e
barley.portion=ABS MOD=VP-3N.OO-3N.DO-take -3SG.A:IPFV
'He must let them take barley rations!' (TCS 1:82 4; L; 21)

Because the person prefix {b} involves a syllable-final consonant, the scribes hardly ever write it before the later Old Akkadian period, while later they also often ignore it (§2.4). Compare the following pairs of examples, each pair illustrating a full and a defective spelling of a more or less similar expression. E.g.:

(17a) **kišib *nu-ub*-tuku**
kišib=Ø nu =ʔi -b -tuku-Ø
seal =ABS NEG=VP-3N.A-have-3N.S/DO
'It has no sealed document.' (e.g., TCL 2:5556 8; D; 21)

(b) **kišib *nu*-tuku**
kišib=Ø nu =ʔi -b -tuku-Ø
seal =ABS NEG=VP-3N.A-have-3N.S/DO
'It has no sealed document.' (e.g., MVN 8:84 12; D; 21)

(18a) **engar-*e-ne* / šu *ba-ab*-ti**
engar =enē=e šu =e Ø -ba -b -ti -Ø
farmer=PL =ERG hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO
'The farmers received it.' (UTAMI 4:Um. 2676 5; U; 21)

(b) **engar-*e-ne* šu *ba*-ti**
engar =enē=e šu =e Ø -ba -b -ti -Ø
farmer=PL =ERG hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO
'The farmers received it.' (OrSP 47/49:197 19; U; 21)

(19a) **engar-*ré-ne* / *e*-dab$_5$**
engar =enē=e ʔi -b -dab$_5$-Ø
farmer=PL =ERG VP-3N.A-take -3N.S/DO
'The farmers took it.' (VS 27:36 2:2-3; L; 24)

(b) **má-laḫ$_5$-*e*-*ne* *íb*-dab$_5$**
má.laḫ$_5$ =enē=e ʔi -b -dab$_5$-Ø
boatman=PL =ERG VP-3N.A-take -3N.S/DO
'The boatmen took it.' (TCL 5:5673 2:28; U; 21)

(20a) **aga$_3$-ús-*ne* / é-gal-*la* / *ì*-gu$_7$**
aga$_3$.ús=enē=e é.gal =ʔa ʔi -b -gu$_7$-Ø
guard =PL =ERG palace=LOC VP-3N.A-eat -3N.S/DO
'The guards consumed this in the palace.' (Nik 1:137 3:1-3; L; 24)

(b) **aga-ús lugal-*ke$_4$* *íb*-gu$_7$**
aga$_3$.ús lugal=ak =e ʔi -b -gu$_7$-Ø
guard king =GEN=ERG VP-3N.A-eat -3N.S/DO
'The royal guards consumed this.' (Courtesy Sigrist, BM 24486 3; L; 21)

In the Ur III texts, the sequence /ʔib/ with the final person-prefix {b} is, as a rule, written ***íb*-**, as in the preceding examples. However, very rarely a scribe uses the plene spelling ***ì-íb*-** for it, although that spelling is normally reserved for writing the sequence /ʔīb/ with the reduced form /bi/ of the local prefix {e} (§20.3.1):

(21) **dumu-dumu kù-*ta* sa$_{10}$-*a* / *ì-íb*-šeš$_4$**
dumu-dumu kù.g =ta sa$_{10}$-Ø -ʔa =e ʔi -b -šeš$_4$ -Ø
child -child silver=ABL buy -NFIN-NOM=ERG VP-3N.A-apply-3N.S/DO
'The children that were bought with silver applied this (fat).' (Smith College 10 2-3; U; 21)

(22) **saĝĝa šabra *ì-íb*-dab$_5$**
saĝĝa šabra =e ʔi -b -dab$_5$-Ø
administrator administrator=ERG VP-3N.A-take -3N.S/DO
'The administrators took it.' (MVN 6:279 1:7; L; 21)

The final person-prefix {b} cannot occur immediately after the ventive prefix. E.g.:

(23) **4 ĝuruš u$_4$ 10-*šè* / KI.AN^{ki}-*ta* umma^{ki}-<šè> / in-u *ì-im*-ře$_6$**
4 ĝuruš u$_4$.d 10=še KI.AN=ta umma=še in.u =Ø ʔi -m(u)-ře$_6$ -Ø
4 labourer day 10=TERM KI.AN=ABL Umma=TERM straw=ABS VP-VENT-bring-3N.S/DO
'4 labourers for 10 days: they brought straw from KI.AN to Umma.' (TENS 205 1-3; U; 21)

See section 22.4. for more details.

The final person-prefix non-human {b} has the same form as the initial person-prefix non-human {b} (§16.2.1). As a rule, however, the two prefixes can be kept apart without too much trouble. The former is only found immediately before the verbal stem, while the latter is always followed by a dimensional prefix. However, in one type of form some ambiguity may arise. If the form /bi/ of the local prefix {e} 'on' is found immediately before the stem, it loses its vowel and becomes /b/ (§20.3.1). Then, only the context and the grammatical properties of the verb can make clear which of the two prefixes is found.

13.2.3. The final person-prefix {n}

The basic form of the final person-prefix of the third person human is /n/. E.g.:

(24) **inim-^{d}en-líl-*lá-an*-dab$_5$**
inim en.líl=ak =Ø ʔa -n -dab$_5$-Ø
word Enlil =GEN=ABS VP-3SG.A-take -3N.S/DO
'He obeys Enlil's command.' (PN) (e.g., DP 553 2:2; L; 24)

(25) **lugal ^{d}en-ki-*ke$_4$* eš-bar-kíĝ *ba-an*-šúm**
lugal en.ki.k=e eš.bar.kíĝ=Ø Ø -ba -n -šúm-Ø
king Enki =ERG oracle =ABS VP-3N.IO-3SG.A-give-3N.S/DO
'King Enki gave an oracle for it.' (Cyl B 4:3; L; 22)

(26) **u$_4$ aš-*a* *mu-un*-gam**
u$_4$.d aš =ʔa Ø -mu -n -gam-Ø
day single=LOC VP-VENT-3SG.A-bow-3N.S/DO
'He had them bow on a single day.' (UET 3:1421 19; Ur; 21)

(27) **lugal-*e* / šu *in-ni-in-ba***
lugal=e šu =Ø ʔi -nni -n -bař -Ø
king =ERG hand=ABS VP-3SG.OO-3SG.A-open-3N.S/DO
'The king released her.' (BRM 4:5 3-4; ?; 21)

(28) ***a-šà-bé*** **ur-diĝir-*ra-ke$_4$* / kíĝ *bí-in-na***
a.šà.g=be=e ur.diĝir.ra.k=e kíĝ =Ø Ø -bi -n -ʔak -Ø
field =its=DIR Urdingir =ERG work=ABS VP-3N.OO-3SG.A-make-3N.S/DO
'Urdingir worked their field.' (TCS 1:148 13-14; U; 21)

Because the final person-prefix {n} involves a syllable-final consonant, the scribes hardly ever write it before the time of Gudea, but later the /n/ is also quite often left unwritten (§2.4). Compare the following pairs of examples, each pair illustrating a full and a defective spelling of a more or less similar expression:

(29a) **šà lú 216000-*ta* / šu-*né* *ba-ta-an*-dab$_5$-*ba-a***
šà.g lú 216000=ta šu =ane=Ø Ø -ba -ta -n -dab$_5$-Ø -ʔa =ʔa
heart man 216000=ABL hand=his =ABS VP-MM-from-3SG.A-take-3N.S/DO-NOM=LOC
'when he had taken his hand from among 216000 men' (St B 3:10-11; L; 22)

(b) **šà lú 36000-*ta* / šu-*né* *e-ma-ta*-dab$_5$-*ba-a***
šà.g lú 36000=ta šu =ane=Ø ʔi -m(u) -ba -ta -n -dab$_5$-Ø -ʔa =ʔa
heart man 36000=ABL hand=his =ABS VP-VENT-MM-from-3SG.A-take -3N.S/DO-NOM=LOC
'when he had taken his hand from among 36000 men' (Ukg. 4 8:5-6; L; 24)

(30a) **"..." *bí-in*-du$_{11}$**
Ø -bi -n -du$_{11}$.g-Ø
VP-3N.OO-3SG.A-do -3N.S/DO
'He said: "...".' (NG 80 5; L; 21)

(b) **"..." *bí*-du$_{11}$**
Ø -bi -n -du$_{11}$.g-Ø
VP-3N.OO-3SG.A-do -3N.S/DO
'He said: "...".' (En. I 29 8:7; L; 25)

(31a) **mu ku$_6$-*bé* é-gal-*šè* *nu-mu-un*-ře$_6$-*a-šè***
mu ku$_6$=be =Ø é.gal =še
name fish=this=ABS palace=TERM

nu =Ø -mu -n -ře$_6$ -Ø -ʔa =ak =še
NEG=VP-VENT-3SG.A-bring-3N.S/DO-NOM=GEN=TERM
'because he had not brought this fish to the palace' (NG 189 7; U; 21)

(b) **ĝiš tir abbar^{ki}-*ta* / ur-saĝ-*ĝe$_{26}$* / *mu*-ře$_6$-*a*-*am$_6$***
ĝiš tir abbar=ak =ta ur.saĝ=e
wood forest Abbar=GEN=ABL Ursag =ERG

Ø -mu -n -ře$_6$ -Ø -ʔa =Ø =ʔam
VP-VENT-3SG.A-bring-3N.S/DO-NOM=ABS=be:3N.S
'This is wood that Ursag brought from the forest of Abbar.' (DP 442 1:3-2:1; L; 24)

(32a) **PN / agrig-*ge* / igi-*né*-*ta* / *e*-lá**
PN agrig =e igi =ane=ta ʔi -n -lá? -Ø
PN steward=ERG eye=his =ABL VP-3SG.A-weigh-3N.S/DO
'PN, the steward weighed this (silver) personally.' (DP 516 1:2-2:2; L; 24)

(b) **ensi$_2$-*ke$_4$* *in*-lá**
ensi$_2$.k=e ʔi -n -lá? -Ø
ruler =ERG VP-3SG.A-weigh-3N.S/DO
'The governor weighed this (metal).' (SAT 2:660 5; U; 21)

(33a) **munus-*e* dumu *ì*-dú-*da*-*a***
munus =e dumu=Ø ʔi -n -dú.d -Ø -ʔa =ʔa
woman=ERG child =ABS VP-3SG.A-give.birth.to-3N.S/DO-NOM=LOC
'when Madam gave birth to a son' (TSA 45 5:3; L; 24)

(b) **nin$_9$-tur-tur-*e* dumu *in*-dú-*da*-*a***
nin$_9$.tur.tur=e dumu=Ø ʔi-n -dú.d -Ø -ʔa =ʔa
Ninturtur =ERG child =ABS VP-3SG.A-give.birth.to-3N.S/DO-NOM=LOC
'when Ninturtur gave birth to a son' (MVN 2:317 9; U; 21)

If written fully, the sequence /ʔin/ is spelled **in-** (with a CVC-spelling), as in the preceding examples. However, very rarely a scribe uses the plene spelling ***ì-in-*** for it, although that spelling is normally reserved for writing the form /ʔin/ of the local prefix {ni} (§20.2.1):

(34) **mu lugal iti nesaĝ-*šè* / áĝ-*da* *ì-in*-pà**
mu lugal=ak iti.d nesaĝ=še áĝ -ed -Ø =ak =Ø
name king =GEN month Nesaĝ=TERM measure.out-IPFV-NFIN=GEN=ABS

ʔi -n -pà.d-Ø
VP-3SG.A-call -3N.S/DO
'He took an oath by the king's name to measure out this (barley) until the month IV.' (AUCT 1:98 7-8; U; 21)

Elsewhere, this expression is attested numerous times with the normal spelling of the form /ʔin/:

(35) **mu lugal-*bé* *in*-pà**
mu lugal=ak =be=Ø ʔi -n -pà.d-Ø
name king =GEN=its=ABS VP-3SG.A-call -3N.S/DO
'He took an oath by the king's name about this.' (e.g., AUCT 3:265 6; U; 21)

The initial and final person-prefixes of the third person human both have the form /n/. They can easily be kept apart, though. The former is always followed by a dimensional prefix (§16.1), while the latter is only found immediately before the verbal stem.

The final person-prefix {n} can be confused with another prefix, though. The local prefix {ni} '(there)in' loses its vowel if it occurs immediately before the verbal stem and then also has the form /n/ (§20.2.1). For such forms, which are always intransitive, only the context and the grammatical properties of the verb can make clear which of the two prefixes {n} or {ni} is found.

13.2.4. The final person-prefix {e}

Sumerian texts from the Old Babylonian period and later provide us with overwhelming evidence that the final person-prefix of the second person singular has the basic form /e/. In earlier texts, however, the prefix is so far only attested in forms where it has been contracted with a preceding vowel. A verbal form in which it occurs as an independent segment (e.g. in an hypothetical ***e*-gu$_7$-*a*** 'which you ate') remains to be discovered. Nevertheless, in spite of some differences between the earlier and later forms (to be discussed below), the attested earlier forms can also be derived in a natural way from a basic form /e/ of the prefix.

The prefix {e} contracts with a preceding vowel, lengthening that vowel. In the texts from our corpus, the resulting length of the vowel is usually ignored by the spelling, but, in the Gudea texts and later, the scribes often express it with a plene spelling.[1] After the vowel /a/, for instance, the prefix can be reflected by an additional ***-a-***:

(36) **ĝiš *ù-ma-ta*-ĝar**
ĝiš =Ø ʔu -m(u)-ba -ta -e -ĝar -Ø
wood=ABS REL.PAST-VENT-MM-from-2SG.A-place-3N.S/DO
'after you will have taken (lit. "placed for yourself") wood out of it' (Cyl A 6:16; L; 22)

(37) ***ma-a*-du$_{11}$**
Ø -ma -e -du$_{11}$.g-Ø
VP-1SG.IO-2SG.A-do -3N.S/DO
'You spoke to me.' (Cyl A 2:13; L; 22)

(38) **kù *nu-mu-da-a*-tuku**
kù.g =Ø nu =Ø -mu -ʔ -da -e -tuku-Ø
silver=ABS NEG=VP-VENT-1SG-with-2SG.A-have -3N.S/DO
'I do not owe you money (lit. "You have no silver with me")' (NATN 571 7; N; 21)

(39) ***ù-na-a*-du$_{11}$**
ʔu -nna -e -du$_{11}$.g-Ø
REL.PAST-3SG.IO-2SG.A-do -3N.S/DO
'after you said it to him' (e.g., TCS 1:56 2; U; 21)

(40) ***ù-na*-du$_{11}$**
ʔu -nna -e -du$_{11}$.g-Ø
REL.PAST-3SG.IO-2SG.A-do -3N.S/DO
'after you said it to him' (e.g., TCS 1:191 2; U; 21)

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[1] Note that the same rules apply to the ergative (§7.3) and directive case markers (§7.6). They, too, have the basic form /e/ and show the same contractions and spellings.

After the vowel /u/, the final person-prefix of the second person is found written ***-ù-***:

(41) **ĝiskim-*ĝu$_{10}$* *ḫa-mu-ù-*zu**
ĝiskim=ĝu =Ø ḫa =Ø -mu -e -zu -Ø
sign =my=ABS MOD=VP-VENT-2SG.A-know-3N.S/DO
'so that you will know my sign' (Cyl A 12:11; L; 22)

(42) **mu-*zu* zà an-*na-šè mu-ù-*ĝar**
mu =zu =Ø zà.g an =ak =še Ø -mu -e -ĝar -Ø
name=your=ABS border heaven=GEN=TERM VP-VENT-2SG.A-place-3N.S/DO
'You established your name to the end of the world.' (Shulgi X 89; ?; 21 (OB copy))

After the vowel /i/, the final person-prefix of the second person is found written ***-ì-***:

(43) **zi-šà mu-ši-ì-ĝál**
zi.šà.g=Ø Ø -mu -ʔ -ši-e -ĝál -Ø
life =ABS VP-VENT-1SG-to-2SG.A-be.there-3N.S/DO
'You let there be life for me.' (Cyl A 3:13; L; 22)

(44) **ĝiri$_3$-*zu* ki *ì-bí-*ús**
ĝiri$_3$=zu =Ø ki =e ʔu -bi -e -ʔús -Ø
foot =your=ABS earth=DIR REL.PAST-3N.OO-2SG.A-be.next.to-3N.S/DO
'when you have directed your steps' (Cyl A 6:15; L; 22)

(45) **mu-*zu* *ù-mi-*sar**
mu =zu =Ø ʔu -m(u)-bi -e -sar -Ø
name=your=ABS REL.PAST-VENT-3N:on-2SG.A-write-3N.S/DO
'when you have written your name on it' (Cyl A 6:23; L; 22)

(46) **šu *ù-ma-ni-*tag**
šu =Ø ʔu -m(u) -ba -ni-e -tag -Ø
hand=ABS REL.PAST-VENT-3N.IO-in -2SG.A-touch-3N.S/DO
'when you have decorated it (a chariot) with it (silver etc.)' (Cyl A 6:19; L; 22)

Forms where the prefix follows the vowel /e/ are as yet unattested.

Although the basic form of the prefix was /e/ in both the earlier and later periods, there are two major differences between the forms as found in our corpus and those in most later texts. Consider the following two examples:

(47) **mu-*zu* zà an-*na-šè mu-ù-*ĝar**
mu =zu =Ø zà.g an =ak =še Ø -mu -e -ĝar -Ø
name=your=ABS border heaven=GEN=TERM VP-VENT-2SG.A-place-3N.S/DO
'You established your name to the end of the world.' (Shulgi X 89; ?; 21 (OB copy))

(48) **saĝ numun-*e-eš* *ḫé-mu-e-*ĝar** (variant: ***-me-*** for ***-mu-e-***)
saĝ =Ø numun=eš ḫé =Ø-mu -e -ĝar -Ø
head=ABS seed =ADV MOD=VP-VENT-2SG.A-place-3N.S/DO
'You truly have sown heads like seed!' (EWO 445; OB) (Variant as quoted in Benito (1969: 112))

The form ***mu-ù-*ĝar** is typical for our corpus, with a plene spelling which represents the phonemic sequence /mū/ (< *mue). The second form, ***ḫé-mu-e-*ĝar**, is typical for the later texts: the two morphemes {mu} and {e} are spelled out individually, while only rare variant

spellings such as here with ***-me-*** make it clear that the actual pronunciation was /mē/ (< *mue). Hence, the earlier and later forms differ not only in spelling but also in pronunciation. As to spelling, the earlier one is more phonemic, reflecting the actual pronunciation, while the later one is more morphophonemic, being closer to the morphological structure but more distant from the actual pronunciation.

But more importantly, the earlier form /mū/ is also pronounced differently from the later /mē/. Indeed, the contraction of /e/ with a preceding vowel systematically gives a different result in the two periods. While the preceding vowel is lengthened at the expense of the following /e/ in the texts of our corpus, in later texts exactly the opposite happens, the /e/ replacing the preceding vowel throughout. What applies to earlier /ū/ as opposed to later /ē/, is also valid for earlier /ā/ and /ī/, which likewise have /ē/ as their later counterparts. E.g.:

(49) **gú-*zu* úr-*ra* *ba*^{e}-*né*-mar-*ra*** (= manuscript A; variants: manuscript B: ***bé-né-ma-ra***; manuscript C: ***ba***^{e}***-ne-*mar-*ra***)
gú =zu =Ø úr =ʔa Ø -ba -ni-e -mar -Ø -ʔa
neck=your=ABS lap=LOC VP-MM-in-2SG.A-place-3N.S/DO-NOM
'you, who placed your neck in (your) lap' (YNER 6 p. 95 line 104; OB (manuscript C is Neo-Babylonian))

(50) **me-*ta* me ḫuš-*bé* šu *ba*^{e}-*re*-ti**
me =ta me ḫuš =be=Ø šu =e Ø -ba -ta -e -ti -Ø
being=ABL being terrible=its=ABS hand=DIR VP-3N.IO-from-2SG.A-approach-3N.S/DO
'Out of (all) qualities you received the most awesome ones.' (Inanna B 23; OB manuscript) (Zgoll 1997: 448, etc.)

Note that in both examples the /a/ of the prefix {ba} assimilates to the /ē/ of the next syllable.

How do the earlier and later forms relate to each other? A linguistic change of /ū/, /ā/, and /ī/ (and the as yet unattested */ē/) to one form /ē/ seems unlikely. It cannot possibly be a regular sound change in this particular environment. (What would have conditioned it?) And an analogical extension of the least attested form /ē/, replacing all others is not a particularly convincing hypothesis either. Hence, a different kind of explanation is called for.

What the earlier and later forms have in common is that all of them can be derived from a contraction of the prefix {e} with a preceding vowel, only the result of the contraction differs. Hence, the ancestral forms are identical in each instance. It would seem, therefore, that the dominant written form of Sumerian in our corpus is based on a spoken variety of the language which differs somewhat from the dialect on which the dominant written form of Sumerian is based which we find in the texts from later periods. Although the difference in form manifests itself as a difference across time, in actual fact it must reflects a difference between regions (§1.2.3).

In conclusion of this section, note that the final person-prefix {e} is partly or completely identical in form and spellings with two other prefixes. The first of these is the initial person-prefix {e} (§16.2.4). In practice, these two person-prefixes can never be confused, because the initial person-prefix {e} is always found before a dimensional prefix, while the final person person-prefix {e} is always immediately followed by the verbal stem. The second prefix which shows formal overlap is the local prefix {e} (§20.3.1). That prefix can also have a form /e/ immediately before the stem and is then formally indistinguishable from the final person-prefix {e}. The context, however, makes it usually quite clear which of the two prefixes is meant, especially because their meanings are quite different.

13.2.5. The final person-prefix {ʔ}

The final person-prefix of the first person is never written explicitly itself, so that only its effects on neighbouring sounds and prefixes can be observed directly. The most natural way to account for these effects is to work from an original form /ʔ/ of the prefix. Such a form has already been suggested by Poebel (1923: §447, §452).

Forms like the following two prove that the final person-prefix of the first person is not a zero-morpheme but a vowel or a consonant. The form /mu/ of the ventive prefix presupposes a further segment between it and the stem (§22.2) and so does the form /bi/ of the oblique-object prefix non-human (§18.2.2):

(51) **šà-*ga-né nu-mu*-zu**
šà.g =ane=Ø nu =Ø -mu -ʔ -zu -Ø
heart=his =ABS NEG=VP-VENT-1SG.A-know-3N.S/DO
'I do not know his intention.' (Cyl A 4:21; L; 22)

(52) ***ĝe$_{26}$-e a-na bí*-tuku**
ĝe$_{26}$=e a.na=Ø Ø -bi -ʔ -tuku-Ø
I =ERG what=ABS VP-3N.OO-1SG.A-have -3N.S/DO
'What did I let it have?' (Ukg. 14 2:4'; L; 24)

In the texts from before Gudea, the prefix {ʔ} is never written. Later, the scribes still tend to ignore it, but sometimes they spell it with a plene writing. That is to say, they spell it ***-a-*** after the vowel /a/, ***-ù-*** after /u/, and ***-ì-*** after /i/. (Early spellings after /e/ are not attested as yet.)

After the vowel /a/, the prefix is written ***-a-***, if at all:

(53) ***in-na*-du$_{11}$**
ʔi -nna -ʔ -du$_{11}$.g-Ø
VP-3SG.IO-1SG.A-say -3N.S/DO
'I said to him.' (FAOS 19 Ad 8 5; A; 23)

(54) **šu zi *ma-ra-a*-ĝar**
šu zi.d =Ø Ø -mu -ra -ʔ -ĝar -Ø
hand right=ABS VP-VENT-2SG.IO-1SG.A-place-3N.S/DO
'I set hand to it faithfully for you.' (Cyl B 2:20; L; 22)

(55) **é-*zu mu-ra*-řú**
é =zu =Ø Ø -mu -ra -ʔ -řú -Ø
house=your=ABS VP-VENT-2SG.IO-1SG.A-erect-3N.S/DO
'I built your temple for you.' (Cyl B 2:21; L; 22)

(56) ***in-na-a*-du$_{11}$-*ga***
ʔi -nna -ʔ -du$_{11}$.g-Ø -ʔa
VP-3SG.IO-1SG.A-say -3N.S/DO-NOM
'which I ordered him' (TCS 1:153 6; L; 21)

(57) **geme$_2$-*ĝu$_{10}$ nu-ra*-šúm**
geme$_2$ =ĝu=Ø nu =Ø -ra -ʔ -šúm-Ø
slave.woman=my=ABS NEG=VP-2SG.IO-1SG.A-give-3N.S/DO
'I did not give you my slave woman.' (NG 195 6; L; 21)

After the vowel /u/, the prefix is written ***-ù-***, if at all:

(58) **˹ki-duru$_5$ *nu*˺-tuku**
ki.duru$_5$=Ø nu =ʔi -ʔ -tuku-Ø
wet.land=ABS NEG=VP-1SG.A-have-3N.S/DO
'I do not have wet (i.e. irrigated) land.' (PPAC 1 rev 2'; A; 23)

(59) ***nu-mu-ù*-gi$_4$-*éš* *nu-mu-ù*-daĝal-*e-ša-a***
nu =Ø -mu -ʔ -gi$_4$ -eš nu =Ø -mu -ʔ -daĝal -eš -ʔa
NEG=VP-VENT-1SG.A-turn-3PL NEG=VP-VENT-1SG.A-be.wide-3PL-NOM
'those, whom I did not turn back and I did not disperse' (Shulgi D 217; ?; OB copy of Ur III royal hymn)

After the vowel /i/, the prefix is written ***-ì-***, if at all:

(60) **u$_4$ du$_{11}$-*ga-ba* *ì*-řú**
u$_4$.d du$_{11}$.g-Ø -ʔa =be=ʔa ʔi -ʔ -řú -Ø
day say -NFIN-NOM=its=LOC VP-1SG.A-erect-3N.S/DO
'I built it on the day that was ordered for it.' (FAOS 9/1 Gudea 81 2:9; L; 22)

(61) **ĝiri$_3$-*ĝu$_{10}$* ki *ì-bí*-ús**
ĝiri$_3$=ĝu$_{10}$=Ø ki =e ʔu -bi -ʔ -ʔús -Ø
foot =my =ABS earth=DIR REL.PAST-3N.OO-1SG.A-be.next.to-3N.S/DO
'when I have directed my steps' (Cyl A 11:21; L; 22)

(62) **ḫur-saĝ-*e* *ì-bí-ì*-sù**
ḫur.saĝ =e ʔu -bi -ʔ -sù -Ø
mountain=DIR REL.PAST-3N.OO-1SG.A-sprinkle-3N.S/DO
'after I have spilled it against the mountain' (Shulgi D 193; ?; 21, OB copy)

(63) **šà kù-*ĝu$_{10}$* *bí-ì*-pà**
šà.g kù.g=ĝu=e Ø -bi -ʔ -pà.d-Ø
heart pure=my=DIR VP-3N.OO-1SG.A-find -3SG.S/DO
'I have chosen him in my pure heart (lit. "I let my pure heart find him").' (TMHC NF 4:11 81 (Shulgi F); 21, OB copy)

Thus, if written at all, the final person-prefix of the first person is written in exactly the same way as the final person-prefix {e} of the second person (§13.2.4) and as the form /e/ of the local prefix {e} (§20.3.1). All three can be represented in our corpus by a plene writing, that is, a lengthened vowel, before the stem.

Yet, the first person prefix certainly has not the form /e/ which the other two prefixes have. That much is clear from later sources, which clearly distinguish between the prefixes for the first and second persons. Take, for instance, the Old Babylonian grammatical text OBGT IX (MSL 4 p. 108), which has an instructive entry in this regard: (105) **sá *an*-du$_{11}$** = *ka-ši-id* ('he has arrived') / (106) **sá *a*-du$_{11}$** ('I have arrived') / (107) **sá *e*-du$_{11}$** ('you have arrived'). These three verbal forms contain the prefix {ʔa} followed by the final person-prefix of the third (105), first (106), and second (107) person singular. The difference between the last two forms is obvious.

In summary, the final person-prefix of the first person is a vowel or a consonant which is itself never written explicitly, which lengthens a preceding vowel, but which does not change this vowel in any other way. The sound which fits these facts best is the glottal stop (/ʔ/) (§3.2.4). In Akkadian, the language with which Sumerian shares many properties due to intensive linguistic contact, a syllable-final glottal stop contracted with a preceding vowel,

lengthening that vowel (von Soden 1995: §24e, §97c, §97d). That change took place at some point during the third millennium. It seems likely that the same change occurred in Sumerian at roughly the same time.

The available evidence, therefore, suggests that the final person-prefix of the first person originally was a glottal stop but later contracted with a preceding vowel, lengthening that vowel. That change had taken place by the time of Gudea at the latest.

13.3. Strategies for expressing plurality

13.3.1. Major strategies

The final person-prefixes do not have separate singular and plural forms. For the non-human class, this is to be expected, because it never makes a distinction between singular and plural forms (§6.2). For the human class, however, the stated absence of distinctive plural forms is only partly correct. In fact, there are two basic strategies to indicate a plural where needed. Either of them is attested for the entire period covered by the corpus. They are the topic of this section. In addition, there is a more restricted strategy, which will be discussed in the following section.

One major strategy only applies to the third person and involves the use of the final person-prefix non-human {b} for referring to a plural number of persons (Waetzoldt 1992). Compare, for instance, the following two clauses:

(64a) **ur-nigin$_3$-ĝar-<*ke$_4$*> / šu *ba-an*-ti**
ur.nigin$_3$.ĝar.k=e šu =e Ø -ba -n -ti -Ø
Urnigingar =ERG hand=DIR VP-3N.IO-3SG.A-approach-3N.S/DO
'Urnigingar received this (lit. "let it approach (his) hand").' (MVN 18:126 6-7; D; 21)

(b) ***be-lí-a-rí-ik* / *ù* ur-nigin$_3$-ĝar-<*ke$_4$*> / šu *ba-ab*-ti**
be.lí.a.rí.ik ù ur.nigin$_3$.ĝar.k=e šu =e Ø -ba -b -ti -Ø
Beliarik and Urnigingar =ERG hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO
'Beli-arik and Urnigingar received this.' (BIN 3:611 8-10; D; 21)

Section 13.2.2. above includes several more examples of this usage of non-human {b}.

The second major strategy to indicate a plural is to attach a plural person-suffix to a verbal form, in addition to a final person-prefix. E.g.:

(65) ***be-lí-a-rí-ik* / *ù* ur-nigin$_3$-ĝar-*ke$_4$* šu *ba-an*-ti-*éš***
be.lí.a.rí.ik ù ur.nigin$_3$.ĝar.k=e šu =e Ø -ba -n -ti -eš
Beliarik and Urnigingar =ERG hand=DIR VP-3N.IO-3SG.A-approach-3PL
'Beli-arik and Urnigingar received this.' (PIOL 19:278 8-10; D; 21)

This strategy can also be used for indicating a plural of the first and second person. For more examples see §14.8.

Note that both strategies involve the usages of affixes which have other, more primary uses.

13.3.2. The final person-prefix {nnē}

The previous section treated the two major strategies for expressing a plural number of persons. There is also a third strategy, which is attested only a few times. Some imperfective forms show a prefix {nnē}, written ***-ne-*** and expressing a direct object of the third person

plural human (Wilcke 1996: 58). This {nnē} differs from the other final person-prefixes in that it is never used for expressing a transitive subject or an oblique object. Thus, the direct object is here handled differently from the other two syntactic functions.

There seem to be six certain attestations. One of them proves that in these cases {nnē} cannot be the initial person-prefix {nnē} (§16.2.3), because that prefix cannot occur after an indirect-object prefix:

(66) ***ḫa-mu-ra-ne*-šúm-*mu***
ḫa =Ø -mu -ra -nnē -šúm-e
MOD=VP-VENT-2SG.IO-3PL.DO-give-3SG.A:IPFV
'He must give them to you!' (ITT 1:1100 16; L; 23)

Because of the closeness of {nnē} in form, spelling, and meaning with the initial person-prefix {nnē} (§16.2.3), I consider its basic form also to be /nnē/, although the double /nn/ is not (yet) unambiguously attested. But that the basic form is not merely /nē/ is also suggested by forms like the following, because the ventive prefix {mu} generally loses its vowel in the environment /muCV/ (§22.2):

(67) ***ḫa-mu-ne*-la[ḫ$_5$-*ḫe*]**
ḫa =Ø-mu -nnē -laḫ$_5$ -e
MOD=VP-VENT-3PL.DO-bring:PLUR-3SG.A:IPFV
'He must bring them to you!' (ITT 5:9303 8; L; 23)

(68) **šu *ḫa-mu-ne*-ús-*e***
šu =e ḫa =Ø-mu -nnē -ʔús -e
hand=DIR MOD=VP-VENT-3PL.DO-be.next.to-3SG.A:IPFV
'He must send them hither!' (BIN 8:153 9; I; 23)

A further attestation is the following one:

(69) **[l]ú *a-ga-dè*^{ki} / *na-ne*-gaz-*e***
lú a.ga.dè=ak =Ø na -nnē -gaz-e
man Akkad =GEN=ABS NEG.MOD-3PL.DO-kill -3SG.A:IPFV
'He must not kill (the) Akkadians!' (FAOS 19 p. 135 Um 5 6-7; U; 23)

Most examples are found in letters from the Old Akkadian period, but there is one earlier attestation:

(70) **dumu-*ĝu$_{10}$* / *nam-ba-ne*-laḫ$_4$**
dumu=ĝu=Ø nan -ba -nnē -laḫ$_4$ -en
child =my=ABS NEG.MOD-MM-3PL.DO-bring:PLUR-2SG.A:IPFV
'Do not take my children away!' (RA 73 p.14 9:14; I; 24)

There is a complete lack of attestations from after the Old Akkadian period, though. This is due to a change in the language. Unmistakably, the Ur III texts use the prefix {b} where the earlier texts show {nnē}. Compare the following two pairs of forms:

(71a) **PN$_1$ / *ù* PN$_2$ / *ḫa-mu-ne*-gi$_4$-gi$_4$**
PN$_1$ ù PN$_2$=Ø ḫa =Ø-mu -nnē -gi$_4$:RDP-e
PN$_1$ and PN$_2$=ABS MOD=VP-VENT-3PL.DO-turn:IPFV-3SG.A:IPFV
'Let him send PN$_1$ and PN$_2$ here!' (FAOS 19 Ad 1 7-9; A; 23)

(b) **PN$_1$ / PN$_2$ / *ù* 20 ĝuruš *nu*-^{ĝiš}kiri$_6$ / *ḫé-em-da-ab*-gi$_4$-gi$_4$**

PN_1 PN_2 ù 20 ĝuruš nu.kiri$_6$ =Ø ḫa =Ø -mu -nnē -gi$_4$:RDP-e
PN_1 PN_2 and 20 man gardener=ABS MOD=VP-VENT-3PL.DO-turn:IPFV-3SG.A:IPFV
'Let him send PN_1, PN_2, and twenty gardeners here with it!' (TCS 1:56 5-8; U; 21)

(72a) ***ḫa-mu-ra-ne*-šúm-*mu***
ḫa =Ø -mu -ra -nnē -šúm-e
MOD=VP-VENT-2SG.IO-3PL.DO-give-3SG.A:IPFV
'He must give them to you!' (ITT 1:1100 16; L; 23)

(b) ***ḫa-mu-ra-ab*-šúm-*mu***
ḫa =Ø -mu -ra -b -šúm-e
MOD=VP-VENT-2SG.IO-3N..DO-give-3SG.A:IPFV
'He must give them to you!' (BCT 2:159 13; ?; 21)

Such a form with the prefix {b} instead of {nnē} is perhaps even attested as early as the Old Akkadian period:

(73) ***ḫa-mu-na*-šúm-*mu***
ḫa =Ø -mu -nna -b -šúm-e
MOD=VP-VENT-3SG.IO-3N..DO-give-3SG.A:IPFV
'He must give them to him!' (ITT 1:1058 9; L; 23)

But this form can also be interpreted as lacking any final person-prefix, because the use of the prefix {b} for expressing a direct object is only optional (§15.2.4). In any case, the use of the final person-prefix {nnē} is clearly limited in time to the Old Akkadian period and before.

14. THE PERSON SUFFIXES

14.1. Introduction

All finite verbal forms contain a person suffix, with the exception of singular imperative forms (§25.3) and singular forms with the modal prefix {ga} (§25.6). It is true that a finite form may contain up to three person affixes – an initial person prefix, a final person prefix, and a person suffix – but a person suffix is the only one that is basically always present. The final person prefixes were the topic of chapter 13, while chapter 16 will treat the initial person prefixes. The present chapter will discuss the forms, spellings, and uses of the person suffixes.

The following table gives the basic forms of the person suffixes:

	Person suffix		***Treated in section:***
First person singular human	en		§14.2
Second person singular human	en		§14.3
Third person singular human, Third person non-human	Ø	e	§14.4, §14.5
First person plural human	enden		§14.6
Second person plural human	enzen		§14.7
Third person plural human	eš	enē	§14.8, §14.9

All non-zero person suffixes have an initial /e/, which may undergo certain changes depending on its environment. First, the /e/ contracts with a preceding vowel. Secondly, the /e/ may assimilate to a stem vowel /u/ or /i/. Finally, the /e/ may be reduced in forms with the nominalizing suffix {ʔa}. As these changes equally apply to all person suffixes with an initial /e/, they are documented only once in §14.10 below. The nature of these changes (§14.10) and certain spellings with ***né*** instead of ***ne*** (§14.5, §14.8, and §14.9) suggest that this /e/ is a short vowel.

In the relative order of verbal suffixes, the person suffixes follow the suffix {ed} and precede the nominalizing suffix {ʔa}:

(1) ***ì-zàḫ-dè-na***
ʔi -zàḫ -ed -en -ʔa =ʔa
VP-run.away-IPFV-1SG.A/S:IPFV-NOM=LOC
'when I will run away' (NRVN 1:1 7; N; 21)

The person suffixes express the subject or the direct object, depending on whether the form is transitive or intransitive, or on whether it belongs to the perfective or the imperfective inflection. In intransitive verbal forms, they always refer to the subject. In transitive forms of the perfective inflection, a person suffix expresses the direct object. In transitive forms of the imperfective inflection, it expresses the subject. The alternative forms for the third person differ in function. The suffixes {e} and {enē} express the subject in transitive forms of the imperfective inflection, the suffixes {Ø} and {eš} are only found in forms of the perfective inflection and in intransitive forms of the imperfective inflection. These uses are discussed more fully in the following sections for each individual suffix and in §15.2 as part of the perfective and imperfective inflections.

The person suffixes belong to the oldest parts of the verbal paradigm. With the exception of the two suffixes {e} (§14.5) and {enē} (§14.9), they do not have any cognates elsewhere in the language. Taking {e} and {enē} as relative newcomers and thinking them away from the table above, we are left with an old series of person markers. Which original function is to be reconstructed for this old series is the subject of some debate (Coghill and Deutscher 2002; Schulze and Sallaberger 2007).

14.2. The first person singular suffix {en}

The person suffix for the first person singular is {en}. It has the same form as the person suffix for the second person singular (see the next section) and the very rare plural suffix {en} (§12.5). It has three possible uses. In the perfective inflection it expresses either the intransitive subject or the direct object. E.g.:

(2) **é kišib-*ba-ka-na* a-tu-*da nu-me-a nu-un*-ku$_4$-*re-en$_6$***
é kišib=ak =ane=ʔa a.tu=da nu =ʔi -me-Ø -ʔa =ʔa
house seal =GEN=his =LOC Atu=COM NEG=VP-be -3N.S-NOM=LOC

nu =ʔi -n(i)-ku$_4$.r-en
NEG=VP-in -enter-1SG.S/DO
'I did not enter his storeroom without Atu's permission (lit. "when it was not with Atu").' (MVN 11:168 9; U; 21)

(3) **urdu$_2$ ur-^{d}kuš$_7$-^{d}*ba-ú-ka nu-ù-me-èn***
urdu$_2$.d ur.kuš$_7$.ba.ú.k=ak =Ø nu =ʔi -me-en
slave Ur.Kush.Bau =GEN=ABS NEG=VP-be -1SG.S
'I am not Ur-Kush-Bau's slave.' (NG 32 3; L; 21)

(4) ***ab-ba-ĝu$_{10}$* [*la-ba-r*]*a*-sa$_{10}$-*an***
ab.ba =ĝu=e nu =Ø -ba -ta -n -sa$_{10}$ -en
Father=my=ERG NEG=VP-MM-from-3SG.A-barter-1SG.S/DO
'My father did not sell me.' (NG 37 3; L; 21)

In the imperfective inflection, the first person singular suffix {en} expresses either the transitive subject or the intransitive subject. E.g.:

(5) ***ù ĝe$_{26}$-e* šà-*ga-né ab*-ḫúl-*le-en$_6$***
ù ĝe$_{26}$=e šà.g =ane=Ø ʔa -b -ḫúl -en
and I =ERG heart=his=ABS VP-3N.DO-be.happy-1SG.A/S:IPFV
'And I will make his heart happy.' (JCS 10 p.27:3 22; A; 23)

(6) **di *ba-ra-a-da-ab-bé-en$_6$***
di.d =Ø bara -e -da -b -ʔe -en
judgement=ABS CAT.NEG-2SG-with-3N.OO-say:IPFV-1SG.A/S:IPFV
'I shall not go to court with you!' (NG 20 8; L; 21)

(7) **u$_4$ *ba*-zàḫ-*dè-na-ĝá***
u$_4$.d Ø -ba -zàḫ -ed -en -ʔa =ĝu =ʔa
day VP-MM-run.away-IPFV-1SG.A/S:IPFV-NOM=my=LOC
'on the (lit. "my") day that I will run away' (BE 3/1:1 5; N; 21)

When the need arises, there are several strategies to disambiguate a person suffix {en}, which may stand for the first as well as the second person singular. One strategy is to add an indepent personal pronoun, as in example (5); another is to add an enclitic possessive pronoun, as in example (7). The latter strategy is restricted to forms with the nominalizing suffix {ʔa} and hence to subordinate clauses. Further examples similarly disambiguated but also a few clearly ambiguous forms are quoted below in §14.3.

The full form of the suffix is /en/, but the spelling usually ignores the final /n/ whenever this /n/ is in syllable-final position.

(8) **ki-sur-*ra* / ^{d}nin-*ĝír-sú-ka-ke$_4$* / *ba-ra-mu*-bala-*e***
ki.sur.ra nin.ĝír.su.k=ak =e bara -mu -n(i)-balaʔ-en
border Ningirsu =GEN=DIR CAT.NEG-VENT-in -cross -1SG.A/S:IPFV
'I shall not cross Ningirsu's border!' (Ean. 1 obv 20:17-19; L; 25)

(9) **é-*zu ma-ra-*řú-*e***
é =zu =Ø Ø -mu -ra -řú -en
house=your=ABS VP-VENT-2SG.IO-erect-1SG.A/S:IPFV
'I will build your temple for you.' (Cyl A 8:18; L; 22)

(10) **unu$_6$-*a ni*-dú-*e***
unu$_6$=ʔa Ø-ni-e -dú.d -en
? =LOC VP-in-2SG.A-give.birth.to-1SG.S/DO
'You gave birth to me in the ...' (Cyl A 3:8; L; 22)

This absence of the /n/ in syllable-final position is only a matter of the orthography. Sound signs such as ***èn*** and ***en$_6$*** come only into use at the end of the third millennium. Earlier, the sound sequence /en/ could not be written (§2.4). As a consequence, only the texts from the Ur III period and later show regularly the full spellings including the /n/.

14.3. The second person singular suffix {en}

The person suffix for the second person singular is {en}. It has the same form as the person suffix for the first person singular (see the previous section) and the very rare plural suffix {en} (§12.5). It has three possible uses. In the perfective inflection it expresses either the intransitive subject or the direct object. E.g.:

(11) ***zé* inim kù-*ba mu-da-an*-gub-*èn***
zé =Ø inim kù.g=be =ʔa Ø -mu -ʔ -da -n(i)-gub -en
you=ABS word pure=this=LOC VP-VENT-1SG-with-in -stand-2SG.S/DO
'You stand with me in this holy matter.' (Shulgi P Section b 2; ?; 21, OB copy)

(12) **nin-*ĝu$_{10}$ íb-gu-ul-en ì*-maḫ-*en***
nin =ĝu ʔi -b -gu.l -en ʔi -maḫ -en
lady=my VP-3N.A-be.big-2SG.S/DO VP-be.great-2SG.S/DO
'My lady, this has made you great. You are exalted.' (Inanna B 134; ?; OB copy)

In the imperfective inflection, the second person singular suffix {en} expresses either the transitive subject or the intransitive subject. E.g.:

(13) ***nu-mi-gú-ru-na-za***
nu =ʔi -m(u)-bi -b -gur -en -ʔa =zu =ak
NEG=VP-VENT-3N:on-3N.DO-go.back-2SG.A/S:IPFV-NOM=your=GEN

'of (the fact) that you would not come back upon it' (TCS 1:209 12; ?; 21)

(14) **u_4 temen-*ĝu$_{10}$* *ma*-si-*gi$_4$-na***
u_4.d temen =ĝu =Ø Ø -ma -si.g -en -ʔa =ʔa
day foundation=my=ABS VP-1SG.IO-put.in-2SG.A/S:IPFV-NOM=LOC
'when you drive in my foundation pegs for me' (Cyl A 11:18; L; 22)

(15) ***nam-ba*-kúš-*u-dè-èn***
nan -ba -kúš.ù -ed -en
NEG.MOD-MM-be.weary-IPFV-2SG.A/S:IPFV
'May you never grow weary!' (Shulgi D 393; ?; 21, OB copy)

The full form of the suffix is /en/, but the spelling usually ignores the final /n/ whenever this /n/ is in syllable-final position:

(16) ***ù-mu-na-da*-ku$_4$-*re***
ʔu -mu -nna -da -n(i)-ku$_4$.r-en
REL.PAST-VENT-3SG.IO-with-in -enter-2SG.S/DO
'after you have entered it with this for him' (Cyl A 7:2; L; 22)

As the person suffixes for the first and second persons singular have the same forms, many verbal forms are ambiguous (see §14.2). Among them are a few personal names that show interesting spelling variants and for that reason are worth mentioning here:

(17) ***ba-an*-zi-*gen$_7$***
Ø -ba -n -zi.g-en
VP-MM-3SG.A-rise-1/2SG.S/DO
'He/She let me/you rise.' (TCTI 1:L.950 3:19; L; 21)

(18) **ki *ba*-zi-*ge-na-ta***
ki Ø -ba -n -zi.g-en =ak =ta
place VP-MM-3SG.A-rise -1/2SG.S/DO=GEN=ABL
'from (the place of) Banzigen ("He/She let me/you rise.")' (Iraq 22 pl.19 MLC 42 2; D; 21)

The same name can also be written ***ba*-zi-*ge-en$_6$*** (DTBM 51 rev. 2; D; 21) but usually appears as ***ba*-zi-*ge*** (e.g., SAT 1:25 7 + seal; L; 21).

(19) **ki *mu*-sa$_6$-*ge-na-ta***
ki Ø -mu -n -sa$_6$.g -en =ak =ta
place VP-VENT-3SG.A-be.beautiful-1/2SG.S/DO=GEN=ABL
'From (the place of) Munsagen ("He/She made me/you beautiful")' (SAT 3:2066 2; U; 21)

Without the genitive case marker, this name is consistently written ***mu*-sa$_6$-*ge*** (6x, e.g., TENS 198 3 + seal; U; 21), without the final /n/.

(20) **ka-*ge-la-ba-an*-šúm-*en$_8$***
ka.g =e nu =Ø -ba -n -šúm-en
mouth=DIR NEG=VP-3N.IO-3SG.A-give-1/2SG.S/DO
'He/She did not give me/you to the mouth (i.e. a demon).' (SAT 3:1605 2-3; U; 21)

This verbal form is written elsewhere ***la-ba-an*-šúm-*en*$_6$** (MVN 4:113 rev. 5; D; 21), ***la-ba-an*-šúm-*e-en*$_6$** (DTCR 209 rev 11; U; 21), and ***la-ba-an*-šúm-*e*** (PDT 1:507 13, 17; D; 21). The last, defective, spelling is actually the most frequent one.

14.4. The third person singular or non-human suffix {Ø}

In contrast with the initial and final person prefixes, the person suffixes do not have separate forms for the third person singular human and the third person non-human. The two share the same forms, {Ø} and {e} (§14.5), which differ in the syntactic functions they express.

The person suffix {Ø} is a zero-morpheme. That is to say, the absence of any of the other person suffixes has a specific meaning. It has two possible uses. In the perfective inflection it expresses either the intransitive subject or the direct object. E.g.:

(21) **PN / túg-*šè im-ši*-ĝen-*na***
PN túg =še ʔi -m(u)-ši-ĝen-Ø -ʔa
PN cloth=TERM VP-VENT-to-go -3SG.S/DO-NOM
'PN, who came for cloth' (MVN 16:857 obv. 2-3; U; 21)

(22) **máš-*a-né ì*-sa$_6$**
máš=ane=Ø ʔi -sa$_6$.g -Ø
kid =his=ABS VP-be.good-3N.S/DO
'His omen (lit. "kid" as used in extispicy) was favourable.' (Cyl A 12:17; L; 22)

(23) **en ^{d}inanna unug^{ki} máš-*e íb*-pà**
en inanna.k unug=ak =Ø máš=e ʔi -b -pà.d-Ø
highpriest Inanna Uruk =GEN=ABS kid =ERG VP-3N.A-find -3SG.S/DO
'A kid found the highpriest of Inanna of Uruk.' (YOS 4:9 11; N; 21)

(24) **ensi$_2$-*ke$_4$* iri *mu*-kù**
ensi$_2$.k=e iri =Ø Ø -mu -n -kù.g -Ø
ruler =ERG city=ABS VP-VENT-3SG.A-be.pure-3N.S/DO
'The ruler purified the city.' (Cyl A 13:12; L; 22)

In the imperfective inflection, the person suffix {Ø} expresses the intransitive subject. E.g.:

(25) **u$_4$ geme$_2$-^{d}lama$_3$ *ba*-ug$_7$-*e-da-a***
u$_4$.d geme$_2$.lama$_3$=Ø Ø -ba -ug$_7$ -ed -Ø -ʔa =ʔa
day Geme.Lama =ABS VP-MM-die:IPFV-IPFV-3SG.S:IPFV-NOM=LOC
'when Geme-Lama dies' (NG 7 15; L; 21)

(26) ***nam*-erim$_2$-*bé ba*-ku$_5$-*da***
nam.erim$_2$=be=Ø Ø -ba -ku$_5$.r-ed -Ø -ʔa =ʔa
oath =its=ABS VP-MM-cut -IPFV-3N.S:IPFV-NOM=LOC
'when an oath about this will be taken' (NG 195 29'; L; 21)

As the third person singular human suffix, {Ø} corresponds to the third person plural human suffix {eš} (§14.8). Because the non-human gender lacks number distinctions (§6.2), {Ø} expresses singular and plural alike, when used as the third person non-human suffix.

14.5. The third person singular or non-human suffix {e}

Like the person suffix {Ø} treated in the previous section, the third person suffix {e} can be used with either human or non-human reference. With human reference, it is restricted to the singular and has the suffix {enē} (§14.9) as its plural counterpart. With non-human reference, it is neutral as to number (§6.2).

The person suffix {e} is only found in transitive forms of the imperfective inflection. Its basic form is /e/ and it always expresses the transitive subject:

(27) ***a-na-aš-àm* / ur-^{d}lama$_3$-*ke$_4$* / ú gu$_7$-*dè* / *nu-ub-še-ge***
a.na =š(e) =ʔam ur.lama$_3$.k=e ú =Ø gu$_7$-ed -Ø =e
what=TERM=be:3N.S Urlama =ERG grass=ABS eat -IPFV-NFIN=DIR

nu =ʔi -b -še.g -e
NEG=VP-3N.DO-allow-3SG.A:IPFV
'Why does Ur-Lama not allow them (= oxen) to graze?' (TCS 1:121 6-9; L; 21)

(28) **ensi$_2$-*da* lagas^{ki}-*e* *ḫé*-ĝál-*la* / šu *mu-da*-peš-*e***
ensi$_2$.k=da lagas =e ḫé.ĝál =ʔa šu =Ø
ruler =COM Lagash=ERG abundance=LOC hand=ABS

Ø -mu -n -da -n(i)-peš -e
VP-VENT-3SG-with-in -be.thick-3N.A:IPFV
'With the ruler, Lagash thrives in abundance.' (Cyl B 19:14-15; L; 22)

(29) **iri-*né* ki lagas^{ki}-*e* SIG.NI-*a* / u$_4$ *mu-dì-ni-íb*-zal-*e***
iri =ane ki lagas =e SIG.NI=ʔa u$_4$.d=Ø
town=his land Lagash=ERG ? =LOC day =ABS

Ø -mu -n -da -ni-b -zal -e
VP-VENT-3SG-with-in-3N.DO-pass-3N.A:IPFV
'His city and the land Lagash were passing the day with him in …' (Cyl A 19:1-2; L; 22)

Combined with a preceding /n/, the person suffix {e} is written ***-né***, not ***-ne***:

(30) **ensi$_2$-*ke$_4$* *íb-ge-né***
ensi$_2$.k=e ʔi -b -ge.n -e
ruler =ERG VP-3N.DO-be.firm-3SG.A:IPFV
'The governor will make it firm.' (MVN 9:5 7-8; U; 21)

This spelling with ***-né*** points to a short vowel (§2.5). Hence, the actual basic form of the suffix is in all likelihood /ĕ/.

The imperfective suffix {ed} (§15.3.2 and §28.4.2) is often written exactly the same as the person suffix {e}, because the scribes only record its final /d/ when it is followed by a vowel. Since {e} is only found in transitive forms and {ed} is largely restricted to intransitive forms, the two suffixes can usually be kept apart without too much trouble. E.g.:

(31) **barag-*nam*-tar-*ra* / dam lugal-an-*da* / ensi$_2$ / lagas^{ki}-*ka-ke$_4$* / ezem kisal-*ka* / ĝiš *e*-tag-*ge***
barag.nam.tar.ra dam lugal.an.da ensi$_2$.k lagas =ak =ak =e
Baragnamtarra wife Lugalanda ruler Lagash=GEN=GEN=ERG

ezem kisal =ak =ʔa ĝiš =Ø ʔi -b -tag -e
festival courtyard=GEN=LOC wood=ABS VP-3N.OO-touch-3SG.A:IPFV
'Baragnamtarra, the wife of Lugalanda, the ruler of Lagash, will sacrifice it during the Festival of the Courtyard.' (DP 67 6:4-5:2; L; 24)

(32) ***ka* é-ĝidri-*ka-ta* / ĝiš *e*-tag-*ge***
ká é.ĝidri.k=ak =ta ĝiš =Ø ʔi -b -tag -ed -Ø
gate Egidri =GEN=ABL wood=ABS VP-3N.OO-touch-IPFV-3N.S:IPFV
'This will be sacrificed out of the gate of the Egidri.' (Nik 1:23 2:10-11; L; 24)

As stated above, {e} is the singular of the person suffix {enē} (§14.9). The latter is cognate with the plural marker {enē} and may go back to an obsolete demonstrative (§14.9). Perhaps the person suffix {e} is in the same way cognate with the old demonstrative {ʔe} (§8.4.2).

14.6. The first person plural suffix {enden}

Our corpus lacks indisputable attestations of the person suffix {enden} for the first person plural human, but form and functions are clear from later sources. There, it has the basic form /enden/. In the perfective inflection, it can express the intransitive subject:

(33) **tukum-*bé im-ši*-re$_7$-*en-dè-en***
tukum.be ʔi -m(u) -ši-re$_7$ -enden
if VP-VENT-to-go:PLUR-1PL.S/DO
'if we go for him' (GH A 116; OB)

Similarly as the plural person-suffix {eš} (§14.8), it can presumably also express the direct object or indicate the plural of a first person transitive subject, but I am unable to provide clear attestations (but compare example 36 below).

In the imperfective inflection, the suffix {enden} expresses either the intransitive subject or the transitive subject:

(34) **šà-*bé-a* níĝ šà-ĝar-*ra-ka i-im*-til-*le-dè-en-dè-en***
šà.g =be=ʔa níĝ šà.ĝar =ak =ʔa ʔi -m(u)-til -ed -enden
heart=its=LOC thing famine=GEN=LOC VP-VENT-end-IPFV-1PL.A/S:IPFV
'Inside it, we will come to an end by famine.' (LSU 400; OB)

(35) **[i]gi *ḫu-mu-ni-ib*-du$_8$-*ru-dè-en-dè-en***
igi =Ø ḫa =Ø -mu -nni -b -du$_8$.r -ed -enden
eye=ABS MOD=VP-VENT-3SG.OO-3N.DO-spread-IPFV-1PL.A/S:IPFV
'Let us look at him!' (GH A 115 = ZA 81 p. 205 manuscript NiLL; OB)

Uncertain or not, our corpus contains two possible attestations of {enden}. The first occurs in a partially preserved court decision, which quotes the direct speech of two individuals:

(36) ***a-šà* sa$_6$-*ga bí*-gub-*dè***
a.šà.g sa$_6$.g -Ø -ʔa =ʔa Ø -bi -n -gub -enden
field be.beautiful-NFIN-NOM=LOC VP-3N:on-3SG.A-stand-1PL.S/DO
'He let us serve on the best field.' (Studies Greenfield p. 618:7 5; L; 21)

I fail to understand the context, though, and am therefore quite uncertain of my reading and translation of this particular clause.

The second possible attestation is found in a broken section of a letter:

(37) ***ḫu-ba / ù ĝe$_{26}$-e* / ka [íd sa]l$_4$-*la-a-<ka>* / [...] / *ga*-g[íd-*dè*]-*dè-e*[*n*]**
ḫu.ba ù ĝe$_{26}$=e ka.g íd sal$_4$.la=ak =ʔa ... ga -gíd -enden
Huba and I =ERG mouth river Salla =GEN=LOC ... MOD.1SG.A/S-pull-1PL.A/S
'Let Huba and I draw [...] in the mouth of (?) the Salla Canal.' (TCS 1:185 3-7; L; 21)

Here the verbal form could also read ***ga*-g[íd]-*dè-e*[*n*]** and contain the very rare plural suffix {en} (§12.5).

14.7. The second person plural suffix {enzen}

Our corpus contains only two forms with the person suffix for the second person plural human, which is too limited a base to build a description on. Later sources, however, show that its basic form is /enzen/. In the perfective inflection, the suffix {enzen} has three possible uses. It expresses the intransitive subject, the direct object, or the plural of a second person transitive subject:

(38) **diĝir *ḫé-me-en-zé-en***
diĝir=Ø ḫa =ʔi -me-enzen
god =ABS MOD=VP-be-2PL.S/DO
'should you be gods' (Inanna's Descent 242; OB)

(39) **izi-*gen$_7$ mu*-lá-*en-zé-en***
izi =gen Ø -mu -ʔ -lá -enzen
fire=EQU VP-VENT-1SG.A-light-2PL.S/DO
'I lighted you people like a fire.' (Lugal-e 562; OB)

(40) **me-*ĝá* ĝiš *bí*-šub-*bu-za-na-g*[*en$_7$*]**
me =ĝu =ʔa ĝiš =Ø Ø -bi -e -šub-enzen-ʔa =gen
being=my=LOC wood=ABS VP-3N:on-2SG.A-fall -2PL -NOM=EQU
'as you people cast lots on my powers' (Lugal-e 483 ms F_2; OB)

In the imperfective inflection, the suffix {enzen} expresses either the intransitive subject or the transitive subject:

(41) ***nam-ba-e*-šub-*dè-en-zé-en***
nan -ba -e -šub-ed -enzen
NEG.MOD-MM-on-fall -IPFV-2PL.A/S:IPFV
'You people should not be negligent!' (OECT 5:29 25; OB)

(42) **ninda ki-sì-*ga na-an*-gu$_7$-*un-zé-en***
ninda ki.sì.ga =ak =Ø nan -gu$_7$-enzen
bread funerary.offering=GEN=ABS NEG.MOD-eat -2PL.A/S:IPFV
'You people should not eat the bread of funerary offerings!' (Proverb Collection 5.119; OB)

A special shorter form /zen/ of the person suffix {enzen} is found in imperative forms with a plural subject, where it occurs after the series of suffixed prefixes (§25.3). The corpus contains only one such form, in the name of a festival:

(43) **siskur$_2$ u$_4$ zi-*ga-ze-na-a***
u$_4$.d zi.g-ʔa -zen =ak
day rise-VP-2PL.A/S=GEN

'rites for the day of "Rise, you people!"' (MVN 18:58 6; D; 21)

Apart from this imperative form, our corpus contains one further example of the suffix {enzen}:

(44) **a-nun-*na* bar-*ĝu*$_{10}$-*a* šùd *ḫé-mi*-sa$_4$-*za***
a.nun.na bar =ĝu=ʔa šùd =Ø ḫa =ʔi -m(u)-bi -b -sa$_4$ -enzen
Anunna outside=my=LOC prayer=ABS MOD=VP-VENT-3N:on-3N.DO-call-2PL.A/S:IPFV
'Anunna-gods! May you say a prayer on my behalf!' (Cyl B 2:6; L; 22)

As this form and the one in example (40) above show, the second /e/ of {enzen} may assimilate to a preceding or following vowel. The first /e/ undergoes the same changes as the initial /e/ of the other person suffixes (§14.10).

14.8. The third person plural suffix {eš}

There are two person suffixes for the third person plural human, which differ in the syntactic functions they express. The suffix {enē} will be treated in the next section (§14.9). The other is {eš}, the plural human of {Ø} (§14.4). Its basic form is /eš/ and it has three possible uses. In the imperfective inflection it always expresses the intransitive subject:

(45) ***nu-ub*-gi$_4$-gi$_4$-*dè-éš***
nu =ʔi-b(i) -gi$_4$:RDP-ed -eš
NEG=VP-3N:on-turn:IPFV-IPFV-3PL.S:IPFV
'They will not go back on this.' (NATN 131 rev 6; N; 21)

(46) **tukum-*bé* u$_4$-*da-ta* / ur-^{d}*ša-u*$_{18}$-*ša ù* dumu-*ĝu*$_{10}$-*ne ḫa-ba-zàḫ-dè-eš***
tukum.bé u$_4$.da=ta ur.ša.u$_{18}$.ša ù dumu=ĝu=enē=Ø
if today=ABL Ur.Sha'usha and child =my=PL =ABS

ḫa =Ø -ba -zàḫ -ed -eš
MOD=VP-MM-run.away- IPFV-3PL.S:IPFV
'if after today Ur-Sha'usha and my children run away' (ZA 55 p.68 3'-4'; L; 21)

As these two examples show, the suffix can be written ***-éš*** or ***-eš***.

In the perfective inflection it has three uses. To begin with, it expresses the intransitive subject or the direct object:

(47) **1 PN$_1$ / 1 PN$_2$ / 1 PN$_3$ / *ba*-ug$_7$-*ge-éš***
Ø -ba -ug$_7$ -eš
VP-MM-die:PLUR-3PL.S/DO
'PN$_1$, PN$_2$, PN$_3$; they have died' (Nik 1:7 1:1-4; L; 24)

(48) **PN$_1$ / dumu PN$_2$ / [s]es *šu-ì-lí-šu-ke*$_4$ / [*a-g*]*a-dè*^{ki}*-ta* / [*m*]*u*-laḫ$_5$-*ḫe-éš***
PN$_1$ dumu PN$_2$ ses šu.ì.lí.šu =ak =e a.ga.dè=ta
PN$_1$ son PN$_2$ brother Shū.ilishu=GEN=ERG Akkad =ABL

Ø -mu -n -laḫ$_5$ -eš
VP-VENT-3SG.A-bring:PLUR-3PL.S/DO
'PN$_1$, son of PN$_2$, brother of Shū-ilišu, brought them (= six slaves) from Akkad.' (SRU 46 11-15; L; 23)

But {eš} has an important additional use in the perfective inflection: in combination with the final person-prefix {n}, it expresses a third person plural transitive subject (cf. §13.3.1):

(49) ***be-lí-a-rí-ik* / *ù* ur-nigin$_3$-ĝar-*ke$_4$* šu *ba-an*-ti-*éš***
be.lí.a.rí.ik ù ur.nigin$_3$.ĝar.k=e šu =e Ø -ba -n -ti -eš
Beliarik and Urnigingar =ERG hand=DIR VP-3N.IO-3SG.A-approach-3PL
'Beli-arik and Urnigingar received this.' (PIOL 19:278 8-10; D; 21)

(50) ***ì-bí-la* du-du-*ke$_4$-ne* / (...) / mu lugal-*bé in*-pà-*dè-eš***
ì.bí.la du.du=ak =enē=e mu lugal=ak =be =Ø ʔi-n -pà.d-eš
heir Dudu=GEN=PL =ERG name king =GEN=its=ABS VP-3SG.A-find -3PL
'Dudu's heirs took an oath by the king's name about (...).' (NG 99 43-46; L; 21)

It is unknown how old this particular use is, but it can be traced back to at least the Old Sumerian period:

(51) **sipa udu siki-*ka-ke$_4$-ne* / bar udu bar$_6$-*ka* / kù *bé*-ĝar-*ré-éš***
sipa.d udu siki =ak =ak =enē=e bar udu bar$_6$ =ak =ʔa
shepherd sheep wool=GEN=GEN=PL =ERG outside sheep white=GEN=LOC

kù.g =Ø Ø -bi -n -ĝar -eš
silver=ABS VP-3N:on-3SG.A-place-3PL
'The shepherds of wool sheep paid silver because of white sheep.' (Ukg. 4 3:18-4:1; L; 24)

(52) **3-*a-ne-ne* / šu *ba*-ti-*éš***
3-ʔa =anēnē=e šu =e Ø -ba -n -ti -eš
3-NOM=their =ERG hand=DIR VP-3N.IO-3SG.A-approach-3PL
'The three of them received this.' (Nik 1:317 2:12-13; L; 24)

The full form of the suffix is /eš/, but the scribes often ignore the syllable-final /š/, especially in the earlier periods (§2.4). Thus, in the Old Sumerian texts from Lagash, the verbal form ***ba*-ug$_7$-*ge-éš*** of example (47) above is usually written without the final /š/. E.g.:

(53) **še šuku-*řá* / lú amar-ki / ugula / *ba*-ug$_7$-*ge-a-kam***
še šuku.ř =ak lú amar.ki ugula =ak
barley subsistence=GEN man Amarki foreman=GEN

Ø -ba -ʔug$_7$ -eš -ʔa =ak =Ø =ʔam
VP-MM-die:PLUR-3PL.S/DO-NOM=GEN=ABS=be:3N.S
'This is the subsistence barley of Amarki the foreman's men who have died.' (VS 14:39 1:2-5; L; 24)

In fact, the full spelling ***ba*-ug$_7$-*ge-éš*** occurs only twice (ex. 47 and Nik 1:14 5:9; L; 24), but the defective spelling ***ba*-ug$_7$-*ge*** is found more than ten times (e.g., DP 138 10:6; L; 24).

Combined with a preceding /n/, the /e/ of {eš} is written ***-né***, not ***-ne***:

(54) **lú-ur$_4$-šà-*ga* / *ù* ur-é-maḫ-*ke$_4$* / *mu-ge-né-eš***
lú.ur$_4$.šà.ga ù ur.é.maḫ.k=e Ø -mu -n -ge.n -eš
Lu'urshaga and Ur.Emah =ERG VP-VENT-3SG.A-be.firm-3PL
'Lu'urshaga and Ur-Emah confirmed it.' (Nik 2:281 16-18; U; 21)

This spelling with ***-né-*** points to a short vowel (§2.5), so that the actual basic form of the suffix probably is /ĕš/.

14.9. The third person plural suffix {enē}

The third person plural human suffix {enē} is the plural of the suffix {e} (§14.5) and is only found in transitive forms of the imperfective inflection. Its basic form is /enē/ and it expresses the transitive subject:

(55) **^{d}en-líl ^{d}utu-*bé* / suḫuš-*sa-né* / *ḫé*-bu$_{15}$-*ře$_{6}$-ne* / [numun-*na-n*]*é* / *ḫé*-ri-ri-*ge-ne***
en.líl utu=be =e suḫuš =ane=Ø ḫa =ʔi -bù.ř -enē
Enlil Utu=and=ERG foundation=his =ABS MOD=VP-tear.out-3PL.A:IPFV

numun=ane=Ø ḫa =ʔi -ri.g -ri.g -enē
seed =his =ABS MOD=VP-pick.up-pick.up-3PL.A:IPFV
'May Enlil and Utu tear out his foundation and destroy his offspring (lit. "pick up his seed")!' (RIM E2.1.2.18 23-27; N; 23, OB copy)

(56) **é-ninnu *im-ta*-sikil-*e-ne***
é.ninnu=Ø ʔi -m(u) -ta -sikil -enē
Eninnu =ABS VP-VENT-from-be.clean-3PL.A:IPFV
'They were cleaning the Eninnu with it.' (Cyl B 7:11; L; 22)

The scribes often ignore the first syllable of /enē/ but it is unclear whether this is a matter of linguistic reduction (cf. §14.10) or simply one of scribal economy:

(57) **suḫuš-*a-né ḫé*-bù-*re-ne* / numun-*a-né* / *ḫé*-til-*ne***
suḫuš =ane=Ø ḫa =ʔi -bù.r -enē
foundation=his =ABS MOD=VP-tear.out-3PL.A:IPFV

numun=ane=Ø ḫa =ʔi -til -enē
seed =his =ABS MOD=VP-end-3PL.A:IPFV
'May they tear out his foundation and end his offspring!' (St K 2:19-21; L; 22)

Combined with a preceding /n/, the first /e/ is written differently from the second /e/:

(58) **(...) *íb-ge-né-ne***
ʔi -b -ge.n -enē
VP-3N.DO-be.firm-3PL.A:IPFV
'(They) will make it firm.' (UET 3:11 6; Ur; 21)

This difference in spelling points to a difference in vowel length between the first and second /e/, the first being short and the second long (§2.5). Hence, the actual basic form of the suffix is in all likelihood /ĕnē/. This also means that the third person plural suffix {enē} has exactly the same form as the enclitic plural marker {enē} (§6.3.2). Since they also share a significant part of their meaning ('plural'), they can be considered cognate and may go back to an obsolete demonstrative (§6.3.3).

14.10. Changes to the initial /e/ of the person suffixes

All person suffixes except {Ø} (§14.4) have an initial /e/, which may undergo certain changes depending on its environment. These changes are basically the same ones as those which affect the suffix {ed} (§28.4.2). For most of the changes documented below, we lack the evidence to prove that they equally apply to all person suffixes. But neither do we have any reason to doubt that they do.

The most frequently occurring change affecting the /e/ is that it contracts with a preceding vowel. Due to a lack of explicit plene writings it is uncertain whether the preceding vowel is lengthened as a result. Thus, the /e/ contracts with a preceding /a/ to /ā/ or /a/:

(59) **gú-*na a-ĝá-ĝá-an***
gú =ane=ʔa ʔa-b(i) -ĝar:RDP -en
neck=his =LOC VP-3N:on-place:IPFV-1SG.A/S:IPFV
'I will place it on his neck.' (TCVPBI II-52 rev. 5; N; 21)

(60) **ní-te-*ne-ne ba-ra-an*-sa$_{10}$-*aš***
ní.te=anēnē=Ø Ø -ba -ta -n -sa$_{10}$ -eš
self =their =ABS VP-MM-from-3SG.A-barter-3PL
'They sold themselves.' (TMHC NF 1/2:53 8; N; 21)

The /e/ contracts with a preceding /e/ to /ē/ or /e/:

(61) **lú-^{d}nin-šubur / *ù* lugal-igi-huš-*e* / *bí-eš***
lú.nin.šubur ù lugal.igi.huš =e Ø -bi -n -ʔe -eš
Lu.Ninshubur and Lugal-Igihush=ERG VP-3N.OO-3SG.A-say:PLUR-3PL
'Lu-Ninshubur and Lugal-Igihush said:' (MVN 5:262 3-5; L; 21)

(62) ***nu-ub-bé-ne-a***
nu =ʔi -b -ʔe -enē -ʔa
NEG=VP-3N.OO-say:IPFV-3PL.S:IPFV-NOM
'that they would not say:' (NRVN 1:180 11; N; 21)

The /e/ contracts with a preceding /i/ to /ī/ or /i/:

(63) **šu *ba-an*-ti-*iš***
šu =e Ø -ba -n -ti -eš
hand=DIR VP-3N.IO-3SG.A-approach-3PL
'They received it.' (MVN 2:100 43; D; 21); (SAT 3:1845 3; U; 21)

The /e/ contracts with a preceding /u/ to /ū/ or /u/:

(64) **u$_4$-*da a-šà-ga-né ha-ba-ra*-uru$_4$-*ù***
u$_4$.da a.šà.g=ane=Ø ḫa =Ø -ba -ta -uru$_4$ -e
today field =his =ABS MOD=VP-MM-with-plough-3SG.A:IPFV
'Now he must plough his field with it!' (TCS 1:72 10; U; 21)

A different contraction is attested for the verb **ba** 'portion out'. The stem of this verb had in origin a final glottal stop (§3.2.4), so that the presence of a person suffix with initial /e/ resulted in a sequence /aʔe/. The glottal stop, however, was lost between vowels (§3.2.4) and certain Ur III spellings show a form /bē/ (< */baʔe/):

(65) ***in-be$_6$-e-éš*** /ʔinbēš/
ʔi -n -baʔ -eš
VP-3SG.A-portion.out-3PL
'They took this as their portions.' (e.g., TCL 2:5549 7; D; 21)

With the two-syllabic suffix {enē}, a unique form suggests a different result for the same contraction, with a form /bā/ (< */baʔe/):

(66) ***ù* eger *ab-ba-ne-ne* / *ì*-ba-*a-ne***

ù eger ab.ba=anēnē=ak =Ø ʔi -baʔ -enē
and back father=their =GEN=ABS VP-portion.out-3PL.A:IPFV
'And they will share the estate of their father.' (NG 7 20-21; L; 21)

The same form occurs uncontracted as ***ì*-ba-*e-ne*** (St L 3':3', 8'; L; 22).

The /e/ of the person suffixes becomes /u/ after certain verbal stems with the stem vowel /u/.

(67) ***ba-an*-šúm-*mu-ša***
Ø -ba -n -šúm -eš -ʔa =ak
VP-3N.IO-3SG.A-give-3PL-NOM=GEN
'of (the fact) that they had given this for it' (NG 209 53; L; 21)

(68) ***ì-na*-šúm-*mu-úš***
ʔi -nna -n -šúm-eš
VP-3SG.IO-3SG.A-give-3PL
'they gave it to him' (CST 40 9; N; 21)

(69) **é-ki *mu*-túm-*mu-a***
é.ki=e Ø -mu -n -túm -e -ʔa
Eki =ERG VP-VENT-3SG.DO-bring-3SG.A:IPFV-NOM
'that Eki would bring him' (NRVN 1:006 5; N; 21)

See §28.4.2 for the same phenomenon with the suffix {ed}, for which we have far more evidence and therefore a much clearer picture of when the change of /e/ to /u/ occurs.

A similar change of the /e/ of the person suffixes to /i/ occurs after certain verbal stems with the stem vowel /i/.

(70) **u_4 temen-*ĝu*$_{10}$ *ma*-si-*gi*$_4$-*na***
u_4.d temen =ĝu =Ø Ø -ma -si.g -en -ʔa =ʔa
day foundation=my=ABS VP-1SG.IO-put.in-2SG.A/S:IPFV-NOM=LOC
'when you drive in my foundation pegs for me' (Cyl A 11:18; L; 22)

(71) **(...) *mu*-si-*gi*$_4$-*ne***
Ø -mu -n(i)-si.g -enē
VP-VENT-in -put.into-3PL.A:IPFV
'They were driving them (= pegs) in.' (Cyl A 26:28; L; 22)

For this change too, the evidence for {ed} is much more detailed (§28.4.2).

The initial /e/ of a person suffix is often reduced in forms with the nominalizing suffix {ʔa} (Krecher 1995: 155-156). Take, for instance, the verbal form ***bí-íb*-ùr-*re-a***, which occurs once with the /e/ spelled out (FAOS 9/2 Amarsuen 12 41; Ur; 21), but four times without it:

(72) **lú mu sar-*ra-ba* / šu *bí-íb*-ùr-*a***
lú mu sar -Ø -ʔa =be =ʔa šu =Ø
man name write-NFIN-NOM=this=LOC hand=ABS

Ø -bi -b -ʔùr-e -ʔa
VP-3N:on-3N.DO-rub-3SG.A:IPFV-NOM
'the man who will erase this inscription' (FAOS 9/2 Urnammu 40 12-13, Šulgi 65 7-8, Šulgi 46 12-13; Ur; 21). Similarly: (St C 4:8; L; 22)

Likewise, the form ***íb*-tab-*be$_6$-a*** (BE 3/1:13 10; N; 21) is found more often without the /e/ (see also §27.3.3):

(73) ***íb*-tab-*a***
ʔi -b -tab -e -ʔa
VP-3N.DO-double-3SG.A:IPFV-NOM
'that he will double it' (TMHC NF 1/2:63 6, TMHC NF 1/2:65 10; N; 21)

A particular clear case is the proper name ***ma-an*-šúm-*mu-na***, which occurs in only one text with the vowel of the suffix written out (Studies Sigrist p. 138 BM 106527 2; U; 21), but which occurs dozens of times without it:

(74) ***ma-an*-šúm-*na***
Ø -ma -n -šúm-en -ʔa
VP-1SG.IO-3SG.A-give-2SG.S/DO-NOM
'you whom (s)he gave to me' (e.g., NG 195 2; L; 21)

Examples with other verbs include the following:

(75) **mu-*né bí-íb*-sar-*a***
mu =ane=Ø Ø -bi -b -sar -e -ʔa
name=his =ABS VP-3N:on-3N.DO-write-3SG.A:IPFV-NOM
'who will write his own name on it' (FAOS 9/2 Šulgi 56 9; Ur; 21)

(76) **lú inim-*ni íb*-kúr-*a***
lú inim=ane=Ø ʔi -b -kúr-e -ʔa
man word=his =ABS VP-3N.DO-alter-3SG.A:IPFV-NOM
'the man who will alter his command' (St B 8:42; L; 22)

(77) **inim ama-*ne-ne* / *nu-ù-ub*-kúr-*ne-a***
inim ama =anēnē=ak =Ø nu =ʔi -b -kúr -enē -ʔa
word mother=their =GEN=ABS NEG=VP-3N.DO-change-3PL.A:IPFV-NOM
'that they would not change the command of their mother' (NG 99 44-45; L; 21)

Note that there are a great many forms where the /e/ is fully preserved before the nominalizing suffix {ʔa}. Clearly, the exact conditions under which the /e/ is lost still elude us.

The contractions, assimilations, and reductions affecting the initial /e/ of the person suffixes strongly suggest that this /e/ is a short vowel.

14.11. Spellings of the initial /e/ after consonants

The scribes write the initial /e/ of the person suffixes in one of two ways. Either they take it together with the preceding consonant and use a CV-sign, or they ignore that consonant and use a V- or VC-sign. Which strategy they follow depends partly on which consonant precedes and partly on other considerations. The first strategy, using a CV-sign, is more faithful to the syllabic structure of the form, but the second strategy reflects the morphological structure better, as it clearly separates the verbal stem from the suffix. Take, for instance, the following clause:

(78) **mu lugal-*bé in*-pà-*dè-eš***
mu lugal=ak =be=Ø ʔi -n -pà.d-eš
name king =GEN=its=ABS VP-3SG.A-find -3PL

'They took an oath by the king's name about it.' (e.g., MVN 6:115 obv. 8; L; 21)

This verbal form occurs about twenty times with a ***-dè-eš*** or ***-dè-éš*** spelling, but the spelling without ***-dè-*** is attested almost as often: e.g., ***in*-pà-*éš*** (NATN 497 10; N; 21). Now, a spelling ***in*-pà-*éš*** is, of course, more economical than ***in*-pà-*dè-eš***, and just about as informative. But scribal economy does not seem to be a major consideration, because a similar variation in spelling occurs with other types of forms as well. Thus, the spelling ***nam-mu*-šub-*bé*** (SRU 118 Side A 5:3'; L; 25) alternates with ***nam-mu*-šub-*e*** (e.g., STH 1:23 9:16; L; 24). Here, scribal economy plays no role whatsoever, as ***bé*** and ***e*** are both common signs of roughly the same size.

CV-spellings are not used with every consonant to the same extent. They are regularly found with most consonants, but with a few they are rare or even non-existent. Thus, with /s/, /š/, /z/, /ʔ/, /ĝ/, and /l/, spellings with ***e*** are the norm, while with the other consonants CV-spellings are common.

With the plain voiceless stops /g/, /d/, and /b/, spellings with the CV-signs ***ge***, ***dè***, and ***bé*** alternate with those with ***e***. E.g.: ***ba*-su$_8$-*ge-éš*** (TSA 13 5:4; L; 24), ***ba*-su$_8$-*éš*** (Nik 1:14 1:7; L; 24), ***ba-ra*-tag-*ge*** (SRU 87 8; L; 23), ***mu-né*-pà-*dè*** (Ean. 1 rev. 3:7; L; 25), ***in*-pà-*eš*** (NG 1 6; L; 21), ***ì*-dab$_5$-*éš*** (OIP 14:90 rev. 4'; D; 21), ***in-na*-dib-*bé-a*** (YOS 4:6 6; N; 21).

After the voiceless aspirated stop /k/ the spelling with ***ke$_4$*** dominates. Thus, the personal name ***ḫa-ba-lu$_5$-ke$_4$*** (e.g., PIOL 19:307 2; D; 21) is more or less consistently written with the CV-sign ***ke$_4$***, but with the verb **ak** a few spellings with ***e*** occur, even though spellings with ***ke$_4$*** are far more frequent. E.g.: ***ba-ra*-ak-*ke$_4$*** (Ean. 1 rev. 5:3; L; 25), ***mu*-ak-*ke$_4$*** (FAOS 5/2 Lukin. 2 11; N; 24), ***e*-ak-*éš*** (Nik 2:22 8; U; 23), ***mu-da*-ak-*ke$_4$*** (Cyl A 11:25; L; 22), ***na-ab*-ak-*ke$_4$*** (St I 4:4; L; 22), ***ì*-ak-*ke$_4$*** (TCTI 2:2819 9:2; L; 21), ***bí-in*-ak-*éš*** (NG 113 24; L; 21), ***ḫé-mu-na*-ak-*e*** (TCS 1:199 6; N; 21).

With the plain voiceless affricate /z/, a spelling with ***e*** is the norm. E.g.: ***ḫa-né*-gaz-*e*** (Ent. 28 6:29; L; 25), ***na-ne*-gaz-*e*** (FAOS 19 Um 5 7; U; 23). However, there is an as yet unique early spelling with a CV-sign (Krecher 1995: 189): ***ḫa-né*-gaz-*ze$_x$***(ÁB.ŠÀ.GI) (Ent. 29 6:40; L; 25).

With the voiceless aspirated affricate /ř/ spellings with ***ře$_6$*** and ***e*** alternate: E.g.: ***ba-ra*-bu$_{15}$-*ře$_6$*** (Ean. 1 obv. 21:3; L; 25), ***ḫé*-bù-*ře$_6$*** (RIM E2.1.1.1 100; N; 24, OB copy), ***ḫé*-bù-*ře$_6$-ne*** (RIM E2.1.2.18 25; N; 23, OB copy) ***mu-na*-ku$_5$-*ře$_6$*** (Ean. 1 rev. 3:10; L; 25), ***ḫa-ba-da*-ku$_5$-*ře$_6$*** (FAOS 9/2 Šulgi 46 16; ?; 21), ***ì*-ku$_5$-*ře$_6$*** (NG 215 25; U; 21), ***ḫé-ma*-ku$_5$-*e*** (St C 4:12; L; 22), ***ḫa-ba-da*-ku$_5$-*e*** (FAOS 9/2 Urnammu 40 15; Ur; 21), ***in*-ku$_5$-*eš*** (NG 78 15'; L; 21).

The fricatives present a mixed picture. With the sibilants /š/ and /s/, CV-signs are never used so that the spelling with ***e*** is the norm. E.g.: ***mu-da*-peš-*e*** (Cyl B 19:15; L; 22), ***mu-na*-peš-*e*** (Cyl A 16:23; L; 22), ***ḫé-a-da*-peš-*e*** (Cyl A 11:9; L; 22), ***ḫa-ab*-ús-*e*** (TCS 1:86 6; L; 21), ***ḫa-mu-ne*-ús-*e*** (FAOS 19 Is 4 9; I; 23), ***ḫa-ma-ab*-ús-*e*** (FAOS 19 Du 1; U; 21). After /ḫ/, the situation is quite different. There, the spelling with the CV-sign ***ḫe*** is found besides the one with ***e***. E.g.: ***e*-^{la}laḫ$_5$-*ḫe*** (Nik 1:164 4:1; L; 24), ***mu*-laḫ$_5$-*ḫe-éš*** (RTC 94 7'; L; 23), ***ba-ab*-laḫ$_4$-*ḫe-éš*** (FAOS 19 Ad 14 14; A; 23), ***mu*-laḫ$_4$-*ḫe*** (USP 6 3; U; 23), ***ḫa-ba*-daḫ-*ḫe*** (FAOS 5/2 Luzag. 1 3:21; N; 24) besides ***im-ma*-laḫ$_5$-*éš*** (SRU 89 3:1; N; 23), ***im*-laḫ$_5$-*éš*** (RTC 96 5:6; L; 23), ***ḫa-ba-ab*-daḫ-*e*** (TCS 1:355 3; ?; 21), ***mu*-daḫ-*e*** (SAT 3:2148 9; U; 21).

The nasals also present a mixed picture. With /ĝ/, spellings with ***e*** are the norm. E.g.: ***in-da*-áĝ-*e*** (TCS 1:113 10; L; 21), ***in-na*-áĝ-*e*** (NRVN 1:56 7; N; 21), ***ì*-áĝ-*e-a*** (AUCT 3:319 6; N; 21). With /m/, spellings with ***me*** and ***e*** alternate. E.g.: ***ḫé-ḫa-lam-me*** (Ent. 28 6:20; L;

25), ***ab-ḫa-lam-me-a*** (RIM E2.1.2.18 22; N; 23, OB copy), ***ab-ḫa-lam-e-a*** (RIM E2.1.1.1 97; N; 23, OB copy), ***ḫé-éb-ḫa-lam-e-ne*** (St S 3':7; L; 22). With /n/, spellings with ***né*** are the norm, but rarely ones with ***e*** occur. E.g.: ***ì*-durun$_x$**(KU.KU)***-né-éš*** (e.g., ITT 1:1437 8; L; 23), ***ab*-durun$_x$*-né-éš*** (FAOS 19 Gir 32 15; L; 23), ***ì*-durun$_x$*-éš*** (ITT 5:9303 7; L; 23), ***na-an-ge-né*** (St C 4:15; L; 22), ***ba-na-ge-né-eš*** (NG 169 15; L; 21), ***íb-ge-né*** (AUCT 1:384 4; D; 21).

With /r/, the spelling generally is with ***ré*** in the earlier periods and with ***re*** later. E.g.: ***ḫé-da*-kar-*ré*** (Ean. 1 rev. 5:41; L; 25), ***bé*-ĝar-*ré-éš*** (Ukg. 4 4:8; L; 24), ***mu*-tar-*re-éš*** (FAOS 5/2 Luzag. 1 3:33; N; 24), ***na-ši*-bar-*re*** (St B 9:18; L; 22), ***íb-da-ab*-kúr-*re-a*** (FAOS 9/2 Amarsuen 3 2:2; Ur; 21), ***bí-in-ĝá-re-eš*** (NG 214 7; U; 21). In the Ur III letter orders, the verbal form ***na-mi*-gur-*re*** (e.g., TCS 1:345 4; D; 21) is written dozens of times with the CV-sign ***re*** and only a few times as ***na-mi*-gur-*e*** (e.g., TCS 1:204 7; U; 21).

With /l/ the spelling seems to differ according to region. Thus, the personal name ***ga*-ti-*le*** is written with ***le*** in Nippur (e.g., NRVN 1:52 4; N; 21), but ***ga*-ti-*e*** in Lagash (e.g., MVN 19:62 5; L; 21) and Umma (e.g., MVN 16:996 rev. 3; U; 21). In Ur, too, ***ga*-ti-*e*** clearly is the standard spelling (e.g., UET 3:1005 5; Ur; 21), but ***ga*-ti-*le*** is also found (UET 3:1182 9; Ur; 21). the spelling generally is ***e*** and only very rarely ***le***. Spellings with other words include: ***mu-da*-zal-zal-*le*** (FAOS 5/2 Luzag. 1 2:29; N; 24), ***mi-ni-íb*-zal-zal-*e*** (Cyl A 5:9; L; 22), ***an-da*-ti-*e*** (VS 25:69 4:16; L; 24), ***an-da*-ti-*le*** (Mesopotamia 8 p.67ff 43; A; 24).

After /ʔ/, the spelling is always ***e***, as the forms of verbs like **bala?** and **lá?** show. E.g.: ***ba-ra-mu*-bala-*e*** (Ean. 1 obv. 20:19; L; 25), ***mu*-bala-*e-a*** (Ean. 63 3:1; L; 25), ***mu*-bala-*éš-a*** (ITT 2:4690 3:7; L; 23), ***ab-ta*-bala-*éš*** (SRU 56 1:11; N; 23), ***ì-íb*-bala-*e-a*** (St B 8:43; L; 22), ***ba-ra-a*-bala-*eš*** (FAOS 17:121 18; U; 21), ***e-na*-lá-*éš*** (Nik 2:62 4:5; U; 23), ***ba-ab*-lá-*e*** (Cyl B 2:2; L; 22), ***in-na*-lá-*e*** (NG 131 26; L; 21).

15. THE PERFECTIVE AND IMPERFECTIVE

15.1. Introduction

It is still a highly contentious issue how the grammatical categories tense and aspect are marked in Sumerian. The founders of Sumerian grammar posited a system of tenses. According to Poebel (1934), Sumerian has two tenses: a 'preterit' and a 'present-future', each with a full paradigm of transitive and intransitive forms. Falkenstein disagreed. In his view, only the transitive verb has two tenses, a 'Präteritum' and a 'Präsens-Futur', but the intransitive verb has a single form for both tenses, the 'Normalform' (Falkenstein 1931, 1949: 151).

Falkenstein's view of the Sumerian system of tenses dominated the field until the publication of Yoshikawa (1968a and 1968b), two highly innovative articles which had a huge impact. Yoshikawa argues that Sumerian has two aspects, which he calls *marû* and *ḫamṭu*, with terms taken from ancient Babylonian grammatical texts. These two aspects *marû* and *ḫamṭu* are formally distinguished by different stem forms. Yoshikawa's theories set off a discussion which continues until today.

Michalowski (1980) introduced a further crucial issue in this ensuing discussion: the manner in which subject and object are marked in the verb. In his analysis, Sumerian has two aspects with different systems of 'verbal agreement': verbal agreement works on an ergative basis in the 'perfect' aspect, but is nominative-accusative in the 'imperfect' aspect.

That Sumerian has a system of tenses is a view now largely abandoned. And with good reason. It is not difficult to find 'preterit' forms with present or future reference, or 'present-future' forms with past reference. Accordingly, there is now a tendency to replace the old terms preterit and present-future, and the rather awkward *ḫamṭu* and *marû*, with the aspectual terms 'perfective' and 'imperfective'. The present grammar follows this newer terminological usage, even though the actual uses of the Sumerian perfective and imperfective differ in a number of important respects from those of their, for instance Russian, namesakes (§15.4).

Following Poebel, Yoshikawa, Michalowski, and others, the present grammar takes the view that both the transitive and intransitive verb regularly distinguish between two sets of forms, the perfective and the imperfective. It is true that the system of subject and object marking differs only for the transitive verb, but the intransitive verb has a regular distinction in stem form. Taken together, the system of subject and object marking (§15.2) and the differences in stem form (§15.3) make up a full paradigm for the perfective and the imperfective, for both transitive and intransitive forms.

The perfective-imperfective distinction may be a recent development in Sumerian. In an earlier stage of the language, the preformatives {ʔi} and {ʔa} played a far greater role in expressing tense or aspect. See §24.3-§24.5 for the relevant facts and §24.6 for a very tentative reconstruction of the historical development.

One final remark needs to be made on how examples are glossed. Every imperfective form is identified as such with the gloss IPFV (imperfective), but perfective forms lack such an explicit gloss for reasons of economy. Thus, all verbal forms in the glossed examples are perfective except those with a gloss IPFV, which are imperfective.

15.2. Subject and object marking in the finite verb

15.2.1. Overview

Consider the following two finite verbal forms:

(1) ***bé-ĝar-ré-éš***
Ø -bi -n -ĝar -eš
VP-3N:on-3SG.A-place-3PL
'they placed it (= silver) on it (= sheep)' (Ukg. 4 4:1; L; 24)

(2) ***e-ĝá-ĝá-ne***
ʔi -b(i) -ĝar:RDP-enē
VP-3N:on-place:IPFV-3PL.A:IPFV
'they were placing it (= silver) on it (= sheep)' (Ukg. 6 1:21'; L; 24)

Both forms are from the same dialect and are used in a quite similar construction, but the first is a perfective form and the second an imperfective. The differences in form are striking. The two forms not only have distinctive stem forms but they also show their own kind of person inflection. Unfortunately, the differences in form between the perfective and imperfective are not always this obvious. But both stem form and type of inflection make their contribution. The aim of the present section 15.2 is to flesh out the role of inflection in the perfective and imperfective paradigms. Section 15.3 will address the contribution made by the stem form.

The perfective and imperfective have their own distinctive systems of subject and object marking. Any finite verbal form that follows the perfective system of subject and object marking will be said to follow the perfective inflection. And any finite verbal form that follows the imperfective system of subject and object marking will be said to follow the imperfective inflection. The following table gives an overview of the two systems:

	Perfective inflection			**Imperfective inflection**		
Transitive	***Subject***	***Stem***	***Object***	***Object***	***Stem***	***Subject***
1 singular human	ʔ		en	ʔ		en
2 singular human	e		en	e		en
3 singular human	n		Ø	n		e
3 non-human	b		Ø	(b)		e
1 plural human			enden			enden
2 plural human			enzen			enzen
3 plural human			eš			enē
Intransitive		***Stem***	***Subject***		***Stem***	***Subject***
1 singular human			en		(+ ed)	en
2 singular human			en		(+ ed)	en
3 singular human			Ø		(+ ed)	Ø
3 non-human			Ø		(+ ed)	Ø
1 plural human			enden		(+ ed)	enden
2 plural human			enzen		(+ ed)	enzen
3 plural human			eš		(+ ed)	eš

These two systems of subject and object marking will be discussed in detail in the following sections. First, the perfective inflection (§15.2.2) and then the imperfective inflection (§15.2.3). The use of the imperfective direct-object prefix {b} is optional, but not random (§15.2.4). One verb, though, has irregular subject-object marking (§15.2.5).

15.2.2. The perfective inflection

Subject and object marking in the perfective inflection follows an ergative system (Michalowski 1980). The final person-prefixes are used to mark the transitive subject (chapter 13), while one and the same set of person suffixes marks the direct object in transitive forms and the intransitive subject in intransitive forms (chapter 14). Take, for instance, the third person non-human, where the final person-prefix {b} (§13.2.2) expresses the transitive subject, glossed as 3N.A:

(3) **mu en ^{d}nanna maš-*e íb*-pà**
mu en nanna=ak =Ø maš=e ʔi -b -pà.d-Ø
year lord Nanna=GEN=ABS kid =ERG VP-3N.A-find -3SG.S/DO
'The year: a kid found the highpriest of the god Nanna.' (e.g., MTBM 218 7; L; 21)

But the person suffix {Ø} (§14.4) is used to express a non-human intransitive subject or a non-human direct object, glossed as 3N.S/DO:

(4) **zà-u-*bé íb-ta*-zi**
zà.u =be=Ø ʔi -b -ta -zi.g-Ø
tithe=its =ABS VP-3N-from-rise-3N.S/DO
'Its tithes have been raised from it.' (MVN 16:1092 rev. 3; U; 21)

(5) **máš-*ba* ensi$_2$-*ke$_4$* / šu *bí-in-ba***
máš =be=ʔa ensi$_2$.k=e šu =Ø Ø -bi -n -ba.r -Ø
interest=its=LOC ruler =ERG hand=ABS VP-3N:on-3SG.A-open-3N.S/DO
'The governor cancelled the interest on it.' (BPOA 1:1286 5-6; U; 21)

Chapter 13 provides more examples of final person-prefixes expressing the transitive subject in perfective forms. And in the same way, chapter 14 contains many more attestations of person suffixes expressing either the direct object or the intransitive subject in perfective forms.

The perfective inflection would show a rather straightforward system of subject and object marking, were it not for one complicating factor: the final person-prefixes do not have plural forms (§13.3). For this reason, the plural person-suffixes are used to express the plural of a human transitive subject, which gives these suffixes a third possible use, in addition to expressing a direct object or an intransitive subject. See §14.8 for examples.

15.2.3. The imperfective inflection

Subject and object marking in the imperfective inflection follows partly an accusative, partly a tripartite system, depending on the category of person. The forms for the third person follow a tripartite system, with three different affixes for the three categories transitive subject, direct object, and intransitive subject. For the third person singular human, for instance, the person suffix {e} (§14.5) expresses a transitive subject, the final person-prefix {n} (§13.2.3) a direct object, and the person suffix {Ø} (§14.4) an intransitive subject:

(6) ***ì-na-zé-er-e / ba-ab-*túm-*mu***
ì.na.zé.er=e Ø -ba -b -túm -e
Inazer =ERG VP-MM-3N.DO-bring-3SG.A:IPFV
'Inazer will take it (= a donkey) away.' (BPOA 1:1285 9-10; U; 21)

(7) ***mu-*túm-*mu-a***
Ø -mu -n -túm -e -ʔa
VP-VENT-3SG.DO-bring-3SG.A:IPFV-NOM
'that he would bring him' (NG 190 25; L; 21)

(8) **lú-ús *ĝá-ar ḫa-mu-ši-in-*gi$_4$-gi$_4$**
lú.ús =Ø ĝe$_{26}$=r(a) ḫa =Ø -mu -ʔ -ši-n -gi$_4$:RDP -e
follower=ABS I =DAT MOD=VP-VENT-1SG-to-3SG.DO-turn:IPFV-3SG.A:IPFV
'He should send me a driver!' (MVN 11:168 18; U; 21)

(9) **u$_4$ geme$_2$-^{d}lama$_3$ *ba-*ug$_7$*-e-da-a***
u$_4$.d geme$_2$.lama$_3$=Ø ba -ug$_7$ -ed -Ø -ʔa =ʔa
day Geme.Lama =ABS MM-die:IPFV-IPFV-3SG.S:IPFV-NOM=LOC
'when Geme-Lama dies' (NG 7 15; L; 21)

The forms for the first and second persons follow an accusative system, with one and the same set of person suffixes marking the transitive subject and the intransitive subject, while a direct object is expressed with a final person-prefix. For the first person singular human, for example, the person suffix {en} (§14.2) expresses the subject in both transitive and intransitive forms, while the final person-suffix {ʔ} (§13.2.5) marks a direct object:

(10) ***ù ĝe$_{26}$-e* šà-*ga-né ab-*ḫúl-*le-en*$_6$**
ù ĝe$_{26}$=e šà.g =ane=Ø ʔa -b -ḫúl -en
and I =ERG heart=his=ABS VP-3N.DO-be.happy-1SG.A/S:IPFV
'And I will make his heart happy.' (JCS 10 p. 27:3 22; A; 23)

(11) **u$_4$ *a-řá* 3-*ka* / *ì-*zàḫ*-dè-na***
u$_4$.d a.řá 3=ak =ʔa ʔi -zàḫ -ed -en -ʔa =ʔa
day time 3=GEN=LOC VP-run.away-IPFV-1SG.A/S:IPFV-NOM=LOC
'on the day when I will run away for the third time' (NRVN 1:1 6-7; N; 21)

(12) **lugal-*nam-mu-*šub-*bé***
lugal nan -mu -ʔ -šub-en
master NEG.MOD-VENT-1SG.DO-fall-2SG.A/S:IPFV
'Master, do not abandon me (lit. "do not let me fall")!' (personal name) (SRU 118 Side A 5:3'; L; 25)

Thus, in the imperfective inflection, person suffixes express the transitive or intransitive subject. This usage is documented for each individual person suffix in chapter 14, to which the reader is referred for more examples.

According to the table above in §15.2.1, the same prefixes which express a transitive subject in the perfective inflection are used to mark a direct object in the imperfective inflection. This view is widely supported for the final person-prefixes {n} and {b} but is controversial for the other prefixes: Attinger (1985, 1993: 226-227), Wilcke (1990a: 481), and Edzard (2003: 84-85) consider the set of direct object markers to be partly different, as the following table makes clear:

Direct object markers according to	*Attinger et al.*	*the present grammar*
First person singular human	en	?
Second person singular human	en	e
Third person singular human	n	n
Third person non-human	b	b
First person plural human	(?)	(?)
Second person plural human	(?)	(?)
Third person plural human	ne	-

One discrepancy is only of minor consequence: there is indeed a special imperfective direct object marker for the third person plural human, but it is restricted to the earliest periods and is replaced by {b} after the Old Akkadian period (see §13.3.2 for details). Hence, this particular discrepancy is merely a matter of dialect.

The imperfective direct object markers for the first and second persons are a more serious matter, though. Unfortunately, the available evidence is rather limited, so that a truly decisive choice one way or the other is difficult to make. As Krecher (1995: 184-185) has argued, the evidence in favour of a form /en/ is not very convincing. Because of that, the more likely option remains to assume a single set of final person-prefixes, instead of two different ones for the perfective and the imperfective. This view is fully supported by the earlier attestations, which show exactly the same range of spellings for the two direct object markers as for the final person-prefixes {ʔ} (§13.2.5) and {e} (§13.2.4), namely, CV-spellings and CV-V-spellings. E.g.:

(13) **nin-*ĝu*$_{10}$-*mu*-búr-*e***
nin =ĝu=e Ø -mu -ʔ -búr -e
lady=my=ERG VP-VENT-1SG.DO-release-3SG.A:IPFV
'My lady will release me.' (proper name) (MVN 17:54 7:35; L; 21)

(14) ***ḫa-ni*-ku$_4$-ku$_4$**
ḫa =Ø -ni-e -ku$_4$.ř:RDP-en
MOD=VP-in -2SG.DO-enter:IPFV -2SG.A/S:IPFV
'May I let you enter it!' (Cyl B 2:22; L; 22)

(15) **^{d}inanna *ur$_5$-re ša-mu-u$_8$*-ḫúl-*le***
inanna=Ø ur$_5$=e še -mu -e -ḫúl -e
Inanna=ABS that=ERG PFM-VENT-2SG.DO-be.happy-3SG.A:IPFV
'Inanna, that will make you happy.' (Ishme-Dagan J 27; OB)

15.2.4. Non-human direct-object marking in the imperfective inflection

In the imperfective inflection, a non-human direct object is expressed with the final person-prefix {b} (§13.2.2). E.g.:

(16) **ensi$_2$ / inim *bí-íb*-gi$_4$-gi$_4$-*a***
ensi$_2$.k inim=Ø Ø -bi -b -gi$_4$:RDP-e -ʔa
ruler word=ABS VP-3N:on-3N.DO-turn:IPFV -3SG.A:IPFV-NOM
'the ruler who will revoke the command on it' (St B 1:13-14; L; 22)

(17) **^{d}šara$_2$-*kam*-*e* *íb*-su-su**
šara$_2$.kam=e ?i -b -su.g:RDP-e
Sharakam =ERG VP-3N.DO-repay:IPFV-3SG.A:IPFV
'Sharakam will repay it.' (NG 210 3:4; L; 21)

Often the {b} is missing from such forms. In many instances, this is obviously due to the well-known scribal tendency to ignore syllable-final consonants (§2.4, §13.2.2). Sometimes the form of the preceding prefix proves the presence of the {b} E.g.:

(18) **šu-*a* *bí*-gi$_4$-gi$_4$**
šu =ʔa Ø -bi -b -gi$_4$:RDP-e
hand=LOC VP-3N:on-3N.DO-turn:IPFV -3SG.A:IPFV
'he will transfer them (= some sheep)' (DP 98 7:7; L; 24)

In other cases, alternative spellings come to our aid. Besides the ***ì*-su-su** of the following Old Akkadian text, there is the consistent spelling as ***íb*-su-su** in Ur III texts, including many from Nippur:

(19) **é-lú *ì*-su-su**
é.lú=e ?i -b -su.g:RDP-e
Elu =ERG VP-3N.DO-repay:IPFV-3SG.A:IPFV
'Elu will repay it.' (OSP 2:55 23; N; 23)

But the absence of the prefix {b} is not only a matter of spelling. As Wilcke (1990a: 480-485) showed, the use of the direct-object marker {b} is optional and quite a few forms lack it. E.g.:

(20) **gu$_4$-*ĝu$_{10}$* / ^{ĝiš}kiri$_6$ é-duru$_5$ lú-igi-*ma*-*šè*-*ka* / ú *ḫé*-*en*-gu$_7$-*e***
gu$_4$.r=ĝu =e kiri$_6$ é.duru$_5$ lú.igi.ama.šè =ak =ʔa
ox =my=ERG orchard village Lu.Igi'amashe=GEN=LOC

ú =Ø ḫa =ʔi -n(i)-gu$_7$-e
grass=ABS MOD=VP-in -eat -3SG.A:IPFV
'My ox(en) must graze in the orchard of Lu-Igi'amashe's village!' (TCS 1:121 3-5; L; 21)

In spite of the defective spellings, the following two examples are also certain instances of imperfective forms lacking the {b}, because ventive /mu/ cannot be followed by the prefix {b} (§22.4):

(21) **unug^{ki}-*ga* / *nam*-en / *mu*-ak-*ke$_4$***
unug=ʔa nam.en =Ø Ø -mu -n -ʔak -e
Uruk=LOC lordship=ABS VP-VENT-3SG.OO-make-3SG.A:IPFV
'He (= Enlil) let him (= Lugalkigennedudu) exercise the lordship in Uruk.' (FAOS 5/2 Lukin. 2 9-11; N; 24)

(22) **é-*a* ^{d}en-ki-*ke$_4$* temen *mu*-si-*ge***
é.j =ʔa en.ki.k=e temen =Ø Ø -mu -n(i)-si.g -e
house=LOC Enki =ERG foundation=ABS VP-VENT-in -put.in-3SG.A:IPFV
'Enki was driving in the foundation (pegs) into the house.' (Cyl A 20:15; L; 22)

Unfortunately, it is still a largely open question what the rule is behind the presence and absence of {b}. But that it is not an arbitrary matter was proven beyond any doubt by Attinger

(1996), who showed that the {b} is systematically absent from specific verbs. One such verb is **dé** 'pour':

(23) ***a-šà* lú-ga-*a-ka* / a *ḫé-en*-dé-*e***
a.šà.g lú.ga=ak =ʔa a =Ø ḫa =ʔi -n(i)-dé -e
field Luga=GEN=LOC water=ABS MOD=VP-in -pour-3SG.A:IPFV
'He must irrigate (lit. "pour water into") Luga's field.' (TCS 1:154 3-4; ?; 21)

(24) **mul kù-*ba* gù *ma-ra-a*-dé**
mul kù.g=be=ʔa gù =Ø Ø -mu -ra -e -dé -e
star pure=its=LOC voice=ABS VP-VENT-2SG.IO-on-pour-3SG.A:IPFV
'She will call for its holy star for you.' (Cyl A 9:10; L; 22)

Yet, the direct-object marker {b} may be used with the verb **dé**. Our corpus contains one attestation, in a construction which lacks a noun phrase expressing the direct object:

(25) **šim zi-*gen*$_7$ saĝ-*ĝá mi-ni-íb*-dé**
šim zi.d =gen saĝ =ʔa Ø -mu -ni-b -dé -e
aromatics right=EQU head=LOC VP-VENT-in-3N.DO-pour-3SG.A:IPFV
'He was pouring it (= plaster) as the right cosmetics over its head.' (Cyl A 27:24; L; 22)

The verb **dé** 'pour' is not the only one to lack almost consistently the {b}. The same is true for **ř**ú 'erect, build' and **ĝar** 'place'. E.g.:

(26) **sipa-*dè* é kù-*ga mu*-ř**ú-*e***
sipa.d =e é =Ø kù.g =ʔa Ø -mu -n(i)-řú **-e**
shepherd=ERG house=ABS silver=LOC VP-VENT-in -erect-3SG.A:IPFV
'The shepherd was building the temple with silver.' (Cyl A 16:25; L; 22)

(27) **ka-guru$_7$-*ke$_4$* / kišib ki-*ba ḫa-na-a-ĝá-ĝá***
ka.guru$_7$.k =e kišib=Ø ki =be=ʔa
granary.supervisor=ERG seal =ABS place=its=LOC

ḫa =ʔi -nna -e -ĝar:RDP-e
MOD=VP-3SG.IO-on-place:IPFV-3SG.A:IPFV
'The granary supervisor should put the sealed documents on their place for him.' (AuOr 17/18 p. 218:1 8-9; L; 21)

But for these two verbs too, there are forms with {b} as well. Forms with and without the {b} are even found side by side:

(28) ***a-gù-a-na* / *na-bí-ĝá-ĝá* / 14.4.0 gur / *a-gù-a-na* / *ḫa-ab-ĝá-ĝá***
a.gù=ane=ʔa nan -bi -b -ĝar:RDP -e
top =his =LOC NEG.MOD-3N:on-3N.DO-place:IPFV-3SG.A:IPFV

14.4.0 gur=Ø a.gù=ane=ʔa ḫa =Ø -b(i) -ĝar:RDP -e
14.4.0 gur =ABS top =his =LOC MOD=VP-3N:on -place:IPFV-3SG.A:IPFV
'He should not place it on his account, but he should place 14.4.0 *gur* on his account.' (AuOr 17/18 p. 219:5 6-10; L; 21)

The verb **e** 'say' also systematically lacks the {b}. Compare the perfective form with the imperfective:

(29) ***bí-né-eš***

Ø -bi -n -ʔe -eš
VP-3N.OO-3SG.A-say:PLUR-3PL
'They said: "(...)".' (e.g., NG 84 14; L; 21)

(30) **u_4-*da* še *nu*-tuku *íb-bé***
u_4.da še =Ø nu =ʔi -ʔ -tuku-Ø ʔi -b -ʔe -e
if barley=ABS NEG=VP-1SG.A-have-3N.S/DO VP-3N.OO-say:IPFV-3SG.A:IPFV
'if he says "I have no barley"' (TCS 1:157 7; L; 21)

(31) **lugal-*e* / *na-ab-bé-a***
lugal=e (a.)na=Ø ʔa -b -ʔe -e -ʔa =Ø
king =ERG what =ABS VP-3N.OO-say:IPFV-3SG.A:IPFV-NOM=ABS
'what the king says' (TCS 1:1 1-2; U; 21)

Surely, the four verbs **dé** 'pour', **řú** 'erect', **ĝar** 'place', and **e** 'say' are not the only ones which tend to lack the direct-object marker {b}. But they occur frequently enough to make its absence perceptible as a pattern. At the same time, certain other frequently occurring verbs never seem to lack the {b}, among them **su.g** 'repay' and **ge.n** 'be firm, make firm'. In other words, to at least some extent the whole phenomenon depends on which verb is used and is, thus, at least partly, lexically determined.

Perhaps we are witnessing an intermediary stage in a linguistic change from less to more use of the {b}, with most verbs following a relatively new rule to express a non-human direct object with {b}, while a few frequent verbs still follow an older rule not to express it. Note that the {b} is also absent from certain other types of forms (§16.3.1 and §22.4).

15.2.5. The irregular verb tùm

Yoshikawa (1977) identified a number of verbs with imperfective stems and meanings but following the perfective inflection. Almost all verbs from his list have since turned out to be regularly inflected verbs which generally lack the direct-object marker {b} (see the previous section). One verb from his list, **tùm** 'bring', is truly irregular, though.

Sallaberger (2005b) succeeded in separating the two homographic verbs **túm** 'bring (said of objects that can move by themselves, such as people, animals, and boats)' and **ře$_6$** 'bring (said of objects that cannot move by themselves)'. Since **tùm** is sometimes used to write **túm**, he considered **túm** and **tùm** to be two different spellings for one and the same verb. In actual fact, they are to be kept apart along the same lines as **túm** and **ře$_6$**. The imperfective forms of **túm** and **tùm** show this clearly. Those of **túm** follow the imperfective inflection and have the same meaning as Sallaberger established for the perfective forms of **túm** (see examples 6f. above). But the imperfective verb **tùm** has a one-to-one suppletive relationship with the verb **ře$_6$**, which is restricted to perfective forms. Like **ře$_6$** it has the meaning 'bring (said of objects that cannot move by themselves)'.

Although **tùm** always has an imperfective meaning, the transitive forms of this verb consistently follow the perfective inflection. E.g.:

(32) **še-*ĝu$_{10}$ ḫa-mu*-tùm**
še =ĝu =Ø ḫa =Ø -mu -e -tùm -Ø
barley=my=ABS MOD=VP-VENT-2SG.A-bring:IPFV-3N.S/DO
'You should bring my barley!' (Ukg. 6 4:3'; L; 24)

(33) ***lú-ša-lim-e ba-an*-tùm**

lú.ša.lim=e Ø -ba -n -tùm -Ø
Lū.šalim =ERG VP-MM-3SG.A-bring:IPFV-3N.S/DO
'Lū-šalim will take it (= subsistence land) away.' (NG 215 8; U; 21)

(34) **diri-*bé* eren$_2$-*e* *ba-ab*-tùm**
diri.g =be=Ø eren$_2$ =e Ø -ba -b -tùm -Ø
surplus=its=ABS troops=ERG VP-MM-3N.A-bring:IPFV-3N.S/DO
'The troops will take away its surplus.' (NG 215 21; U; 21)

(35) **kišib-*ba-né* / *ḫé-ma-an*-tùm**
kišib=ane=Ø ḫa =Ø -ma -n -tùm -Ø
seal =his =ABS MOD=VP-1SG.IO-3SG.A-bring:IPFV-3N.S/DO
'He should bring me his sealed document!' (TCS 1:111 6-7=112 8-9; L; 21)

The non-finite forms of **tùm** are completely regular imperfective forms, with the suffix {ed} (§28.4). E.g.:

(36) **lugal-*ḫé*-ĝál-*e* / ezem maḫ-*šè* / tùm-*mu-dam***
lugal.ḫé.ĝál=e ezem maḫ =še tùm -ed -Ø =ʔam
Lugal.hegal =ERG festival great=TERM bring:IPFV-IPFV-NFIN=be:3SG.S
'This is to be brought by Lugal-hegal before month X.' (CST 534 4-6; ?; 21)

This form is almost always written **tùm-*dam***, though.

Some finite forms of **tùm** also contain the suffix {ed}. All attestations also include the nominalizing suffix {ʔa} and vice versa. For the rest, unfortunately, their analysis remains obscure. I tentatively take them to be regularly formed intransitive imperfectives (§15.3.3). E.g.:

(37) **u$_4$ šu zi *ma-ši*-tùm-*da***
u$_4$.d šu zi.d =Ø Ø -ma -ši-tùm -ed -Ø -ʔa
day hand right=ABS VP-1SG.IO-to-bring:IPFV-IPFV-3N.S:IPFV-NOM
'the day when the right hand will be brought to it for me' (Cyl A 11:19; L; 22)

(38) **še ge-zu-na^{ki}-*ta* *mu*-tùm-*da***
še ge.zu.na=ta Ø -mu -n(i)-tùm -ed -Ø -ʔa
barley Gezuna =ABL VP-VENT-in -bring:IPFV-IPFV-3N.S:IPFV-NOM
'the barley which will be brought in from Gezuna' (TCS 1:77 3; N; 21)

I cannot offer an explanation for the irregular behaviour of the transitive finite forms of this one verb, but, as we shall see in the next section, there also situations where perfective stems follow the imperfective inflection.

15.3. Perfective and imperfective stem forms

15.3.1. Introduction

There are multiple formal distinctions between the perfective and imperfective paradigms. The inflections or systems of subject and object marking were treated in section 15.2, but they are only part of the story. The differences in stem form are as important, and especially so for the intransitive paradigm. These differences in stem form are partly lexically determined and partly grammatically.

Some differences in stem form only apply to a small group of frequently used verbs. Which verb belongs to this group and which not is completely unpredictable, but what all these verbs have in common is that they have the special stem in all their imperfective forms, transitive as well as intransitive. These lexically determined imperfective stems have been discussed in detail in §12.3, so that a very brief summary will suffice here. In most cases the special imperfective stem is a reduplicated one, according to one of the two formulas $C_1V_1C_1V_1$ or $C_1V_1C_2C_1V_1$. E.g.:

(39) ***mu-ĝá-ĝá-ne***
Ø -mu -n(i)-ĝar:RDP-enē
VP-VENT-in -place:IPFV-3PL.A:IPFV
'they were placing it in it' (Cyl A 25:14; L; 22)

(40) ***ḫal-ḫa-dam***
ḫa.la:RDP-ed -Ø =ʔam
divide:IPFV-IPFV-NFIN=be:3N.S
'this is to be distributed' (e.g., RTC 58 12:2; L; 24)

In some cases the special imperfective stem is a matter of suppletive verbs, as, for instance, with **ře$_6$** and **tùm** 'bring' (§15.2.5), a perfective and an imperfective verb that otherwise share the same meaning. See §12.3 for more details.

A stem modification that applies to all verbs alike is the use of the suffix {ed}.[1] This suffix is used in all non-finite and nearly all intransitive finite imperfective forms. In other words, it occurs in exactly those imperfective forms that would otherwise lack a consistent formal distinction with the perfective. The forms and spellings of the suffix {ed} in finite forms will be discussed in the next section (§15.3.2) and its use in §15.3.3. For {ed} in non-finite forms, see §28.4 and §28.5.

Following Yoshikawa (1968a), some Sumerologists, among them Jacobsen (1988a) and Krecher (1995), assume an imperfective stem suffix *{e}, which is basically the same element as our person suffix {e} (§14.5) but differently analysed. In their view, all verbs with a suffix {e} in the third person singular also have a suffix {e} in the rest of their paradigm. The present grammar does not follow this view but takes the suffix {e} as a portmanteau morpheme with a double function: it expresses a transitive subject of the third person singular as well as identifies the form as imperfective. In this it is the exact parallel of the third person plural suffix {enē} (§14.9).

A fundamental objection to Yoshikawa's theory is that his suffix {e} is completely invisible outside the third person singular. It is true that in the imperfective inflection all but one of the person suffixes contain an initial /e/ (§15.2.1), but this /e/ clearly is a part of the suffixes themselves and is also present when these suffixes are used in other than imperfective forms. Moreover, the /e/ of these suffixes shows exactly the same properties in imperfective as in perfective forms, undergoing the same assimilations and reductions, and showing the same spellings (§14.10-§14.11). Thus, the presence and absence of the hypothetical stem suffix {e} does not correspond to any observable difference in pronunciation and has therefore no basis in linguistic reality.

Closely connected with this theory of an imperfective stem suffix {e} is the idea that the basic distinction between the perfective and imperfective paradigms is one of stem forms. The

[1] This rule has one exception: the imperfective verb **du** 'go, come' consistently lacks the suffix {ed}.

exact opposite of such an approach would be to take the basic distinction as one of inflection, that is, as one of which person markers are used (cf. Rubio 2007: 1334-1336). Both approaches are one-sided. The perfective and imperfective paradigms are formally distinct partly because of a different inflection and partly because of a difference in stem form. The former dominates the transitive paradigm and the latter the intransitive, primarily due to a wide use of the stem suffix {ed}.

Yet, it is equally important to keep stem and inflection clearly separated, because the two do not have a one-to-one relationship. In fact, there are three situations where stem and inflection disagree:

(a) the imperfective verb **tùm** 'bring' follows the perfective inflection in its transitive forms (§15.2.5);
(b) imperative forms have perfective stem forms but use the final person-prefixes as in the imperfective inflection (§25.3);
(c) forms with the modal prefix {ga} likewise have perfective stem forms while using the final person-prefixes as in the imperfective inflection (§25.6).

An explanation for these irregularities is still lacking.

15.3.2. Forms and spellings of the suffix {ed}

The suffix {ed] occurs far more frequently in non-finite forms, so that its properties in such forms is much better known (§28.4.2). Judged on the available evidence, its behaviour in finite forms seems to be exactly the same.

The basic form of {ed} is /ed/. E.g.:

(41) ***am$_6$-ta*-bala-*e-da***
ʔa -m(u)-ta -e -balaʔ-ed -Ø -ʔa
VP-VENT-from-on-cross -IPFV-3SG.S:IPFV-NOM
'he who crosses it from there' (Ent. 28 6:16; L; 25)

The /d/ of {ed} is never written in syllable-final position. E.g.:

(42) ***ka* é-ĝidri-*ka-ta* / ĝiš *e*-tag-*ge***
ká é.ĝidri.k=ak =ta ĝiš =Ø ʔi -b -tag -ed -Ø
gate Egidri =GEN=ABL wood=ABS VP-3N.OO-touch-IPFV-3N.S:IPFV
'This will be sacrificed out of the gate of the Egidri.' (Nik 1:23 2:10-11; L; 24)

The initial /e/ of {ed} undergoes the same changes as the initial /e/ of the person suffixes (§14.10). The /e/ contracts with a preceding vowel, which is lengthened as a result, as the occasional plene writing bears out. E.g.:

(43) **ur-^{d}iškur *la-ba-a-řú-ù-da***
ur.iškur =Ø nu =Ø -ba -e -řú -ed -Ø -ʔa
Ur.Ishkur=ABS NEG=VP-MM-on-hold-IPFV-3SG.S:IPFV-NOM
'that Ur-Ishkur will not hold onto it' (BE 3/1:2 4; N; 21)

(44) **bar udu bar$_6$-*ka* / bar sila$_4$ gaba-*ka-ka* / kù *a-ĝá-ĝá-da***
bar udu bar$_6$ =ak =ʔa bar sila$_4$ gaba =ak =ak =ʔa kù.g =Ø
outside ram white=GEN=LOC outside lamb breast=GEN=GEN=LOC silver=ABS

ʔa -b(i) -ĝar:RDP-ed -Ø -ʔa =ak
VP-3N:on-place:IPFV-IPFV-3N.S-NOM=GEN
'of (the situation) that a silver tax was being paid on the fleece of a white ram and on the fleece of a suckling lamb' (Ukg. 4 8:28-30; L; 24)

The /e/ of {ed} becomes /u/ after certain verbal stems with the stem vowel /u/:

(45) ***in-na*-šúm-*mu-da***
ʔi -nna -šúm-ed -Ø -ʔa
VP-3SG.IO-give-IPFV-3N.S:IPFV-NOM
'about that it would be given to him' (NATN 937=FAOS 17:17 8; N; 21)

The scribes usually ignore the initial /e/ of {ed} is in those forms where the /d/ of {ed} is explicitly written. This may be due to simple scribal economy, but it could also reflect a reduction in an open non-final syllable (Krecher 1995: 155-156). E.g.:

(46) ***ì*-gaz-*da***
ʔi -gaz-ed -Ø -ʔa
VP-kill -IPFV-3SG.S:IPFV-NOM
'that he would be killed' (ITT 3:4847 9; L; 21)

(47) ***ba-ra-ba*-zàḫ-*dè-e*[$n_6^!$]**
bara -ba -zàḫ -ed -en
CAT.NEG-MM-run.away-IPFV-1SG.A/S:IPFV
'I will not run away!' (BE 3:4 7; N; 21)

Thus, it remains unclear what the precise conditions are under which the /e/ is absent or present.

15.3.3. The paradigm of the intransitive verb

The perfective and imperfective inflections have exactly the same subject markers in their intransitive forms. Thus, the inflection for person alone makes it impossible to keep perfective and imperfective intransitive finite forms apart. It is here that stem distinctions come into play. Now, only a few verbs have a clearly recognizable imperfective stem through reduplication or suppletion (§12.3, §15.3.1). They cannot support a regular formal distinction between a perfective and imperfective paradigm. This role is played by the suffix {ed}, which results in the following paradigm for the intransitive verb:

	Perfective	***Imperfective***
First person singular human	-en	-ed-en
Second person singular human	-en	-ed-en
Third person singular human Third person non-human	-Ø	-ed-Ø
First person plural human	-enden	-ed-enden
Second person plural human	-enzen	-ed-enzen
Third person plural human	-eš	-ed-eš

This is the paradigm already established by Poebel (1934: 170), but it received little support until Krecher (1995: 180). The reason behind this late reception is the fact that Falkenstein (1931) had a completely different analysis, which became an integral part of his grammar of the Gudea texts (Falkenstein 1949, 1950). Through this highly influential reference work, Falkenstein's theory of the intransitive verb came to dominate the field for half a century.

According to Falkenstein (1950: 154), there are simply far too many exceptions to allow us to speak of a regular formation. However, almost all his counter-examples are intransitive modal forms with {ḫa}, which regularly are perfective (§25.4). His counter-examples may have non-past reference, but they unmistakenly are perfective forms.

Yet, there are indeed a few exceptions. Our corpus contains the following:

(48) **ki-sur-*ra* / ^{d}nin-*ĝír-su-ka-ke*$_4$ / *ba-ra-mu*-bala-*e***
ki.sur.ra nin.ĝír.su.k=ak =e bara -mu -n(i)-bala^{ʔ}-en
border Ningirsu =GEN=DIR CAT.NEG-VENT-in -cross -1SG.A/S:IPFV
'I will not cross Ningirsu's border!' (Ean. 1 obv 20:17-19; L; 25)

(49) **u$_4$-*da mu*-bala-*e***
u$_4$.da Ø -mu -n(i)-bala -en
if VP-VENT-in -cross-1SG.A/S:IPFV
'if I cross it' (Ean. 1 rev 1:24; L; 25)

(50) **iri-*šè ì*-du-*e***
iri =še ʔi -du -en
city=TERM VP-go:IPFV-1SG.A/S:IPFV
'I am going to the city.' (Cyl A 3:18; L; 22)

(51) **é-gal-*šè na-an*-du-*un***
é.gal =še nan -du -en
palace=TERM NEG.MOD-go:IPFV-1SG.A/S:IPFV
'I do not want to go to the palace!' (YOS 4:1 5; U; 21)

The last two exceptions are regular in their irregularity, because the verb **du** nevers has the suffix {ed}, not in finite nor in non-finite forms (§28.4.2). This leaves us with two early forms of the verb **bala** which lack the suffix {ed} unexpectedly. Contrast this with the more than sixty attestations of various verbs which do include {ed}, and it becomes clear that the use of {ed} indeed is quite regular, as Poebel (1934:170) and Krecher (1995: 180) have claimed.

The suffix {ed} is also regularly used with those verbs having a special imperfective stem through reduplication or suppletion (with the exception of **du** 'go, come'). E.g.:

(52) **é lugal-nesaĝ$_2$-*e* enku-*ka* / *nu-un*-ku$_4$-ku$_4$-*da***
é lugal.nesaĝ$_2$.e enku.ř =ak =ʔa
house Lugalnesage inspector.of.fisheries=GEN=LOC

nu =ʔi -n(i)-ku$_4$.r:RDP-ed -Ø -ʔa
NEG=VP-in -enter:IPFV -IPFV-3SG.S:IPFV-NOM
'that he would not enter the house of Lugalnesage, the inspector of fisheries' (BPOA 1:1086 3-4; U; 21)

(53) ***nu-ub*-gi$_4$-gi$_4$-*dè-éš***
nu =ʔi -b(i) -gi$_4$:RDP-ed -Ø
NEG=VP-3N:on-turn:IPFV-IPFV-3SG.S:IPFV
'They will not go back on it.' (NATN 131 6; N; 21)

(54) **kišib lú *nu-ub-da*-su-su-*da-ne***
kišib lú nu =ʔi -b -da -su.g:RDP-ed -Ø -ʔa =ak =enē
seal man NEG=VP-3N-with-repay:IPFV-IPFV-3N.S:IPFV-NOM=GEN=PL
'sealed documents of people with whom they (= the debts) will not be repaid' (Nebraska 19 52; U; 21)

(55) **u_4 $geme_2$-$^{d}lama_3$ *ba*-ug_7-*e-da-a***
u_4.d $geme_2$.$lama_3$=Ø ba -ug_7 -ed -Ø -ʔa =ʔa
day Geme.Lama =ABS MM-die:IPFV-IPFV-3SG.S:IPFV-NOM=LOC
'when Geme-Lama dies' (NG 7 15; L; 21)

15.4. Uses of the perfective and imperfective

15.4.1. Introduction

The two grammatical categories perfective and imperfective were seen as tenses for most of the twentieth century. Poebel (1934) called them 'preterit' and 'present-future' and Falkenstein (1949, 1950) 'Präteritum' and 'Präsens-Futur'. These labels corresponded to their perceived primary uses: the 'preterit' (perfective) basically was a past tense and the 'present-future' (imperfective) a non-past tense (e.g., Falkenstein 1950: 155). And, indeed, such a description works most of the time quite well. Translating perfective forms with a past tense and imperfective forms with a present or future tense gives quite good results, especially in legal and administrative documents. In narrative texts, however, many imperfective forms are found which refer to past events, but that was primarily seen as a literary and stylistic device (Falkenstein 1950: 155-156).

Diakonoff (1967) is the first grammar to describe Sumerian as having a system of aspects instead of tenses. In his view, Sumerian has two aspects, perfective and imperfective (Diakonoff 1967: 71). As he wrote in Russian, his ideas have had little impact, but they were built upon in another Sumerian grammar in Russian, Kaneva (1996). Outside Russia and independently from Diakonoff, the main impulse for a different approach came from Yoshikawa, who published a highly influential article, in which he proposed to replace the present-future tense by the *marû* aspect and the preterit tense with the *ḫamṭu* aspect (Yoshikawa 1968b: 416). Since the publication of this article, there is a growing tendency among Sumerologists to view Sumerian as having a system of two aspects, a perfective and an imperfective.

Thus, there has been a shift of opinion on what the primary meanings are of the two grammatical categories perfective and imperfective. In the earlier 'tense' view, the perfective expresses a past tense and the imperfective a non-past tense. In the 'aspect' view, the perfective expresses a complete action and the imperfective an incomplete action (Michalowski 2004: 39). In spite of this discussion about 'tense or aspect', there has been very little research into the actual uses and meanings of the two sets of forms. It is for this reason that many Sumerologists remain quite reluctant to make a definite statement on the issue.

A crucial contribution to the semantics of the Sumerian perfective and imperfective came from Krecher, who observed that the Sumerian imperfective forms never have a stative meaning and, accordingly, that states are always expressed by perfective forms (Krecher 1995: 143). This observation has huge implications, not only for our understanding of Sumerian verbal forms, but also for the 'tense or aspect' discussion, for it brings out a fundamental difference between Sumerian and, for instance, Russian. In Russian and many other languages, a stative

meaning is associated with the imperfective aspect and not with the perfective as in Sumerian (Forsyth 1970; Comrie 1976).

Edzard (1971b) also contributes significantly to our insight into the uses of the Sumerian perfective and imperfective. His article shows that these two categories strongly interact with the modal preformatives. In other words, the meanings of the Sumerian perfective and imperfective cannot be studied unless those of the preformatives are taken into account as well. Again, the implications are huge, because every finite verbal form contains a preformative (§24.1) and each of them has a meaning in the general area of tense, mood, and aspect.

The following two sections focus on the main uses of the perfective and imperfective in those finite verbal forms, in which the semantic contribution of the preformative is either easy to isolate or negligible. The former is true for forms with the negative preformative {nu} (§25.2) and the latter applies to those forms which only contain the vocalic prefix {ʔi} or its zero alternate (chapter 24). The chapters 24, 25, and 26 contain much additional information in the sections on the individual preformatives. Chapter 27 gives more details on the use of the perfective and imperfective in subordinate clauses. Chapter 28, finally, does the same for the non-finite forms.

15.4.2. Main uses of the perfective

States are always expressed with perfective forms. Verbs which can only have a stative meaning (**me** 'be', **ĝál** 'be (somewhere)') are only found in the perfective. Other verbs, which can have a stative meaning in the perfective, always show a dynamic (non-stative) meaning in the imperfective (Krecher 1995: 143). The perfective is, for instance, used to express a past state:

(56) **zi-*da* gabu$_2$-*na* piriĝ *i*-nú-nú**
zi.d -Ø -ʔa gabu$_2$=ane=ʔa piriĝ=Ø ʔi-b(i) -nú-nú-Ø
be.right-NFIN-NOM left =his =LOC lion =ABS VP-3N:on-lie-lie -3N.S/DO
'Lions lay on his right as well as on his left.' (Cyl A 4:19; L; 22)

(57) **šeg$_{12}$ *nam* tar-*ra* ^{ĝiš}*ù*-šub-*ba ma-an*-ĝál**
šeg$_{12}$ nam =Ø tar-Ø -ʔa =Ø ù.šub =ʔa Ø -ma -n(i)-ĝál -Ø
brick status=ABS cut-NFIN-NOM=ABS brick.mold=LOC VP-1SG.IO-in -be.there-3N.S/DO
'The brick for which the fate had been decided was in the brick mold for me.' (Cyl A 5:7; L; 22)

(58) **igi-*ĝu$_{10}$*-*šè* dusu kù *i*-gub**
igi =ĝu =še dusu kù.g=Ø ʔi -gub -Ø
eye=my=TERM basket pure=ABS VP-stand-3N.S/DO
'A holy basket stood in front of me.' (Cyl A 5:5; L; 22)

(59) **é *a-da-a-ka i*-nú-*àm***
é a.da.a=ak =ʔa ʔi -n(i)-nú-Ø =ʔam
house Ada =GEN=LOC VP-in -lie -3SG.S/DO=be:3SG.S
'It was (the case that) she slept in Ada's house.' (TCL 2:5481 5; D; 21)

The perfective is also used to express a present state:

(60) ***a-na íb*-ak-*na-bé nu*-zu**
a.na =Ø ʔi -b -ʔak -en -ʔa =be=Ø nu =ʔi -ʔ -zu -Ø
what=ABS VP-3N.DO-make-1SG.A/S:IPFV-NOM=its=ABS NEG=VP-1SG.A-know-3N.S/DO

'I do not know what I shall do about it (lit. "I do not know its what shall I make").' (VS 10:193 8; ?; 21)

(61) **kišib ra-*a* / *nu*-banda$_3$ gu$_4$-*ke$_4$-ne* / *ì-in*-ĝál**
kišib ra -Ø -ʔa nu.banda$_3$ gu$_4$.ř=ak =enē=Ø ʔi -n(i)-ĝál -Ø
seal hit-NFIN-NOM overseer ox =GEN=PL =ABS VP-in -be.there-3N.S/DO
'Herein are the sealed documents of the overseers of oxen.' (UET 3:53 2-4; Ur; 21)

(62) **kišib-*a-né mu-da*-ĝál**
kišib=ane=Ø Ø -mu -ʔ -da -ĝál -Ø
seal =his =ABS VP-VENT-1SG-with-be.there-3N.S/DO
'His sealed document is with me.' (TCS 1:353 6; U; 21)

(63) **ses-tur-*ré* / u$_4$-lú / *e-da*-tuku**
ses.tur =e u$_4$.lú=d(a) ʔi-n -da -n -tuku-Ø
Sheshtur=ERG Ulu =COM VP-3SG-with-3SG.A-have-3N.S/DO
'Sheshtur has this (silver) with Ulu = Ulu owes this to Sheshtur.' (RTC 28 2-4; L; 24)

(64) **é-*ba* sám^{àm}-*bé nu*-til**
é =be =ak sám =be=Ø nu =ʔi -til -Ø
house=this=GEN price=its=ABS NEG=VP-end-3N.S/DO
'The price of this house is not paid in full.' (NG 104 8; L; 21)

The perfective is also used to express a future state:

(65) **nin-dub-sar dumu ka$_5$-*a* / dam-*šè ḫa*-tuku**
nin.dub.sar dumu ka$_5$.a=Ø dam=še ḫa =ʔa-ʔ -tuku-Ø
Nindubsar child Ka'a =ABS wife =TERM MOD=VP-1SG.A-have -3SG.S/DO
'I wish to have Nindubsar, daughter of Ka'a, as wife!' (NG 15 5-6; L; 21)

(66) **lugal-*ĝu$_{10}$ ḫé-en*-zu**
lugal=ĝu=e ḫa =ʔi -n -zu -Ø
king =my=ERG MOD=VP-3SG.A-know-3N.S/DO
'May my king know it!' (TMHC NF 4:42 31; ?; 21, OB copy)

(67) **igi ^{d}nanna-*ka* / *ḫé-en*-sa$_6$**
igi nanna=ak =ʔa ḫa =ʔi -n(i)-sa$_6$.g -Ø
eye Nanna=GEN=LOC MOD=VP-in -be.good-3SG.S/DO
'May he be good in Nanna's eyes!' (FAOS 9/2 Amarsuen 12 38-39; Ur; 21)

The perfective is also used for the stative passive (§11.5.3). E.g.:

(68) **^{ĝiš}*ù*-šub kù si *íb*-sá**
ù.šub kù.g=Ø si=e ʔi -b -sá -Ø
brick.mold pure=ABS ? =DIR VP-3N.OO-be.equal-3N.S/DO
'A holy brick mold was readied (= stood ready).' (Cyl A 5:6; L; 22)

(69) ***ab-ba-ĝá ma-ar-gi$_8$-ni ì-ĝá-ar***
ab.ba=ĝu =ak ama.ar.gi$_4$=ane=Ø ʔi -ĝar -Ø
father=my=GEN freedom =his =ABS VP-place-3N.S/DO
'My father's freedom was established (= My father was a freed man).' (NG 30 2; U; 21)

(70) **tukum-*bé nu-ub*-sar**

tukum.be nu =ʔi -b(i) -sar -Ø
if NEG=VP-3N:on-write-3N.S/DO
'if it is not written on it (= if it does not exist on it)' (NG 209 89; N; 21)

While states are always expressed with perfective forms, both the perfective and the imperfective are used to express actions, that is to say, non-stative, dynamic situations. But in doing so, they convey different meanings. The perfective is the form used to express a timeless truth (Alster 2005: 209). E.g.:

(71) **igi ḫuš-*a-ĝu*$_{10}$ kur-*re nu-um*-íl**
igi ḫuš -Ø -ʔa =ĝu =Ø kur =e nu =ʔi -m(u)-ʔíl-Ø
eye be.angry-NFIN-NOM=my=ABS mountains=ERG NEG=VP-VENT-lift-3N.S/DO
'The mountain lands cannot bear my angry look.' (Cyl A 9:25; L; 22)

(72) **á'(DA) bař$_4$-*a-ĝu*$_{10}$ lú *la-ba-ta*-è**
á bař$_4$ -Ø -ʔa =ĝu =Ø lú =e nu =Ø -ba -ta -n -ʔè -Ø
arm open-NFIN-NOM=my=ABS man=ERG NEG=VP-MM-from-3SG.A-go.out-3N.S/DO
'No man escapes from the reach of my arms.' (Cyl A 9:26; L; 22)

The perfective is the form used by default for expressing a past action. E.g.:

(73) **ki-*ba na bí*-řú**
ki =be =ʔa na =Ø Ø -bi -n -řú -Ø
place=this=LOC stone=ABS VP-3N:on-3SG.A-erect-3N.S/DO
'He erected a stela on this place.' (Ent. 28 1:12; L; 25)

(74) **ba-gara$_2$ é íd-*dè* lá-*a-e im-*<*ma*>**-ti-*a-ta* / ninda ĝiš *bí*-tag**
ba.gara$_2$ é íd =e lá -Ø -ʔa =e
Bagara house river=DIR hang-NFIN-NOM=DIR

ʔi -m(u) -ba -ti -Ø -ʔa =ta
VP-VENT-3N.IO-approach-3SG.S/DO-NOM=ABL

ninda=e ĝiš =Ø Ø-bi -n -tag -Ø
bread=DIR wood=ABS VP-3N.OO-3SG.A-touch-3N.S/DO
'After he had reached the Bagara, the temple hanging over the river, he sacrificed bread.' (Cyl A 2:7-8; L; 22)

(75) ***la-ba-ra*-sa$_{10}$**
nu =Ø -ba -ta -sa$_{10}$ -Ø
NEG=VP-MM-from-barter-3SG.S/DO
'She was not sold.' (NG 46 5; L; 21)

The perfective is also used to express non-past actions, but only in specific types of subordinate clauses. Its use is, for instance, obligatory in forms with the relative-past prefix {ʔu}. E.g.:

(76) ***nam*-lú-ulu$_3$ iri-*na* / šu *ù-na*-zi / šà iri-*na-ka* / *ḫa-né*-gaz-*e***
nam.lú.ulu$_3$=e iri =ane=ʔa šu =Ø ʔu -nna -b -zi.g-Ø
people =ERG city=his=LOC hand=ABS REL.PAST-3SG.IO-3N.A-rise-3N.S/DO

šà.g iri =ane=ak =ʔa ḫa =Ø-ni-n -gaz-e
heart city=his =GEN=LOC MOD=VP-in-3SG.DO-kill -3N.A:IPFV

'May the population, having raised their hands against him in his city, kill him in the middle of his city!' (Ent. 28 6:26-29; L; 25)

See §24.2 for more details.

The perfective is also obligatory in two out of three types of conditional clauses, including those with the conjunction **tukum-*bé***. E.g.:

(77) **tukum-*bé* / *nu-na-an*-šúm / é-*a-né-ta* / *íb*-su-su**
tukum.bé nu =ʔi -nna -n -šúm-Ø
if NEG=VP-3SG.IO-3SG.A-give -3N.S/DO

é =ane=ta ʔi -b -su.g:RDP-e
house=his =ABL VP-3N.DO-repay:IPFV -3SG.A:IPFV
'If he does not give this to him, he shall repay this out of his estate.' (TCS 1:177 8-11; L; 21)

But note that conditional clauses with the conjunction **u$_4$-*da*** regularly show imperfective forms. See §27.6.6 for more details on conditional clauses.

A verb of speaking always shows a perfective form if it expresses a past action and the direct speech precedes the verb of speaking. E.g.:

(78) ***na-gu* lú-sukkal-*ke$_4$* *ma-an*-bala *bí-in*-du$_{11}$**
na.gu=e lú.sukkal.k=e Ø -ma -n -balaʔ-Ø
Nagu=ERG Lusukkal =ERG VP-1SG.IO-3SG.A-cross -3N.S/DO

Ø -bi -n -du$_{11}$.g-Ø
VP-3N.OO-3SG.A-say -3N.S/DO
'Nagu said: "Lusukkal transferred it to me".' (NG 145 8'; L; 21)

If one of these conditions is not met, or both of them, the verb of speaking always has an imperfective form (§15.4.3).

15.4.3. Main uses of the imperfective

The imperfective never expresses a stative meaning. A verb which can have a stative meaning in the perfective always has a non-stative one in the imperfective (Krecher 1995: 143). E.g.:

(79) **ama ^{d}*ba-ú* en ^{d}nin-*gír-su-da* / ki-nú *mu-da-ab*-du$_{10}$-*ge***
ama ba.ú=e en nin.ĝír.su.k=da ki.nú=Ø
mother Bau =ERG lord Ningirsu =COM bed =ABS

Ø -mu-n-da -b -du$_{10}$.g-e
VP-VENT-3SG-with-3N.DO -be.sweet-3SG.A:IPFV
'Mother Bau makes the bed sweet with lord Ningirsu.' (Cyl B 17:2-3; L; 22)

(80) ***nam*-maḫ-*a-né* / kalam-*e ḫé*-zu-zu**
nam.maḫ=ane=Ø kalam =e ḫa =ʔi -zu:RDP -e
greatness =his =ABS country=ERG MOD=VP-know:IPFV-3SG.A:IPFV
'May the country come to know his greatness!' (St B 9:29-30; L; 22)

(81) **nin-*gu-la* / dam šà-*ga-na-ke$_4$* / *ḫa-ba*-tuku-tuku**
nin.gu.la=Ø dam šà.g =ane=ak =e ḫa =Ø -ba -n -tuku:RDP-e
Ningula =ABS husband heart=her =GEN=ERG MOD=VP-MM-3SG.DO-have:IPFV -3SG.A:IPFV

'Let Ningula be married by a husband of her own choice!' (SRU 85 rev. 12'-14'; I; 23)

While states are always expressed with perfective forms, both the perfective and the imperfective can be used to express an action. Whereas the perfective is primarily used to express a past action, the imperfective is the normal form used to express a non-past action. Thus, the imperfective is used to express a present action, that is, an action described as ongoing at the time of the speech event:

(82) **nidba gal-gal / *e-na*-gíd-*dè***
nidba gal-gal=Ø ʔi -nna -gíd -e
food.offering big-big=ABS VP-3SG.IO-be.long-3SG.A:IPFV
'He increases the main food offerings for him.' (FAOS 5/2 Luzag. 1 3:10-11; N; 24)

(83) **a du_{10} *e-na*-dé-*e***
a du_{10}.g=Ø ʔi -nna -dé -e
water sweet =ABS VP-3SG.IO-pour-3SG.A:IPFV
'He pours fresh water for him.' (FAOS 5/2 Luzag. 1 3:12; N; 24)

(84) ***a-na-aš-àm* / ur-^{d}lama$_3$-*ke$_4$* / ú gu_7-*dè* / *nu-ub-še-ge***
a.na =š(e) =ʔam ur.lama$_3$.k=e ú =Ø gu_7-ed -Ø =e
what=TERM=be:3N.S Urlama =ERG grass=ABS eat -IPFV-NFIN=DIR

nu =ʔi -b -še.g -e
NEG=VP-3N.OO-allow-3SG.A:IPFV
'Why does Urlama not allow grazing?' (TCS 1:121 6-9; L; 21)

The imperfective is also used to express a future action:

(85) **u_4 igi *ì-íb*-du_8-*a mu*-túm-*mu-a***
u_4.d igi=Ø ʔi -b(i) -du_8 -e -ʔa =ʔa
day eye=ABS VP-3N:on-spread-3SG.A:IPFV-NOM=LOC

Ø -mu -n -túm -e -ʔa
VP-VENT-3SG.DO-bring-3SG.A:IPFV-NOM
'that he would bring him when he saw him' (NG 190 25; L; 21)

(86) **é-*zu ma-ra*-řú-*e***
é =zu =Ø Ø -mu -ra -řú -en
house=your=ABS VP-VENT-2SG.IO-erect-1SG.A/S:IPFV
'I will build your temple for you.' (Cyl A 8:18; L; 22)

(87) **1 *ma-na* kù-babbar / $geme_2$-^{d}ig-alim-*ra* / níĝ-*ú-rum-e* / *in-na*-lá-*e***
1 ma.na kù.babbar=Ø $geme_2$.ig.alim=ra níĝ.ú.rum=e
1 pound silver =ABS Geme.Igalim =DAT Nig'urum =ERG

ʔi -nna -láʔ -e
VP-3SG.IO-weigh-3SG.A:IPFV
'Nig'urum will pay one pound of silver to Geme-Igalim.' (NG 17 14-17; L; 21)

(88) **u_4 $geme_2$-^{d}lama$_3$ *ba*-ug_7-*e-da-a* / (...) / *in*-ba-*a-ne***
u_4.d $geme_2$.lama$_3$=Ø ba -ug_7 -ed -Ø -ʔa =ʔa
day Geme.Lama =ABS MM-die:IPFV-IPFV-3SG.S:IPFV-NOM=LOC

ʔi -n -ba -enē
VP-3SG.DO-portion.out-3PL.A:IPFV
'When Geme-Lama dies, they will share him (viz. a slave).' (NG 7 15-19; L; 21)

Although the perfective is the form by default to express a past action (§15.4.2), the imperfective can also be used to do so. The imperfective then expresses the past action as an action which in some way has not reached its endpoint. Thus, the imperfective is used to express a past action with the implication that its result is still operative at the present time:

(89) **lú-*ra* saĝ gig-*ge* šu *mu-ĝá-ĝá***
lú =ra saĝ gig=e šu =Ø Ø -mu -n -ĝar:RDP -e
man=DAT head ill =ERG hand=ABS VP-VENT-3SG.OO-place:IPFV-3SG.A:IPFV
'Headache has placed (its) hand upon a man (= He has now a headache).' (TMHC 6:1 B 2; N; 21)

(90) **anzu^{mušen} gùd-*ba a-ba* <*ba*>-*ra-an*-tùm**
anzu.d=Ø gùd=be=ʔa a.ba=e Ø -ba -ta -n -tùm -Ø
Anzu =ABS nest =its=LOC who=ERG VP-MM-from-3SG.A-bring:IPFV-3N.S/DO
'Who has taken away the *Anzu*-bird from its nest? (= The bird is now gone)' (Lugalbanda II 89 manuscript AA; OB)

More commonly, though, the imperfective is used to express a past progressive. It then describes a past action as ongoing at the time talked about. E.g.:

(91) **kur nu$_{11}$-*ta* nu$_{11}$ *mu-na-ta*-e$_{11}$-*dè***
kur nu$_{11}$ =ak =ta nu$_{11}$ =Ø
mountains alabaster=GEN=ABL alabaster=ABS

Ø -mu -nna -ta -e$_{11}$.d -ed -Ø
VP-VENT-3SG.IO-from-go.down-IPFV-3N.S:IPFV
'From the alabaster mountains alabaster was coming down for him.' (Cyl A 16:24; L; 22)

(92) **é ḫur-saĝ-*gen$_7$ im*-mú-mú-*ne***
é =Ø ḫur.saĝ =gen ʔi -m(u)-mú:RDP -enē
house=ABS mountain=EQU VP-VENT-grow:IPFV-3PL.A:IPFV
'They were causing the house to grow like a mountain.' (Cyl A 21:19; L; 22)

(93) **sipa-*dè* é kù-*ga mu*-ř́ú-*e***
sipa.d =e é =Ø kù.g =ʔa Ø -mu -n(i)-ř́ú -e
shepherd=ERG house=ABS silver=LOC VP-VENT-in -erect-3SG.A:IPFV
'The shepherd was building the temple with silver.' (Cyl A 16:25; L; 22)

More specifically, the imperfective can be used to express an action which is simultaneous with the action or state expressed by the preceding clause (cf. Wilcke 1990a: 476, 482, 493; Streck 1998: 184-185). E.g.:

(94) **dub mul-an du$_{10}$-*ga im-mi*-ĝál / ad *im-dab$_6$*-gi$_4$-gi$_4$**
dub mul.an=ak =Ø du$_{10}$.g=ʔa ʔi -m(u)-bi -n -ĝál -Ø
tablet star =GEN=ABS knee =LOC VP-VENT-3N:on-3SG.A-be.there-3N.S/DO

ad =Ø ʔi -m(u) -da -b -gi$_4$:RDP-e
sound=ABS VP-VENT-with-3N.DO-turn:IPFV -3SG.A:IPFV
'She had a star tablet on her knee and was consulting it.' (Cyl A 4:26-5:1; L; 22)

In the same way, the imperfective can present an action as simultaneous with the action or state expressed by the following clause:

(95) **é-ninnu *im-ta*-sikil-*e-ne* / *im-ta*-dadag-*ge-éš***
é.ninnu=Ø ʔi -m(u) -ta -sikil -enē ʔi -m(u) -ta -n -zalag:RDP -eš
Eninnu =ABS VP-VENT-with-be.pure-3PL.A:IPFV VP-VENT-with-3SG.A-be.bright:PLUR-3PL
'They were cleaning the Eninnu with it and brightened it up with it.' (Cyl B 4:11-12; L; 22)

Used together with direct speech, the verbs of speaking show a clear division of usage between the imperfective and the perfective. If a verb of speaking predeces the direct speech, it always has an imperfective form, because the act of speaking has not yet reached its endpoint at the time talked about. E.g.:

(96) **ensi$_2$-*ra* ama-*né* ^{d}nanše *mu-na-ni-ĩb*-gi$_4$-gi$_4$**
ensi$_2$.k=ra ama =ane nanše =e Ø -mu -nna -ni-b -gi$_4$:RDP-e
ruler =DAT mother=his Nanshe=ERG VP-VENT-3SG.IO-in-3N.DO-turn:IPFV-3SG.A:IPFV
'His mother Nanshe answered the ruler: "...".' (Cyl A 5:11; L; 22)

(97) **gù-dé-*a* / alan-*e* / inim *im-ma*-šúm-*mu***
gù.dé.a=e alan =e inim=Ø ʔi -m(u) -ba -šúm-e
Gudea =ERG statue=DIR word=ABS VP-VENT-3N.IO-give-3SG.A:IPFV
'Gudea gave the statue a message: "...".' (St B 7:21-23; L; 22)

(98) **siskur$_2$ *mu-na-bé***
siskur$_2$=Ø Ø -mu -nna -b -ʔe -e
prayer =ABS VP-VENT-3SG.IO-3N.OO-say:IPFV-3SG.A:IPFV
'He said a prayer to her: "...".' (Cyl A 2:27; L; 22)

If the direct speech precedes the verb of speaking and the act of speaking took place in the past, the verb of speaking always shows a perfective form (§15.4.2), because the act of speaking reached its endpoint at the time talked about as well as before the present. But if the direct speech precedes the verb of speaking and the act of speaking does not take place in the past, again the imperfective is used, because the imperfective is also used to express non-past actions. E.g.:

(99) **(...) *nu-ub-bé-ne-a***
nu =ʔi -b -ʔe -enē -ʔa
NEG=VP-3N.OO-say:IPFV-3PL.A:IPFV-NOM
'that they would not say: "..."' (NRVN 1:180 12; N; 21)

Punctual verbs (e.g., **pà.d** 'find') refer to actions without any duration: the beginning and end of the action fall together into a single point. Hence, the action of, for instance, 'finding' cannot be presented as ongoing. Yet, the imperfective is also used with **pà.d** 'find' while referring to a past action. What does the imperfective express in such forms? One possibility is that it expresses conation, a 'trying to (do something)'. This is a usage the Russian imperfective may have (Forsyth 1970: 71-73) and perhaps it also occurs in Sumerian, which lacks a verb for 'try to' (§11.3). Such a meaning would fit the imperfective form ***ì*-pà-*dè*** in the following fragment from a literary text about a contest between two rulers:

(100) **gaba-ri *nu-mu-da*-ĝál gaba-ri *ì*-kíĝ-kíĝ / (...) gaba-ri *ì*-pà-*dè* / gaba-ri *in*-pà (...)**

gaba.ri=Ø nu =Ø -mu -n -da -ĝál -Ø gaba.ri=Ø
answer =ABS NEG=VP-VENT-3SG-with-be.there-3N.S/DO answer =ABS

ʔi -kíĝ:RDP-e (...) gaba.ri=Ø ʔi -pà.d-e gaba.ri=Ø
VP-seek:IPFV-3SG.A:IPFV (...) answer =ABS VP-find -3SG.A:IPFV answer =ABS

ʔi -n -pà.d-Ø
VP-3SG.A-find -3N.S/DO
'He had no answer. He was looking for an answer. (Staring at his own feet), he tried to find an answer. He found an answer (and shouted it to the messenger.)' (ELA 237-239; OB)

There is another possibility, though. Instead of the meaning 'trying to', such forms could conceivably convey a 'beginning to', for which Sumerian likewise lacks a separate verb (§11.3). The translation would then be something like 'he was beginning to find an answer'. Such an ingressive meaning seems to fit the following passage better, which has a similar sequence of an imperfective and perfective form, albeit not of a punctual verb:

(101) **máš bar$_6$-bar$_6$-*ra* šu *mu*-gíd-*dè* / máš-*a* šu *ni*-gíd**
máš bar$_6$ -bar$_6$ =ʔa šu =Ø Ø -mu -n(i)-gíd -e
kid white-white=LOC hand=ABS VP-VENT-in -be.long-3SG.A:IPFV

máš=ʔa šu =Ø Ø -ni-n -gíd -Ø
kid =LOC hand=ABS VP-in-3SG.A-be.long-3N.S/DO
'He set out to perform extispicy on (lit. "to stretch out (his) hand into") a white kid. He did extispicy on a kid (and his sign was good).' (Cyl A 12:16-17; L; 22)

Of course, negative forms of punctual verbs can express actions with duration: 'not finding something' can go on for quite some time. Accordingly, a negative imperfective form of **pà.d** 'find' can refer to an ongoing past action:

(102) **lú ĝìš du$_{11}$-*ga*-*né* kur-kur-*ra* *nu*-*um*-*ma*-*ni*-*in*-pà-*dè***
lú ĝìš =Ø du$_{11}$.g-Ø -ʔa =ane=Ø kur -kur =ʔa
man penis=ABS do -NFIN-NOM=her =ABS mountains-mountains=LOC

nu =ʔi -m(u)-ba -ni-n -pà.d-e
NEG=VP-VENT-MM-in -3SG.DO-find -3SG.A:IPFV
'In all the mountain land, she could not find (lit. "was not finding") the man who had made love to her.' (Shukaletuda 230; OB)

16. THE DIMENSIONAL PREFIXES AND INITIAL PERSON-PREFIXES

16.1. Introduction

A finite verbal form can contain up to three different person markers, one each from three sets of forms: the initial person-prefixes, the final person-prefixes, and the person suffixes. Two of these sets have been treated in previous chapters, the final person-prefixes in chapter 13 and the person suffixes in chapter 14. The third set, consisting of the initial person-prefixes, is one of the main topics of the present chapter.

The initial person-prefixes are closely associated with the 'dimensional prefixes', a term which covers all the prefixes that can occur between an initial and a final person-prefix. These dimensional prefixes are cognate with case markers and refer to participants which have roles in the action or state expressed by the verb. The role that the initial person-prefixes play in this has only recently been cleared up.

The dimensional prefixes have featured as a grammatical category in Sumerian grammars ever since Poebel's epoch-making grammar (Poebel 1923: §486-516). Poebel assumed that all dimensional 'infixes', as he called them, occurred with a person prefix. Where the texts did not show such a person prefix, he reconstructed one (Poebel 1923: §501). Heimpel (1974: 14) came to a different conclusion: 'a second dimensional element in a form is regularly not preceded by a pronominal element'. Krecher (1985: 133 note 1) discovered that there is actually only a single series of person prefixes preceding all dimensional prefixes. A prefix of this series, a 'vorderes Personalpräfix' (initial person-prefix), is always used in combination with the 'Dimensionalinfix' (dimensional prefix) immediately following it.

The table below lists the basic forms and meanings of the initial person-prefixes and the dimensional prefixes. It also shows the relative order in which they occur in the verbal form. Prefixes from the same column cannot occur together in a single form, while prefixes from different columns can:

Initial person-prefixes	**Dimensional prefixes**			
	Indirect-object markers	***Prefix {da}***	***Prefixes {ta} and {ši}***	***Local prefixes***
? 'me'	**(a)** 'to, for'	**da** 'with'	**ta** 'from'	**ni** 'in(to)'
e 'you (sg.)'	**(ra)** 'to, for'		**ši** 'to(wards)'	**e** 'on(to)'
n 'him, her'				
b 'it, them'				
mē 'us'				
(**enē**) 'you (pl.)'				
nnē 'them'				

As it happens, the corpus lacks forms with an initial person-prefix for the second person plural. Later texts contain a form generally written ***-e-ne-*** (Attinger 1993: 210), which may be analysed as the initial person-prefix of the second person singular {e} followed by a form /nē/ and which thus has a structure similar to that of the initial person-prefix {nnē} (§16.2.3).

As the table shows, a finite verbal form may, in theory, contain up to four different dimensional prefixes. In practice, finite verbal forms never use these theoretical possibilities to their full extent, but verbal forms with three different dimensional prefixes occur every now and then, while forms with two dimensional prefixes are quite common. At the same time, no verbal form contains more than one initial person-prefix. Such a prefix is always used together with an adjacent dimensional prefix, so that a second and third dimensional prefix always lack a person prefix.

The table above only gives the basic form of each prefix. Most of them undergo changes depending on what follows or precedes. In addition, there is some variation in spelling. The following section (§16.2) deals with the forms and spellings of the individual initial person-prefixes. The forms and spellings of the various dimensional prefixes will be treated in the following chapters. The indirect-object prefixes, the fused forms of the initial person-prefixes and the indirect-object marker, are the topic of chapter 17. Chapter 18 treats the oblique-object prefixes, which include specialized forms of the initial person-prefixes and the local prefix {e}. Chapter 19 deals with the prefixes {da}, {ta}, and {ši}. Chapter 20, finally, treats the local prefixes {ni} and {e}. Note that the local prefix {e} is treated in two different chapters (18 and 20), in accordance with the two quite different syntactic functions it can have.

16.2. Forms and spellings of the initial person-prefixes

16.2.1. The initial person-prefix {b}

Apart from its relative position in the verbal form (it precedes instead of follows any dimensional prefixes), the initial person-prefix non-human has the same form and spellings as the final person-prefix non-human (§13.2.2). Its basic form is /b/. This form occurs before all dimensional prefixes. E.g.:

(1) **^{d}en-líl-*le* / absin$_3$-*na-na* / mun *ḫa-bí*-zi-zi**
en.líl=e absin$_3$=ane=ʔa mun=Ø ḫa =Ø -bi -b -zi.g:RDP-e
Enlil =ERG furrow=his =LOC salt =ABS MOD=VP-3N:on-3N.DO-rise:IPFV -3SG.A:IPFV
'May Enlil have salt come up on his furrows!' (Ean. 63 3:4-6; L; 25)

(2) **anše bìr-*ra-ke$_4$ ba*-su$_8$-*ge-éš***
anše bìr =ak =e Ø -ba -su$_8$.g -eš
donkey team=GEN=DIR VP-3N.IO-stand:PLUR-3PL.S/DO
'They (viz. a man and a woman labourer) served (lit. "stood for") the donkey teams.' (TSA 13 5:4; L; 24)

(3) **kišib ur-^{d}en-líl-*lá-da* / níĝ-ka$_9$ *ab-da*-ak**
kišib ur.en.líl.lá.k=ak =da níĝ.ka$_9$=Ø ʔa -b -da -ʔak -Ø
seal Urenlila =GEN=COM account=ABS VP-3N-with-make-3N.S/DO
'An account has been made up with Ur-Enlila's sealed documents.' (NRVN 1:235 1-2; N; 21)

(4) **2 *ma-na* kù-sig$_{17}$ / kadra *íb-ši*-ak**
2 ma.na kù.sig$_{17}$=Ø kadra=š(e) ʔi -b -ši-n -ʔak -Ø
2 pound gold =ABS gift =TERM VP-3N-to-3SG.A-make-3N.S/DO
'He made two pounds of gold into a gift.' (RTC 83 12'-13'; L; 23)

If the dimensional prefix following /b/ begins with a consonant, the initial person-prefix {b} is a syllable-final consonant. This applies whenever {b} is used immediately before one of the dimensional prefixes {da}, {ši}, or {ta}. The scribes then often ignore it, just as they do with other syllable-final consonants (§2.4). Compare the following pairs of examples, the first of each pair with a defective spelling and the second with a full spelling of the prefix {b}:

(5a) **zi-zi-*ga-bé ì-ta*-zi**
zi.g-zi.g-Ø -ʔa =be=Ø ʔi -b -ta -zi.g-Ø
rise-rise-NFIN-NOM=its=ABS VP-3N-from-rise-3N.S/DO
'The raised ones of these (animals) were raised from these (animals).' (MAD 4:53 17; U; 23)

(b) **gu$_4$ su-*ga íb-ta*-zi**
gu$_4$.ř su.g -Ø -ʔa =Ø ʔi -b -ta -zi.g-Ø
bull repay-NFIN-NOM=ABS VP-3N-from-rise-3N.S/DO
'The replaced oxen were raised from these (animals).' (UTAMI 3:2091 15; U; 21)

(6a) **šuku engar *nu-ta*-zi**
šuku.ř engar =ak =Ø nu =ʔi -b -ta -zi.g-Ø
prebend farmer=GEN=ABS NEG=VP-3N-from-rise-3N.S/DO
'The prebendal land of the farmers was not raised from this.' (ASJ 17 p. 215f 109 7:6'; L; 21)

(b) **šuku šà-gu$_4$-*ka nu-ub-ta*-zi**
šuku.ř šà.gu$_4$.k=ak =Ø nu =ʔi -b -ta -zi.g-Ø
prebend ox.driver=GEN=ABS NEG=VP-3N-from-rise-3N.S/DO
'The prebendal land of the ox drivers was not raised from this.' (OIP 97:17 4; N; 21)

The following are similar instances of defective spellings:

(7) **é-mí-*ta* / *e-ta*-ĝar**
é.mí=ta ʔi -b -ta -n -ĝar -Ø
Emi =ABL VP-3N-from-3SG.A-place-3N.S/DO
'He supplied this (cloth) from the Emi.' (VS 14:163 7:1-2; L; 24)

(8) **lú unug^{ki}-*ga* iri-*da* / *ì-da*-tuš-*a***
lú unug=ak =Ø iri =da ʔi -b -da -tuš-Ø -ʔa =ʔa
man Uruk=GEN=ABS town=COM VP-3N-with-sit -3SG.S/DO-NOM=LOC
'when Urukean besieged the city (lit. "sat with the city")' (DP 545 5:3-4; L; 24)

Immediately after the ventive prefix {mu}, the prefix {b} has abnormal forms. As they will be treated in detail in the following chapters, a brief outline will suffice here. Two rules apply. Which one is relevant depends on whether {b} is followed by a vowel or by a consonant. First, the prefix {b} cannot occur between the ventive prefix and a consonant (see §22.4). Second, between the form /m/ of the ventive and a vowel, the prefix {b} assimilates to the /m/. Accordingly, the indirect-object prefix {ba} becomes /ma/ (see §17.2.1), while the form /bi/ of the oblique-object prefix non-human (see §18.2.2) and of the local prefix {e} (see §20.3.1) becomes /mi/.

The initial person-prefix {b} and the prefix {ba} cannot occur together in a single verbal form. The following two clauses illustrate this nicely. While the dimensional prefix {ta} is used together with a non-human initial person-prefix {b} in the first verbal form, it lacks one in

the second, after the prefix {ba}. (Note that the /t/ of {ta} becomes /r/ between vowels, see §19.3.1.):

(9a) **ĝiš-*a íb-ta*-bala-*éš***
ĝiš =ʔa ʔi -b -ta -n -balaʔ-eš
wood=LOC VP-3N-from-3SG.A-cross -3PL.S/DO
'He let them cross the wood.' (RTC 80 16; L; 23)

(b) **ĝiš-*gen$_7$-na ba-ra-a*-bala-*eš***
ĝiš.gan=ʔa Ø -ba -ta -e -balaʔ-eš
pestle =LOC VP-MM-from-on-cross -3PL.S/DO
'They were caused to cross the pestle.' (FAOS 17:121 18; ?; 21)

This restriction has its origin in the prehistory of the language and is due to the fact that the /b/ of the prefix {ba} is historically the same element as the initial person-prefix non-human {b} (§17.2.1).

In one type of form, the initial person-prefix {b} occurs immediately before the stem, where it cannot always be distinguished from the final person-prefix {b}. This type of form is found whenever the local prefix {e} 'on' is the only dimensional prefix in the verbal form and that verbal form lacks a final person-prefix. See §20.3.1 for more details.

16.2.2. The initial person-prefix {n}

Apart from its relative position in the verbal form (it precedes instead of follows any dimensional prefixes), the initial person-prefix for the third person singular human has the same form as the final person-prefix for the third person singular human (§13.2.3). Its basic form is /n/ and occurs before all dimensional prefixes. However, the indirect-object prefix {nna} and the oblique-object prefix {nni} show special fused forms, which will be treated in detail elsewhere, {nna} in §17.2.2 and {nni} in §18.2.3. Here we will focus on the unfused forms of the initial person-prefix {n}, that is to say, on the forms where {n} is combined with the dimensional prefixes {da}, {ta}, or {ši}.

As stated above, the basic form of the initial person-prefix {n} is /n/. E.g.:

(10) **ur-*ra-né* / *an-da-še***
ur.ra.né=d(a) ʔa -n -da -sig$_7$ -Ø
Urrani =COM VP-3SG-with-live:PLUR-3N.S/DO
'They (viz. 42 oxen) live with Urrani.' (ECTJ 81 3; N; 24)

(11) **lú káb-su^{ki}-*ta* / ^{d}nanna-ki-áĝ-*da in-da*-ĝen-*na***
lú káb.su=ta nanna.ki.áĝ=da ʔi -n -da -ĝen-Ø -ʔa
man Kabsu =ABL Nannakiag =COM VP-3SG-with-go -3SG.S/DO-NOM
'the man who came with Nannakiag from Kabsu' (NG 121 15-16; U; 21)

(12) **1 má-60-gur PN *dam-gara$_3$-šè ba-an-ši*-sa$_{10}$**
1 má.60.gur =Ø PN dam.gara$_3$=še Ø -ba -n -ši-sa$_{10}$ -Ø
1 60.gur.boat=ABS PN merchant =TERM VP-MM-3SG-to-barter-3N.S/DO
'One boat of sixty *gur* was bought from PN, the merchant.' (NG 214 51; U; 21)

If combined with the dimensional prefixes {da}, {ta}, or {ši}, the /n/ of the prefix is always in syllable-final position. The scribes then often ignore it, just as they do with other syllable-final consonants (§2.4). The following two pairs of examples illustrate this phenomenon, the

first of each pair showing a full spelling and the second a defective spelling of the prefix {n}. E.g.:

(13a) **lú-diĝir-*ra-ke*$_4$ / ur-lugal-*šè* / *in-ši*-sa$_{10}$**
lú.diĝir.ra.k=e ur.lugal.ak=še ʔi -n -ši -n -sa$_{10}$ -Ø
Ludingira =ERG Urlugal =TERM VP-3SG-to-3SG.A-barter-3N.S/DO
'Ludingira bought her (viz. a slave woman) from Urlugal.' (NG 68 3-5; L; 21)

(b) **PN / *nu*-kiri$_6$-*šè* / bara$_2$-*nam*-tar-*ra* / *e*-*šè*-sa$_{10}$**
PN nu.kiri$_6$.k=še bara$_2$.nam.tar.ra=e ʔi -n -ši -n -sa$_{10}$ -Ø
PN gardener =TERM Baranamtara =ERG VP-3SG-to-3SG.A-barter-3N.S/DO
'Baranamtara bought him (viz. a slave) from PN, the gardener.' (VS 14:144 1:2-5; L; 24)

(14a) **PN šandana-*da* / *in-da*-ĝál**
PN šandana.k =da ʔi -n -da -ĝál -Ø
PN chief.gardener=COM VP-3SG-with-be.there-3N.S/DO
'This is with PN, the chief gardener.' (TMHC NF 1/2:125 4-5; N; 21)

(b) **di-utu / aga$_3$-ús-*da* / *e-da*-ĝál**
di.utu.k aga$_3$.ús=da ʔi -n -da -ĝál -Ø
di'utu soldier =COM VP-3SG-with-be.there-3N.S/DO
'This (wheat) is with Di'utu, the soldier.' (BIN 8:377 1:2-2:1; L; 24)

The following are additional instances of such defective spellings:

(15) **^{d}en-líl-*e* en ^{d}nin-*ĝír-su-šè* igi zi *mu-ši*-bar**
en.líl=e en nin.ĝír.su.k=še igi zi.d =Ø Ø -mu -n -ši-n -bar -Ø
Enlil=ERG lord Ningirsu =TERM eye right=ABS VP-VENT-3SG-to-3SG.A-be.out-3N.S/DO
'Enlil looked at the lord Ningirsu with favour (lit. "brought out (his) right eyes to").' (Cyl A 1:3; L; 22)

(16) **amar-girid$_2$ / lú-bappir$_3$-*da* / *ba-da*-lá**
amar.girid$_2$.k lú.bappir$_3$.k=da Ø -ba -n -da -lá -Ø
Amargirid brewer =COM VP-MM-3SG-with-be.short-3N.S/DO
'This was short with Amargirid the brewer.' (VS 14:121 2:1-3; L; 24)

(17) **uš-*bé* ní-*ba* ḫa-*mu-ta*-è-*dé***
uš$_{11}$ =be =Ø ní =be=ʔa ḫa =Ø -mu -n -ta -ʔè -ed -e
poison=this=ABS self=its=LOC MOD=VP-VENT-3SG-from-go.out-IPFV-3SG.A:IPFV
'He must let that poison come out of him by itself.' (VS 10:193 14; ?; 21)

16.2.3. The initial person-prefix {nnē}

The initial person-prefix for the third person plural human is {nnē}. Its basic form is /nnē/, with a long vowel /ē/, because it is written with the sound sign ***ne*** and never with ***né*** (§2.5). E.g.:

(18) **ur-^{d}nin-tu-*ke*$_4$ / PN$_1$ *ù* / PN$_2$ dam-*né-šè* / *in-ne-ši*-sa$_{10}$**
ur.nin.tu.k=e PN$_1$ ù PN$_2$ dam=ane=še ʔi -nnē-ši-n -sa$_{10}$ -Ø
Urnintu =ERG PN$_1$ and PN$_2$ wife =his =TERM VP-3PL -to-3SG.A-barter-3SG.S/DO
'Ur-Nintu bought her from PN$_1$ and his wife PN$_2$.' (FAOS 17:S.3 4-7; U; 21)

Being a syllable-final consonant, the first /n/ of /nnē/ is often ignored in the spelling (§2.4). The form ***in-ne-ši*-sa$_{10}$** of example (18) occurs elswhere with a defective spelling of /nn/ as ***ì-ne-ši*-sa$_{10}$** (RTC 80 10; L; 23) and ***e-ne-šè*-sa$_{10}$** (e.g., Nik 1:125 1:9; L; 24).

While the scribes use the sound sign ***ne*** to write {nnē} when combined with the dimensional prefix {ši}, they write a sequence of the two prefixes {nnē} and {da} with the single sign PI. By analogy with the spelling ***ne-ši***, the sign PI can then be transliterated ***neda***, but since the transliteration is derived from the morphological analysis in the first place, it gives no independent evidence for the form of the prefix {nnē}. See §19.2.1 for examples.

In usage the prefix {nnē} differs somewhat from most other initial person-prefixes. In fact, it can be shown to have three separate usages, the first of which is illustrated by example (18) above. There it is used in combination with a dimensional prefix, being the plural counterpart of the singular initial person-prefix {n} (§16.2.2). In this particular usage, {nnē} is glossed as "3PL". Compare, for instance, example (18) with the following:

(19) **ur-^{d}li$_9$-si$_4$-*na-ke$_4$* / lú-níĝ-lagar-*e-eš* / *in-ši*-sa$_{10}$**
ur.li$_9$.si$_4$.na.k=e lú.níĝ.lagar.e=š(e) ʔi -n -ši-n -sa$_{10}$ -Ø
Urlisin =ERG Luniglagare =TERM VP-3SG -to-3SG.A-barter-3SG.S/DO
'Ur-Lisin bought it from Lu-niglagare.' (FAOS 17:96 3-5; U; 21)

Such forms with {nnē}, where it is actually combined with a dimensional prefix, are not very numerous. It is primarily found with the dimensional prefixes {da} and {ši}.

The prefix {nnē} shows anomalous behaviour from most other initial person-prefixes in that it is nearly always used on its own, not in combination with an adjacent dimensional prefix. Thus, its second and most common use is as the indirect-object prefix for the third person plural, being the plural counterpart of the prefix {nna} (§17.2.2). In this particular usage, it is glossed as "3PL.IO". Compare:

(20a) **má-laḫ$_5$-*e-ne ba-an-ne*-zi**
má.laḫ$_5$=enē=r(a) Ø -ba -nnē -zi.g-Ø
boatman=PL =DAT VP-MM-3PL.IO-rise-3N.S/DO
'It was raised for the boatmen.' (HLC I 32-33 HLb 81 6:6; L; 21)

(b) **lú-^{d}utu-*ra ba-an-na*-zi**
lú.utu.k=ra Ø -ba -nna -zi.g-Ø
Lu'utu =DAT VP-MM-3SG.IO-rise -3N.S/DO
'It was raised for Lu'utu.' (MVN 3:257 6; Guzana; 21)

The attestations of {nnē} used as an indirect-object prefix are treated in chapter 17 (§17.2.3), where additional data can be found.

The bare prefix {nnē} is similarly found as the oblique-object prefix for the third person plural, being the plural counterpart of {nni} (§18.2.3). In this third usage, it is glossed "3PL.OO". Compare:

(21a) **sipa-*dè-ne* / gú-*ne-ne-a* / *e-ne*-ĝar**
sipa.d =enē=r(a) gú =anēnē=ʔa ʔi -nnē -n -ĝar -Ø
shepherd=PL =DAT neck=their =LOC VP-3PL.OO-3SG.A-place-3N.S/DO
'He placed this (as a burden) on the shepherds, on their necks.' (OrSP 20 p. 28: VAT 4459 6:2-4; L; 24)

(b) **é-ĝissu-*bé* / gú-*na e-né*-ĝar**

é.ĝissu.be=r(a) gú =ane=ʔa ʔi -nnē -n -ĝar -Ø
Egissube =DAT neck=his =LOC VP-3SG.OO-3SG.A-place-3N.S/DO
'He placed this (as a burden) on Egissube, on his (viz. Egissube's) neck.' (RTC 62 3:2-3; L; 24)

The attestations of {nnē} used as an oblique-object prefix are treated more fully in chapter 18, especially in §18.2.6.

Note that there is a very rarely occurring final person-prefix {nnē} (§13.3.2), which is identical in form with the initial person-prefix {nnē}, but which has a different relative position in the verbal form (it follows instead of precedes any dimensional prefixes).

As for its origin, the prefix {nnē} is probably cognate with the plural marker {enē} (§6.3) and the person suffix {enē} (§14.9). Has {nnē} arisen from a fusion of the singular person-prefix {n} with the plural marker {enē}?

16.2.4. The initial person-prefix {e}

Apart from its relative position in the verbal form (it precedes instead of follows any dimensional prefixes), the initial person-prefix for the second person singular human has the same forms and spellings as the final person-prefix for the second person singular human. Both have a basic form /e/ in texts from the Old Babylonian period and later. In earlier texts the prefix is so far only attested in forms where it has been contracted with a preceding vowel: There is as yet no early attestation of a verbal form in which the prefix occurs as an independent segment (e.g. in an hypothetical ****e-da*-ĝen-*na*** 'who went together with you'). Nevertheless, the attested earlier forms can be derived in a natural way from a basic form /e/ of the prefix, in the same way as with the final person-prefix {e} (§13.2.4) and the local prefix {e} (§20.3.1).

The indirect-object and oblique-object prefixes for the second person singular have irregular forms, viz. {ra} and {ri}. They will be treated in detail elsewhere, {ra} in §17.2.4 and {ri} in §18.2.4. Here we will focus on the regular forms, which are found with the dimensional prefixes {da} or {ši}. (The corpus lacks attestations with {ta}.)

The prefix {e} contracts with a preceding vowel, lengthening that vowel. In the texts from our corpus, the resulting length of the vowel is usually ignored by the spelling, but, in the Gudea texts and later, the scribes often express it with a plene spelling. After the vowel /a/, for instance, the prefix can be reflected by an additional ***-a-***:

(22) ***ga-šè*-sa$_{10}$**
ga -e -ši-sa$_{10}$
MOD:1SG.A/S-2SG-to-barter
'I want to buy it from you!' (Ukg. 4 11:23; L; 24)

(23) **šu *ba-a-ši-íb*-ti**
šu =e Ø -ba -e -ši -b -ti -e
hand=DIR VP-3N.IO-2SG-to-3N.DO-approach-3SG.A:IPFV
'He will accept it from you (lit. "He will let it approach (his) hand towards you").' (Cyl A 7:3; L; 22)

(24) **di *ba-ra-a-da-ab-bé-en*$_6$**
di.d=Ø bara -e -da -b -ʔe -en
trial=ABS CAT.NEG-2SG-with-3N.OO-say:IPFV-1SG.A/S:IPFV
'I will not go to trial with you!' (NG 20 8; L; 21)

After the vowel /u/, the initial person-prefix of the second person can be written ***-ù-***:

(25) **ki-en-gi-*řá* kur-kur igi-*bé ḫa-mu-ši*-ĝál**
ki.en.gi.ř=ʔa kur -kur =ak igi=be=Ø
Sumer =LOC mountains-mountains=GEN eye=its=ABS

ḫa =Ø -mu -e -ši -e -ĝál -Ø
MOD=VP-VENT-2SG-to-on-be.there-3N.S/DO
'May the eyes of all mountain lands be (directed) to you, on Sumer!' (Cyl B 22:20; L; 22)

(26) **ki-en-gi-*ře*$_6$ ì diri *mu-da*-dé**
ki.en.gi.ř=e ì diri.g=Ø Ø -mu -e -da -b -dé -Ø
Sumer =ERG fat extra =ABS VP-VENT-2SG-with-3N.A-pour-3N.S/DO
'Sumer produces with you extra fat.' (Cyl A 11:11; L; 22)

(27) **šà-*bé nu-mu-ù-da*-zu**
šà.g =be=Ø nu =Ø-mu -e -da -ʔ -zu -Ø
heart=its=ABS NEG=VP-VENT-2SG-with-1SG.A-know-3N.S/DO
'I have not learned its meaning from you.' (Cyl A 8:22; L; 22)

There are no certain attestations of the initial person-prefix {e} after other vowels than /a/ and /u/.

As we saw in section 13.2.4, earlier and later written Sumerian differ in how the /e/ of the final person-prefix {e} contracts with a preceding vowel. In the earlier texts, the preceding vowel is lengthened but in the later texts, it is the /e/ itself that becomes long, at the expense of the preceding vowel. With the form /e/ of the initial person-prefix, we find exactly the same dialectal difference. For instance, instead of the earlier spellings ***mu-*** or ***mu-ù-*** (for /mū/ < *mue), we usually find the more morphological spelling ***mu-e-*** in texts from the Old Babylonian period, alternating with the occasional phonemic spelling ***me-*** (for /mē/ < *mue). E.g.:

(28) ^{kuš}***lu-úb ši-mu-e-da*-gu$_7$-*e*** (manuscript UM$_1$: ***-mu-e-da-***, manuscript I$_6$: ***-me-da-***, manuscript I$_9$: ***-mu-da-***)
lu.úb=Ø ši -mu -e -da -gu$_7$-e
bag =ABS PFM-VENT-2SG-with-eat -3SG.A:IPFV
'He will share the bread bag with you.' (Instr.Shur. 125; OB)

16.2.5. The initial person-prefix {ʔ}

The initial person-prefix for the first person singular human is only attested before the dimensional prefixes {da} and {ši}. Its absence before the prefix {ta} is perhaps only due to the accidents of historical preservation, but for the rest its non-appearance is no coincidence. In other forms the ventive prefix {mu} is used instead. See §17.2.5 for the indirect-object prefix {ma} of the first person singular and §22.3 for the use of the ventive prefix for expressing an oblique object of the first person singular.

Apart from its relative position in the verbal form (it precedes instead of follows any dimensional prefixes), the initial person-prefix for the first person singular human shows the same forms and spellings as the final person-prefix for the first person singular human. Section 13.2.5 argued for a basic form /ʔ/ of the latter prefix. Since the same arguments are equally valid for positing a basic form /ʔ/ of the initial person-prefix, the discussion of section 13.2.5 will not be repeated here.

In the texts of our corpus, the ventive prefix {mu} (chapter 17) is always used before the initial person-prefix /ʔ/ and always has the form /mu/. The prefix /ʔ/ is, therefore, only attested after the vowel /u/. At some point in time, /ʔ/ was lost after /u/, lengthening it to /ū/. This change took place not later than the time of Gudea, because from then onwards explicit plene spellings are found, showing the long vowel (cf. §13.2.5). The non-plene spellings which were earlier the norm do not make clear whether the actual form was /uʔ/ or /ū/. E.g.:

(29) **kur ú-sal-*la* / *ḫa-mu-da*-nú**
kur =Ø ú.sal =ʔa ḫa =Ø -mu -ʔ -da -e -nú-Ø
mountains=ABS green.meadow=LOC MOD=VP-VENT-1SG-with-on-lie-3N.S/DO
'May the mountain land lie on green pastures with me!' (FAOS 5/2 Luzag. 1 3:22-23; N; 24)

(30) **kù *nu-mu-da-a*-tuku**
kù.g =Ø nu =Ø -mu -ʔ -da -e -tuku-Ø
silver=ABS NEG=VP-VENT-1SG-with-2SG.A-have-3N.S/DO
'I do not owe you silver (lit. "You do not have silver with me").' (NATN 571 7; N; 21)

(31) **lú-ús *ĝá-ar ḫa-mu-ši-in*-gi$_4$-gi$_4$**
lú.ús =Ø ĝe=r(a) ḫa =Ø -mu -ʔ -ši-n -gi$_4$:RDP-e
driver=ABS I =DAT MOD=VP-VENT-1SG-to-3SG.DO-turn:IPFV-3SG.A:IPFV
'He should send me (lit. "turn to me") a driver.' (MVN 11:168 18; U; 21)

(32) ***mu-ù-da*-gub-*a-bé***
Ø -mu -ʔ -da -gub -Ø -ʔa =be
VP-VENT-1SG-with-stand-3SG.S/DO-NOM=its
'the one of them who stands with me' (Shulgi D 213; ?; 21, OB copy)

16.2.6. The initial person-prefix {mē}

The initial person-prefix for the first person plural human is {mē}. Its form is always /mē/, written ***me***. E.g.:

(33) **a-*me-da*-nú**
a =Ø Ø -mē-da -nú-Ø
father=ABS VP-1PL-with-lie -3SG.S/DO
'Father lies with us.' (PN) (DP 136 10:7 = Nik 1:3 14:8; L; 24)

(34) ***me-da*-tuku-*a***
Ø -mē -da -n -tuku-Ø -ʔa
VP-1PL-with-3SG.A-have-3N.S/DO-NOM
'which we owe him (lit. "that he has with us")' (NATN 626 6'; N; 21)

The prefix {mē} can be used together with a dimensional prefix, as in the previous example. It is then the plural counterpart of the prefix {ʔ} (§16.2.5). Compare, for instance, example 34 containing {mē} with 30 above containing {ʔ}. In this usage {mē} is glossed as "1PL".

However, just like the prefix {nnē} (§16.2.3), {mē} can also be used on its own, without a dimensional prefix. It has then two possible uses. First, it can express an oblique object of the first person plural, being the plural counterpart of {mu} (§22.3). Compare:

(35a) **igi *me-eb*-du$_8$-*ne-a***

igi =Ø Ø -mē -b -du$_8$ -enē -ʔa
eye=ABS VP-1PL.OO-3N.DO-apply.to(?)-3PL.A:IPFV-NOM
'who will see us' (GH B 138; OB)

(b) **igi *ḫu-mu-un*-du$_8$**
igi =Ø ḫa -mu -n -du$_8$ -Ø
eye=ABS MOD-1SG.OO-3SG.A-apply.to(?)-3N.S/DO
'May he watch me!' (Ax of Nergal 8; OB)

In this usage {mē} is glossed as "1PL.OO". See chapter 18 for details (§18.2.6).

Second, {mē} can express an indirect object of the first person plural, being the plural counterpart of {ma} (§17.2.5). Compare:

(36a) ***ḫé-me*-šúm-mu**
ḫa =Ø -mē -šúm-e
MOD=VP-1PL.IO-give-3SG.A:IPFV
'He must give it to us!' (STTIAM 11 8; L; 23)

(b) ***ḫa-ma*-šúm-mu**
ḫa =Ø -ma -šúm-e
MOD=VP-1SG.IO-give-3SG.A:IPFV
'He must give it to me!' (NG 179 9; L; 21)

In this usage {mē} is glossed as "1PL.IO". See chapter 17 for details (§17.2.6).

As for its origin, the most natural hypothesis is to connect the prefix {mē} with the ventive prefix {mu} (treated in chapter 22), so that only the vowel /ē/ remains to be explained. Perhaps the prefix {mē} has arisen by analogy on the proportion {nna} :: {ma} = {nnē} :: X (X = {mē}). It would then originally be an indirect-object prefix, having copied its vowel and, subsequently, its additional uses from the initial person-prefix {nnē}. It is only on the basis of this probable analogical relationship with the third person plural prefix {nnē} that the vowel of {mē} is here taken to be long.

16.3. Usage of the dimensional prefixes and initial person-prefixes

16.3.1. Dimensional prefixes and person prefixes

The primary use of the dimensional prefixes is to refer to some participant which has a role in the action or state expressed by the verb. The initial person-prefixes primarily have a supporting role in this. As a rule, the first dimensional prefix of a verbal form is used together with an initial person-prefix, which specifies the gender, number, and person of what or whom the dimensional prefix refers to. E.g.:

(37) **igi-60-ĝál-*bé íb-ta*-zi**
igi.60.ĝál =be=Ø ʔi -b -ta -zi.g-Ø
one.sixtieth=its=ABS VP-3N-from-rise-3N.S/DO
'Its one-sixtieth was raised out of this.' (MVN 12:306 2; L; 21)

Any second or further dimensional prefix lacks a person-prefix. As a result, only an indirect-object marker is always used together with an initial person-prefix. Because of the relative order of the verbal prefixes, an indirect-object marker always comes before any other dimen-

sional prefix. All other dimensional prefixes are only found with an initial person-prefix if no other dimensional prefix precedes them.

Take, for instance, the dimensional prefix {ta}. It is the first dimensional prefix in the verbal form of ex. 38a and, accordingly, is used with an initial person-prefix (viz. the non-human prefix {b}). In ex. 38b, it is the second dimensional prefix and, accordingly, lacks the non-human initial person-prefix. (Note that the /t/ of {ta} becomes /r/ between vowels, see §19.3.1.):

(38a) **ĝiš-*a íb-ta*-bala-*éš***
ĝiš =ʔa ʔi -b -ta -e -balaʔ-eš
wood=LOC VP-3N-from-on-cross-3PL.S/DO
'They crossed the wood.' (RTC 80 16; L; 23)

(b) **ĝiš-*gen*$_7$ *ì-na-ra*-bala**
ĝiš.gan=ʔa ʔi -nna -ta -e -balaʔ-Ø
pestle =LOC VP-3SG.IO-from-on-cross -3SG.S/DO
'She crossed the pestle for him.' (NATN 498 8; N; 21)

What is true for the dimensional prefix {ta} similarly holds for the dimensional prefixes {da}, {ši}, and {e}.

Thus, the basic rule is that the first dimensional prefix of a verbal form has its reference specified by an initial person-prefix. But this is not the whole story. There are a number of systematic exceptions. To begin with, there is the dimensional prefix {ni} (§20.2), which always has third person non-human reference and which is never used with an initial person-prefix, regardless of whether it is the first dimensional prefix or not.

In a similar vein, the initial person-prefix non-human {b} is absent from certain types of forms that include the ventive prefix. Thus, the initial person-prefix {b} cannot occur between the ventive prefix and the dimensional prefixes {da}, {ta}, or {ši} (see §22.4 for details). Nor is {b} ever found between the ventive prefix and the local prefix {e} if the latter occurs immediately before the stem (§20.3.1).

In all such forms the first dimensional prefix lacks an initial person-prefix, in contradiction with the basic rule given above. Yet, there is a pattern to these exceptions: all of them have to do with dimensional prefixes that have non-human reference. At this point it is useful to have a look at what any second or further dimensional prefix can refer to, that is to say, precisely those dimensional prefixes that lack a person prefix anyway. According to Krecher (1985: 133 note 1), they only have non-human reference. In other words, a verbal form as in the following clause, which I made up myself, would be ungrammatical:

(39) ***[lugal-*ra* ama-*né-da mu-na-da*-ĝen]**
lugal=ra ama =ane=da Ø -mu -nna -da -ĝen-Ø
king =DAT mother=his =COM VP-VENT-3SG.IO-with-go -3N.S/DO
'He went with his mother to the king.' (invented example)

If Krecher is right, and I am not aware of any evidence to the contrary, then dimensional prefixes lacking a person prefix always have non-human reference. Or, conversely, a dimensional prefix can only have human reference if used together with a human initial person-prefix.

Thus, the person prefixes are indispensable for human reference. With this in mind, a final exception to our basic rule becomes more understandable too: some human person-prefixes can refer on their own to participants, without the presence of any dimensional prefix: as we

saw above, the plural prefixes {nnē} (§16.2.3) and {mē} (§16.2.6) express an indirect or oblique object all by their own.

Consequently, the basic rule as stated above needs some modification. Only the first dimensional prefix of a verbal form can have human reference and then always has its reference specified by an initial person-prefix. If the first dimensional prefix has non-human reference, it is, as a rule, preceded by the non-human person-prefix {b}, but there are a few systematic exceptions (as pointed out above). Any dimensional prefix that lacks a person prefix has non-human reference.

Such a differential treatment of human and non-human person marking is not at all unusual and is found in many languages across the world (e.g., Siewierska 2004: 154-156).

16.3.2. Dimensional prefixes and verbs

The primary use of the dimensional prefixes is to refer to some participant which has a role in the action or state expressed by the verb. Only rarely a non-referential use is found, which is to signal a specific sense of the verb. Compare, for instance, the following two forms of the verb **dé** 'pour' with the dimensional prefix {ni} '(there)in':

(40) **bur-*ra ba-an*-dé**
bur =ʔa Ø -ba -n(i)-dé -Ø
bowl=LOC VP-MM-in -pour-3N.S/DO
'This (beer) has been poured into the bowl.' (UET 3:191 8; Ur; 21)

(41) **u_4 *na-ap-la-núm ab-ba-né-er* kaš *in-na-ni*-dé-*a***
u_4.d na.ap.la.núm=e ab.ba=ane=r(a) kaš=Ø
day Naplanum =ERG father=his=DAT beer=ABS

ʔi -nna -ni-n -dé -Ø -ʔa =ʔa
VP-3SG.IO-in-3SG.A-pour-3N.S/DO-NOM=LOC
'when Naplanum poured beer for his father' (BCT 1:85 3; D; 21)

In the first clause, the prefix {ni} refers to a participant (viz. the bowl) and means 'therein', whereas in the second clause the prefix {ni} does not refer to anything in particular but signals a specific sense of the verb **dé** 'pour' (German 'schenken, giessen'), namely 'pour' in the sense of German 'einschenken, eingiessen'. Such non-referential use of a dimensional prefix is comparatively rare and only occurs with the local prefixes {ni} and {e} (see chapter 20) and with the prefixes {da}, {ta}, and {ši} (see chapter 19). Clearly, this kind of use is derived through lexicalisation from the primary referential use.

The participants referred to by the dimensional prefixes are of various kinds. What they all have in common is that they have a fairly strong relationship to the action or state expressed by the verb. Often their presence is fully dictated by the grammatical properties of the verb. This is particularly true of the indirect-object prefixes (chapter 17) and the oblique-object prefixes (chapter 18), which express two different kinds of object. However, the presence of other dimensional prefixes is also quite often a matter of verbal government.

A great many dimensional prefixes do not express some object of the verb, but rather some kind of adjunct, usually a place adjunct referring to a location that plays a crucial role in the action or state expressed by the verb. Although this usage is not restricted to specific verbs, it occurs quite systematically with verbs having a locational meaning. Consider, for instance, the following two clauses:

(42) **en-ig-gal / *nu*-banda$_3$ / ĝanun kiri$_6$-*ta* / *e-ne*-ba**
en.ig.gal nu.banda$_3$=e ĝanun kiri$_6$ =ak =ta
Eniggal overseer =ERG storeroom orchard=GEN=ABL

ʔi -nnē -n -ba -Ø
VP-3PL.IO-3SG.A-portion.out-3N.S/DO
'Eniggal, the overseer, portioned out this (barley) to them out of the Storeroom of the Orchard.' (DP 112 20:10-13; L; 24)

(43) **en-ig-gal / *nu*-banda$_3$ / ĝanun kiri$_6$-*ta* / *e-ne-ta*-ĝar**
en.ig.gal nu.banda$_3$=e ĝanun kiri$_6$ =ak =ta
Eniggal overseer =ERG storeroom orchard=GEN=ABL

ʔi -nnē -ta -n -ĝar -Ø
VP-3PL.IO-from-3SG.A-place-3N.S/DO
'Eniggal, the overseer, issued this (barley) to them out of the Storeroom of the Orchard.' (DP 545 4:1-4; L; 24)

The Old Sumerian texts from Lagash contain numerous attestations of the forms ***e-ne*-ba** and ***e-ne-ta*-ĝar** together with a place adjunct in the ablative case, but only the verb **ĝar** 'place' consistently shows the prefix {ta}, while **ba** 'portion out' just as consistently lacks it. The reason for this difference is that **ĝar** 'place' is a locational verb, while **ba** 'portion out' is not. Indeed, basically all finite forms of **ĝar** include a dimensional prefix referring to a (kind of) location. E.g.:

(44) **má-*a* *ba-a*-ĝar**
máʔ=ʔa Ø -ba -e -ĝar -Ø
boat=LOC VP-MM-on-place-3N.S/DO
'This was placed on the boat.' (SACT 1:171 7; D; 21)

(45) ***ab-ši*-ĝar**
ʔa -b -ši -ĝar -Ø
VP-3N-to-place-3N.S/DO
'It has been substituted for this.' (NATN 121 3; N; 21)

(46) **gada *ba-an*-ĝar**
gada=Ø Ø -ba -n(i)-ĝar -Ø
linen=ABS VP-MM-in -place-3N.S/DO
'Linen was placed in it (viz. a bag).' (BIN 9:216 3; I; 20)

Not all locational verbs show such a wide range of dimensional prefixes as **ĝar** 'place'. The finite forms of the locational verb **è** 'go out' contain a dimensional prefix, too, but it is always the prefix {ta}, never one of the other dimensional prefixes. Thus, the finite forms of the locational verbs generally contain a dimensional prefix, but the various verbs differ in which ones are used. Other common locational verbs are **bala** 'cross', **e$_{11}$.d** 'go up, go down', **ĝál** 'be (somewhere)', **gub** 'stand', **ku$_4$.ř** 'enter', **si.g** 'put', and **tuš** 'sit'.

Also with non-locational verbs, the dimensional prefixes play an important role. The presence or absence of a certain dimensional prefix usually signals the presence or absence of a certain construction and the semantic relationship associated with it. In this way, the dimensional prefixes are crucial for understanding the grammatical and semantic relationships in a clause. Take, for instance, the verb **sa$_{10}$** 'barter'. It can be used in a variety of constructions, each associated with its own meaning and dimensional prefix. It refers to an

action involving two parties exchanging one commodity for some other commodity. This action can be expressed from more than one point of view, each involving its own construction. In one construction, the local prefix {ni} refers to the commodity acquired:

(47) **nita-*e* / me-ŠEŠ.ŠEŠ-*e* / nibru^{ki}-*ta* / še-*a mu-na-ni*-sa$_{10}$**
nita.ḫ=e me.ŠEŠ.ŠEŠ.e =r(a) nibru =ta še =ʔa
Nita =ERG Mesheshsheshe=DAT Nippur=ABL barley=LOC

Ø -mu -nna -ni-n -sa$_{10}$ -Ø
VP-VENT-3SG.IO-in-3SG.A-barter-3N.S/DO
'For Mesheshsheshe, Nita bartered this (silver) for (lit. "into") barley from Nippur.' (MVN 3:1 2:5-9; I; 24)

Having the meaning 'buy', **sa$_{10}$** construes the buyer as the transitive subject, the acquired commodity as the direct object, and, if present, the seller is referred to by the dimensional prefix {ši}:

(48) **1 urdu$_2$ kù 4 giĝ$_4$-*šè* / lugal-é-maḫ-*e in*-sa$_{10}$**
urdu$_2$.d=Ø kù.g 4 giĝ$_4$ =še lugal.é.maḫ.e=e ʔi -n -sa$_{10}$ -Ø
Urdu =ABS silver 4 shekel=TERM Lugalemahe =ERG VP-3SG.A-barter-3SG.S/DO
'Lugalemahe bought Urdu for 4 shekels of silver.' (NG 212 11-12; U; 21)

(49) **1 saĝ-nita / kù 5 giĝ$_4$-*šè* / lú-^{d}nanna-*šè* / *ab-ba-ge-na-a* / *in-ši*-sa$_{10}$**
1 saĝ.nita =Ø kù.g 5 giĝ$_4$ =še lú.nanna.k=še ab.ba.ge.na=e
1 male.slave=ABS silver 5 shekel=TERM Lu.Nanna =TERM Abbagena =ERG

ʔi -n -ši -n -sa$_{10}$ -Ø
VP-3SG-to-3SG.A-barter-3N.S/DO
'Abbagena bought from Lu-Nanna a male slave for five shekels of silver.' (RA 80 p. 11:5 1-5; U; 21)

Having the meaning 'sell', **sa$_{10}$** construes the seller as the transitive subject and the sold commodity as the direct object. In addition, the finite form always includes the dimensional prefix {ta} with non-human reference ('therefrom'), as well as the prefix {ba} used as a middle marker:

(50) **2/3 *ma-na* 3 giĝ$_4$ kù-babbar-*šè* / ní-te-*ne-ne* / *ba-ra-an*-sa$_{10}$-*áš***
2/3 ma.na 3 giĝ$_4$ kù.babbar=še ní.te=anēnē=Ø
2/3 pound 3 shekel silver =TERM self =their =ABS

Ø -ba -ta -n -sa$_{10}$ -eš
VP-MM-from-3SG.A-barter-3PL
'They sold themselves for two-thirds of a pound and three shekels of a silver.' (FAOS 17:20 7-8; N; 21)

The most important constructions of this one verb will have to suffice here as an illustration. It is of course the task of a dictionary and not of a grammar to describe the various possible constructions of individual verbs, and the dimensional prefixes and meanings associated with them.

16.3.3. Dimensional prefixes and noun phrases

Not only dimensional prefixes express objects or adjuncts. Noun phrases do so too. In fact, many clauses contain both a noun phrase and a dimensional prefix, either of which refers to the same participant. Such coreferential prefixes and phrases are very common in Sumerian and the scale on which they occur is a typical trait of the language (§11.4.5). Precisely because there is only a relationship of coreferentiality and not one of concord, the presence of a certain type of noun phrase does not dictate the presence of a certain type of dimensional prefix. A given participant can be expressed by a dimensional prefix, by a noun phrase, or by both. Which of these three possibilities applies is only partly a matter of grammatical rules. Semantic considerations play an important role too.

A given participant can be expressed by a dimensional prefix only. This type of construction is comparable to one with a pronoun in English. E.g.:

(51) ***nu-mu-ši-*sa$_{10}$**
nu =Ø -mu -n -ši-n -sa$_{10}$ -Ø
NEG=VP-VENT-3SG-to-3SG.A-barter-3SG.S/DO
'He did not buy her from him (lit. "He did not barter her hither towards him").' (NG 198 2:4; L; 21)

The reverse situation also occurs: the clause contains a noun phrase, but the finite form lacks a coreferential dimensional prefix. This is the norm in constructions with participles, which cannot have a dimensional prefix. For a number of reasons, it is also quite common with finite forms. As stated above, dimensional prefixes express only participants with a fairly strong relationship to the action or state expressed by the verb. The cases that can be coreferential with dimensional prefixes, however, tend to have a much wider range of meanings than those prefixes. Noun phrases express all kinds of adverbial phrases, many of them quite circumstantial to the action or state expressed by the verb. Consequently, only a limited number of adverbial phrases is associated with a coreferential dimensional prefix. Place adjuncts with locational verbs are a obvious example of phrases that are often associated with a coreferential prefix (see §16.3.2 above), but time adjuncts, for instance, clearly never are.

Also, the structure of a clause is far more flexible than the structure of a finite verbal form. A clause can contain all kinds of noun phrases, while a finite form can contain only a few (combinations of) dimensional prefixes. The dimensional prefix {ta}, for example, cannot be used together with the prefix {ši}. There are severe restrictions on the use of an oblique-object prefix together with other prefixes (see §18.4). And so on.

Still, there are numerous instances where both a dimensional prefix and a coreferential noun phrase are present in a single clause. As a rule, the coreferential noun phrase then shows the case marker that is cognate with the dimensional prefix. The dimensional prefix {da}, for instance, is, as a rule, coreferential with a noun phrase with the case marker {da}. This is to be expected because of the very closeness in meaning of the prefix {da} and case marker {da}. However, with the local prefixes {ni} 'in(to)' and {e} 'on(to)' the situation is somewhat different: either of these two dimensional prefixes can be coreferential with a noun phrase in the locative case. A single case (the locative) combines the meanings of two different dimensional prefixes. Nevertheless, if one of the two local prefixes is coreferential with a noun phrase, that phrase is usually in the locative case.

Sometimes, though, a discrepancy in marking occurs between the dimensional prefix and the noun phrase. Consider, for instance, these two clauses:

(52) **é kišib-*ba-ka ba-an*-ku$_4$**
é kišib=ak =ʔa Ø -ba -n(i)-ku$_4$.ř-Ø
room seal =GEN=LOC VP-MM-in -enter -3N.S/DO
'This was brought into the storeroom.' (RTC 305 3:11; L; 21)

(53) **é kišib-*ba-šè* / *ba-an*-ku$_4$**
é kišib=ak =še Ø -ba -n(i)-ku$_4$.ř-Ø
room seal =GEN=TERM VP-MM-in -enter -3N.S/DO
'This was brought in for the storeroom.' (MVN 8:145 8-9; D; 21)

In the second clause, **ku$_4$.ř** 'enter' is construed with a noun phrase in the terminative instead of the locative case, without a change in dimensional prefix to match it. This small difference in construction is associated with a slightly different meaning.

A further and more important type of mismatch in marking between a dimensional prefix and a noun phrase will be the topic of the next section.

16.3.4. External possession constructions

Occasionally, and especially in earlier Sumerian, a person marker in the verbal form is coreferential with a possessive pronoun instead of with the noun phrase as a whole. Zólyomi (2005b) has identified this construction with what is known in linguistics as an external possession construction (cf. Payne and Barshi 1999). And although the Sumerian construction differs in some respects from the core instances of external possession, the two have more than enough in common to follow him in this.

Let us start with introducing two semantic terms that are crucial to the discussion: the *possessor* is the one who possesses something and the *possessum* is what he possesses. Consider now the following clause:

(54) **kur-kur šu-*né-šè* / *mu-šè*-ĝar-*ra-a***
kur -kur =Ø šu =ane=še
mountains-mountains=ABS hand=his =TERM

Ø -mu -n -ši -n -ĝar -Ø -ʔa =ʔa
VP-VENT-3SG-to-3SG.A-place-3N.S/DO-NOM=LOC
'when he had delivered all mountain lands to him, (in)to his hands' (En. I 33 3:5-6; L; 25)

This clause shows the two properties that define the Sumerian external possession construction:

(a) the dimensional prefix refers to the same person as a possessive pronoun (here: {ši} and {ane}),
(b) the dimensional prefix has the same syntactic function as the possessum of that possessive pronoun (expressed here by the prefix {ši} and the case marker {še}).

As a rule, the possessum is a body-part term (e.g., **šu** 'hand') and that is not accidental. The verbal form makes it clear that it is the possessor who is most affected by the action of the verb, not the possessum. Yet, the possessum plays the same grammatical role as the possessor: that is only possible if the possessum and possessor are identical to a certain degree. That condition is met if a body-part term is the possessum. But certain other terms

also satisfy that condition, and there is in fact one instance of an external possession construction with a different possessum:

(55) **é-šà ní-*ĝá-šè* / *mu-šè*-ĝen-*na-am*$_6$**
é.šà.g ní =ĝu =ak =še Ø -mu -ʔ -ši-ĝen-Ø -ʔa =Ø =ʔam
inner.room own=my=GEN=TERM VP-VENT-1SG-to-go -3SG.S/DO-NOM=ABS=be:3SG.S
'It was he who came to me, to my own inner room.' (En. I 29 10:1-2; L; 25)

In most of the attested instances, the possessum is a body-part term in the locative case while the possessor is human. Since a human oblique object is the functional equivalent of a non-human construction with the local prefix {e} (§18.3.4), the verbal form shows an oblique-object prefix that refers to the same person as the possessive pronoun. E.g.:

(56) **á zi-*da-za* / ^{d}utu / *rí*-è /**
á zi.d -Ø -ʔa =zu =ʔa utu=Ø Ø-ri -n -ʔè -Ø
arm be.right-NFIN-NOM=your=LOC Utu=ABS VP-2SG.OO-3SG.A-go.out-3SG.S/DO
'He let the sun-god Utu come up over you, over your right side.' (Ean. 1 7:6-8; L; 25)

(57) **PN / *nu*-banda$_3$ / gú-*na e-né*-ĝar**
PN nu.banda$_3$=e gú =ane=ʔa ʔi -nni -n -ĝar -Ø
PN overseer =ERG neck=his =LOC VP-3SG.OO-3SG.A-place-3N.S/DO
'PN, the overseer, placed this (debt) on him, on his neck.' (Nik 1:296 2:1-3; L; 24)

(58) **PN / *nu*-banda$_3$ / gú-*ne-ne-a* / *e-ne*-ĝar**
PN nu.banda$_3$=e gú =anēnē=ʔa ʔi -nnē -n -ĝar -Ø
PN overseer =ERG neck=their =LOC VP-3PL.OO-3SG.A-place-3N.S/DO
'PN, the overseer, put this (debt) on them, on their necks.' (VS 14:20 3:1-4; L; 24)

In an extension of this construction, the possessor itself can be construed as a separate noun phrase in the same clause. It is then always found earlier in the clause than the body-part term with the possessive pronoun and it has the same syntactic function as the dimensional prefix and the body-part term. E.g.:

(59) **PN / *nu*-banda$_3$ / é-ĝissu-*bé* / gú-*na e-né*-ĝar**
PN nu.banda$_3$=e é.ĝissu.be=r(a) gú =ane=ʔa ʔi-nni -n -ĝar -Ø
PN overseer =ERG Egissube =DAT neck=his =LOC VP-3SG.OO-3SG.A-place-3N.S/DO
'PN, the overseer, placed this (debt) on Egissube, on his (viz. Egissube's) neck.' (RTC 62 2:4-3:3; L; 24)

(60) **^{d}nin-hur-saĝ-*ra* / du$_{10}$ zi-*da-na* / *mu-ni*-tuš**
nin.hur.saĝ.ak=ra du$_{10}$.g zi.d -Ø -ʔa =ane=ʔa
Ninhursag =DAT knee be.right-NFIN-NOM=her =LOC

Ø -mu -nni -n -tuš-Ø
VP-VENT-3SG.OO-3SG.A-sit -3SG.S/DO
'She (=Inanna) let him sit on Ninhursag's right knee.' (Ean. 1 obv 4:24-26; L; 25)

(61) **ur-saĝ-*ra* / šu-*na ì-ni*-gi$_4$**
ur.saĝ=ra šu =ane=ʔa ʔi -nni -n -gi$_4$ -Ø
Ursag =DAT hand=his =LOC VP-3SG.OO-3SG.A-turn-3N.S/DO
'He transferred them into Ursag's hands (lit. "turned them back on Ursag, on his hand").' (VS 27:68 3:3-4; L; 24)

(62) **iti siki-ba-*a* / en-DU / sipa udu siki-*ka-ke*$_4$ / sa$_6$-sa$_6$ / dam PN / lugal / lagas^{ki}-*ka-ra* / é-gal-*la* / šu-*na ì-ni*-gi$_4$**
iti.d siki.ba=ʔa en.DU sipa.d udu siki =ak =ak =e
month Sikiba =LOC Endu shepherd sheep wool=GEN=GEN=ERG

sa$_6$.sa$_6$.g dam PN lugal lagas =ak =ak =ra é.gal =ʔa
Sasa wife PN king Lagash=GEN=GEN=DAT palace=LOC

šu =ane=ʔa ʔi -nni -n -gi$_4$ -Ø
hand=her =LOC VP-3SG.OO-3SG.A-turn-3N.S/DO
'In the month Sikiba, Endu, the shepherd of wool sheep, transferred this (sheep) in the palace into the hands of Sasa, wife of PN, the king of Lagash (lit. "he turned it back on Sasa, on her hand").' (DP 260 1:3-3:3; L; 24)

As stated at the beginning of this section, the external possession constructions are especially found in earlier Sumerian. In fact, it seems that they fall into disuse before the Ur III period. While there are dozens of attestations in the Old Sumerian texts from Lagash, there seem to be none in the Ur III texts, even though the latter are far more numerous. Not only are Ur III examples lacking, the earlier ones are reflected in the Ur III texts by quite different constructions. Compare the last two, Old Sumerian, clauses with the following three from the Ur III period:

(63) **[b]ala-*bé* šu lugal-mè-[*k*]*a bí-in*-gi$_4$**
bala =be =Ø šu lugal.mè=ak =ʔa Ø -bi -n -gi$_4$ -Ø
turn-of-duty=this=ABS hand Lugalme =GEN=LOC VP-3N.on-3SG.A-turn-3N.S/DO
'He transferred this turn-of-duty into the hands of Lugalme.' (NG 113 56; L; 21)

(64) **PN šà-gu$_4$-*ka* / šu-*na ḫa-ab-ši-ib*-gi$_4$-gi$_4$**
PN šà.gu$_4$.k =ak šu =ane=ʔa ḫa =ʔa -b -ši-b -gi$_4$:RDP -e
PN ox.driver=GEN hand=his =LOC MOD=VP-3N-to-3N.DO-turn:IPFV-3SG.A:IPFV
'He should transfer it into the hands of PN, the ox driver.' (TCS 1:116 4; L; 21)

(65) **ur-^{d}suen dumu lugal-*ke*$_4$ šu-*na ba-a*-gi$_4$**
ur.suen dumu lugal=ak =e šu =ane=ʔa Ø -ba -e -gi$_4$ -Ø
Ursuen son king =GEN=ERG hand=his =LOC VP-MM-on-turn-3N.S/DO
'It was transferred into the hands of Ur-Suen, the king's son.' (SEL 3 pp. 37f. MusVat 22953 3:25 // 8:1; L; 21)

In all three clauses, the dimensional prefix is coreferential with the body-part term and not with the possessor, not even in the last two examples, which include possessive pronouns. The possessor itself is expressed differently in each of the three clauses but never as an oblique object as in all the Old Sumerian attestations: as a normal genitive (ex. 63), as an anticipatory genitive (ex. 64), and as an ergative (ex. 65).[1] Unfortunately these constructions not only differ wildly among themselves, but they also occur quite rarely, so that I feel unable to evaluate them or formulate any rules. But, clearly, the Ur III constructions are quite unlike the earlier ones.

[1] The ergative in ex. 65 is probably a mistake for a genitive, the case found in the other two examples. See also §7.6.2.

17. THE DIMENSIONAL PREFIXES: THE INDIRECT-OBJECT PREFIXES

17.1. Introduction

Sumerian verbs can be construed with several kinds of objects, which differ in their formal expressions as well as in their meanings. Two different types of object can be expressed with a noun phrase in the dative or directive case. One is the oblique object, which is expressed in the verbal form by an oblique-object prefix (see chapter 18). The other is expressed in the verbal form by an indirect-object prefix. This second type of object, viz. the syntactic function which is expressed in a finite verbal form with an indirect-object prefix, will be called an indirect object.

The indirect object is expressed either by a noun phrase, or by an indirect-object prefix in the verbal form, or by both at the same time. If the indirect object is expressed by a noun phrase, the case of that phrase depends on its gender class. A noun phrase expressing an indirect object of the human class is in the dative case, while one expressing an indirect object of the non-human class is in the directive case. (Note that the case-marking for an indirect object is identical to that for an oblique object, cf. §18.3.1.)

In a finite verbal form, an indirect object is expressed by an indirect-object prefix (henceforth IO-prefix). The following table lists the basic forms of the IO-prefixes (the optional parts have been put between brackets):

	Singular	***Plural***
First person human	ma	mē(ʔa)
Second person human	ra	ra (?)
Third person human	nna	nnē(ʔa)
Third person non-human	ba	

With two exceptions, the IO-prefixes contain an initial person-prefix as well as a vowel /a/, which represents the dimensional prefix {a}. The first of the two exceptions is the prefix {ma} for the first person singular, which contains the ventive prefix {mu} instead of an initial person-prefix. The plural prefixes {mē} and {nnē} make up the second exception. They nearly always lack the dimensional prefix {a}.

That all IO-prefixes (except {ma}) include an initial person-prefix is due to their position among the other prefixes. The dimensional prefix {a} precedes all other dimensional prefixes. Consequently, the IO-prefixes cannot be preceded by any dimensional prefix. Since a dimensional prefix is always combined with an initial person-prefix, except when preceded by some other dimensional prefix (§16.3), the IO-prefixes always include an initial person-prefix. Since some of these combinations show fused forms which are hard to divide into separate parts, the present grammar treats the indirect-object marker and the preceding person marker as units.

The set of IO-prefixes is the result of a historical development which cannot be reconstructed in every detail. The various IO-prefixes have different origins, which are still partly reflected in their formal properties, such as their forms and their possibilities to follow or precede certain other prefixes. These properties will be discussed in the next section (§17.2), which deals with the forms and spellings of the individual IO-prefixes. The chapter is concluded with a section about the uses and meanings of the indirect object (§17.3).

17.2. Forms and spellings of the IO-prefixes

17.2.1. The prefix {ba}

The non-human IO-prefix is {ba}. It expresses an indirect object of the non-human gender class. If such an indirect object is also expressed by a noun phrase, that phrase is in the directive case. Both the form and spelling of the IO-prefix {ba} are fairly straightforward. The basic form is /ba/, which occurs in most forms and is always fully written:

(1) **é ^{d}ĝá-tùm-du$_{10}$-*ke$_4$* / izi *ba*-šúm**
é ĝá.tùm.du$_{10}$.g=ak =e izi =Ø Ø -ba -n -šúm-Ø
house Gatumdu =GEN=DIR fire=ABS VP-3N.IO-3SG.A-give-3N.S/DO
'He set fire to the temple of Gatumdu.' (Ukg. 16 3:13-14; L; 24)

(2) **níĝ-ul-*e* gù *ba-a*-dé**
níĝ.ul =e gù =Ø Ø -ba -e -dé -Ø
everlasting.thing=DIR voice=ABS VP-3N.IO-2SG.A-pour-3N.S/DO
'You called (lit. "poured voice") for something everlasting.' (Cyl A 8:20; L; 22)

After the ventive prefix (§22.2), the prefix {ba} has a slighly different form, because the /b/ of {ba} assimilates to the preceding /m/ of the ventive:

(3) **gù-dé-*a* / alan-*e* / inim *im-ma*-šúm-*mu***
gù.dé.a=e alan =e inim=Ø ʔi -m(u) -ba -šúm-e
Gudea =ERG statue=DIR word=ABS VP-VENT-3N.IO-give-3SG.A:IPFV
'Gudea gave the following message to the statue: "(...)".' (St B 7:21-23; L; 22)

(4) **é-*e* *im-ma*-ĝen**
é.j =e ʔi -m(u) -ba -ĝen-Ø
house=DIR VP-VENT-3N.IO-go -3SG.S/DO
'He came to the temple.' (Cyl A 18:8; L; 22)

(5) **ùĝ-*e* zi-šà-ĝál *ù-ma*-šúm**
ùĝ =e zi.šà.ĝál =Ø ʔu -m(u)-ba -ʔ -šúm-Ø
people=DIR sustenance=ABS REL.PAST-VENT-3N.IO-1SG.A-give-3N.S/DO
'after I have given sustenance to the people' (Cyl A 11:24; L; 22)

While the prefix {ba} follows the ventive prefix in the relative order of the verbal prefixes, it precedes the initial person-prefixes of the second and third persons of the human gender class:

(6) **šu *ba-a-ši-íb*-ti**
šu =e Ø -ba -e -ši -b -ti -e
hand=DIR VP-3N.IO-2SG-to-3N.DO-approach-3SG.A:IPFV
'He will accept it from you (lit. "He will let it approach (his) hand towards you").' (Cyl A 7:3; L; 22)

(7) **šu *ba-an-ši*-ti**
šu =e Ø -ba -n -ši-n -ti -Ø
hand=DIR VP-3N.IO-3SG-to-3SG.A-approach-3N.S/DO
'He received it from him (lit ."he let it approach the hand towards him").' (JCS 54 p.2 4 rev. 3; N; 21)

Similarly: **šu *ḫa-ba-an-ši-íb*-TI.TI** 'he must receive it from him' (TCS 1:207 7; L; 21).

As to its internal make-up, the prefix {ba} clearly contains the initial person-prefix non-human {b} and the vowel /a/ which functions as an indirect-object marker. But what is the historical source of the /a/ in {ba}? Since dimensional prefixes generally consist of a person prefix and a morpheme cognate with a case marker, the /a/ is usually connected with the locative case marker {ʔa} (§7.7). Compelling as this etymology may be, it is only a partial one. It explains the origin of the *form* /ba/ perfectly but not its *meaning*. There is no overlap whatsoever in function between the prefix {ba} and the locative case. In so far as {ba} has similar functions as a case marker, that case marker is always the directive marker {e} (see above) and never the locative {ʔa}. Hence, since the birth of the prefix {ba}, the functions of the case marker {ʔa}, of the prefix {ba}, or of both must have changed considerably. I am unable to offer a plausible scenario as to what may have happened, but clues may be found in §7.7, in the chapters 18, 20, and 21, and elsewhere in the present chapter (§17.2).

The prefix {ba} has a much wider range of uses than the other IO-prefixes. Apart from being the IO-prefix non-human, it has a number of additional uses that belong to the semantic range of middle marking (Kemmer 1993: 267-270). In this chapter we will restrict ourselves to those attestations of {ba} where it expresses an indirect object non-human. It is then glossed "3N.IO". Its uses as a middle marker, with the gloss "MM", will be treated in chapter 21, where the relationship between the different uses of {ba} will be discussed too.

17.2.2. The prefix {nna}

The IO-prefix of the third person singular human is {nna}. E.g.:

(8) **PN-*ra* / *an-na*-lá**
PN=ra ʔa-nna -lá -Ø
PN=DAT VP-3SG.IO-weigh-3N.S/DO
'This has been weighed out for PN.' (OSP 2:58 3-4; N; 23)

(9) ***in-na*-šúm**
ʔi -nna -n -šúm-Ø
VP-3SG.IO-3SG.A-give-3N.S/DO
'He gave this to him.' (NG 11 5; L; 21)

In all periods, the defective spelling ***ì-na***, which lacks the syllable-final /n/ (§2.4), is found side by side with ***in-na***. The following two clauses, e.g., are found in two different documents belonging to the same archive:

(10) **é-*ta* / *ì-na*-lá**
é.ta=e ʔi -nna -n -lá -Ø
Eta =ERG VP-3SG.IO-3SG.A-weigh-3N.S/DO
'Eta paid this (silver) to him.' (OSP 2:61 3:12-13; N; 23)

(11) **PN_1 / *dam-gara*$_3$-*ra* / PN_2 šandana-*ke*$_4$ / *in-na*-lá**
PN_1 dam.gara$_3$=ra PN_2 šandana.k =e ʔi -nna -n -lá -Ø
PN_1 merchant =DAT PN_2 chief.gardener=ERG VP-3SG.IO-3SG.A-weigh-3N.S/DO
'PN_2, the chief gardener, paid this (silver) to PN_1, the merchant.' (OSP 2:62 3:5-8; N; 23)

In southern Old Sumerian we find /ʔenna/ instead of /ʔinna/ because of the rule of vowel harmony which applies to that dialect (§3.9.3). Since a sound sign for the sequence /en/ was not yet in use in that period (§2.4), the first /n/ of {nna} could not be written. Consequently, /ʔenna/ is always written ***e-na-***. E.g.:

(12) ***e-na*-šúm**
ʔi -nna -n -šúm-Ø
VP-3SG.IO-3SG.A-give-3N.S/DO
'He gave this to him.' (VS 14:27 3:1; L; 24)

In the following example the sequence /ʔunna/ is written ***ù-na***:

(13) **(...) *ù-na*-du$_{11}$**
ʔu -nna -n -du$_{11}$.g-Ø
REL.PAST-3SG.IO-3SG.A-say -3N.S/DO
'when he says to him: (...)' (Ukg. 4 11:28; L; 24)

This defective spelling, which lacks the syllable-final /n/, is entirely normal and is due to the absence of any means to write the phonemic sequence /un/. A sound sign ***un*** does not come into regular use before the Old Babylonian period (§2.4). For the same reason the sequence /munna/ is, as a rule, written ***mu-na***:

(14) ***mu-na*-šúm**
Ø -mu -nna -n -šúm-Ø
VP-VENT-3SG.IO-3SG.A-give-3N.S/DO
'She gave it to him.' (St H 3:5; L; 22)

The spelling ***mu-na*** is generally replaced by ***mu-un-na*** from the Old Babylonian period onwards. The latter spelling is, however, already occasionally attested in the Ur III period:

(15) ***mu-un-na-ni-in*-ku$_4$**
Ø -mu -nna -ni-n -ku$_4$.r-Ø
VP-VENT-3SG.IO-in-3SG.A-enter -3SG.S/DO
'He let her enter it for him.' (FAOS 9/2 Amarsuen 8 rev. 10; ?; 21)

Like the other IO-prefixes of the second and third persons human, the prefix {nna} can be preceded by the prefix {ba} used as a middle marker. E.g.:

(16) ***ba-an-na-ge-en$_6$***
Ø -ba -nna -ge.n -Ø
VP-MM-3SG.IO-be.firm-3N.S/DO
'They (i.e., eight donkeys) were awarded to her (lit. "were made firm for her").' (NG 210 3:10; L; 21)

As all IO-prefixes, the prefix {nna} precedes all other dimensional prefixes. E.g.:

(17) ***e-na-ta*-ĝar**
ʔi -nna -ta -n -ĝar -Ø
VP-3SG.IO-from-3SG.A-place-3N.S/DO
'He supplied this to him from it.' (VS 14:53 3:4; L; 24)

(18) ***ù-mu-na-da*-ku$_4$-*re***
ʔu -mu -nna -da -n(i)-ku$_4$.r-en
REL.PAST-VENT-3SG.IO-with-in -enter -2SG.S/DO
'after you will have entered it with this for him' (Cyl A 7:2; L; 22)

Traditionally Sumerologists have always considered the IO-prefix for the third person singular to be /na/. Indeed, to the best of my knowledge, a form with double /n/ has not even been taken into consideration ever before. Nevertheless, /nna/ is without doubt the basic form.

First of all, there are numerous spellings with double /n/. Such spellings make only sense if the spelled double /n/ represents an actual double /n/ in the language. The spellings with a single /n/ can easily be explained from the well-known tendency of the Sumerian script to leave syllable-final consonants unwritten (§2.4). Second, the vocalic prefixes {ʔi} and {ʔa} are attested before {nna} (ex. 6-11 above). Since these two prefixes are otherwise only found before the verbal stem or before a cluster of two consonants (§24.3.1), this fact also points to a basic form with two initial consonants, that is, to a form /nna/.

That an analysis as /na/ instead of /nna/ has been preferred for so long, has had its reasons, though. The way in which the script handles syllable-final consonants has only become clear during the last twenty years or so. Accordingly, the numerous spellings with a single /n/ were readily accepted on face value. But most crucially, etymology played its role: the apparent symmetry between /na/ and /ba/ was simply too suggestive, with either of the person prefixes /n/ and /b/ being followed by the locative case marker {ʔa}. Such combinations of person prefixes with case markers recur again and again with the other dimensional prefixes.

Yet, an etymology that assumes a combination of the locative case marker {ʔa} with the human person prefix {n} runs into an important difficulty: that case marker is, at least in historical Sumerian, restricted to the non-human gender class and is never found with human nouns. Hence, there is no strong reason to hold on to this particular etymology.

In fact, as soon as we accept that /nna/ is the basic form of the prefix, an obvious alternative etymology suggests itself: /nna/ comes from */nra/ and consists historically of the initial person-prefix {n} of the third person singular human and of a morpheme {ra}, which is cognate with the dative case marker {ra}. The double /n/ of {nna} is the result of an assimilation of the /r/ of {ra} to the /n/ before it.

The change of /nra/ to /nna/ was a prehistoric one. The oldest known attestations of the prefix show already the spelling ***na***. Direct proof is therefore lacking. For the same reason, there is no evidence for the same change elsewhere. How are we to know that an attested /nn/ comes from a prehistoric */nr/? What is clear, though, is that in historical times the sequence /nr/ is a possible one: **an-*ra*** 'to An' (Cyl B 19:19; L; 22). So the change of /nr/ to /nn/ must have been a restricted one. Nevertheless, as a prehistoric change it is not completely without parallel. In the Old Sumerian texts from Lagash, the unique form **^{d}en-líl-*la*** 'for Enlil' (e.g., Ent. 1 3:5; L; 25) is attested, where /la/ represents /ra/ with a change of /lra/ to /lla/. The form is a conservative spelling which reflects an otherwise undocumented prehistoric assimilation (§3.6). It proves that the /r/ of /ra/ could indeed assimilate to a preceding liquid.

Pursuing the formal properties of prehistoric Sumerian a little bit further, we see that the prefix *{n+ra} follows the prefix *{b+a} but had the same relative position as *{e+ra}, the reconstructed form for the second person (see below §17.2.4), which also includes the morpheme {ra}. This historical order of prefixes is still reflected in the relative position of {ba} used as a middle marker (§21.2), which may precede the IO-prefixes {nna} and {ra}. Example 16 above illustrates this for {nna}.

With the change of */nra/ to /nna/, the internal make-up of the prefix had become opaque for the speakers of Sumerian. This opened the way to reanalysis. At some point in time, the vowel /a/ of /nna/ came to be identified with the /a/ of the IO-prefixes {ba} (§17.2.1) and {ra} (§17.2.4). From then on, the vowel /a/ was treated as a kind of IO-marker and could be analogically extended to other IO-prefixes: {ma} (§17.2.5), {nnē} (§17.2.3), and {mē} (§17.2.6). The dimensional prefix {a} had been born.

17.2.3. The prefixes {nnē} and {nnēʔa}

The IO-prefix for the third person plural human is nearly always {nnē}. In other words, the initial person-prefix of the third person plural human {nnē} (§16.2.3) is used as an IO-prefix, without the addition of the dimensional prefix {a}. However, the texts from the Ur III period provide a few instances of an IO-prefix {nnēʔa}, which includes the dimensional prefix {a}. Since this form {nnēʔa} remains exceptional, it seems to be an innovation by analogy of the singular IO-prefixes, which generally consist of an initial person-prefix and the dimensional prefix {a}.

As a rule, the IO-prefix for the third person plural human is {nnē}:

(19) **PN_1 / PN_2 / ses-*né* / *an-ne*-šúm**
PN_1 PN_2 ses =ane=r(a) ʔa-nnē -šúm-Ø
PN_1 PN_2 brother=his =DAT VP-3PL.IO-give -3N.S/DO
'This has been given to PN_1 and his brother PN_2.' (BIN 8:34 6-10; N?; 23)

(20) **PN_1 *ù* PN_2-*ra* / *nam*-geme$_2$-*šè* *in-ne*-šúm-*ma***
PN_1 ù PN_2=ra nam.geme$_2$ =še ʔi -nnē -n -šúm-Ø -ʔa
PN_1 and PN_2=DAT slavegirlhood=TERM VP-3PL.IO-3SG.A-give-3N.S/DO-NOM
'that he had given them (viz. three women) as slaves to PN_1 and PN_2' (NG 42 7-8; L; 21)

Instead of the full spelling ***in-ne***, we often find the defective spelling ***ì-ne***, which lacks the syllable-final /n/ (§2.4). E.g.:

(21) **PN_1 / PN_2-*be$_6$-da* / *ì-ne*-šúm**
PN_1 PN_2=beda=r(a) ʔi -nnē -n -šúm-Ø
PN_1 PN_2=and =DAT VP-3PL.IO-3SG.A-give-3N.S/DO
'He gave this to PN_1 and PN_2.' (OSP 2:60 8-11; N; 23)

In southern Old Sumerian we find /ʔennē/ instead of /ʔinnē/ because of the rule of vowel harmony which applies to that dialect (§3.9.3). Since there was as yet no sound-sign for /en/ in use at that time (§2.4), the first /n/ of {nnē} could not be written. As a result /ʔennē/ is always written ***e-ne*** in southern Old Sumerian:

(22) ***e-ne-ba***
ʔi -nnē -n -ba -Ø
VP-3PL.IO-3SG.A-portion.out-3N.S/DO
'He portioned this out to them.' (BIN 8:348 3:5; L; 24)

Since the sound sign ***un*** did not come into regular use before the Old Babylonian period (§2.4), the sequence /munnē/ is written ***mu-ne***:

(23) **PN / *nu*-banda$_3$ / *mu-ne*-šúm**
PN nu.banda$_3$=e Ø -mu -nnē -n -šúm-Ø
PN overseer =ERG VP-VENT-3PL.IO-3SG.A-give-3N.S/DO
'Eniggal the overseer gave this to them.' (DP 579 3:3; L; 24)

As the verbal form ***mu-ne*-šúm** (ex. 21) shows, the long vowel of {nnē) is not subject to the rule of vowel harmony in southern Old Sumerian (§3.9.3).

Occasionally we find the form {nnēʔa} in the Ur III period. Usually the form {nnē} occurs in similar texts without any difference in meaning or function. Compare, e.g., the following two forms, both from letter orders:

(24) ***ḫé-ne-ab*-sum-*mu***
ḫa =ʔi -nnēʔa-b -šúm-e
MOD=VP-3PL.IO-3N.DO-give-3SG.A:IPFV
'He should give it to them!' (BCT 2:31; L; 21)

(25) ***ḫé-ne-eb*-sum-*mu***
ḫa =ʔi -nnē -b -šúm-e
MOD=VP-3PL.IO-3N.DO-give-3SG.A:IPFV
'He should give it to them!' (TCS 1:153 7; L; 21)

However, the form ***ù-ne-a*-du$_{11}$** occurs at least three times, while its counterpart ***ù-ne*-du$_{11}$** is as yet unattested in Ur III texts. That may, of course, be accidental. E.g.:

(26) **PN$_1$ / *ù* PN$_2$-*ra* / *ù-ne-a*-du$_{11}$**
PN$_1$ ù PN$_2$=ra ʔu -nnēʔa-e -du$_{11}$.g-Ø
PN$_1$ and PN$_2$=DAT REL.PAST-3PL.IO -2SG.A-say -3N.S/DO
'when you will have said this to PN$_1$ and PN$_2$' (TCS 1:50 1-3; L; 21)

The form ***ù-ne-a*-du$_{11}$** is also attested in TCS 1:87 line 3 and TCS 1:243 line 2. Both texts originate from Lagash. A further attestation of the form {nnēʔa} is the following:

(27) ***ì-bí-la* ulu$_3$-*di-da-ke$_4$-ne* / *ba-ne-a-ge-na***
ì.bí.la ulu$_3$.di.d=ak =enē=r(a) Ø -ba -nnēʔa-ge.n -Ø -ʔa
heir Uludi =GEN=PL =DAT VP-MM-3PL.IO-be.firm-3N.S/DO-NOM
'that it had been confirmed for Uludi's heirs' (Studies Pettinato pp.177f 3 BM 22871 13'-14'; L; 21)

The attestations for {nnēʔa} seem to be restricted to texts from Lagash. The form {nnēʔa} may therefore be a dialectal phenomenon.

Like the other IO-prefixes of the second and third persons human, the IO-prefixes {nnē} and {nnēʔa} can be preceded by the prefix {ba} used as a middle marker. E.g.:

(28) **min-*a-ne-ne* / *nam*-erim$_2$ ku$_5$-*dè ba-an-ne*-šúm**
min=anēnē=Ø nam.erim$_5$=Ø ku$_5$.ř-ed -Ø =e Ø-ba -nnē -šúm-Ø
two =their =ABS oath =ABS cut -IPFV-NFIN=DIR VP-MM-3PL.IO-give-3N.S/DO
'The two of them (viz. Balli and Ursuen) were put under oath for them (viz. Lugalsagga and the guarantor) (lit. "their two were given to them for cutting an oath").' (NG 52 16-17; U; 21)

17.2.4. The prefix {ra}

The IO-prefix of the second person singular human is {ra}. It does not undergo any phonological changes and is always spelled ***ra***:

(29) ***ma-mu-zu ĝe$_{26}$ ga-mu-ra*-búr-búr**
ma.mu.d=zu =Ø ĝe$_{26}$=e ga -mu -ra -búr -búr
dream =your=ABS I =ERG MOD:1SG.A/S-VENT-2SG.IO-reveal-reveal
'I will explain your dreams for you!' (Cyl A 5:12; L; 22)

(30) **ĝi$_6$-*a-na ì-ti ma-ra*-È.È**
ĝi$_6$.a.na ì.ti =Ø Ø -mu -ra -ʔè:RDP -Ø
at.night moonlight=ABS VP-VENT-2SG.IO-go.out:IPFV-3SG.S:IPFV

'At night moonlight will come forth for you.' (Cyl A 11:26; L; 22)

(31) **u$_4$ ki-šár-*ra ma-ra-ta-è-a***
u$_4$.d ki.šár =ʔa Ø -mu -ra -ta -e -ʔè -Ø -ʔa
day horizon=LOC VP-VENT-2.SG.IO-from-on-go.out-3SG.S/DO-NOM
'the daylight that came forth for you on the horizon' (Cyl A 5:19; L; 22)

In the Sumerian texts from the Old Babylonian period and later, the IO-prefix {ra} never begins a verbal form but is in the absence of other prefixes always preceded by the vocalic prefix {ʔa} or {ʔi}.[1] E.g.:

(32) **u$_4$-*bé i-ra-sù-ud***
u$_4$.d=be=Ø ʔi -ra -ʔ -sù.ř -Ø
day =its=ABS VP-2SG.IO-1SG.A-be.distant-3N.S/DO
'I lenghtened its time for you.' (PBS 5:74 3:19-20; N; OB)

Whereas such forms are the norm after the Ur III period, the earliest attestation is from the late Ur III period at best, although an early Old Babylonian date is more likely judged on the basis of its orthography:

(33) ***a-na a-ra-*daḫ-*en***
a.na =Ø ʔa-ra -daḫ-en
what=ABS VP-2SG.IO-add -1SG.A/S:IPFV
'What shall I add for you?' (TMHC 6:6 21; N; 21/20)

These forms reflect a different dialect from the dominant dialects in our corpus. In the latter the vocalic prefixes {ʔi} and {ʔa} do not occur before a prefix with the form /CV/ (§24.3.1). Hence, in contrast with the dialects attested in later texts, in the texts of our corpus, {ra} can actually be the first prefix of a finite verbal form:

(34) **lú-*bé-ne* lul-*àm ra-an-eš***
lú =be=enē=e lul =ʔam Ø -ra -n -e -eš
man=its=PL =ERG false=be:3SG.N VP-2SG.IO-3SG.A-say:PLUR-3PL.S/DO
'These men spoke lies (lit. "what is false") to you.' (JCS 54 p.10:70 rev. 7; U; 21)

(35) **kù-*bé* u$_4$ 4-*kam-ka* / lú-kíĝ-gi$_4$-*a-ĝu$_{10}$* / *ra-an*-túm**
kù.g =be=Ø u$_4$.d 4-kamma=ak =ʔa lú.kíĝ.gi$_4$.a=ĝu=e
silver=its=ABS day 4-ORD =GEN=LOC envoy =my=ERG

Ø -ra -n -túm -Ø
VP-2SG.IO-3SG.A-bring:IPFV-3N.S/DO
'My envoy will bring you this silver in four days.' (TCS 1:131 9-11; U; 21)

(36) ***ra-ab*-šúm-*mu***
Ø -ra -b -šum-e
VP-2SG.IO-3N.DO-give-3SG.A:IPFV
'He will give it to you.' (AuOr 17-18 p.221:13 rev. 7; L; 21)

The following example also suggests the absence of a vocalic prefix before {ra}, as modal {ḫa} contracts with a following /ʔi/ to /ḫē/ (§25.4.1):

[1] Forms with initial ***i-ra-*** are actually quite rare, as opposed to forms with ***a-ra-***. The latter may therefore represent initial /ʔi/ assimilated to the /a/ of the following syllable (cf. §18.2.4).

(37) ***ḫa-ra-ab*-šúm-*mu***
ḫa =Ø -ra -b -šum-e
MOD=VP-2SG.IO-3N.DO-give-3SG.A:IPFV
'Let him give it to you!' (AoF 15 p.210 VAT 20418 obv. 8; Uruk; 23?)

Also, the negative proclitic {nu} is never written ***nu-ù-*** before {ra}, a spelling that would be expected to occur if {nu} were followed by /ʔi/ (§25.2). E.g.:

(38) **geme$_2$-*ĝu$_{10}$* *nu-ra*-šúm**
geme$_2$ =ĝu =Ø nu =Ø -ra -ʔ -šúm-Ø
slave.woman=my=ABS NEG=VP-2SG.IO-1SG.A-give-3N.S/DO
'I did not give you my slave woman.' (NG 195 6; L; 21)

The spelling ***nu-ra-*** (and not ****nu-ù-ra-***) is also found in: ***nu-ra-an*-šúm** (NG 158 5''; L; 21), ***nu-ra*-du$_{11}$-*ga*** (RA 84 p.169:2 11; L; 21), ***nu-ra*-šúm** (NG 62 10; U; 21), **ĝiš *nu-ra-tug-ga*** (TCS 1:142 8; N; 21), ***nu-ra*-lá** (NRVN 1:49 11; N; 21).

The IO-prefix of the second person singular human is also used for the plural. As there are no attestations in the corpus, the examples are from literary texts from the Old Babylonian period:

(39) **diĝir *ḫé-me-en-zé-en* inim *ga-mu-ra-an*-du$_{11}$**
diĝir=Ø ḫa =ʔi-me-enzen inim=Ø ga -mu -ra -n-du$_{11}$.g
god =ABS MOD=VP-be-2PL.S word=ABS MOD:1SG.A/S-VENT-2SG.IO-ʔ-say
'Should you (pl.) be gods, I will give you an order!' (UET 6:10 7 = Inanna's Descent 242; OB)

Normally, the suffix {enzen} for the second person plural is added to the verbal form in order to disambiguate between singular and plural. This possibility is documented by a different text, which has a variant form in the same clause:

(40) **inim *ga-mu-*⌜*ra-an*-du$_{11}$-*en-zé*⌝-*en***
inim=Ø ga -mu -ra -n-du$_{11}$.g-enzen
word=ABS MOD:1SG.A/S-VENT-2SG.IO-ʔ -say -2PL
'I will give you (pl.) an order!' (ISET 2 pl. 17 Ni. 9838 obv 14 + SLTNi 29 obv 12 = Inanna's Descent 269 ms. T; OB)

The prefix {ra} can presumably be preceded by the prefix {ba} used as a middle marker, just like the IO-prefixes of the third person human. However, I am unable to find a clear example among the small number of available second person forms.

The internal make-up of the IO-prefix {ra} is controversial. An important point of reference in the discussion is Falkenstein's explanation. According to him, the basic form of the prefix is *era, which is to be analysed as *-e-r-a- and consists of a pronominal element -e-, a dimensional element -a- identical to the locative postposition -a, and a 'Hiatustilger' -r- (Falkenstein 1949: 200). In my own terms, *era consists of the initial person-prefix {e} and the locative case marker {ʔa}. Since the combination of a person prefix and a case-like morpheme is entirely what we expect (§16.3), it is the presence of the /r/ that is most troublesome in this analysis. As 'Hiatustilger' between the vowels /e/ and /a/, one expects a semi-vowel and certainly not an /r/. Not surprisingly, the subsequent discussion has focussed on the nature of this /r/.

The most common solution has been to assign the /r/ somehow to the person marker. Gragg (1973a: 84) works from a form -ra- and analyses it into an element -a- and a second person

singular pronominal element -r- which is different from the person prefix {e}. Krecher (1985: 144) analyses *era as -/er-a/- but works only with a single person prefix *er which may lose its first or second segment. The problem with both Gragg's and Krecher's solutions is that there is no evidence for a second person pronominal element /r/ outside the IO-prefix {ra} and the closely related OO-prefix {ri} (§18.2.4). Both give a clear-cut morphemic analysis but the existence of the first of the two morphemes cannot be confirmed independently. For that reason, their analyses are not really satisfactory.

Perhaps the way forward lies in making a clear distinction between the synchronic and diachronic analysis, that is, between how the prefix actually functions in contemporary Sumerian and what may be its historical origin. Starting with the synchronic analysis, we have to conclude first that the basic form of the prefix is not /era/ but /ra/. The earlier attestations mentioned above are unambiguous in this respect and the later attestations with a preceding vowel can easily be explained by assuming the presence of the vocalic prefix {ʔi} or {ʔa}. This {ra} clearly cannot be segmented into separate morphemes. It is the IO-prefix for the second person singular as a unit, although it can be linked to other IO-prefixes by the presence of a vowel /a/. But the /r/ as such is not a separate morpheme with its own meaning. It only exists as a part of the prefix {ra}.

From a diachronic point of view, however, it is possible to go a little bit further. In §17.2.2, I have argued for an etymology *{n+ra} for {nna}, that is to say, {nna} is in origin a combination of the person prefix {n} and a morpheme {ra} cognate with the dative case marker {ra}. Now, the IO-prefix {ra} shares with the IO-prefix {nna} the property that it can be used together with the prefix {ba} used as a middle marker (§21.2). Example 37 above illustrates this for {ra}. This property proves that both {ra} and {nna} used to have the same relative position among the prefixes, but a different one from {ba}. It also points to a similarity in origin. The obvious etymology of {ra} is therefore that /ra/ comes from */era/, which is to be segmented as the initial person-prefix {e} and the same morpheme {ra} as in *{n+ra}. Thus we arrive at the same result as Poebel (1923: §492).

That this *{e+ra} became {ra} is probably due to loss of the word-initial vowel (§3.9.4). With the change of */era/ to /ra/, however, the internal make-up of the prefix became opaque for the speakers of Sumerian. This opened the way to the same kind of reanalysis as we proposed in the case of {nna} (§17.2.2).

17.2.5. The prefix {ma}

The IO-prefix of the first person singular human is {ma}. It does not undergo any phonological changes and is always spelled ***ma***:

(41) **lá-*ma***
lá -Ø -ma -b
weigh-VP-1SG.IO-3N.DO
'Pay this to me!' (Ukg. 4 11:27, 12:3; L; 24)

(42) **kù-*ĝu*$_{10}$ *ḫa-ma-šúm-mu***
kù.g =ĝu =Ø ḫa =Ø -ma -šúm-e
silver=my=ABS MOD=VP-1SG.IO-give-3SG.A:IPFV
'He should give me my silver!' (NG 179 9; L; 21)

(43) **é-*ĝu*$_{10}$ *ma*-řú-*na***

é =ĝu=Ø Ø-ma -řú -en -ʔa
house=my=ABS VP-1SG.IO-erect-1SG.S/A:IPFV-NOM
'you, who will build my temple for me' (Cyl A 9:8; L; 22)

In contrast with the IO-prefixes of the second and third persons human, the IO-prefix {ma} cannot co-occur with the prefix {ba}. The reason for this lies in the make-up of {ma}. It includes the ventive prefix, which precedes {ba} in the relative order of verbal prefixes. At the same time, {ma} also includes the indirect-object marker /a/, which is also a part of {ba}.

The IO-prefix {ma} can precede the initial person-prefix {n} of the third person singular human:

(44) **^{d}nin-ki / nam-*né ma-ni*-ku$_5$-*řá***
nin.ki.k nam=ane=Ø Ø -ma -nni -ʔ -ku$_5$.ř-Ø -ʔa =e
Ninki ? =his =ABS VP-1SG.IO-3SG.OO-1SG.A-cut -3N.S/DO-NOM=ERG
'Ninki, by whose name I let him take an oath for me (lit. "whose **nam** I let him cut for me")' (Ean. 1 rev. 5:32-33; L; 25)

Historically, there was probably no separate IO-prefix for the first person singular human, the ventive prefix {mu} being used instead. Indeed, there are reasons to think that the /a/ in {ma} is a secondary, analogical extension of the /a/ from the other singular IO-prefixes.

To begin with, the dimensional prefix {a} is only original in the IO-prefix non-human {ba}, where it is historically related to the locative case marker {ʔa} (see above §17.2.1). The presence of the dimensional prefix {a} in the third and second persons singular human is the result of a reanalysis of an element which is historically related to the dative case marker {ra} (see above §17.2.2 and §17.2.4). Clearly, the /a/ in {ma} cannot have arisen from a reanalysis of an original {ra}. One does not expect an /r/ do disappear without a trace. At the same time, the /a/ in {ma} can hardly be original either, because the locative case marker {ʔa} is never used with the human gender class. Therefore the /a/ in {ma} must be due to an analogical extension of the /a/ from the other singular IO-prefixes.

In fact, it is not at all unusual for a language to use a ventive prefix instead of an explicit first person object marker. Mithun (1996) documents for several unrelated languages such a use of what she calls 'cislocative' (i.e., ventive) morphemes. She also shows that a first person object marker can historically arise from such a ventive marker. Indeed, Sumerian itself provides a kind of parallel. In Sumerian, there is no explicit oblique-object prefix for the first person singular human. Instead the ventive prefix is used (§22.3). It is therefore quite possible that in an earlier form of Sumerian the ventive prefix {mu} was also used where now the IO-prefix {ma} is found. Particularly so, because an oblique-object and indirect-object of the first person plural human is also expressed by one and same prefix {mē}.

17.2.6. The prefixes {mē} and {mēʔa}

The IO-prefix for the first person plural human is nearly always {mē}. In other words, the initial person-prefix of the first person plural human {mē} (§16.2.6) is used as an IO-prefix, without the addition of the dimensional prefix {a}. E.g.:

(45) ***ḫé-me*-šúm-*mu***
ḫa =Ø -mē -šúm-e
MOD=VP-1PL.IO-give-3SG.A:IPFV
'He should give this (field) to us!' (STTIAM 11 8; L; 23)

Instead of the usual form {mē}, occasionally a form {mēʔa} is found, which includes the dimensional prefix {a}. This form {mēʔa}, just like {nnēʔa} (see above §17.2.3), is probably an innovation by analogy of the singular IO-prefixes, which, as a rule, consist of an initial person-prefix and the dimensional prefix {a}. As there is no attestation of {mēʔa} in the corpus, an example from the Old Babylonian period will be given instead:

(46) ⌜**ba-*me*-⌜*ab*⌝**
ba -Ø -mēʔa-b
portion.out-VP-1PL.IO-3N.DO
'Offer it to us!' (SLTNi 28 rev 12 = ID 248; OB)

In contrast with the IO-prefixes for the second and third person human, the prefixes {mē} and {mēʔa} cannot co-occur with the prefix {ba}, because {mē} and {mēʔa} include the ventive prefix.

17.3. The indirect object

The indirect object is either expressed by a noun phrase, or by an IO-prefix in the verbal form, or by both at the same time. Construed with a participle, the indirect object can only be expressed by a noun phrase (§11.4.2). With a finite verbal form, however, the indirect object is always expressed by an IO-prefix. In addition, the clause can contain a noun phrase expressing the indirect object, but the presence of such a noun phrase is optional. E.g.:

(47) **(...) *in-na-an*-du$_{11}$**
ʔi -nna -n -du$_{11}$.g-Ø
VP-3SG.IO-3SG.A-say -3N.S/DO
'"(...)", she said to him.' (NG 20 9; L; 21)

(48) **(...) / ur-^{d}lama$_3$-*ra* / ur-^{d}*ba-ú-ke$_4$* / *in-na-an*-du$_{11}$-*ga***
ur.lama$_3$.k=ra ur.ba.ú.k=e ʔi -nna -n -du$_{11}$.g-Ø -ʔa
Urlama =DAT Urbau =ERG VP-3SG.IO-3SG.A-say -3N.S/DO-NOM
'that Urbau had said "(...)" to Urlama' (NG 164 4'-6'; L; 21)

From the point of view of English, the indirect object is expressed twice in clauses such as the preceding one, once as a noun phrase and once as an IO-prefix. This is normal in Sumerian. Both the prefix and the noun phrase refer to the same person or thing. They are coreferential.

A noun phrase expressing the indirect object is either in the dative or in the directive case. Which one of these two cases is used depends on the gender class of such a noun phrase. A noun phrase of the human class is in the dative case, while one of the non-human class is in the directive case. Thus the non-human IO-prefix {ba} can be coreferential with a noun phrase in the directive case, while the other IO-prefixes can be coreferential with noun phrases in the dative case. The following two clauses illustrate these two possible patterns:

(49) **u$_4$ lugal-*ra* kaš *in-na-ni*-dé-*a***
u$_4$.d lugal=ra kaš=Ø ʔi-nna -ni-n -dé -Ø -ʔa =ʔa
day king =DAT beer=ABS VP-3SG.IO-in-3SG.A-pour-3N.S/DO-NOM=LOC
'when he poured in beer for the king' (PDT 1:476 3; D; 21)

(50) **u$_4$ ^{d}íd-lú-ru-gú-*dè* kaš *ba-ni*-dé-*a***
u$_4$.d íd.lú.ru.gú.d=e kaš =Ø Ø -ba -ni-n -dé -Ø -ʔa =ʔa
day River.Ordeal=DIR beer=ABS VP-3N.IO-in-3SG.A-pour-3N.S/DO-NOM=LOC

'when he poured in beer for the River Ordeal' (AUCT 3:378 3; D; 21)

Note, however, that a noun phrase in the dative or in the directive case can also express an oblique object and can, accordingly, be coreferential with an oblique-object prefix (see chapter 18).

Generally speaking, the indirect object expresses a participant which is indirectly affected by the action expressed by the verb. The precise meaning of an indirect object depends on the meaning of the verb. The remainder of this section will point out the most common uses of the indirect object.

With most verbs the indirect object expresses the beneficiary, the participant for whom the action is done. E.g.:

(51) **^{d}lugal-urub^{ki}-*ra* / é-gal urub^{ki}-*ka-né* / *mu-na*-řú**
lugal.urub.ak=ra é.gal urub =ak =ane=Ø Ø -mu -nna -n -řú -Ø
Lugalurub =DAT palace Urub=GEN=his=ABS VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO
'He built for Lugalurub the latter's palace in Urub.' (Ent. 79 3:3-5; L; 25)

(52) **é-*ĝu$_{10}$* *ma*-řú-*na***
é =ĝu=Ø Ø -ma -řú -en -ʔa
house=my=ABS VP-1SG.IO-erect-2SG.A/S:IPFV-NOM
'you, who will build my house for me' (Cyl A 9:8; L; 22)

(53) **PN / *ì*-du$_8$-*ra* / *e-na*-gub-*ba-am$_6$***
PN ì.du$_8$ =ra ʔi -nna -gub -Ø -ʔa =Ø =ʔam
PN gatekeeper=DAT VP-3SG.IO-stand-3N.S/DO-NOM=ABS=be:3N.S
'This (ox) is one which served (lit. "which stood for") PN, the gatekeeper.' (VS 25:56 1:6-2:2; L; 24)

(54) **anše bìr-*ra-ke$_4$* *ba*-su$_8$-*ge-éš***
anše bìr =ak =e Ø -ba -su$_8$.g -eš
donkey team=GEN=DIR VP-3N.IO-stand:PLUR-3PL.S/DO
'They (a man and a woman labourer) served (lit. "stood for") the donkey teams.' (TSA 13 5:4; L; 24)

With verbs of giving the indirect object expresses the recipient, the participant to whom something is given. E.g.:

(55) **ĝiskim-*bé* *ga-ra-ab*-šúm**
ĝiskim=be=Ø ga -ra -b -šúm
sign =its=ABS MOD:1SG.A/S-2SG.IO-3N.DO-give
'I will give you its sign!' (Cyl A 9:9; L; 22)

(56) **a na$_8$-na$_8$ *nu-na*-šúm-*mu* anše a na$_8$-na$_8$ *nu-ba*-šúm-*mu***
a naĝ:RDP -ed -Ø =Ø nu =ʔi -nna -šúm-e anše =e
water drink:IPFV-IPFV-NFIN=ABS NEG=VP-3SG.IO-give-3SG.A:IPFV donkey=DIR

a naĝ:RDP -ed -Ø =Ø nu =Ø -ba -šúm-e
water drink:IPFV-IPFV-NFIN=ABS NEG=VP-3N.IO-give-3SG.A:IPFV
'He would not give drinking water to him, nor to the donkey.' (Ukg. 6 2:6'-9'; L; 24)

(57) **lugal-*ĝu$_{10}$* / bìr-*e* *ḫa-ba-ab*-šúm-*mu***
lugal =ĝu=e bìr =e ḫa =Ø -ba -b -šúm-e
master=my=ERG team=DIR MOD=VP-3N.IO-3N.DO-give-3SG.A:IPFV

'May my master give this to the team!' (STTIAM 102 rev 1'-2'; L; 23)

(58) ***ḫé-ma-ab-*šúm-*mu***
ḫa =ʔi -m(u) -ba -b -šúm-e
MOD=VP-VENT-3N.IO-3N.DO-give-3SG.A:IPFV
'He should give this to them (i.e., a group of persons)!' (MVN 3:345 16; U; 21)

(59) **adda má-*ba* šu a-tu-*ke*$_4$ *ba-an-*šúm**
adda má =be =ak =Ø šu a.tu=ak =e Ø-ba -n -šúm-Ø
corpse boat=this=GEN=ABS hand Atu=GEN=DIR VP-3N.IO-3SG.A-give-3N.S/DO
'He gave the wreck of this boat to (the hand of) Atu.' (NG 62 8; U; 21)

(60) **ensi$_2$-*ke*$_4$ / geme$_2$-^{d}*ba-ú-ra* / *e-na-*ba**
ensi$_2$.k=e geme$_2$.ba.ú.k=ra ʔi -nna -n -ba -Ø
ruler =ERG Gemebau =DAT VP-3SG.IO-3SG.A-portion.out-3N.S/DO
'The ruler allotted this (cattle) to Geme-Bau.' (TSA 30 2:3-5; L; 24)

(61) **lú didli-*e-ne e-ne-*bala**
lú didli =enē=r(a) ʔi -nnē -n -bala -Ø
man various=PL =DAT VP-3PL.IO-3SG.A-cross-3N.S/DO
'He transferred this (grain) to various persons.' (Nik 1:39 6:7-8; L; 24)

(62) ***nam-ti-la-né-šè* / a *mu-na-*ru**
nam.ti.l=ane=še a =Ø Ø -mu -nna -n -ru -Ø
life =his =TERM water=ABS VP-VENT-3SG.IO-3SG.A-eject-3N.S/DO
'For the sake of his life, he dedicated this to him.' (FAOS 9/2 Urnammu 40 10-11; Ur; 21). Note that **a—ru** is a phrasal verb meaning 'give (to a god) as a dedicatory gift'.

With verbs of speaking the indirect object expresses the participant to whom is spoken. E.g.:

(63) ***ma-a-*du$_{11}$**
Ø -ma -e -du$_{11}$.g-Ø
VP-1SG.IO-2SG.A-say -3N.S/DO
'You have commanded me.' (Cyl A 2:13; L; 22)

(64) **šùd *mu-ne-*ša$_4$**
šùd =Ø Ø -mu -nnē -n -ša$_4$ -Ø
prayer=ABS VP-VENT-3PL.IO-3SG.A-pray-3N.S/DO
'He prayed to them.' (Cyl B 1:21; L; 22)

With motion verbs the indirect object expresses the participant that is the endpoint of the motion. E.g.:

(65) **kù ^{d}*ĝá-tùm-du$_{10}$-ra mu-na-*ĝen**
kù ĝá.tùm.du$_{10}$.g=ra Ø -mu -nna -ĝen-Ø
pure Gatumdug =DAT VP-VENT-3SG.IO-go -3SG.S/DO
'He came to the pure Gatumdug.' (Cyl A 2:26; L; 22)

(66) **é-*e im-ma-*ĝen**
é.j =e ʔi -m(u)-ba -ĝen-Ø
house=DIR VP-VENT-3N.IO-go -3SG.S/DO
'He came to the temple.' (Cyl A 18:8; L; 22)

(67) ***nam*-lú-ulu$_3$ iri-*na* / šu *ù-na*-zi**
nam.lú.ulu$_3$=e iri =ane=ʔa šu =Ø ʔu -nna -b -zi.g-Ø
people =ERG town=his=LOC hand=ABS REL.PAST-3SG.IO-3N.A-rise-3N.S/DO
'After, in his town, the people will have raised their hand against him, (may they kill him.)' (Ent. 28 6:26-27; L; 25)

Most verbs construe a second object as an oblique object (§18.3.3) or as a local adjunct (§20.3.2). However, a few verbs construe a second object as an indirect object. Thus, the phrasal verb **gù—dé** 'call for (lit. "pour voice for")' is construed with an indirect object:

(68) **^{d}nin-*ĝír-su* lugal-*ĝu$_{10}$* / ùĝ-*ĝá* gù *ù-na*-dé-*a***
nin.ĝír.su.k lugal=ĝu=e ùĝ =ʔa gù =Ø
Ningirsu king =my=ERG people=LOC voice=ABS

ʔu -nna -n -dé -Ø -ʔa =ʔa
REL.PAST-3SG.IO-3SG.A-pour-3N.S/DO-NOM=LOC
'when after Ningirsu, my master, will have called for him among the people' (St B 8 14-16; L; 22)

(69) **é-*e* lugal-*bé* gù *ba*-dé**
é.j =e lugal =be=e gù =Ø Ø -ba -dé -e
house=DIR owner=its=ERG voice=ABS VP-3N.IO-pour-3SG.A:IPFV
'For a house its owner called.' (Cyl A 1:10; L; 22)

(70) ***an-šè*** (IM.A=) **šeĝ$_x$-*e* gù *ba*-dé**
an =še šeĝ$_x$=e gù =Ø Ø -ba -dé -en
heaven=TERM rain=DIR voice=ABS VP-3N.IO-pour-1SG.S/A:IPFV
'Towards the heavens, I will call for rain.' (Cyl A 11:7; L; 22)

The phrasal verb **ki—áĝ** 'love (lit. "measure out a place for")' is also construed with an indirect object:

(71) **lugal ki *an-na*-áĝ-*ĝá-né***
lugal ki =Ø ʔa-nna -n -ʔáĝ -Ø -ʔa =ane
master place=ABS VP-3SG.IO-3SG.A-measure.out-3N.S/DO-NOM=his
'his master who loves him' (En. I 33 4:1; L; 25)

The verb **ti** 'approach' is construed with an indirect object:

(72) **ka-tar-*ra-bé* / kur-*re* *ba*-ti**
ka.tar.ra=be=Ø kur =e Ø -ba -ti -Ø
praise =its=ABS mountains=DIR VP-3N.IO-approach-3N.S/DO
'Its praise reached the foreign lands.' (Cyl A 29:16-17; L; 22)

The phrasal verb **šu—ti** 'receive' (lit. 'let (something) approach one's hand') construes its object as a direct object and **šu** 'hand' as the indirect object:

(73) **eren$_2$ umma^{ki}-*ke$_4$* šu *ba-ab*-ti**
eren$_2$ umma=ak =e šu =e Ø -ba -b -ti -Ø
troop Umma=GEN=ERG hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO
'The troops of Umma received this.' (SNAT 538 rev 3-4; U; 21)

(74) **íl-*le* / *nam*-ensi$_2$ / umma^{ki}-*a* / šu *e-ma*-ti**

íl=e nam.ensi$_2$.k umma?=ak =Ø šu =e ?i -m(u)-ba -n -ti -Ø
Il=ERG rulership Umma =GEN=ABS hand=DIR VP-VENT-3N.IO-3SG.A-approach-3N.S/DO
'Il received the position of ruler over Umma.' (Ent. 28 3:34-37; L; 25)

Rarely, an indirect object replaces an oblique object. This phenomenon is, as yet, only found in more formal texts (viz. literary texts and royal inscriptions) and is restricted to transitive finite verbal forms that contain the local prefix {ni} 'in'. Compare the following two clauses:

(75a) ***a-šà-bé*** **ur-diĝir-*ra-ke$_4$* *kíĝ* *bí-in-na***
a.šà.g=be =e ur.diĝir.ak=e kíĝ =Ø Ø -bi -n -?ak -Ø
field =this=DIR Urdingira =ERG work=ABS VP-3N.OO-3SG.A-make-3N.S/DO
'Urdingira worked this field.' (TCS 1:148 13-14; U; 21)

(b) **làl ì-nun-*na* *kíĝ* *ba-ni*-ak**
làl ì.nun=?a kíĝ =Ø Ø -ba -ni-b -?ak -Ø
honey ghee =LOC work=ABS VP-3N.IO-in-3N.A-make-3N.S/DO
'They worked it (food) with honey and ghee.' (Cyl B 3:24; L; 22)

Chapter 18 deals with this use of the indirect object in more detail (§18.4).

18. THE DIMENSIONAL PREFIXES: THE OBLIQUE-OBJECT PREFIXES

18.1. Introduction

Sumerian verbs can be construed with a transitive or an intransitive subject, as well as with several kinds of objects. Two different types of object can be expressed by noun phrases in the dative or directive case. One is the indirect object, which is expressed in the verbal form by an indirect-object prefix (see chapter 17). The other is expressed in the verbal form by an oblique-object prefix. This second type of object, viz. the syntactic function which is expressed in a finite verbal form with an oblique-object prefix, will be called an oblique object.[1]

The oblique object is expressed either by a noun phrase, or by an oblique-object prefix in the verbal form, or by both at the same time. If the oblique object is expressed by a noun phrase, the case of that phrase depends on its gender class. A noun phrase expressing an oblique object of the human class is in the dative case, while one expressing an oblique object of the non-human class is in the directive case. (Note that the case-marking for an oblique object is identical to that for an indirect object, cf. chapter 17.)

In a finite verbal form, an oblique object is expressed by an oblique-object prefix (henceforth OO-prefix). The following table gives the paradigm of the OO-prefixes, in so far as their basic forms are known:

	With an initial person-prefix	*With a final person-prefix*	*Treated in section*
First person singular human	[**mu**]	(**ʔ**)	§18.2.5
Second person singular human	**ri**	**e**	§18.2.4
Third person singular human	**nni**	**n**	§18.2.3
Third person non-human	**bi**	**b**	§18.2.2
First person plural human	(**mē**)	?	§18.2.6
Second person plural human	(**enē**)	?	§18.2.6
Third person plural human	**nnē**	?	§18.2.6

Note that the question marks represent unknown forms. The forms between round brackets are as yet only found in texts from after the Ur III period. An oblique object of the first person singular is not expressed with an initial person-prefix but by the ventive prefix {mu} (chapter 22).

The table above shows two different sets of prefixes. If possible, an oblique object is expressed by a prefix from the second set, that is, by a final person-prefix. But since the final

[1] Note that Zólyomi (1999) uses the term *oblique object* in a rather different way, viz. to refer to a functionally defined category: "I will refer to both these participants as Oblique Object" (Zólyomi 1999: 217). In the present grammar, the *oblique object* is a formally defined category and has therefore by definition a one-to-one relationship with a specific marking pattern, whereas Zólyomi's *oblique object* can be marked by three different marking patterns which have other uses too (Zólyomi 1999: 237f).

person-prefixes have important other uses too, this option is not always available. Then, an oblique object is expressed by a prefix from the first set. Note, however, that most prefixes from the first set also have other uses than expressing an oblique object. In fact, {ri} and {nni] are the only two prefixes from the entire paradigm that are completely unambiguous. These and other formal aspects of the various OO-prefixes are discussed more fully in §18.2 below.

The oblique object has three basic uses. One use is to express a location with the meaning 'in(to) contact with'. E.g.:

(1) **diĝir-*ra-né* / ^{d}nin-ĝiš-zi-*da* / eger-*bé íb*-ús**
diĝir=ane nin.ĝiš.zi.da.k=Ø eger=be=e ʔi -b -ʔús -Ø
god =his Ningishzida =ABS back=its=DIR VP-3N.OO-be.next.to-3SG.S/DO
'His god Ningishzida went behind this (lit. "was next to its back").' (St G 4:8-10; L; 22)

The second use is to express the causee in a causative construction derived from a transitive construction. E.g.:

(2) **šeg$_{12}$ maš-*e bí*-pà**
šeg$_{12}$=Ø maš=e Ø -bi -n -pà.d-Ø
brick=ABS kid =DIR VP-3N.OO-3SG.A-find -3N.S/DO
'He let a kid find the brick.' (Cyl A 13:17; L; 22)

The third use is restricted to the human gender class. A verb that construes a non-human object with the local prefix {e} 'on' construes a human object as an oblique object:

(3) **PN$_1$-*ra* / PN$_2$ dumu PN$_3$-*ke$_4$* / inim *in-ni*-ĝar-*ra***
PN$_1$=ra PN$_2$ dumu PN$_3$=ak =e inim=Ø ʔi-nni -n -ĝar -Ø -ʔa =ʔa
PN$_1$=DAT PN$_2$ son PN$_3$=GEN=ERG word=ABS VP-3SG.OO-3SG.A-place-3N.S/DO-NOM=LOC
'when PN$_2$, son of PN$_3$, placed a claim on PN$_1$' (NG 89 2-4; L; 21)

Section 18.3 deals in detail with the various uses of the oblique object.

There are certain restrictions as to which prefixes can occur together in a single finite form. Section 18.4 discusses several types of verbal forms which either lack an OO-prefix due to the presence of some other prefix, or which lack a certain prefix due to the presence of an OO-prefix.

18.2. Forms and spellings of the OO-prefixes

18.2.1. General remarks

Finite verbal forms express an oblique object either with a final person-prefix or, if that is not possible, with an initial person-prefix. However, not every oblique object is expressed in a finite verbal form. Certain types of finite forms lack an OO-prefix altogether (§18.4). Which one of these three alternatives applies depends on the nature of the verbal form.

Expressing an oblique object is only one possible use of the final person-prefixes, and it is the least important one. The final person-prefixes have two other uses, which have priority (see chapter 13 for details). First, they express the transitive subject in transitive finite forms of the perfective (§15.2.2). Second, they may express the direct object in transitive finite forms of the imperfective (§15.2.3), of the imperative (§25.3), and in those with the modal prefix {ga} (§25.6). Since a finite verbal form can contain at most one final person-prefix, the oblique object cannot be expressed with a final person-prefix if a verbal form already contains such a prefix for expressing the transitive subject or the direct object. If that is the case, that is to say,

if a finite verbal form contains a final person-prefix expressing the transitive subject or the direct object, an oblique object is expressed with an initial person-prefix.

18.2.2. The prefixes {bi} and {b}

An oblique object non-human is expressed in a finite verbal form by the dimensional prefix {bi} or by the final person-prefix {b}. Note, however, that both prefixes have other uses as well, so that not every instance of the dimensional prefix {bi} or of the final person-prefix {b} involves an oblique object. Thus, the prefix {bi} is also part of the paradigm of the local prefix {e} 'on' (§20.3) and {b}, as a final person-prefix, can also express a transitive subject or a direct object (chapter 13). Their use as OO-prefixes is restricted to those constructions where they have the same syntactic function as a noun phrase in the directive case, regardless of whether such a phrase is actually present or not.

If a finite verbal form contains a final person-prefix expressing the transitive subject or the direct object, an oblique object non-human is expressed with the prefix {bi}. The forms of this OO-prefix {bi} are the same as those of the local prefix {e} before a final person-prefix (§20.3.1). The OO-prefix {bi} includes the initial person-prefix {b} and has the basic form /bi/:

(4) **gu$_4$ du$_7$ máš du$_7$-*e* ĝiš *bí*-tag**
gu$_4$.ř du$_7$.ř máš du$_7$.ř =e ĝiš =Ø Ø -bi -n -tag -Ø
bull perfect kid perfect=DIR wood=ABS VP-3N.OO-3SG.A-touch-3N.S/DO
'He sacrificed faultless bulls and faultless kids (lit. "let wood touch them").' (Cyl B 18:19; L; 22)

(5) ***na-gada-bé* / *bí*-ús**
na.gada =be=Ø Ø -bi -n -ʔús -Ø
shepherd=its=ABS VP-3N.OO-3SG.A-be.next.to-3N.S/DO
'He had their shepherd follow them.' (St F 4:12-13; L; 22)

(6) **mu-*bé* pa *bí*-è**
mu =be=e pa =Ø Ø -bi -n -ʔè -Ø
name=its=DIR branch=ABS VP-3N.OO-3SG.A-go.out-3N.S/DO
'He had its fame appear (lit. something like "had its name grow branches").' (Cyl B 13:10; L; 22)

The vowel of /bi/ alternates between /e/ and /i/ according to the rule of vowel harmony in Southern Old Sumerian (§3.9.3). E.g.:

(7) **ì-*bé* zà-*ge* *bé*-ak**
ì =be=Ø zà.g=e Ø -bi -n -ʔak -Ø
oil=its=ABS side=DIR VP-3N.OO-3SG.A-make-3N.S/DO
'He applied its oil to the side.' (RTC 17 8:7; L; 25)

(8) **na-rú-*a* / me-silim-*ma* / ki-*bé* *bí*-gi$_4$**
na.rú.a me.silim=ak =Ø ki =be=e Ø-bi -n -gi$_4$ -Ø
stela Mesilim =GEN=ABS place=its=DIR VP-3N.OO-3SG.A-turn-3N.S/DO
'He restored Mesilim's stela.' (Ent. 28 2:8; L; 25)

If /bi/ follows the ventive prefix, the /b/ of /bi/ assimilates to the preceding /m/:

(9) **sipa-*bé* / *im-mi*-ús**

sipa.d =be=Ø ʔi -m(u)-bi -n -ʔús -Ø
shepherd=its=ABS VP-VENT-3N.OO-3SG.A-be.next.to-3N.S/DO
'He had their shepherd follow them.' (St F 4:7-8; L; 22)

(10) **é lugal-*na*-*ke*$_4$ / saĝ-*éš* *im*-*mi*-rig$_7$**
é lugal =ane=ak =e saĝ =eš ʔi -m(u)-bi -n -rig$_7$-Ø
temple master=his =GEN=DIR head=ADV VP-VENT-3N.OO-3SG.A-ʔ -3N.S/DO
'He gave it (viz. a boat) to his master's temple as a present.' (St D 3:11-12; L; 22). Note that the phrasal verb **saĝ-éš—rig$_7$** means 'give as a present'.

In the finite verbal forms treated so far, the OO-prefix non-human has exactly the same forms as the local prefix {e} in such verbal forms (§20.3.1). In cases like these, the OO-prefix {bi} can be distinguished from the form /bi/ of the local prefix {e} in only two ways. First, there is a difference in meaning. The local prefix {e} expresses a meaning 'on', while an oblique object non-human expresses either a meaning 'in(to) contact with' or indicates the causee in a causative construction. Second, the local prefix {e} is usually coreferential with a noun phrase in the locative case, but an OO-prefix non-human with one in the directive case.

In addition, the OO-prefix non-human has a different form from the local prefix {e} in those finite verbal forms that lack a final person-prefix expressing the transitive subject or direct object. In such forms, the oblique object is expressed by a final person-prefix, something which is impossible for the local prefix {e}. Thus the OO-prefix non-human is {b} in all finite verbal forms which lack a final person-prefix expressing the transitive subject or direct object. Contrast, for instance, the following transitive clauses with their intransitive counterparts:

(11a) **ĝissu saĝĝa isin^{ki}-*ke*$_4$ / di-*be*$_6$ si *bí*-sá**
ĝissu saĝĝa isin=ak =e di.d =be =e
Gissu administrator Isin=GEN=ERG judgement=this=DIR

si=Ø Ø -bi -n -sá -Ø
? =ABS VP-3N.OO-3SG.A-be.equal-3N.S/DO
'Gissu, the administrator of Isin, straightened out this trial.' (BIN 8:164 7-8; I; 23). Note that the phrasal verb **si—sá** means 'make straight, put in order'.

(b) **di-*be*$_6$ si *ab*-sá**
di.d =be =e si=Ø ʔa -b -sá -Ø
judgement=this=DIR ? =ABS VP-3N.OO-be.equal-3N.S/DO
'This trial has been straightened out.' (BIN 8:173 10; N; 23)

(12a) **mu PN lugal urim$_5^{ki}$-*ma*-*ke*$_4$ má dara$_3$ abzu ^{d}en-ki *bí*-*in*-du$_8$**
mu PN lugal urim$_5$=ak =e má dara$_3$ abzu=ak en.ki.k=ak =Ø
year PN king Ur =GEN=ERG boat Ibex Abzu=GEN Enki =GEN=ABS

Ø -bi -n -du$_8$ -Ø
VP-3N.OO-3SG.A-coat-3N.S/DO
'The year: PN, the king of Ur, caulked Enki's boat "Ibex of Abzu".' (MVN 4:153 left edge; YN; 21). Note that finite verbal forms of **du$_8$** always include the OO-prefix non-human if **du$_8$** means 'caulk (a boat)'.

(b) **mu má dara$_3$ abzu ^{d}en-ki *ba*-*ab*-du$_8$**
mu má dara$_3$ abzu=ak en.ki.k=ak =Ø Ø -ba -b -du$_8$ -Ø
year boat Ibex Abzu=GEN Enki =GEN=ABS VP-MM-3N.OO-coat-3N.S/DO
'The year: Enki's boat "Ibex of Abzu" was caulked.' (SACT 2:283 12; YN; 21)

The verbal form ***ba-ab*-du$_8$** in the preceding example shows that the prefix /bi/ in the form ***bí-in*-du$_8$** represents the OO-prefix non-human. If it had been the form /bi/ of the local prefix {e}, the form ***ba-ab*-du$_8$** would have been ****ba-a*-du$_8$** instead (§20.3.1). Also, the form ***ba-ab*-du$_8$** proves that the oblique object is expressed with the final person-prefix {b}, since the initial person-prefix {b} cannot co-occur with the prefix {ba} in a single verbal form (§16.2.1). The following are further instances where the final person-prefix {b} (and not the initial person-prefix {b}) expresses the oblique object:

(13) **^{ĝiš}gigir ^{d}nin-ĝ*ír-su-ke$_4$* šu *ba-ra-ab*-du$_7$**
gigir nin.ĝír.su.k=ak =e šu =Ø Ø -ba -ta -b -du$_7$-Ø
chariot Ningirsu =GEN=DIR hand=ABS VP-MM-from-3N.OO-? -3N.S/DO
'With (lit. "from") these (six pounds of wool) Ningirsu's chariot was completed.' (UNT p. 187f:16 7:6'; L; 21). The phrasal verb **šu—du$_7$** means something like 'complete'.

(14) **an-*gen$_7$* mul-*a še-er-ka-an mi-ni-íb*-du$_{11}$**
an =gen mul=ʔa še.er.ka.an=Ø Ø -mu -ni-b -du$_{11}$.g-Ø
heaven=EQU star =LOC ornament =ABS VP-VENT-in-3N.OO-do -3N.S/DO
'It (=the boat) was decorated with stars like heaven.' (Shulgi D 360; from an Old Babylonian copy of an Ur III royal hymn)

But there is even one more type of form that proves that the OO-prefix {b} is the final person-prefix {b} and not a reduced form of /bi/, as the form /b/ in the paradigm of the local prefix {e} is. Consider the following two clauses:

(15) **^{ĝiš}kiri$_6$ lú-diĝir-*ke$_4$* / *ab*-ús**
kiri$_6$ lú.diĝir.ra.k=ak =e ʔa -b -ʔús -Ø
orchard Ludingira =GEN=DIR VP-3N.OO-be.next.to-3N.S/DO
'This (plot of land) borders on Ludingira's orchard.' (TMTIM 4 17:7'-8'; I; 24)

(16) **mu *íb*-ús-*sa***
mu ʔi -b -ʔús -Ø -ʔa
year VP-3N.OO-be.next.to-3N.S/DO-NOM
'the year which follows it' (e.g., NATN 897 9; N; 21)

The latter form, which occurs about a dozen times in the Ur III texts, never shows a plene spelling ***ì-íb-*** which is typical in the case of the reduced form /b/ of {bi} (§20.3.1), while the non-plene spelling ***íb-***, found here, is typical in the case of the final person-prefix {b} (§13.2.2).

As stated above, the final person-prefix {b} can only be used to express an oblique object non-human if the finite verbal does not already contain a final person-prefix expressing a transitive subject or a direct object. Since a transitive subject or a direct object only occur in transitive forms, the oblique object non-human is always expressed by the final person-prefix {b} in intransitive forms. Such intransitive forms have already been amply illustrated above, so that further documentation here is unnecessary.

The oblique object is also expressed by the final person-prefix {b} in those transitive forms of the imperfective which leave the direct object unexpressed:

(17) **é-*e* ĝál *ḫa-ab*-taka$_4$-taka$_4$**
é =e ĝál=Ø ḫa =ʔa-b -taka$_4$:RDP-e
house=DIR ? =ABS MOD=VP-3N.OO-leave:IPFV -3SG.A:IPFV
'He must open the room.' (NATN 807=TCS 1:124 5; N; 21)

(18) **siskur$_2$** ***mu-na-bé***
siskur$_2$=Ø Ø -mu -nna -b -ʔe -e
prayer =ABS VP-VENT-3SG.IO-3N.OO-say:IPFV-3SG.A:IPFV
'He said a prayer to her.' (Cyl A 2:27; L; 22). The finite forms of the verb **du$_{11}$.g = e** 'say' include the OO-prefix non-human.

Similarly, the oblique object is expressed by the final person-prefix {b} in those imperative forms and in those forms with the modal proclitic {ga} which leave the direct object unexpressed. E.g.:

(19) **du$_{11}$-*ga-na***
du$_{11}$.g-ʔa -nna -b[2]
say -VP-3SG.IO-3N.OO
'Say it to him!' (Nik 1:177 3:1; L; 24)

(20) ***ga-na-ab*-du$_{11}$**
ga -nna -b -du$_{11}$.g
MOD:1SG.A/S-3SG.IO-3N.OO-say
'I want to tell it to her!' (Cyl A 1:24; L; 22)

The final person-prefix {b} cannot be used immediately after the ventive prefix, so that a non-human oblique object is not expressed in finite verbal forms which contain the ventive prefix immediately before the stem. E.g.:

(21) ***me-lám* ḫuš-*bé* an-*né im*-ús**
me.lám ḫuš =be=Ø an =e ʔi -m(u) -ʔús -Ø
radiance fierce=its=ABS heaven=DIR VP-VENT-be.next.to-3N.S/DO
'Its awesome radiance reaches heaven.' (Cyl A 9:16; L; 22)

(22) **ĝiš-*e mí im-e***
ĝiš =e mí=Ø ʔi -m(u)-ʔe -e
wood=DIR ʔ =ABS VP-VENT-do:IPFV-3SG.A:IPFV
'He handled the wood with care.' (Cyl A 7:16; L; 22)

See §22.4 for more details on this incompatibility of {b} and the ventive prefix.

An oblique object non-human is not always expressed in a finite verbal form. Certain types of finite forms lack an OO-prefix non-human altogether, because the OO-prefix {bi} cannot be used together with other dimensional prefixes or with the prefix {ba}. This restriction is due to the make-up of the prefix {bi}. It consists of the initial person-prefix {b} and the vowel /i/, which is a dimensional prefix cognate with the directive case marker {e}. This /i/ is, at least in origin, identical to the local prefix {e} (§20.3.1). Now, in the relative order of verbal prefixes, the initial person-prefix {b} has the same position as the prefix {ba} and precedes all dimensional prefixes (§16.1 and §16.2.1). The local prefix {e}, however, has the same position as the local prefix {ni} and follows all other dimensional prefixes (§16.1).

Because of these relative positions of {b} and {e} in the verbal form, the OO-prefix non-human {bi} is always followed by a final person-prefix and never by any other prefix. Nor can it be used together with the prefix {ba}. Some consequences of this restriction on the use of {bi} are discussed below (§18.4).

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[2] Compare the forms **du$_{11}$-*ga-na-ab*** and **du$_{11}$-*ga-ab*** in Sumerian texts from the Old Babylonian period (Attinger 1993: 373-4).

18.2.3. The prefixes {nni} and {n}

An oblique object of the third person singular human is expressed in a finite verbal form by the dimensional prefix {nni} or by the final person-prefix {n}. Note, however, that not every instance of a final person-prefix {n} involves an oblique object, because it can also express a transitive subject or a direct object (chapter 13). Its use as an OO-prefix is restricted to those constructions where it has the same syntactic function as a noun phrase in the dative case, regardless of whether such a phrase is actually present or not.

The oblique-object prefix {nni} is not to be confused with the local prefix {ni} 'in' which will be treated in §20.2.1. The two prefixes differ in form and in meaning. Local {ni} has a single /n/ and always refers to a location, whereas {nni} has double /nn/ and always refers to a person. Only the spelling of the two prefixes can be the same.

If the verbal form contains a final person-prefix expressing the transitive subject or the direct object, the OO-prefix for the third person singular human is {nni}, which has the basic form /nni/. E.g.:

(23) **mu lugal-*bé* urdu$_2$-^{d}nanna-*ke$_4$* / *in-ni*-pà**
mu lugal=ak =be=Ø urdu$_2$.nanna.k=e ʔi -nni -n -pà.d-Ø
name king =GEN=its=ABS Urdunanna =ERG VP-3SG.OO-3SG.A-call -3N.S/DO
'Urdu-Nanna had him take an oath by the king's name about it (lit. "caused him to call the king's name of it").' (PDT 2:1282 rev 6-7; L?; 21)

(24) **PN-*ra* / *ì-bí-la* maš-*gu-la-ke$_4$-ne* / inim *in-ni-^{ĝá}ĝar^{ar}-eš***
PN=ra ì.bí.la maš.gu.la=ak =enē=e inim=Ø
PN=DAT heir Mashgula=GEN=PL =ERG word=ABS

ʔi -nni -n -ĝar -eš
VP-3SG.OO-3SG.A-place-3PL
'The heirs of Mashgula claimed (lit. "placed a word on") PN.' (NG 205 2-4; L; 21)

Being a syllable-final consonant, the first /n/ of /nni/ is often ignored in the spelling (§2.4). Even though the sound sign IN for word-initial /ʔin/ was already used in the Old Sumerian period (§2.4), the defective spelling ***ì-ni-*** often occurs instead of the full spelling ***in-ni-***. This defective spelling is the norm before the Ur III period and occurs occasionally even during that period.:

(25) **ur-saĝ-*ra* / šu-*na* *ì-ni*-gi$_4$**
ur.saĝ=ra šu =ane=ʔa ʔi -nni -n -gi$_4$ -Ø
Ursag =DAT hand=his =LOC VP-3SG.OO-3SG.A-turn-3N.S/DO
'He transferred them into the hands of Ursag (lit. "on Ursag, on his (i.e. Ursag's) hand").' (VS 27:68 3:3-4; L; 24)

(26) **gù-dé-*a* *nam*-eren$_2$-*šè* inim *ì-ni-ĝá-ar***
gù.dé.a=e nam.eren$_2$ =še inim=Ø ʔi -nni -n -ĝar -Ø
Gudea =ERG conscripthood=TERM word=ABS VP-3SG.OO-3SG.A-place-3N.S/DO
'Gudea claimed him for the status of conscript.' (NG 212 9; U; 21). For the full spelling with ***in-ni*** see ex. 24 above.

The vowel of /nni/ alternates between /e/ and /i/ according to the rule of vowel harmony in Southern Old Sumerian (§3.9.3). Since a sound sign for the sequence /en/ was not yet in use in

that period (§2.4), the first /n/ of {nni} could not be written. Consequently, the sequence /ʔenne/ is always written ***e-né***:

(27) **^{d}nin-*ĝír-su-ke$_4$* / mu *e-né*-pà-*da-a***
nin.ĝír.su.k=e mu =Ø ʔi -nni -n -pà.d-Ø -ʔa =ʔa
Ningirsu =ERG name=ABS VP-3SG.OO-3SG.A-call -3N.S/DO-NOM=LOC
'when Ningirsu had nominated him' (Ent. 26 17-18; L; 25)

(28) **^{d}nin-*ĝír-su-ke$_4$* / sa-šu$_4$-gal-*né* / *ù-ni*-šu$_4$**
nin.ĝír.su.k=e sa.šu$_4$.gal =ane=Ø ʔu -nni -n -šu$_4$ -Ø
Ningirsu =ERG large.battle.net=his =ABS REL.PAST-3SG.OO-3SG.A-cover-3N.S/DO
'after Ningirsu will have covered him with his large battle-net' (Ent. 28 6:21-23; L; 25)

In the preceding example, the sequence /ʔunni/ is written ***ù-ni***. This defective spelling, which lacks the syllable-final /n/, is entirely normal and is due to the absence of any means to write the phonemic sequence /un/. A sound sign ***un*** does not come into regular use before the Old Babylonian period (§2.4). For the same reason the sequence /munni/ is, as a rule, written ***mu-ni***:

(29) **^{d}nin-*ĝír-su-ke$_4$* iri-ka-*ge-na-ra* ^{d}anzu^{mušen}-*gen$_7$* á *mu-né*-bař$_4$-*ře$_6$***
nin.ĝír.su.k=e iri.ka.ge.na.k=ra anzu.d =gen á =Ø
Ningirsu =ERG Irikagena =DAT Anzubird=EQU arm=ABS

Ø -mu -nni -b -bař$_4$-e
VP-VENT-3SG.OO-3N.DO-open-3SG.A:IPFV
'Like the Anzu-bird, Ningirsu opens his arms/wings over Irikagena.' (Ukg. 40 1; L; 24)

Just like the indirect-object prefix {nna} of the third person singular human, the prefix {nni} can be preceded by the prefix {ba}. E.g.:

(30) **an-*ra* ^{d}en-líl *im-ma-ni*-ús**
an =ra en.líl=Ø ʔi -m(u) -ba -nni -n -ʔús -Ø
heaven=DAT Enlil =ABS VP-VENT-MM-3SG.OO-3SG.A-be.next.to-3SG.S/DO
'He had Enlil sit next to An.' (Cyl B 19:19; L; 22)

Just like the OO-prefix {bi}, the prefix {nni} is always followed by a final person-prefix and never by any other prefix. As a consequence, {nni} cannot be used together with an indirect-object prefix, or with one of the prefixes {da}, {ta}, {ši}, or {ni}. Some consequences of this restriction on the use of {nni} are discussed below (§18.4).

If the verbal form does not contain a final person-prefix expressing the transitive subject or direct object, an oblique object of the third person singular human is expressed with the final person-prefix {n}. Compare, for instance, the following pairs of clauses:

(31a) **šu *na-ni-ba-re***
šu =Ø na -nni -b -ba.r -e
hand=ABS NEG.MOD-3SG.OO-3N.DO-open-3SG.A:IPFV
'May he never release (lit. "open the hand on") him!' (St B 9:26; L; 22)

(b) **šu *ba-an-ba***
šu =Ø Ø -ba -n -ba.r-Ø
hand=ABS VP-MM-3SG.OO-open-3N.S/DO
'He was released.' (Touzalin Aleppo 275 6; U; 21)

(32a) **^{d}inanna-*ke$_4$* u$_6$ *mu-ni*-du$_{11}$**
inanna.k=e u$_6$ =Ø Ø -mu -nni -n -du$_{11}$.g-Ø
Inanna =ERG admiration=ABS VP-VENT-3SG.OO-3SG.A-do -3N.S/DO
'Inanna admired him.' (Shulgi X 11; OB copy of Ur III hymn)

(b) **iri-*né* u$_6$ *mu-e***
iri =ane=e u$_6$ =Ø Ø -mu -n -ʔe -e
city=his =ERG admiration=ABS VP-VENT-3SG.OO-do:IPFV-3SG.A:IPFV
'His city was admiring him.' (Cyl B 19:4; L; 22)

As far as I know, none of the attested forms with the OO-prefix {n} contains a dimensional prefix which could prove the position of this {n} in the relative order of prefixes. But as we have positive proof in the case of the non-human OO-prefix {b} (§18.2.2), there is no reason to doubt that {n} is a final person-prefix too.[3]

How is the OO-prefix {nni} to be analysed? It is part of the same paradigm as the OO-prefix {bi}. Hence, the /i/ of {nni} must be the same /i/ as in {bi}. But where does the /nn/ come from? It cannot be simply the initial person-prefix of the third person singular human, because that is /n/, not /nn/ (§16.2.2). However, the indirect-object prefix {nna} has an initial /nn/ too and that is not the only property that {nni} shares with it. Both {nna} and {nni} express the same syntactic function as a noun phrase in the dative case, {nna} expressing an indirect object and {nni} an oblique object. And both {nna} and {nni} follow the prefix {ba} in the relative order of verbal prefixes.

Thus, {nni} shares properties with both the OO-prefix {bi} and the IO-prefix {nna}. This is best explained if we assume that the prefix {nni} came into existence by analogy on the proportion {ba} :: {bi} = {nna} :: X (X = {nni}). In other words, the prefix {nni} cannot be fully segmented into constituent parts, but its internal make-up can be explained historically: it does indeed contain the initial person-prefix {n} and the dimensional prefix {e}, but that is only an etymology. In the following section, we will see that the OO-prefix {ri} came about in much the same way.

18.2.4. The prefixes {ri} and {e}

An oblique object of the second person singular is expressed in a finite verbal form by the dimensional prefix {ri} or by the final person-prefix {e}. Unfortunately, these two OO-prefixes are only rarely found. But if we also take evidence from later texts into account (cf. Attinger 1993: 234-236), it becomes clear that the OO-prefixes {ri} and {e} behave exactly like {nni} and {n}, treated in the previous section.

If the verbal form contains a final person-prefix expressing the transitive subject or the direct object, the OO-prefix for the second person singular human is {ri}. Its basic form is /ri/, which can be assumed to alternate with /re/ according to the rule of vowel harmony in Southern Old Sumerian (§3.9.3).[4] The prefix {ri} occurs only twice in the corpus, in one and the same text. E.g.:

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[3] Attinger (2004a), among others, takes our OO-prefix {n} as a reduced form of /ni/, with loss of /i/ in an open unstressed syllable. However, the long form is /nni/ and not /ni/, and whereas a change of /ni/ to /n/ would make sense (cf. §20.2.1), one from /nni/ to /n/ does not.

[4] Actually, there is no direct proof that {ri} is subject to the rule of vowel harmony. In the Old Sumerian texts from Lagash, the sign URU can represent both ***ré*** and ***rí***, so that the

(33) **saĝ-ki-*za* / NE.GI.DU.ÚS / *ré*-keše$_2$**
saĝ.ki =zu =ʔa NE.GI.DU.ÚS =Ø Ø -ri -n -keše$_2$.ř-Ø
forehead=your=LOC a.head.covering?=ABS VP-2SG.OO-3SG.A-bind -3N.S/DO
'He bound the ... on your forehead.' (Ean. 1 7:9-11; L; 25)

The second attestation is given as ex. 110 below. Later texts, however, provide far more forms with {ri}.[5]

The traditional reading of the sign URU in the previous example and in ex. 110 below is ***ere-*** or ***iri-*** instead of ***ré-*** or ***rí-***. That longer reading fits the make-up of such forms in the texts from the Old Babylonian period and later, which always show a vocalic prefix {ʔi}. E.g.:

(34) **a-a ^{d}en-ki-*ke$_4$* nam *i-ri-in*-tar**
a.a en.ki.k=e nam =Ø ʔi -ri -n -tar-Ø
father Enki =ERG status=ABS VP-2SG.OO-3SG.A-cut -3N.S/DO
'Father Enki has determined your fate.' (Nanshe hymn 254, JCS 33 [1981] p. 98; OB).
N.B.: **nam—tar** 'determine the fate of'.

And, indeed, the sign URU can have a value ***eri*** or ***iri*** in Akkadian texts from the Old Babylonian period and later. However, there is no reason to give URU here a different value from the ones it has in all other Old Sumerian texts. Nor is there any reason to posit the presence of a vocalic prefix {ʔi} here. The dominant dialect of our corpus lost the prefix {ʔi} before all prefixes that begin with the sequence /CV/, that is, also before the indirect-object prefix {ra} (§17.2.4) and the local prefix {ni} (§20.2.1), where the prefix {ʔi} is retained by the Sumerian dialect that dominates in later texts. Now, if our dialect lost {ʔi} before both {ni} and {ra}, there is every reason to expect that it lost {ʔi} before {ri} as well.

The prefix {ri} has the same relative position in the order of verbal prefixes as the OO-prefix {nni} (see the previous section). It is always followed by a final person-prefix and never by any other prefix. And just like the OO-prefix {nni}, it can be preceded by the prefix {ba}.

If the verbal form does not contain a final person-prefix expressing the transitive subject or direct object, an oblique object of the second person singular is expressed with the final person-prefix {e}. The corpus contains one example:

(35) **na *ga*-ři**
na=Ø ga -e -ři.g
? =ABS MOD:1SG.A/S-2SG.OO-clear
'I will instruct you!' (Cyl A 6:14; L; 22)[6]

For a single verb showing the use of both OO-prefixes, we have to fall back on later examples:

(36a) **tu$_6$-tu$_6$ *nam*-ti-*la-kam* mí zi *ḫu-mu-ri-in*-du$_{11}$**
tu$_6$ -tu$_6$ nam.ti.l=ak =ʔam mí zi.d =Ø
incantation-incantation life =GEN=be:3N.S ? right=ABS

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spelling is ambiguous. However, since the vowel /i/ of the other OO-prefixes can be proven to follow the rule, there can be no doubt that it applies to {ri} as well.

[5] But note that in the dominant Sumerian dialect of the later texts ***-re-*** (often transliterated as ***-ri-***) may also represent a contraction of the form /ra/ of the prefix {ta} (§19.3.1) with the /e/ of the final person-prefix {e} (§13.2.4) or with the /e/ of the local prefix {e} (§20.3.1) (cf. Attinger 1993: 258).

[6] Compare the Old Babylonian spelling **na *ga-e*-ři** (Sallaberger 2005: 238).

ḫa =Ø -mu -ri -n -du$_{11}$.g-Ø
MOD=VP-VENT-2SG.OO-3SG.A-do -3N.S/DO
'It is the incantations of life that he treats you very carefully with!' (TCL 16 61:7; OB)

(b) **mí *ga-e*-du$_{11}$**
mí=Ø ga -e -du$_{11}$.g
? =ABS MOD:1SG.A/S-2SG.OO-do
'I will treat you with care!' (TMHC NF 4:7 4:15; N; OB)

As with the OO-prefix {n} (see the previous section), we lack forms with the OO-prefix {e} that contain a dimensional prefix which could prove the position of this {e} in the relative order of prefixes. But, again, as we have positive proof in the case of the non-human OO-prefix {b} (§18.2.2), there is no reason to doubt that {e} is a final person-prefix too. The form /e/ cannot possibly be a reduced form of /ri/. That should have been /r/, similarly as, for instance, the local prefix {ni} (§20.2.1), which becomes /n/ immediately before the stem.

The prefix {ri} cannot be segmented into clearly separable morphemes, although the vowel /i/ is obviously the same /i/ as in the OO-prefixes {bi} and {nni}. However, following the same line of reasoning as with {nni} at the end of the previous section, we can assume that {ri} came into existence by analogy on the proportion {ba} :: {bi} = {ra} :: X (X = {ri}).

18.2.5. The prefixes {mu} and {ʔ}

An oblique object of the first person singular is expressed in a finite verbal form by the ventive prefix {mu} or by the final person-prefix {ʔ}. If the verbal form contains a final person-prefix expressing the transitive subject or the direct object, the ventive prefix is used to express an oblique object of the first person singular. Since this use of the ventive is discussed extensively in §22.3, one contrastive example will suffice here:

(37a) **é-an-*na*-túm-*ra* / lú ti *mu-né*-ra**
é.an.na.túm=ra lú =e ti =Ø Ø -mu -nni -n -ra-Ø
Eannatum =DAT person=ERG arrow=ABS VP-VENT-3SG.OO-3SG.A-hit-3N.S/DO
'Someone hit Eannatum with an arrow.' (Ean. 1 obv 9:2-3; L; 25)

(b) **PN-*àm* igi-*šè* ĝešba$_2$^{ba} *mu*-ra**
PN=Ø =ʔam igi =še ĝešba$_2$=Ø Ø -mu -n -ra-Ø
PN=ABS=be:3SG.S eye=TERM fist =ABS VP-1SG.OO-3SG.A-hit-3N.S/DO
'It was PN who hit me first with his fist.' (NG 202 18; U; 21)

If the verbal form does not contain a final person-prefix expressing the transitive subject or direct object, an oblique object of the first person singular is expressed with the final person-prefix {ʔ}. Since there are no attestations in the corpus, I will give a later example that is linguistically close to the dialect of our corpus:

(38) **šu *ba-mu-u$_8$***
šu=Ø ba.r-Ø -mu -ʔ
hand=ABS open-VP-VENT-1SG.OO
'Let me go! (lit. "Open the hand upon me!")' (Attinger 2004a; OB)

The plene spelling ***mu-u$_8$*** is an early Old Babylonian spelling that has the same functions as the spelling ***mu-ù*** in earlier texts. The use of such plene spellings is the only way in which the script can represent the final person-prefix {ʔ} explicitly (§13.2.5).

Note that the ventive prefix {mu} never copied the vowel /i/ from the OO-prefixes {bi}, {nni}, and {ri}, even though it did copy the vowel /a/ from the indirect-object prefixes {ba}, {nna}, and {ra}: see the discussion of the IO-prefix {ma} in §17.2.5.

18.2.6. The plural prefixes

How a plural oblique object is expressed in a finite verbal form is only partly known. Our corpus contains no forms for the first and second person plural, and although later texts provide some attestations, there are far too few of them to allow us to formulate clearcut rules. But let us begin with the forms from our corpus, which are all third person plural.

If the verbal form contains a final person-prefix expressing the transitive subject or the direct object, the OO-prefix for the third person plural is {nnē}. This OO-prefix {nnē} is simply the initial person-prefix {nnē} (§16.2.3), without any additional marking. This also means, however, that there is no formal distinction between a plural oblique object and a plural indirect object, because {nnē} is similarly used as the indirect-object prefix for the third person plural (§17.2.3). Yet, comparing a form with its singular counterpart makes it clear with which one of the two objects we are dealing: the singular either shows the OO-prefix {nni} or the IO-prefix {nna}. Hence, the following contrastive examples make certain that {nnē} expresses an oblique object. E.g.:

(39a) ***in-ne-*gu$_7$**
ʔi -nnē -n -gu$_7$-Ø
VP-3PL.OO-3SG.A-eat -3N.S/DO
'He let them enjoy the usufruct of it (viz. of some silver).' (MVN 3:1 3:4; I; 24)

(b) ***ì-ni-*gu$_7$**
ʔi -nni -n -gu$_7$-Ø
VP-3SG.OO-3SG.A-eat -3N.S/DO
'He let him enjoy the usufruct of it (viz. of some silver).' (MVN 3:36 3:7; I; 24)

(40a) **gú-*ne-ne-a* / *e-ne-*ĝar**
gú =anēnē=ʔa ʔi -nnē -n -ĝar -Ø
neck=their =LOC VP-3PL.OO-3SG.A-place-3N.S/DO
'He placed this (as a burden) on them, on their necks.' (RTC 42 3:2-3; L; 24)

(b) **gú-*na e-né-*ĝar**
gú =ane=ʔa ʔi -nni -n -ĝar -Ø
neck=his =LOC VP-3SG.OO-3SG.A-place-3N.S/DO
'He placed this (as a burden) on him, on his neck.' (DP 565 3:3; L; 24)

It is unclear how a finite verbal form expresses an oblique object of the third person plural if this verbal form lacks a final person-prefix expressing the transitive subject or the direct object. There seem to be two different options. One involves the use of a final person-prefix. Unfortunately it remains uncertain which one, because it is not spelled out in the known attestations. But as the final person-prefix {b} can represent a plural number of persons (§13.3.1), I assume that {b} is the one used. Thus, example (a) shows a transitive singular construction with {nni}, (b) a transitive plural construction with {nnē}, and (c) a passive version of the construction in (b):

(41a) **ur-saĝ-*ra* / šu-*na ì-ni-*gi$_4$**

ur.saĝ=ra šu =ane=ʔa ʔi -nni -n -gi$_4$ -Ø
Ursag =DAT hand=his =LOC VP-3SG.OO-3SG.A-turn-3N.S/DO
'He transferred them into Ursag's hands (lit. "turned them back on Ursag, on his hand").' (VS 27:68 3:3-4; L; 24)

(b) **saĝ apin-*na-ke$_4$-ne* / ur-pu$_6$-saĝ-*ke$_4$* / (...) / šu-*ne-ne-a* / *e-ne*-gi$_4$**
saĝ apin =ak =enē=r(a) ur.pu$_6$.saĝ.ak=e šu =anēnē=ʔa
head plough=GEN=PL =DAT Urpusag =ERG hand=their =LOC

ʔi -nnē -n -gi$_4$ -Ø
VP-3PL.OO-3SG.A-turn-3N.S/DO
'Urpusag transferred it (i.e., barley as working materials) into the hands of the chief ploughmen.' (VS 25:94 4:5-5:5; L; 24)

(c) **sipa-*bé-ne* / šu-*ne-ne-a* / *ba*-gi$_4$**
sipa.d =be=enē=r(a) šu =anēnē=ʔa Ø -ba -b -gi$_4$ -Ø
shepherd=its=PL =DAT hand=their =LOC VP-MM-3N.OO-turn-3N.S/DO
'These (goats) were transferred into the hands of their shepherds.' (Nik 1:196 5:5-7 = VS 14:127 7:5-7; L; 24)

The second option is to use of the initial person-prefix plural also when the verbal form lacks a final person-prefix. Our corpus contains at least one probable attestation:

(42) **šu *ḫa-mu-ne*-bar-*re***
šu =Ø ḫa =Ø -mu -nnē -bar -e
hand=ABS MOD=VP-VENT-3PL.OO-open-3SG.A:IPFV
'He should release them!' (TCS 1:240 9; L; 21)

Unfortunately we cannot be entirely sure that this form really lacks a final person-prefix {b} expressing the direct object, because the scribes tend to ignore a syllable-final consonant. But, as we will see below, there are unambiguous examples from later texts.

The corpus does not contain any OO-prefixes for the first and second persons plural, but later texts do (cf. Attinger 1993: 237). The available data suggest that, just as with the third person plural, the simple initial person-prefixes plural are used as OO-prefixes, without any additional marking. Thus, the initial person-prefix {mē} for the first person plural (§16.2.6) is used as the OO-prefix for the first person plural. E.g.:

(43) **igi *me-eb*-du$_8$-*ne-a***
igi =Ø Ø -mē -b -du$_8$ -enē -ʔa
eye=ABS VP-1PL.OO-3N.DO-spread-3PL.A:IPFV-NOM
'who will see us' (GH B 138; OB)

(44) ***ḫé-me*-ús**
ḫa =Ø-mē -ʔús -Ø
MOD=VP-1PL.OO-be.next.to-3SG.S/DO
'May he follow us!' (CT 58:57 10=Dialogue 2 187; OB)

The latter example shows that {mē} can also be used if the verbal form lacks a final person-prefix, which fits the second option discussed above.

There seems to be only one attestation with the dimensional prefix {enē} for the second person plural (Attinger 1993: 237):

(45) **ní me-lám-*ĝu*$_{10}$ *ba-e-ne*-dul**[7]
ní me.lám=ĝu =Ø Ø -ba -enē -dul -Ø
fear awe =my=ABS VP-MM-2PL.OO-cover-3N.S/DO
'Fear and awe for me came to cover (the two of) you.' (Lugal-e 442; OB)

As **dul** 'cover' construes a non-human object with a locative and the local prefix {e} 'on', this form reflects the usage of a human oblique object which is discussed in section 18.3.4 below.

18.2.7. A historical note on the OO-prefixes

In the previous sections we have encountered a lot of points where an oblique object turns out to be closely related to an indirect object. The most obvious of these is that noun phrases use exactly the same case markers to express both. Thus, a non-human phrase in the directive case or a human phrase in the dative case is either an indirect object or an oblique object, but which one of the two applies cannot be determined from the case marking alone.

Furthermore, a finite verbal form containing the local prefix {ni} may express a participant normally expressed as an oblique object as an indirect object instead (§18.4 below).

But even the OO-prefixes themselves do not always make a clear distinction. The plural OO-prefixes are the same as the plural IO-prefixes, so that only the non-human and the human singular prefixes show different forms for the oblique object and the indirect object.

But that is not all. There is clear evidence that the difference in form between the human singular prefixes results from a historical change in the language. Thus, the first person IO-prefix {ma} comes from the ventive prefix {mu} (see §17.2.5), the second person OO-prefix {ri} comes from the IO-prefix {ra} (see §18.2.4 above), and the third person OO-prefix {nni} from the IO-prefix {nna} (§18.2.3).

This leaves the two non-human prefixes {ba} and {bi} as the oldest layer for a difference in form between indirect object and oblique object. But even they show traces of linguistic change. The IO-prefix {ba} (*b+ʔa) has the same syntactic function as a noun phrase with the directive case marker {e} (chapter 17), while {bi} (*b+e) , as a member of the paradigm of the local prefix {e}, has the same function as a phrase with the locative case marker {ʔa}. See §17.2.1 for more details on {ba} and §20.3.1 for {bi}.

18.3. The oblique object

18.3.1. Introduction

The oblique object is expressed by a noun phrase, or by an OO-prefix, or by both at the same time. If a clause has a participle as its predicate, the oblique object can only be expressed by a noun phrase. If a clause has a finite verbal form as its predicate, the oblique object is expressed by an OO-prefix, unless the presence of certain other prefixes makes this impossible (§18.4). In addition, the clause can contain a noun phrase expressing the oblique object, but the presence of such a phrase is only optional. The verb **ús** 'be next to' is construed with an oblique object and can illustrate the three basic patterns:

(46) **ki-su$_7$-*ge* ús-*sa***

[7] The verbal form remains somewhat uncertain, as it is a composite from how the four known Old Babylonian manuscripts spell it: ***ba-e-en-ne-en*-du[l]**, ***ba-e-ne-en*-**[ ], ***ba-e*-**[ ], and ***ba-e-en-ne*-dul**.

ki.su$_7$.g =e ús -Ø -ʔa
threshing.floor=DIR be.next.to-NFIN-NOM
'next to the threshing floor' (RTC 74 4:4; L; 24)

(47) **mu *íb*-ús-*sa***
mu ʔi -b -ʔús -Ø -ʔa
year VP-3N.OO-be.next.to-3N.S/DO-NOM
'the year which follows it (viz. some other year)' (NRVN 1:34 8; N; 21)

(48) **é lú *gu-la-ke$_4$* / é RU-lugal-*ka* / *ab*-ús-*sa***
é lú gu.l -Ø -ʔa =ak =e é RU.lugal.k=ak =Ø
house man be.big-NFIN-NOM=GEN=DIR house labourer =GEN=ABS

ʔa -b -ʔús -Ø -ʔa =ak
VP-3N.OO-be.next.to-3N.S/DO-NOM=GEN
'of that the house of a labourer borders on (lit. "that it is next to") the house of an important man' (Ukg. 4 11:32-34; L; 24)

In clauses such as the preceding one, the oblique object is expressed twice, once as a noun phrase and once as an OO-prefix. Because both the prefix and the noun phrase refer to the same person or thing, they are said to be coreferential. Sumerian clauses commonly express a single participant twice in this way.

A noun phrase expressing the oblique object is either in the dative or in the directive case. Which one of these two cases is used depends on the gender class of the noun phrase. A noun phrase of the human class is in the dative case, while one of the non-human class is in the directive case. (Note that such noun phrases can also express indirect objects, cf. §17.3.) Thus the non-human OO-prefix {bi} can be coreferential with a noun phrase in the directive case, and the human OO-prefix {nni} with one in the dative case. The following two clauses illustrate these two possible patterns:

(49) **kar niĝin$_6^{ki}$-*na-ke$_4$* má *bí*-ús**
kar niĝin$_6$=ak =e má =Ø Ø -bi -n -ʔús -Ø
quay Nigin =GEN=DIR boat=ABS VP-3N.OO-3SG.A-be.next.to-3N.S/DO
'He had the boat moor at (lit. "had the boat be next to") Nigin's quay.' (Cyl A 4:4; L; 22)

(50) **^{d}en-líl-*ra* / ^{d}nin-maḫ *mu-ni*-ús**
en.líl=ra nin.maḫ=Ø Ø -mu -nni -n -ʔús -Ø
Enlil=DAT Ninmah =ABS VP-VENT-3SG.OO-3SG.A-be.next.to-3N.S/DO
'He seated Ninmah next to Enlil.' (Cyl B 19:20-21; L; 22)

The oblique object has three possible uses, which will be discussed in separate sections. First, it can express the causee in a causative construction of a transitive verb (§18.3.2). Second, it can express a location with the meaning 'in(to) contact with' (§18.3.3). Third, and this use is restricted to human oblique objects, it can express a location with the meaning 'on(to)' (§18.3.4).

18.3.2. Causative constructions

All languages have the means to express that one participant causes some other participant to do something. Languages differ, however, in the nature of these means. Many languages have morphological causatives, special verbal forms which indicate that the verbal form is causa-

tive. Turkish is such a language. In that language, a special causative suffix, *-dir-* for example, can be attached to the verbal stem, indicating that the verb has a causative meaning: cf. *öl-* 'die' and *öldür-* 'kill', *ye-* 'eat' and *yedir-* 'feed'. Other languages have periphrastic causatives, using special verbs to express causation. English is such a language. In that language, a few verbs, *make* for example, can be used to indicate causation: cf. *I went home* and *He made me go home*, *I did it* and *He made me do it*.[8]

Sumerian has neither a morphological nor a periphrastic causative and lacks overt causative markers like Turkish *-dir-* or English *make*. Sumerian uses only syntactic means to express a causative. A causative construction differs from a non-causative one in that the former always involves one more participant as the latter. This additional participant is the causer, the participant that brings about the situation described by the non-causative construction. Thus, English *He made me go home* is the causative of *I went home* and involves the additional participant (the causer) *He*.

A Sumerian causative construction is derived from a non-causative one by adding an extra participant, the causer, in such a way that the causer is expressed with the transitive subject. At the same time, the subject of the original non-causative construction (the causee) comes to be expressed with some other syntactic function. With which syntactic function depends on the type of causative construction. In a causative construction derived from an intransitive construction, the causee is expressed with the direct object. In a causative construction derived from a transitive construction, the causee is expressed with the oblique object.

The causative of an intransitive construction is simply a transitive construction, the causer being construed as the transitive subject and the causee as the direct object. The following clause illustrates the intransitive construction of the verb **ĝál** 'be there':

(51) **šeg$_{12}$ nam tar-*ra* ^{ĝiš}*ù*-šub-*ba ma-an*-ĝál**
šeg$_{12}$ nam =Ø tar-Ø -ʔa =Ø ù.šub =ʔa Ø -ma -n(i)-ĝál -Ø
brick status=ABS cut-NFIN-NOM=ABS brickmold=LOC VP-1SG.IO-in -be.there-3N.S/DO
'The brick decided on was for me in the brickmold.' (Cyl A 5:7; L; 22)

This intransitive construction involves an intransitive subject (**šeg$_{12}$ nam tar-*ra***) and a local adjunct (^{ĝiš}***ù*-šub-*ba***). The causative construction of **ĝál** 'be there' involves an additional participant, the causer. The following two clauses exemplify this causative construction:

(52) **kalam-*ma* igi *mi-ni-íb*-ĝál**
kalam =ʔa igi =Ø Ø -mu -ni-b -ĝál -Ø
country=LOC eye=ABS VP-VENT-in-3N.A-be.there-3N.S/DO
'It kept its eye on (lit. "caused the eye to be in") the country.' (Cyl A 27:4; L; 22)

(53) **ki ^{d}nin-*ĝír-su-ke$_4$* kur-kur-*ra* igi *mi-ni*-ĝál-*la-šè***
ki nin.ĝír.su.k=e kur -kur =ʔa igi =Ø
place Ningirsu =ERG mountains-mountains=LOC eye =ABS

Ø -mu -ni-n -ĝál -Ø -ʔa =še
VP-VENT-in-3SG.A-be.there-3N.S/DO-NOM=TERM
'towards the place where Ningirsu keeps an eye on the mountain lands' (Cyl A 8:7; L; 22)

These two causative constructions are similar to the intransitive construction in that they include a local adjunct (**kalam-*ma*** and **kur-kur-*ra***). For the rest they are different. They have an additional participant, the causer, which is expressed as a transitive subject (**^{d}nin-*ĝír-su-ke$_4$***

[8] For a discussion of causatives cross-linguistically, see Palmer (1994: chapter 9).

in ex. 48), while the original subject of the intransitive construction is now expressed as a direct object (**igi**). (Here this demotion from intransitive subject to direct object does not show itself by a change in form, because the case marking on noun phrases and the inflection of perfective verbal forms are both on an ergative basis and express therefore an intransitive subject in exactly the same way as a direct object. The demotion shows itself, however, in imperfective forms, which express an intransitive subject and a direct object differently, cf. chapter 15.) Thus, the causative of an intransitive construction has the same form as any other transitive construction.

Through the use of the prefix {ba}, a passive can be derived from such a causative construction, in the same way as from other transitive constructions (§21.3.4). E.g.:

(54) **é udu gibil-*a ba-an*-ĝál**
é udu =ak gibil=ʔa Ø -ba -n(i)-ĝál -Ø
house sheep=GEN new =LOC VP-MM-in -be.there-3N.S/DO
'These (sheep) were caused to be in the new sheepfold.' (UDT 14 4; L; 21)

Such a passive from a causative displays a normal intransitive construction, except that the finite verbal form contains the passive marker {ba}. The verb **ku$_4$.r** 'enter' provides also a pair of examples, one a causative construction and one the passive of such a causative construction:

(55a) **lugal-*ĝu$_{10}$* é-*a-na mi-ni*-ku$_4$-ku$_4$**
lugal =ĝu =Ø é =ane=ʔa Ø -mu -ni-n -ku$_4$.r:RDP-en
master=my=ABS house=his =LOC VP-VENT-in-3SG.DO-enter:IPFV -1SG.A/S:IPFV
'I shall let my master enter his house.' (Cyl B 2:5; L; 22)

(b) **é-gal-*la ba-an*-ku$_4$**
é.gal =ʔa Ø -ba -n(i)-ku$_4$.r-Ø
palace=LOC VP-MM-in -enter-3N.S/DO
'This was brought into the palace.' (ITT 3:6160 3; L; 21)

Thus, the causative of an intransitive construction involves at least two participants, one expressed as the transitive subject and one as the direct object. The causative of a transitive construction involves at least three participants, the causer, the causee, and an object. It differs from a basic transitive construction in that the transitive subject expresses the causer, while the original transitive subject becomes an oblique object. Compare the following transitive clause and its causative counterpart, both of which report the selection of a highpriest by means of extispicy:

(56a) **en ^{d}inanna unug^{ki} máš-*e íb*-pà**
en inanna.k unug=ak =Ø máš=e ʔi -b -pà.d-Ø
highpriest Inanna Uruk =GEN=ABS kid =ERG VP-3N.A-find -3SG.S/DO
'A kid found the highpriest of Inanna of Uruk.' (YOS 4:9 11; N; 21)

(b) **PN / lugal urim$_5^{ki}$-*ma-ke$_4$* / en ^{d}inanna unug^{ki}-*ga* / máš-*e bí-in*-pà**
PN lugal urim$_5$=ak =e en inanna.k unug=ak =Ø máš=e
PN king Ur =GEN=ERG highpriest Inanna Uruk=GEN=ABS kid =DIR

Ø -bi -n -pà.d-Ø
VP-3N.OO-3SG.A-find -3SG.S/DO
'PN, the king of Ur, had a kid find the highpriest of Inanna of Uruk.' (RA 71 p. 126 4:2-5; N; 21)

The following are further instances of causative constructions with a causee of the non-human gender class:

(57) **PN / ensi$_2$ / umma^{ki}-*ke$_4$* / e ki-sur-*ra* / ^{d}nin-*ĝír-su-ka* / e ki-sur-*ra* / ^{d}nanše / a-*e ì-mi*-è**
PN ensi$_2$.k umma =ak =e e.g ki.sur.ra=ak nin.ĝír.su.k=ak
PN ruler Umma=GEN=ERG canal border =GEN Ningirsu =GEN

e.g ki.sur.ra=ak nanše =ak =Ø a.j =e ʔi -m(u) -bi -n -ʔè -Ø
canal border =GEN Nanshe=GEN=ABS water=DIR VP-VENT-3N.OO-3SG.A-go.out-3N.S/DO
'PN, the ruler of Umma, had the water go out of Ningirsu's border canal and Nanshe's border canal.' (Ent. 28 2:28-35; L; 25)

(58) ^{ĝiš}**eren-*bé* giĝ$_4$ gal-*e im-mi*-ku$_5$**
eren =be =Ø giĝ$_4$ gal=e ʔi -m(u) -bi -n -ku$_5$.ř-Ø
cedar=its=ABS axe big=DIR VP-VENT-3N.OO-3SG.A-cut -3N.S/DO
'He had a big axe cut down its cedars.' (Cyl A 15:22; L; 22)

(59) **u$_4$ geme$_2$ dumu ^{d}nin-líl-*lá-ke$_4$* / níĝ *bí-in*-gu$_7$-*a***
u$_4$.d geme$_2$ dumu nin.líl=ak =e níĝ =Ø
day slave.woman child Ninlil=GEN=DIR thing=ABS

Ø -bi -n -gu$_7$-Ø -ʔa =ʔa
VP-3N.OO-3SG.A-eat -3N.S/DO-NOM=LOC
'when she gave the slave women and children of Ninlil something to eat (lit. "let them eat a thing")' (Courtesy Marcel Sigrist: RS 174 8-9; D; 21)

The prefix {ba} can also be used to derive passives from causative constructions such as the preceding ones (§21.3.4). These passive constructions differ from their causative counterparts in that they lack a transitive subject (the causer) and contain a verbal form with the passive marker {ba}:

(60) **uzu-*bé* geme$_2$ dumu *ba-ab*-gu$_7$**
uzu =be =Ø geme$_2$ dumu=e Ø -ba -b -gu$_7$-Ø
meat=this=ABS slave.woman child =DIR VP-MM-3N.OO-eat -3N.S/DO
'The slave women and children were given this meat to eat (lit. "were caused to eat this meat").' (LB 3214 4-5; D; 21)

(61) **geme$_2$-*uš-bar-e ba-ab*-gu$_7$**
geme$_2$.uš.bar =e Ø -ba -b -gu$_7$-Ø
weaver.woman=DIR VP-MM-3N.OO-eat -3N.S/DO
'The weaver women were given this to eat (lit. "were caused to eat this").' (UNT p. 250:59 2; L; 21)

(62) **eren$_2$-*e ba-ab*-su-su**
eren$_2$ =e Ø -ba -b -su.g:RDP-ed -Ø
troops=DIR VP-MM-3N.OO-repay:IPFV-IPFV-3N.S:IPFV
'The troops will be caused to repay this.' (NG 201 11; U; 21)

Causative constructions derived from transitive constructions are not restricted to causees of the non-human gender class but can also involve human causees of the human gender class. Particularly clear examples of such human causees occur in literary texts from the Old Babylonian period:

(63) **^{d}en-ki-*ke$_4$* èsnibru^{ki}-*a* / *a-a-né* ^{d}en-líl-*ra* níĝ *mu-un*-gu$_7$-*e***
en.ki.k=e ès nibru =ʔa a.a =ane en.líl=ra níĝ =Ø
Enki =ERG shrine Nippur=LOC father=his Enlil =DAT thing=ABS

Ø -mu -n -gu$_7$-e
VP-VENT-3SG.OO-eat -3SG.A:IPFV
'In the shrine Nippur, Enki gives his father Enlil things to eat.' (ErH 104-105; ?; OB)

(64) **ú du$_{10}$ *ḫé-ri-ib*-gu$_7$-*e***
ú du$_{10}$.g=Ø ḫa =ʔi -ri -b -gu$_7$-e
grass good =ABS MOD=VP-2SG.OO-3N.DO-eat -3SG.A:IPFV
'May he give you good grass to eat!' (FS A 92; ?; OB)

Such causative constructions with causees of the human gender class are also found in earlier texts. The verb **naĝ** 'drink', for instance, provides a nice attestation. The first of the following two clauses is a simple transitive construction of **naĝ** 'drink', while the second is a causative derived from such a transitive construction:

(65a) **u$_4$ lugal-*ĝu$_{10}$* é-*a-na* kaš *in*-naĝ-*ĝá-a***
u$_4$.d lugal=ĝu =e é =ane=ʔa kaš =Ø ʔi -n -naĝ -Ø -ʔa =ʔa
day king =my=ERG house=his =LOC beer=ABS VP-3SG.A-drink-3N.S/DO-NOM=LOC
'when my king drank beer in his house' (JCS 54 p. 8 rev. 4:6'; D; 21)

(b) **a-*bé* lú kúr-*ra ù-mu-ni*-naĝ**
a.j =be =Ø lú kúr -Ø -ʔa =r(a) ʔu -mu -nni -n -naĝ -Ø
water=this=ABS man spoil-NFIN-NOM=DAT REL.PAST-VENT-3SG.OO-3SG.A-drink-3N.S/DO
'after he has let the infected person drink this water' (VS 10:193 13; ?; 21)

Other verbs provide further instances of causatives which have been derived from transitive constructions, and which have a causee of the human gender class:

(66) **munus-*e* lú-IGI.LAGAB-*ne* / níĝ *e-ne*-gu$_7$-*a***
munus =e lú.IGI.LAGAB=enē=r(a) níĝ =Ø
woman=ERG high.officials =PL =DAT thing=ABS

ʔi -nnē -n -gu$_7$-Ø -ʔa =ʔa
VP-3PL.OO -3SG.A-eat -3N.S/DO-NOM=LOC
'when Madam fed the high officials' (DP 166 3:6-4:1; L; 24)

(67) **[^{d}e]n-líl-*le* / [gaba-š]u-ĝar / [*n*]*u-mu-ni*-tuku**
en.líl=e gaba.šu.ĝar=Ø nu =Ø -mu -nni -n -tuku-Ø
Enlil=ERG opponent =ABS NEG=VP-VENT-3SG.OO-3SG.A-have-3SG.S/DO
'Enlil let him have no opponent.' (FAOS 5/2 Luzag. 1 2:14-16; N; 24)

Just as with other causative constructions, the prefix {ba} can be used to derive a passive from a causative construction with a human causee:

(68) ***i-ti-mu-ra*** **kišib** ***ba-an*-ra**
i.ti.mu=ra kišib=Ø Ø -ba -n -ra-Ø
Itimu =DAT seal =ABS VP-MM-3SG.OO-hit-3N.S/DO
'Itimu was caused to impress his seal.' (OrSP 47/49:165 4-5; U; 21)

(69) **é-*a* še *ì*-ĝál-*la-àm* munus-*ra la-ba-an*-keše$_2$**

é =ʔa še =Ø ʔi -n(i)-ĝál -Ø -ʔa =ʔam munus=ra
house=LOC barley=ABS VP-in -be.there-3N.S/DO-NOM=be:3N.S woman=DAT

nu =Ø -ba -n -keše$_2$.ř-Ø
NEG=VP-MM-3SG.OO-bind -3N.S/DO
'It is (true) that there was barley in the house but it was not caused by the woman to be tied up.' (MVN 11:168 8; U; 21)

This section has dealt with causative constructions derived from intransitive constructions and with ones derived from transitive constructions. In addition, it has treated passive constructions derived from either type of causative construction. In theory, one could also imagine the existence of causative constructions derived from verbs construed with two objects. Take, for instance, the phrasal verb **kíĝ—ak** 'work (something)', which construes its object as an oblique object (see §18.3.3 and §18.3.4 for this verb and similarly construed ones):

(70) ***a-šà-bé* ur-diĝir-*ra-ke$_4$* / kíĝ *bí-in-na***
a.šà.g=be=e ur.diĝir.ra.k=e kíĝ =Ø Ø -bi -n -ʔak -Ø
field =its=DIR Urdingir =ERG work=ABS VP-3N.OO-3SG.A-make-3N.S/DO
'Urdingir worked their field.' (TCS 1:148 13-14; U; 21)

It would be interesting to know how Sumerian expresses the causative of this type of construction. In other words, how do you say in Sumerian: 'They had Urdingir work their field'? Such a causative construction would involve four participants, a causer, a causee, an object, and a second object. Regrettably, such causative constructions do not seem to be attested in Sumerian.

Sumerian causatives differ from Akkadian ones. While Sumerian uses syntactic means to make a causative, Akkadian employs a special stem-form, the Š-stem. This stem-form derives causatives from transitive as well as from intransitive verbs. For instance, the causative of the transitive verb *ṣabātu* 'seize' is *šuṣbutu* 'cause to seize', and that of the intransitive verb *erēbu* 'enter' is *šūrubu* 'cause to enter, to bring into'. Thus, Akkadian does not formally distinguish between causatives from transitive and ones from intransitive verbs, a distinction which Sumerian makes consistently (see above). This difference between the two languages is a source of confusion for Akkadian scribes, especially in the Old Babylonian period, when Sumerian was no longer spoken. In 'proper' Sumerian, the OO-prefixes occur only in causatives derived from transitive verbs, these prefixes being used to express the causee. However, it can be shown that Akkadian scribes used the OO-prefix {nni} (but also other OO-prefixes, such as {bi}) to translate an Akkadian Š-stem, not only one of a transitive verb but also one of an intransitive verb. The Old Babylonian grammatical texts give, for instance, ***mu-ni-in*-gub** (instead of ***mu-un*-gub**) as the equivalent of Akkadian *uš-zi-iz* 'He caused to stand' (MSL 4 p. 112: OBGT X 35).[9]

18.3.3. The oblique object expressing 'in(to) contact with'

An oblique object can express a location with the meaning 'in(to) contact with'. Several verbs are regularly construed with such an oblique object, in intransitive as well as in transitive constructions, including constructions with two objects. Such verbs are, for instance, the following:

[9] For a general discussion of the relationship between the prefix -ni- and the Akkadian Š-stem, see Black (1991: 30-34).

* **ak** ‘make’ in the sense of ‘apply to’

(71) **ì-*bé* zà-*ge bé*-ak**
ì =be=Ø zà.g=e Ø -bi -n -ʔak -Ø
oil=its=ABS side=DIR VP-3N.OO-3SG.A-make-3N.S/DO
‘He applied its oil to the side.’ (RTC 17 8:7; L; 25)

(72) **ĝiš-ig ĝiš-*gu-za* é-gal-*ke*$_4$ / *ba-ab*-ak**
ig gu.za =ak é.gal =ak =e Ø-ba -b -ʔak -Ø
door throne=GEN palace=GEN=DIR VP-MM-3N.OO-make-3N.S/DO
‘This (oil) was applied to the throne door of the palace.’ (ITT 3:4948 2-3; L; 21)

(73) ***a-šà-bé* ur-diĝir-*ra-ke*$_4$ / kíĝ *bí-in-na***
a.šà.g=be=e ur.diĝir.ra.k=e kíĝ =Ø Ø -bi -n -ʔak -Ø
field =its=DIR Urdingir =ERG work=ABS VP-3N.OO-3SG.A-make-3N.S/DO
‘Urdingir worked their field.’ (TCS 1:148 13-14; U; 21)

(74) **íd íd-sal$_4$-*la-ke*$_4$ / šu-luḫ ak**
íd íd.sal$_4$.la.k=e šu.luḫ =Ø ak -Ø
canal Idsalla =DIR purification=ABS make-NFIN
‘ones who cleaned the Idsalla canal’ (MVN 16:1158 obv 4-5; U; 21)

* **bara$_3$.g** ‘to spread out over’

(75) **túg-*ge ba-ra-ge-dè***
túg =e ba.ra.g-ed -Ø =e
cloth=DIR spread -IPFV-NFIN=DIR
‘(mats) to be spread out over cloth’ (TPTS 1:216 3; U; 21)

(76) **zíd-*dè ba-ra-ga***
zíd =e ba.ra.g-Ø -ʔa
flour=DIR spread -NFIN-NOM
‘(mats) spread out over flour’ (MVN 16:1443 obv 3; U; 21)

* **dab$_6$** ‘surround’

(77) **é-*e im-mi*-dab$_6$**
é.j =e ʔi -m(u) -bi -n -dab$_6$ -Ø
house=DIR VP-VENT-3N.OO-3SG.A-surround-3N.S/DO
‘He had them surround the temple.’ (Cyl A 22:14; L; 22)

* **daḫ** ‘add to’

(78) **apin-lá šuku-*šè ḫa-la-a ba-ab*-daḫ**
apin.lá šuku.ř =še ḫa.la -Ø -ʔa =e Ø -ba -b -daḫ-Ø
rented.land prebend=TERM distribute-NFIN-NOM=DIR VP-MM-3N.OO-add -3N.S/DO
‘It was added to what had been distributed as rented and prebendal land.’ (Civil FI 201: A 2542 20; U; 21)

(79) ***ba-ne-eb*-daḫ**
Ø -ba -nnē -b -daḫ-Ø
VP-MM-3PL.IO-3N.OO-add -3N.S/DO
‘It was added to it for them.’ (TRU 301 8; ?; 21)

* **diri.g** in the sense 'float on'

(80) **muš maḫ-*àm* a-*e* *im*-diri-*ga*-*àm***
muš maḫ =Ø =ʔam a.j =e ʔi-m(u) -diri.g -Ø -ʔa =Ø =ʔam
snake great=ABS=be:3N.S water=DIR VP-VENT-exceed-3N.S/DO-NOM=ABS=be:3N.S
'Like great snakes, they floated on the water!' (Cyl A 15:26; L; 22)

(81) **muru$_x$(=DUGUD)-*gen$_7$* an-šà-*ge* *im*-*mi*-*ì*-*íb*-diri-diri-*ne***
muru$_x$=gen an.šà.g =e ʔi -m(u) -bi -b -diri.g -diri.g -enē
cloud =EQU midst.of.heaven=DIR VP-VENT-3N.OO-3N.S/DO-exceed-exceed-3PL.A:IPFV
'They let it float in the midst of heaven like clouds.' (Cyl A 21:20; L; 22)

* **igi—du$_8$** 'look at (lit. "… the eye at")'

(82) **gù-dé-*a* en ^{d}nin-*ĝír*-*su*-*ra* igi *mu*-*ni*-du$_8$-*àm***
gù.dé.a=e en nin.ĝír.su.k=ra igi =Ø
Gudea =ERG lord Ningirsu =DAT eye=ABS

Ø -mu -nni -n -du$_8$ -Ø =ʔa =Ø =ʔam
VP-VENT-3SG.OO-3SG.A-spread-3N.S/DO=NOM=ABS=be:3N.S
'It was (the case) that Gudea saw lord Ningirsu.' (Cyl A 1:18; L; 22)

(83) **en aratta^{ki}-*ke$_4$* gig-*e* igi *bí*-*in*-du$_8$**
en aratta=ak =e gig =e igi =Ø Ø -bi -n -du$_8$ -Ø
lord Aratta=GEN=ERG wheat=DIR eye=ABS VP-3N.OO-3SG.A-spread-3N.S/DO
'The lord of Aratta looked at the wheat.' (ELA 554; OB copy)

* **du$_{11}$** 'say, do' in the sense 'apply to'

(84) **ub da *im*-*mi*-du$_{11}$**
ub da =e ʔi -m(u)-bi -n -du$_{11}$.g-Ø
corner side=DIR VP-VENT-3N.OO-3SG.A-do -3N.S/DO
'He applied this (paste) to the corners and sides.' (Cyl B 3:14; L; 22)

(85) **^{d}nin-ḫur-saĝ-*ra* / ĝiš *mu*-*ni*-du$_{11}$**
nin.ḫur.saĝ=ra ĝiš =Ø Ø -mu -nni -n -du$_{11}$.g-Ø
Ninhursag =DAT penis=ABS VP-VENT-3SG.OO-3SG.A-do -3N.S/DO
'He made love to Ninhursag.' (MBI 1 2="11":6-7; N; 24)

(86) **ì-*bé* káb *ba*-*ab*-du$_{11}$**
ì =be =e káb =Ø Ø -ba -b -du$_{11}$.g-Ø
oil=this=DIR verification=ABS VP-MM-3N.OO-do -3N.S/DO
'This oil was verified (as to its amount).' (MVN 13:579 2; D; 21)

(87) ***a*-*šà*-*ge*** **a du$_{11}$-*ga***
a.šà.g=e a.j =Ø du$_{11}$.g-Ø -ʔa
field =DIR water=ABS do -NFIN-NOM
'ones who irrigated fields' (TENS 83 2; U; 21)

* **gi$_4$** in the sense 'turn back to'

(88) **na-rú-*a*-*bé* / ki-*bé* *bí*-gi$_4$**
na.rú.a=be=Ø ki =be=e Ø -bi -n -gi$_4$ -Ø
stela =its=ABS place=its=DIR VP-3N.OO-3SG.A-turn-3N.S/DO

'He restored its stela.' (Ean. 6 4:20-21; L; 25)

* **igi—kara$_2$** 'inspect' (lit. 'brighten up the eyes at')

(89) ***zi-gúm-e* igi kara$_2$-kara$_2$-*dè***
zi.gúm=e igi =Ø kara$_2$:RDP -ed -Ø =e
station=DIR eye=ABS brighten.up:IPFV-IPFV-NFIN=DIR
'in order to inspect the station' (e.g. DAS 75 15; L; 21)

* **ra** 'hit'

(90) **é-an-*na*-túm-*ra* / lú ti *mu-né*-ra**
é.an.na.túm=ra lú =e ti =Ø Ø -mu -nni -n -ra-Ø
Eannatum =DAT man=ERG arrow=ABS VP-VENT-3SG.OO-3SG.A-hit-3N.S/DO
'Someone hit Eannatum with an arrow (lit. "caused an arrow to hit E.").' (Ean. 1 obv 9:2-3; L; 25)

(91) **dub lugal-ka-*ge-na-ke$_4$* kišib ra-ra-*dam***
dub lugal.ka.ge.na=ak =e kišib=Ø ra:RDP-ed -Ø =ʔam
tablet Lugalkagena =GEN=DIR seal =ABS hit:IPFV -IPFV-NFIN=be:3N.S
'A seal is to be rolled over Lugalkagena's tablet.' (DTCR 235 5; ?; 21)

(92) **kišib lugal-diĝir-*ĝu$_{10}$* / *íb*-ra**
kišib lugal.diĝir.ĝu$_{10}$=ak =Ø ʔi -b -ra -Ø
seal Lugaldingirmu =GEN=ABS VP-3N.OO-hit-3N.S/DO
'Lugaldingirmu's seal is rolled over this.' (AUCT 1:538 6-7; U; 21)

* **sá** 'be equal to (?)' in the phrasal verb **si—sá** 'be/make straight, put in order'

(93) **ubur an-*na-ke$_4$* / si *ḫa-mu-dab$_6$*-sá**
ubur an =ak =e si=Ø ḫa =Ø -mu -ʔ -da -b -sá -Ø
udder heaven=GEN=DIR ? =ABS MOD=VP-VENT-1SG-with-3N.OO-be.equal-3N.S/DO
'May heaven's udder be in order with me!' (FAOS 5/2 Luzag. 1 3:27-28; N; 24)

(94) **igi-*bé* si *íb*-sá**
igi =be=e si=Ø ʔi -b -sá -Ø
eye=its=DIR ? =ABS VP-3N.OO-be.equal-3N.S/DO
'Its appearance was right.' (Cyl A 20:6; L; 22)

* **si** 'fill'

(95) **^{d}utu-*àm* an-šà-*ge im*-si**
utu =Ø =ʔam an.šà.g =e ʔi-m(u) -si -Ø
Utu=ABS=be:3N.S midst.of.heaven=DIR VP-VENT-fill-3N.S/DO
'Like the Sungod Utu, it filled the midst of heaven.' (Cyl B 1:7; L; 22)

(96) **šu en-an-*na*-túm-*ma-ke$_4$* / *ì-mi*-si-*a***
šu en.an.na.túm=ak =e ʔi -m(u)-bi -n -si -Ø -ʔa =ʔa
hand Enannatum =GEN=DIR VP-VENT-3N.OO-3SG.A-fill-3N.S/DO-NOM=LOC
'when he had filled Enannatum's hand with it (lit. "when he had caused it to fill E.'s hand")' (En. I 29 7:5-6; L; 25)

* **sub$_6$** 'smear over'

(97) **NN NN má-gur$_8$ lugal-*ka-ke$_4$* *ba-ab-su-ub***

NN NN má.gur$_8$ lugal=ak =ak =e Ø -ba -b -sub$_6$ -Ø
NN NN ship king =GEN=GEN=DIR VP-MM-3N.OO-smear-3N.S/DO
'This (bitumen) was smeared out over the NN and NN of the royal ship.' (YNER 8 pl. 18:10 rev 4:26; U; 21)

(98) ***ne mu-ni*-sub$_5$**
ne =Ø Ø -mu -nni -n -sub$_6$ -Ø
lip?=ABS VP-VENT-3SG.OO-3SG.A-smear-3N.S/DO
'He kissed her.' (MBI 1 2="11":8; N; 24)

* **tag** 'touch'

(99) **gu$_4$ du$_7$ máš du$_7$-*e* ĝiš *bí*-tag**
gu$_4$.ř du$_7$.ř máš du$_7$.ř =e ĝiš =Ø Ø -bi -n -tag -Ø
bull perfect he.goat perfect=DIR wood=ABS VP-3N.OO-3SG.A-touch-3N.S/DO
'He sacrificed faultless bulls and faultless he-goats (lit. "let wood touch them").' (Cyl B 18:19; L; 22)

(100) **á-ĝar ki *im-mi*-tag**
á.ĝar =Ø ki =e ʔi -m(u)-bi -n -tag -Ø
spade?=ABS earth=DIR VP-VENT-3N.OO-3SG.A-touch-3N.S/DO
'He let the spade (?) touch the ground.' (Cyl A 20:26; L; 22)

* **ús** 'be next to'

(101) **^{ĝiš}kiri$_6$ / me-*zu*-an-*da-ke$_4$* / [*a*]*b*-ús**
kiri$_6$ me.zu.an.da=ak =e ʔa-b -ʔús -Ø
orchard Mezuanda =GEN=DIR VP-3N.OO-be.next.to-3N.S/DO
'This (orchard) borders on Mezuanda's orchard.' (TMTIM 4 18:5'-7'; I; 24)

(102) **kar niĝin$_6^{ki}$-*na-ke$_4$* má *bí*-ús**
kar niĝin$_6$=ak =e má =Ø Ø -bi -n -ʔús -Ø
quay Nigin =GEN=DIR boat=ABS VP-3N.OO-3SG.A-be.next.to-3N.S/DO
'He had the boat moor at (lit. "caused the boat to be next to") Nigin's quay.' (Cyl A 4:4; L; 22)

(103) ***a-bí-sí-im-ti* / šu *bí-in*-ús**
a.bí.sí.im.ti=e šu =e Ø-bi -n -ʔús -Ø
Abisimti =ERG hand=DIR VP-3N.OO-3SG.A-be.next.to-3N.S/DO
'Abisimti sent (?) these (rams) (lit. "caused them to be next to (her) hand").' (Jean SA 42 obv 3-4; D; 21)

(104) ***ĝír-su*^{ki} é-saĝ ki lagas^{ki}-*šè* ĝiri$_3$-*zu* ki *ì-bí*-ús**
ĝír.su é.saĝ ki lagas =ak =še ĝiri$_3$=zu =Ø ki =e
Girsu storeroom land Lagash=GEN=TERM foot =your=ABS land=DIR

ʔu -bi -n -ʔús -Ø
REL.PAST-3N.OO-3SG.A-be.next.to-3N.S/DO
'after you have bent your steps to (lit. "have caused your feet to be next to the earth towards") Girsu, the storeroom of the land Lagash' (Cyl A 6:15; L; 22)

18.3.4. Human oblique object for non-human locational 'on'

The preceding two sections discussed those uses of the oblique object that are the same for both gender classes. They covered the constructions in which a certain participant is always construed as an oblique object, regardless of whether this participant belongs to the non-human or to the human gender class. However, there is a third use of the oblique object that only applies to the human class. It is this third type of construction that we will address here.

Many verbs can be construed with the locative case. However, that case is restricted to the non-human gender class (§7.7). So, what happens if such a verb is construed with a human participant? Obviously, the locative case cannot be used. Now, those verbs that construe a non-human participant with the locative case and/or with the local prefix {e} 'on' (§20.3.2), construe a human participant as an oblique object.

A typical case in point is the verb **ĝar** 'place', which in the sense 'place (upon)' construes a non-human location with the local prefix {e} and a human location as an oblique object. Take, for instance, the phrasal verb **inim—ĝar** 'claim' (lit. 'place a word (upon)'). The first clause illustrates the non-human construction, the following ones the human one:

(105) **lú-*ge-na* áb-*ba* inim *bí*-ĝar**
lú.ge.na=e áb =ʔa inim=Ø Ø -bi -n -ĝar -Ø
Lugena =ERG cow=LOC word=ABS VP-3N:on-3SG.A-place-3N.S/DO
'Lugena placed a claim on the cow.' (NG 194 31'; L; 21)

(106) **PN_1-*ra* / PN_2 dumu PN_3-*ke_4* / inim *in-ni*-ĝar-*ra***
PN_1=ra PN_2 dumu PN_3=ak =e inim=Ø
PN_1=DAT PN_2 son PN_3=GEN=ERG word=ABS

ʔi -nni -n -ĝar -Ø -ʔa =ʔa
VP-3SG.OO-3SG.A-place-3N.S/DO-NOM=LOC
'when PN_2, son of PN_3, placed a claim on PN_1' (NG 89 2-4; L; 21)

(107) **ur-^{d}suen-*ke_4* / ur-^{d}šul-pa-è / inim *nu-un-ĝá-ĝá***
ur.suen.k=e ur.šul.pa.è=r(a) inim=Ø nu =ʔi -n -ĝar:RDP -e
Ursuen =ERG Urshulpae =DAT word=ABS NEG=VP-3SG.OO-place:IPFV-3SG.A:IPFV
'Ur-Suen will not place a claim on Ur-Shulpae.' (FAOS 17:94** 9-11; U; 21)

This construction is not restricted to the phrasal verb **inim—ĝar** but is found wherever the verb **ĝar** has the sense 'place (upon)'. E.g.:

(108) **ensi$_2$-*ke_4* *šer$_7$-da-bé* *ḫa-mu-ĝá-ĝá***
ensi$_2$.k =e šer$_7$.da=be=Ø ḫa =Ø -mu -n -ĝar:RDP -e
governor=ERG penalty=its =ABS MOD=VP-VENT-3SG.OO-place:IPFV-3SG.A:IPFV
'Let the governor impose the penalty for this on him!' (SNAT 373 rev. 4; U; 21)

(109) **gù-dé-*ar* inim-ĝar-*bé* lú-*ù* *nu-ma-ni*-ĝar**
gù.dé.a=r(a) inim.ĝar=be=Ø lú =e
Gudea =DAT claim =its=ABS man=ERG

nu =ʔi -m(u)-ba -nni -n -ĝar -Ø
NEG=VP-VENT-MM-3SG.OO-3SG.A-place-3N.S/DO
'Nobody placed on his own behalf a legal claim about this on Gudea.' (Cyl A 13:11; L; 22)

Human oblique objects are also used in external possession constructions as the functional equivalent of a non-human construction with the local prefix {e} (§16.3.4). Such constructions are attested for several verbs, including **ĝar**, but we will illustrate it here with another verb:

(110) **á zi-*da-za* / ^{d}utu / *rí*-è**
á zi.d -Ø -ʔa =zu =ʔa utu =Ø Ø-ri -n -ʔè -Ø
arm be.right-NFIN-NOM=your=LOC Utu=ABS VP-2SG.OO-3SG.A-go.out-3SG.S/DO
'He let the sun-god Utu come up over you, over your right side.' (Ean. 1 7:6-8; L; 25)

See §16.3.4 for a full discussion of such constructions.

Apart from **ĝar** in the sense 'place (upon)', there are several other verbs that regularly construe a non-human participant with the local prefix {e} 'on' and, accordingly, a human participant as an oblique object:

* **šu—bar** 'release (lit. "open the hand upon")'

(111a) ***a-šà ma-an*-šúm-*ka ù* še-*na* / šu *ḫé-eb-ba-re***
a.šà.g ma.an.šúm=ak =ʔa ù še =ane=ʔa šu =Ø
field Mansum =GEN=LOC and barley=his =LOC hand=ABS

ḫa =ʔi -b(i) -bar -e
MOD=VP-3N:on-open-3SG.A:IPFV
'He must release (lit. "open the hand on") Mansum's field as well as his barley!' (TCS 1:69 3-4; L; 21)

(b) **dam lugal-gu$_4$-*e-ra* / šu *hé*-bar**
dam lugal.gu$_4$.ře=ra šu =Ø ḫa =ʔi -n -bar -Ø
wife Lugalgure =DAT hand=ABS MOD=VP-3SG.OO-open-3N.S/DO
'The wife of Lugalgure must be released (lit. "the hand must be opened on ...")!' (TCS 1:254 3-4; U?; 21)

(112) **ses-*ĝu$_{10}$* bar-*ĝu$_{10}$-a* / šu *ḫa-mu*-bar-*e***
ses =ĝu=r(a) bar =ĝu=ʔa šu =Ø ḫa =Ø -mu -n -bar -e
brother=my=DAT sake=my=LOC hand=ABS MOD=VP-VENT-3SG.OO-open-3SG.A:IPFV
'He should release my brother for my sake!' (TCS 1:54 4-5; L; 21)

* **á—dar** 'confiscate'

(113a) **še lú-ni[n-*ĝ*]*á-ka na-gu* á *bí-in*-dar**
še lú.nin.ĝá=ak =ʔa na.gu=e á =Ø Ø -bi -n -dar -Ø
barley Luninga =GEN=LOC Nagu=ERG arm=ABS VP-3N:on-3SG.A-split-3N.S/DO
'Nagu confiscated Lu-Ninga's barley.' (NG 145 7'; L; 21)

(b) **mu urdu$_2$-^{d}nanna-*ke$_4$* / urdu$_2$-*ra* á *in-ni*-dar-*šè***
mu urdu$_2$.nanna.k=e urdu$_2$.d=ra á =Ø
name Urdunanna =ERG slave =DAT arm=ABS

ʔi -nni -n -dar -Ø -ʔa =ak =še
VP-3SG.OO-3SG.A-split-3N.S/DO-NOM=GEN=TERM
'because (lit. "for the name of that") Urdu-Nanna had confiscated the slave' (NG 67 12-13; L; 21)

* **řú** 'hold on to'

(114a) **u_4 ašag-*ga* lú *ù-ma-a-*řú-*a***
u_4.d ašag=ʔa lú =Ø ʔu -m(u)-ba -e -řú -Ø -ʔa
day field=LOC man=ABS REL.PAST-VENT-MM-on-hold-3SG.S/DO-NOM
'when someone holds on to the field' (MAD 4:151 10; 23)

(b) ***šu-èr-ra* l[ú] *na-ba-*[*a*]*n-*řú**
šu.èr.ra=r(a) lú =Ø nan -ba -n -řú -ed -Ø
Shuerra=DAT man=ABS NEG.MOD-MM-3SG.OO-hold-IPFV-3SG.S:IPFV
'No one should detain Shu-Erra!' (TCS 1:97 3; U; 21)

* **sa_4** 'give (as a name) to'

(115a) **(...) / na-*ba* mu-*šè im-ma-*sa_4**
(...) na =be =ʔa mu =še ʔi -m(u)-ba -e -sa_4 -Ø
(...) stone=this=LOC name=TERM VP-VENT-MM-on-name-3N.S/DO
'"(...)" was given as a name to this stone.' (Cyl A 23:12; L; 22)

(b) **mu ^{d}inanna-*ke_4* / *e-né-*sa_4-*a-né***
mu inanna.k=e ʔi -nni -n -sa_4 -Ø -ʔa =ane
name Inanna =ERG VP-3SG.OO-3SG.A-name-3N.S/DO-NOM=his
'his name which Inanna had given to him' (Ean. 1 obv 5:24-25; L; 25)

* **nam—tar** 'determine the fate of'

(116a) **še[g_{12}] é-[ninnu]-*ka nam ì-mi-íb*-tar-*re***
šeg_{12} é.ninnu=ak =ʔa nam =Ø ʔi -m(u)-bi -b -tar-e
brick Eninnu =GEN=LOC status=ABS VP-VENT-3N:on-3N.DO-cut-3SG.A:IPFV
'He decreed a fate for the brickwork of the Eninnu.' (Cyl B 21:17; L; 22)

(b) **^{d}nin-*ĝír-su-ke_4* / gù-dé-*a* / lú é řú-*a-ra* / *nam* du_{10} *mu-ni-*tar**
nin.ĝír.su.k=e gù.dé.a lú é =Ø řú -Ø -ʔa =ak =ra
Ningirsu =ERG Gudea man house=ABS erect-NFIN-NOM=GEN=DAT

nam du_{10}.g=Ø Ø -mu -nni -n -tar-Ø
status good =ABS VP-VENT-3SG.OO-3SG.A-cut-3N.S/DO
'Ningirsu decreed a good fate for Gudea, the temple builder (lit. "the man of that the house was built").' (St D 5:4-7; L; 22)

* **túm** 'be fit for'

(117) **lugal-*bé-ra* túm-*ma***
lugal =be=ra túm -Ø -ʔa
master=its=DAT be.fit.for-NFIN-NOM
'fit for its owner' (Ukg. 6 5:3'; L; 24)

(118) ***mu-ni-*túm-*ma-a***
Ø -mu -nni -n -túm -Ø -ʔa =ʔa
VP-VENT-3SG.OO-3SG.A-be.fit.for-3N.S/DO-NOM=LOC
'when he had made it (viz. a temple) fit for her (viz. the goddess Inanna)' (En. I 9 3:10; L; 25)

It is rather unusual for languages to make more subtle distinctions for non-human objects than for human ones. Thus, it is somewhat surprising to have a single construction, the oblique object, for human objects where there are two different ones for non-human objects: the

oblique object and the one with the local prefix {e}. Note, however, that the two non-human constructions are partly similar. Although they differ for the most part, being associated with two different cases and with two different verbal paradigms, the two non-human constructions have one thing in common and that is the prefix {bi}. Whatever may be the historical explanation for the wider range of uses of human oblique objects, this ambiguity of {bi} must have something to do with it.

18.4. Restrictions on co-occurrence with other prefixes

As stated above, the OO-prefixes {bi}, {ri}, and {nni} cannot occur together with certain other prefixes in a single finite verbal form. These prefixes are the indirect-object prefixes and the prefixes {da}, {ta}, {ši}, {e}, and {ni}. Not one of them is ever found together with one of the OO-prefixes {bi}, {ri}, or {nni}. In addition, a finite verbal form cannot contain both the OO-prefix {bi} and the prefix {ba}. Yet, some constructions call for prefixes that are mutually exclusive. This section discusses a few instances where one prefix gives in to another due to restrictions on co-occurrence.

The OO-prefix non-human {bi}, for instance, cannot occur together with an indirect-object prefix. In all attested forms, the indirect-object prefix human {nna} takes precedence over the OO-prefix non-human {bi}. Contrast, for example, the following pairs of clauses, where the second one of each pair lacks an OO-prefix non-human in the verbal form due to the presence of the indirect-object prefix {nna}:

(119a) **na-rú-*a*-*bé* / ki-*bé* *bí*-gi$_4$**
na.rú.a=be=Ø ki =be=e Ø -bi -n -gi$_4$ -Ø
stela =its=ABS place=its=DIR VP-3N.OO-3SG.A-turn-3N.S/DO
'He restored its stela.' (Ean. 6 4:20-21; L; 25)

(b) **lugal-*a*-*né* / gù-dé-*a* / ensi$_2$ / lagas^{ki}-*ke$_4$* / bàd *ĝír-su-ka-né* / ki-*bé* *mu-na*-gi$_4$**
lugal=ane=r(a) gù.dé.a ensi$_2$.k lagas =ak =e bàd
king =his =DAT Gudea ruler Lagash=GEN=ERG wall

ĝír.su=ak =ane=Ø ki =be=e Ø -mu -nna -n -gi$_4$ -Ø
Girsu =GEN=his =ABS place=its=DIR VP-VENT-3SG.IO-3SG.A-turn-3N.S/DO
'Gudea, ruler of Lagash, restored for his lord his (i.e., the lord's) Girsu wall.' (FAOS 9/1 Gudea 82 obv 1'-rev 2; L; 22)

(120a) **lú níĝ-ul-*e* pa *bí*-è-*a***
lú níĝ.ul =e pa =Ø Ø -bi -n -ʔè -Ø -ʔa
man everlasting.thing=DIR branch=ABS VP-3N.OO-3SG.A-go.out-3N.S/DO-NOM
'the man who had appear something everlasting' (St F 1:8; L; 22)

(b) **DN-*ra* / gù-dé-*a* / ensi$_2$ / lagas^{ki}-*ke$_4$* / níĝ-ul-*e* pa *mu-na*-è**
DN=ra gù.dé.a ensi$_2$.k lagas =ak =e níĝ.ul =e pa =Ø
DN=DAT Gudea ruler Lagash=GEN=ERG everlasting.thing=DIR branch=ABS

Ø -mu -nna -n -ʔè -Ø
VP-VENT-3SG.IO-3SG.A-go.out-3N.S/DO
'For the god DN, Gudea, ruler of Lagash, had appear something everlasting.' (FAOS 9/1 Gudea 50 1-7; L; 22)

(121a) **kar niĝin$_6^{ki}$-*na*-*ke$_4$* má *bí*-ús**

kar niĝin$_6$=ak =e má =Ø Ø -bi -n -ʔús -Ø
quay Nigin =GEN=DIR boat=ABS VP-3N.OO-3SG.A-be.next.to-3N.S/DO
'He had the boat moor at (lit. "had the boat be next to") Nigin's quay.' (Cyl A 4:4; L; 22)

(b) **kar za-gìn ká-sur-*ra-ke$_4$* / *mu-na*-ús**
kar za.gìn =ak ká.sur.ra=ak =e Ø -mu -nna -n -ʔús -Ø
quay lapis.lazuli=GEN Kasurra =GEN=DIR VP-VENT-3SG.IO-3SG.A-be.next.to-3N.S/DO
'He let it (a boat) moor at the lapis-lazuli quay of the Kasurra gate for her.' (St D 3:6-7; L; 22)

The OO-prefix human {nni} takes precedence over the local prefix {ni} 'in'. The second of the following two examples, for instance, contains a verbal form with the OO-prefix {nni}, which replaces the local prefix {ni} 'in':

(122) ***ì-bí-la du-du-ke$_4$-ne* / ka-*ga-ne-ne-a ba-ni-ge-né-eš***
ì.bí.la du.du=ak =enē=e ka.g =anēnē =ʔa Ø -ba -ni-n -ge.n -eš
heir Dudu =GEN=PL =ERG mouth=their =LOC VP-MM-in -3SG.A-be.firm-3PL
'Dudu's heirs confirmed this with (lit "in") their own mouths.' (NG 99 28-29; L; 21)

(123) ***a-ab-ba-a* / amar-šuba$_3$-*ra* / ka-*ga-na ì-ni-ge-en$_6$***
a.ab.ba=e amar.šuba$_3$=ra ka.g =ane=ʔa ʔi -nni -n -ge.n -Ø
Abba =ERG Amarshuba =DAT mouth=his =LOC VP-3SG.OO-3SG.A-be.firm-3N.S/DO
'Abba had Amarshuba confirm it with his own mouth.' (TCS 1:145 11-13; Ur; 21)

Used as an indirect reflexive (§21.3.2), the prefix {ba} takes precedence over the non-human OO-prefix {bi}. The phrasal verb **na—ri.g** 'clear' (Sallaberger 2005) provides examples for this. The following two clauses, for instance, are virtually identical, except that in the second verbal form, the prefix {ba} replaces the OO-prefix {bi}:

(124) **kiri$_6$ é-ku$_4$-*ta* / en-ig-gal / *nu*-banda$_3$ / na *ì-mi*-ri**
kiri$_6$ é.ku$_4$=ak =ta en.ig.gal nu.banda$_3$=e na=e
orchard Eku =GEN=ABL Eniggal overseer =ERG ? =DIR

ʔi -m(u) -bi -n -ri.g -Ø
VP-VENT-3N.OO-3SG.A-clear-3N.S/DO
'Eniggal, the overseer, cleared this (wood) out from Eku's orchard.' (VS 14:157 5:1-4; L; 24)

(125) **kiri$_6$ ur-du$_6$-*ta* / en-šu / agrig-*ge* / na *e-ma*-ri**
kiri$_6$ ur.du$_6$=ak =ta en.šu agrig =e na=e ʔi -m(u) -ba -n -ri.g -Ø
orchard Urdu =GEN=ABL Enshu steward=ERG ? =DIR VP-VENT-MM-3SG.A-clear-3N.S/DO
'Enshu, the steward, cleared this (wood) out for himself from Urdu's orchard.' (DP 416 2:1-4; L; 24)

The OO-prefix non-human {bi} often takes precedence over the local prefix {ni} 'in' (but not always, see below). The phrasal verb **na—ri.g** 'clear' again provides contrasting examples. The first of the following two clauses contains a verbal form with the prefix {ba}, so that the OO-prefix non-human {bi} cannot be used (cf. also the preceding two examples). The same form also includes the local prefix {ni} 'in', which is coreferential with a noun phrase in the locative case. The second clause also contains such a noun phrase in the locative case, but the verbal form lacks the prefix {ni} whereas it does contain the non-human OO-prefix {bi}:

(126) **tir é-mí-*ka* / lugal-an-*da* / ensi$_2$ / lagas^{ki}-*ke$_4$* / na *ba-ni*-ri**
tir é.mí=ak =ʔa lugal.an.da ensi$_2$ lagas =ak =e na=e
forest Emi =GEN=LOC Lugalanda ruler Lagash=GEN=ERG ? =DIR

Ø -ba -ni-n -ri.g -Ø
VP-MM-in -3SG.A-clear-3N.S/DO
'In the forest of the Emi, Lugalanda, ruler of Lagash, cleared this (wood) out for himself.' (DP 426 2:2-3:2; L; 24)

(127) **en-ig-gal / *nu*-banda$_3$ / kiri$_6$ ur-ki-*ka* / na *bí*-ri**
en.ig.gal nu.banda$_3$=e kiri$_6$ ur.ki=ak =ʔa na=e Ø -bi -n -ri.g -Ø
Eniggal overseer =ERG orchard Urki=GEN=LOC ? =DIR VP-3N.OO-3SG.A-clear-3N.S/DO
'Eniggal, the overseer, cleared this (wood) out in Urki's orchard.' (DP 411 2:4-3:2; L; 24)

But the opposite may also happen. In a second type of form (Attinger 1993: 282f, Zólyomi 1999: 238-242), the verbal form retains the local prefix {ni} 'in', but the OO-prefix non-human {bi} is replaced by the indirect-object prefix {ba}. This type of verbal form is, as yet, only found in royal inscriptions and literary texts. It may therefore belong to a more formal style. The object of the phrasal verb **kíĝ—ak** 'work', for instance, is normally construed as an oblique object:

(128) ***a-šà-bé* ur-diĝir-*ra-ke$_4$* *kíĝ* *bí-in-na***
a.šà.g=be =e ur.diĝir.ak=e kíĝ =Ø Ø -bi -n -ʔak -Ø
field =this=DIR Urdingira =ERG work=ABS VP-3N.OO-3SG.A-make-3N.S/DO
'Urdingira worked this field.' (TCS 1:148 13-14; U; 21)

If, however, the verbal form includes the local prefix {ni} 'in', the object of **kíĝ—ak** is construed as an indirect object and expressed with the prefix {ba} instead of {bi}:

(129) **làl ì-nun-*na* kíĝ *ba-ni*-ak**
làl ì.nun=ʔa kíĝ =Ø Ø -ba -ni-b -ʔak -Ø
honey ghee =LOC work=ABS VP-3N.IO-in-3N.A-make-3N.S/DO
'They worked it (food) with honey and ghee.' (Cyl B 3:24; L; 22)

The same phenomenon occurs with other verbs:

(130) **temen-*bé* / ì ir-nun-*ka* / šu-tag *ba-ni*-du$_{11}$**
temen =be=e ì ir.nun =ak =ʔa
foundation=its=DIR oil princely.scent=GEN=LOC

šu.tag =Ø Ø -ba -ni-n -du$_{11}$.g-Ø
decorating=ABS VP-3N.IO-in-3SG.A-do -3N.S/DO
'He decorated its foundation with princely oil.' (St C 3:8-10; L; 22)

(131) **me-*bé* šà-*ba* / si *ba-ni*-sá**
me =be=e šà.g =be=ʔa si =Ø Ø -ba -ni-n -sá -Ø
essence=its=DIR heart=its=LOC horn=ABS VP-3N.IO-in-3SG.A-be.equal-3N.S/DO
'In it (viz. a building), he put its essentials in order.' (RIM E2.11.13.1 12-13; U; 23)

A similar replacement of an OO-prefix by an IO-prefix is also found with human OO-prefixes. See Zólyomi (1999: 238-242) for examples from later texts.

19. THE DIMENSIONAL PREFIXES: THE PREFIXES {da}, {ta}, AND {ši}

19.1. General remarks

The prefixes {da} '(together) with', {ta} 'from', and {ši} 'to' belong to the dimensional prefixes (§16.1). Each of them is cognate with a case marker, namely, with the comitative {da} (§7.11), the ablative {ta} (§7.10), and the terminative {še} (§7.8) respectively. In the relative order of the verbal prefixes, they follow the indirect-object prefixes (chapter 17) and precede the local prefixes (chapter 20):

(1) **(…) / íd-nun-*ta* / mu-*bé*-kur-*ra* / *e-na-ta-né*-è**
íd.nun=ta mu.bé.kur.ra=š(e) ʔi -nna -ta -ni-n -ʔè -Ø
Idnun =ABL Mubekura =TERM VP-3SG.IO-from-in-3SG.A-go.out-3N.S/DO
'He let it (viz. a dike) run from the Idnun-canal into Mubekura.' (Ent. 41 3:5-4:2; L; 25)

(2) **(…) / šu *na-mu-da-né*-bala-*e-ne***
šu =Ø nan -mu -ʔ -da -ni-b -bala-ʔ-enē
hand=ABS NEG.MOD-VENT-1SG-with-in-3N.DO-cross -3PL.A:IPFV
'May they never change (the very good fate which they have determined for me) with me! (lit. "May they never cross the hands through it with me!")' (FAOS 5/2 Luzag. 1 3:34; N; 21)

(3) **a *mu-na-šè*-ru**
a =Ø Ø -mu -nna -ši-n -ru -Ø
water=ABS VP-VENT-3SG.IO-to-3SG.A-eject-3N.S/DO
'He dedicated this to him for it.' (En. I 19 12; L; 25). The phrasal verb **a—ru** (lit. 'eject water at') means 'donate as a dedicatory gift (to a god)'.

(4) ***ù-mu-na-da*-ku$_4$-*re***
ʔu -mu -nna -da -n(i)-ku$_4$.r-en
REL.PAST-VENT-3SG.IO-with-in -enter-2SG.S/DO
'when you have entered it with this for him' (Cyl A 7:2; L; 22)

Generally speaking, a finite verbal form contains at most one of the three prefixes {da}, {ta}, or {ši}, but in one text {da} is found together with {ta} in a single verbal form:

(5) **diĝir-*zu* ^{d}nin-ĝiš-zi-*da* u$_4$-*gen$_7$* ki-*ša-ra ma-ra-da-^{ra}ta*-è**
diĝir=zu nin.ĝiš.zi.da.k=Ø u$_4$.d=gen ki.šár =ʔa
god =your Ningishzida =ABS day =EQU horizon=LOC

Ø -mu -ra -da -ta -e -ʔè -Ø
VP-VENT-2SG.IO-with-from-on-go.out-3SG.S/DO
'Your god Ningishzida came forth with it (=light) on the horizon for you like the day.' (Cyl A 5:20; L; 22)

The literary texts from the Old Babylonian period or later also contain a few forms in which {da} co-occurs with either {ta} or {ši}. Nevertheless, such forms are quite rare and restricted to literary texts. Hence, they clearly belong to a more elevated and formal style and may therefore be somewhat artificial. While {da} is found together with {ta} or {ši} in a few verbal forms, there are no forms which contain both {ta} and {ši}. Those two prefixes seem therefore to be genuinely incompatible.

The prefixes {da} '(together) with', {ta} 'from', and {ši} 'to' always refer to some entity which plays a role in the action or state expressed by the verb. This entity may be a person or a thing, or a group of persons or things. What or whom {da}, {ta}, or {ši} refers to is usually specified by an initial person-prefix immediately before it, but under certain specific circumstances such a person-prefix is lacking (see below for details). Often, the clause contains a noun phrase which refers to the same person or thing as {da}, {ta}, or {ši}, but such a coreferential phrase may also be absent. If present, however, this phrase usually shows the case marker which is cognate with the prefix. The following clauses illustrate constructions of {da}, {ta}, and {ši} with and without coreferential noun phrases:

(6a) **ĝiri$_3$-*né-ì*-sa$_6$-*da mu-da*-ĝen-*na***
ĝiri$_3$.né.ì.sa$_6$.g=da Ø -mu -n -da -ĝen-Ø -ʔa
Girine'isa =COM VP-VENT-3SG-with-go -3SG.S/DO-NOM
'who came with Girine'isa (lit. "who with G. with him came")' (MVN 7:116 rev 1; L; 21)

(b) **mu *ma-ar-ḫu-ni* / *ù* eren$_2$ *mu-da-a-re-e-ša-a-šè***
mu ma.ar.ḫu.ni ù eren$_2$ Ø -mu -n -da -ʔer -eš -ʔa =ak =še
name Marhuni and soldier VP-VENT-3SG-with-go:PLUR-3PL.S/DO-NOM=GEN=TERM
'because of Marhuni and the soldiers who came with him' (HUCA 29 p.75:4 8-9; D; 21)

(7a) **^{d}en-líl-*e* en ^{d}nin-*ĝír-su-šè* igi zi *mu-ši*-bar**
en.líl=e en nin.ĝír.su.k=še igi zi.d =Ø Ø -mu -n -ši -n -bar -Ø
Enlil=ERG lord Ningirsu =TERM eye right=ABS VP-VENT-3SG-to-3SG.A-be.out-3N.S/DO
'Enlil looked at the lord Ningirsu with favour (lit. "brought out (his) right eyes to").' (Cyl A 1:3; L; 22)

(b) **u$_4$ ^{d}inanna-*ke$_4$* / igi nam-ti-*ka-né* / *mu-ši*-bar-*ra-a***
u$_4$.d inanna.k=e igi nam.ti.l=ak =ane=Ø
day Inanna =ERG eye life =GEN=her=ABS

Ø -mu -n -ši-n -bar -Ø -ʔa =ʔa
VP-VENT-3SG-to-3SG.A-be.out-3N.S/DO-NOM=LOC
'when Inanna had looked at him with her life-giving eyes' (St C 2:11-13; L; 22)

(8a) **še-*ta* / *ab-ta*-zi**
še =ta ʔa-b -ta -zi.g-Ø
barley=ABL VP-3N-from-rise-3N.S/DO
'This was raised from the barley.' (BBVO 11 p.257:4 NT 197 rev 4:14; N; 21)

(b) **šuku šà-gu$_4$-*ka nu-ub-ta*-zi**
šuku.ř šà.gu$_4$.řa.k=ak =Ø nu =ʔi -b -ta -zi.g-Ø
prebend ox.driver =GEN=ABS NEG=VP-3N-from-rise-3N.S/DO
'The prebend of the ox drivers was not raised from this.' (OIP 97:17 4; N; 21)

If {da}, {ta}, or {ši} refer to the first or second person, the clause hardly ever contains a coreferential noun phrase:

(9) **še é-*a nu-mu-da*-ĝál**
še =Ø é =ʔa nu =Ø -mu -ʔ -da -n(i)-ĝál -Ø
barley=ABS house=LOC NEG=VP-VENT-1SG-with-in -be.there-3N.S/DO
'I have no barley in the house (lit. "There is no barley with me in the house").' (MVN 11:168 19; U; 21)

(10) ***ĝe$_{26}$ a-na mu-ù-da-*zu**
ĝe$_{26}$=e a.na =Ø Ø -mu -e -da -ʔ -zu -Ø
I =ERG what=ABS VP-VENT-2SG-with-1SG.A-know-3N.S/DO
'What have I learned from you?' (Cyl A 9:4; L; 22)

Sometimes the prefixes {da} or {ši} are coreferential with noun phrases which have a non-cognate case marker. This phenomenon will be discussed below in the sections devoted to the usage of each separate prefix.

As stated above, what or whom {da}, {ta}, or {ši} refer to is usually specified by an initial person-prefix. Under certain specific circumstances, however, these three prefixes lack such a specification. One of them applies to all initial person-prefixes, while two other circumstances apply only to the non-human person-prefix {b}.

If {da}, {ta}, or {ši} are preceded by some other dimensional prefix, they lack an initial person-prefix, because the initial person-prefixes are only used with the first dimensional prefix of a verbal form (see §16.3).

The initial person-prefix non-human {b} cannot occur between the ventive prefix {mu} and a consonant (§22.4). Accordingly, the prefixes {da}, {ta}, and {ši} always lack the non-human person-prefix when they are preceded by the ventive. This phenomenon can be illustrated with the following examples (for additional ones, see §22.4). The first shows the non-human prefix {b} but lacks the ventive prefix, while the second contains the ventive but lacks {b}:

(11a) **3-*a-ne-ne / ḫa-za-núm káb-su*^{ki}-*ke$_4$* udu-*šè íb-ši-in*-gi$_4$-*eš***
3=anēnē=Ø ḫa.za.núm káb.su=ak =e udu =še ʔi -b -ši-n -gi$_4$ -eš
3=their =ABS mayor Kabsu =GEN=ERG sheep=TERM VP-3N-to-3SG.A-turn-3PL.S/DO
'The mayor of Kabsu send the three of them for the sheep.' (NG 120b 20-21; U; 21)

(b) **túg-*šè im-ši*-ĝen-*na***
túg =še ʔi -m(u) -ši-ĝen-Ø -ʔa
cloth=TERM VP-VENT-to-go -3SG.S/DO-NOM
'who came for cloth' (MVN 16:857 obv 3; U; 21)

Note that the initial person-prefixes human can be used freely with the ventive prefix {mu}. E.g.:

(12) ***šar-rum-ì-lí-šè mu-ši*-ĝen-*na***
šar.rum.ì.lí=še Ø -mu -n -ši -ĝen-Ø -ʔa
Sharrum'ilī =TERM VP-VENT-3SG-to-go -3SG.S/DO-NOM
'who came for Sharrum-ilī' (MTBM 45 2; L; 21)

The second condition under which the initial person-prefix non-human {b} is absent is after the prefix {ba}. These two prefixes cannot occur together in a single verbal form (§16.2.1). Accordingly, the prefixes {da}, {ta}, and {ši} always lack the non-human person-prefix when they are preceded by {ba}. The prefix {ta} can serve as a suitable illustration, because it has different forms after consonants and vowels, viz. /ta/ and /ra/ respectively:

(13a) **ĝiš-*a íb-ta*-bala-*éš***
ĝiš =ʔa ʔi -b -ta -n -balaʔ-eš
wood=LOC VP-3N-from-3SG.A-cross-3PL.S/DO
'He had them cross the wood.' (RTC 80 16; L; 23)

(b) **ĝiš-*gen$_7$-na ba-ra-a*-bala-*eš***

ĝis.gan=ʔa Ø -ba -ta -e -balaʔ-eš
pestle =LOC VP-MM-from-on-cross -3PL.S/DO
'They were caused to cross the pestle.' (FAOS 17:121 18; ?; 21)

By contrast, the initial person-prefixes human can used freely after {ba}. E.g.:

(14) ***a-da-làl-e ba-an-da-an*-kar**
a.da.làl=e Ø -ba -n -da -n -kar -Ø
Adalal =ERG VP-MM-3SG-with-3SG.A-take.away-3N.S/DO
'Adalal took her (viz. a slave woman) away from with him.' (NG 214 32; U; 21)

The following sections deal with the three prefixes {da}, {ta}, and {ši} in more detail. First, the forms, spellings, and meanings of the prefix {da} '(together) with' are treated (§19.2). Then, two sections follow about the prefixes {ta} 'from' (§19.3) and {ši} 'to' (§19.4).

19.2. The prefix {da} '(together) with'

19.2.1. Forms and spellings

The basic form of the prefix {da} '(together) with' is /da/, which is nearly always written ***da***. E.g.:

(15) ***an-da*-ti-*la***
ʔa -n -da -ti.l -Ø -ʔa
VP-3SG-with-live-3SG.S/DO-NOM
'who lives with him' (DP 143 2:2; L; 24)

(16) **siki diri *mu-da*-lá**
siki diri.g=Ø Ø -mu -e -da -b -lá -Ø
wool extra =ABS VP-VENT-2SG-with-3N.A-weigh-3N.S/DO
'With you, it weighs extra wool.' (Cyl A 11:17; L; 22)

(17) **zadim *im-da*-tuš**
zadim =Ø ʔi -m(u)-da -tuš-Ø
lapidary=ABS VP-VENT-with-sit -3SG.S/DO
'A lapidary served (lit. "sat") with it.' (Cyl A 16:27; L; 22)

(18) **mu didli *ga-an-na-da-ab*-sá**
mu dili:RDP =Ø ga -nna -da -b -sá
line single:PLUR=ABS MOD:1SG.A/S-3SG.IO-with-3N.DO-be.equal
'I will match for him the individual entries!' (TCS 1:360 13; N; 21)

The texts from the Old Sumerian period sometimes show the writing ***dab$_6$*** for the sequence /dab/, which occurs when the final person-prefix {b} follows the prefix {da}. E.g.:

(19) **ku$_6$-*bé* lú *nu-ba-dab$_6$*-kar-*re***
ku$_6$=be=Ø lú =e nu =Ø -ba -da -b -kar -e
fish=its=ABS man=ERG NEG=VP-MM-with-3N.DO-take.away-3SG.A:IPFV
'Nobody takes away its fish.' (Ukg. 6 3:9'; L; 24)

(20) **urim$_5^{ki}$-*e* / gu$_4$-*gen$_7$* saĝ an-*šè* / *mu-dab$_6$*-íl**
urim$_5$=e gu$_4$.ř=gen saĝ =Ø ʔan =še Ø -mu -e -da -b -ʔíl-Ø
Ur =ERG bull =EQU head=ABS heaven=TERM VP-VENT-2SG-with-3N.A-lift-3N.S/DO

'Like a bull, Ur lifts its head upwards with you.' (FAOS 5/2 Luzag. 1 2:30-32; N; 24)

The combination of the prefix {da} with the initial person-prefix {nnē} of the third person plural is written with the sign PI, which is transliterated as ***neda*** by analogy with the more analytic spelling ***ne-ši*** of the corresponding form with the prefix {ši} (attested in, for instance, ex. 89 below). The following are contrasting pairs of clauses, the first showing /nnēda/ 'with them' and the second /nda/ 'with him/her':

(21a) **simug-*ne in-neda*-ĝál**
simug=enē=d(a) ʔi -nnē-da -ĝál -Ø
smith =PL =COM VP-3PL-with-be.there-3N.S/DO
'This is with the smiths.' (UET 3:745 rev 5'; Ur; 21)

(b) **PN šandana-*da* / *in-da*-ĝál**
PN šandana.k =da ʔi -n -da -ĝál -Ø
PN chief.gardener=COM VP-3SG-with-be.there-3N.S/DO
'This is with Lu'urub, the chief gardener.' (TMHC NF 1/2:125 4-5; N; 21)

(22a) **sipa ud_5-*da-ke*$_4$-*ne* / *ba-neda*-lá**
sipa.d ud_5 =ak =enē=d(a) Ø -ba -nnē-da -lá -Ø
shepherd goat=GEN=PL =COM VP-MM-3PL -with-be.short-3N.S/DO
'This was short with the goat shepherds.' (Nik 1:262 2:1-2; L; 24)

(b) **PN / dub-sar-*da* / *ba-da*-lá**
PN dub.sar=da Ø -ba -n -da -lá -Ø
PN scribe =COM VP-MM-3SG-with-be.short-3N.S/DO
'This was short with PN, the scribe.' (STH 1:46 2:1-3; L; 24)

Due to assimilation of its vowel, {da} has the form /di/ before the form /ni/ of the local prefix {ni} 'in' (§20.2.1). This form /di/ is often written ***dì***. E.g.:

(23) **^{d}en-ki-*da* é *an-gur*$_4$-*ra-ka* / šà *mu-dì-ni-íb*-kúš-*ù***
en.ki.k=da é engur =ak =ʔa šà.g =Ø
Enki =COM house Underground.Water=GEN=LOC heart=ABS

Ø -mu -n -da -ni-b -kúš -e
VP-VENT-3SG-with-in-3N.DO-trouble-3N.A:IPFV
'They took counsel with (the god) Enki in the house of the Underground Water.' (Cyl A 22:12-13; L; 22)

(24) **iri-*né* ki lagas^{ki}-*e* SIG.NI-*a* / u_4 *mu-dì-ni-íb*-zal-*e***
iri =ane ki lagas =e SIG.NI=ʔa u_4.d=Ø
town=his land Lagash=ERG ? =LOC day =ABS

Ø -mu -n -da -ni-b -zal -e
VP-VENT-3SG-with-in-3N.DO-pass-3N.A:IPFV
'His city and the land Lagash were passing the day with him in …' (Cyl A 19:1-2; L; 22)

The phonemic spelling ***dì***, which reflects the actual pronunciation, alternates with the morpho-phonemic spelling ***da***, which represents a more basic form of the prefix {da}. The following personal name, for instance, occurs with both spellings:

(25) ***a-ba-mu-dì-ni-e***

a.ba=e Ø -mu -n -da -ni-b -ʔe -e
who=ERG VP-VENT-3SG-with-in-3N.OO-say-3SG.A:IPFV
'Who will speak there with him?' (VS 25:89 4:7; L; 24)

This name is written elsewhere ***a-ba-mu-da-ni-e*** (Nik 1:245 1:2 = TSA 7 1:9 = VS 14:160 2:8; L; 24).

19.2.2. Usage

The prefix {da} is cognate with the comitative case marker {da} (§7.11). If the clause contains a coreferential noun phrase, that phrase is, as a rule, in the comitative case. The prefix {da} usually refers to persons but can have non-human reference too, just like the comitative case. It can, for instance, refer to a person or a thing, or a group of persons or things. The prefix {da} refers to a participant in whose immediate presence or company the action or state expressed by the verb takes place. Its basic meaning is '(together) with (somebody or something)'.

The prefix {da} can mean 'with ...' in various senses. It can, for instance, mean 'together with ...', referring to a participant that accompanies the subject or the direct object in some activity:

(26) **PN / ensi$_2$ / umma^{ki}-*da* / ki *e-da*-sur**
PN ensi$_2$.k umma =ak =da ki =Ø ʔi -n -da -n -sur -Ø
PN ruler Umma=GEN=COM earth=ABS VP-3SG-with-3SG.A-delimit-3N.S/DO
'He (viz. the ruler of Lagash) fixed the border together with PN, the ruler of Umma.' (Ent. 28 1:39-42; L; 25)

(27) **lú 1 lú 2-*da* kíĝ *mu-da*-ak-*ke$_4$***
lú 1=e lú 2=da kíĝ =Ø Ø -mu -n -da -ʔak -e
man 1=ERG man 2=COM work=ABS VP-VENT-3SG-with-make-3SG.A:IPFV
'One man will work together with another.' (Cyl A 11:25; L; 22)

(28) **ĝiri$_3$-*né-ì*-sa$_6$-*da* *mu-da*-ĝen-*na***
ĝiri$_3$.né.ì.sa$_6$.g=da Ø -mu -n -da -ĝen-Ø -ʔa
Giriniisa =COM VP-VENT-3SG-with-go -3SG.S/DO-NOM
'who came together with Girini-isa' (MVN 7:116 rev 1; L; 21)

(29) **aga$_3$-ús-*ne* / é-gal-*la* / gu$_4$-*da* / *e-da*-gu$_7$**
aga$_3$.ús=enē=e é.gal =ʔa gu$_4$.ř=da ʔi -b -da -b -gu$_7$-Ø
soldier =PL =ERG palace=LOC ox =COM VP-3N-with-3N.A-eat -3N.S/DO
'The soldiers consumed this (flour) in the palace, together with (the meat of) an ox.' (Nik 1:133 1:2-2:1; L; 24)

(30) **1 udu 1 maš / kas ninda ki-su$_7$-*ga-da* / ki ensi$_2$-*ka-šè* / *e-da*-ku$_x$** (DU)
1 udu 1 maš kas ninda ki.su$_7$.g =ak =da
1 ram 1 he.goat beer bread threshing.floor=GEN=COM

ki ensi$_2$.k=ak =še ʔi -b -da -n(i)-ku$_4$.ř-Ø
place ruler =GEN=TERM VP-3N-with-in -enter -3N.S/DO
'1 ram, 1 he-goat: together with the beer and bread of the threshing floor, they came in for the ruler's place.' (DP 202 1:1-2:1; L; 24)

(31) **gù-dé-*a* en ^{d}nin-ĝír-su-*ra* / *mu-na-da*-ku$_4$-ku$_4$**

gù.dé.a=Ø en nin.ĝír.su.k=ra Ø -mu -nna -da -n(i)-ku$_4$.ř:RDP-ed -Ø
Gudea =ABS lord Ningirsu =DAT VP-VENT-3SG.IO-with-in -enter:IPFV -IPFV-3SG.S:IPFV
'Gudea entered with this before lord Ningirsu.' (Cyl B 16:1-2; L; 22)

The prefix {da} can also mean 'with ...', referring to a participant with whom the subject is involved in some mutual or reciprocal activity:

(32) **umma^{ki}-*da* / *dam-ḫa-ra* / *e-da*-ak**
umma?=da dam.ḫa.ra=Ø ?i -b -da -n -?ak -Ø
Umma =COM battle =ABS VP-3N-with-3SG.A-make-3N.S/DO
'He did battle with Umma.' (Ent. 28 1:25-27; L; 25)

(33) **lú unug^{ki}-⌜*ga-da*⌝ / ^{ĝiš}tukul / ⌜*e*⌝-*da*-sìg**
lú unug=ak =da tukul=Ø ?i -n -da -n -sìg -Ø
man Uruk=GEN=COM mace=ABS VP-3SG-with-3SG.A-beat-3N.S/DO
'He fought with the man from Uruk.' (RIM E2.1.1.1 16-18; N; 24)

(34) **lú umma^{ki}-*ke$_4$* / lú káb-su^{ki}-*da* / di *in-da-an*-du$_{11}$**
lú umma=ak =e lú káb.su=ak =da di.d=Ø
man Umma=GEN=ERG man Kabsu =GEN=COM trial=ABS

?i -n -da -n -du$_{11}$.g-Ø
VP-3SG-with-3SG.A-say -3N.S/DO
'The man from Umma went to trial with the man from Kabsu.' (NG 111 2-4; U; 21)

(35) **^{d}nin-*ĝír-sú-ke$_4$* iri-ka-ge-*na-da e-da*-du$_{11}$-*ga-a***
nin.ĝír.su.k=e iri.ka.ge.na.k=da ?i -n -da -n -du$_{11}$.g-Ø -?a =?a
Ningirsu =ERG Irikagena =COM VP-3SG-with-3SG.A-say -3N.S/DO-NOM=LOC
'what Ningirsu has agreed with Irikagena' (Ukg. 34 1; L; 24)

(36) **^{d}nin-ĝír-su-*da* / iri-ka-*ge-na-ke$_4$* / inim-*bé* ka *e-da*-keše$_2$**
nin.ĝír.su.k=da iri.ka.ge.na.k=e inim=be=e
Ningirsu =COM Irikagena =ERG word=its=DIR

ka.k =Ø ?i -n -da -n -keše$_2$.ř-Ø
mouth=ABS VP-3SG-with-3SG.A-bind -3N.S/DO
'Irikagena made a contract with Ningirsu about this.' (Ukg. 4 12:26-28; L; 24)

The prefix {da} can express a location. It can, for instance, refer to a place in or into the proximity of which the subject or direct object of the verb is located:

(37) **lú unug^{ki}-*ga* iri-*da* / *ì-da*-tuš-*a***
lú unug=ak =Ø iri =da ?i -b -da -tuš-Ø -?a =?a
man Uruk=GEN=ABS town=COM VP-3N-with-sit -3SG.S/DO-NOM=LOC
'when the man of Uruk besieged the city' (DP 545 5:3-4; L; 24)

(38) **^{ĝiš}šár-ùr-*bé* uri$_3$ gal-*gen$_7$* lagas^{ki}-*da im-da*-si**
šár.ùr=be=Ø uri$_3$ gal=gen lagas =da ?i -m(u)-da -n -si.g -Ø
Sharur=its=ABS emblem big=EQU Lagash=COM VP-VENT-with-3SG.A-put.into-3N.S/DO
'Its Sharur he embedded beside Lagash like a big standard.' (Cyl A 22:20; L; 22)

More often than to a place, {da} refers to a person, in whose immediate presence the subject or direct object is located:

(39) **lú umma^{ki} / úr-MUD / *an-da*-ti-*la***
lú umma =ak úr.MUD=d(a) ʔa -n -da -ti.l -Ø -ʔa
man Umma=GEN Urmud =COM VP-3SG-with-live-3SG.S/DO-NOM
'the Ummaite who lives at Urmud's place' (DP 143 1:4-2:2; L; 24)

(40) **ur-*ra-né* / *an-da-še***
ur.ra.ne=d(a) ʔa -n -da -sig$_7$ -Ø
Urrane =COM VP-3SG-with-live:PLUR-3N.S/DO
'They (viz. 42 oxen) live at Urrane's place.' (ECTJ 81 2-3; N; 24)

(41) **igi-zi unu$_3$-*da e-da*-lu$_5$**
igi.zi.d unu$_3$.d =da ʔi -n -da -lu$_5$.k -Ø
Igizi shepherd=COM VP-3SG-with-live:SING-3N.S/DO
'It (viz. one cow) lives with Igizi, the shepherd.' (VS 14:62 2:4-6; L; 24)

Closely related to the sense 'in the presence of ...' is the usage of {da} in the sense 'in the charge or possession of ...':

(42) **še é-*a nu-mu-da*-ĝál**
še =Ø é =ʔa nu =Ø -mu -ʔ -da -ĝál -Ø
barley=ABS house=LOC NEG=VP-VENT-1SG-with-be.there-3N.S/DO
'There is no barley with me in the house.' (MVN 11:168 19; U; 21)

(43) **níĝ-*na-me nu-mu-da-a*-tuku**
níĝ.na.me=Ø nu =Ø -mu -ʔ -da -e -tuku-Ø
anything =ABS NEG=VP-VENT-1SG-with-2SG.A-have-3N.S/DO
'I owe you nothing (lit. "You do not have anything with me").' (SNAT 535 obv 13; U; 21)

(44) **ki-en-gi-*ře$_6$* ì diri *mu-da*-dé**
ki.en.gi.ř=e ì diri.g=Ø Ø -mu -e -da -b -dé -Ø
Sumer =ERG fat extra =ABS VP-VENT-2SG-with-3N.A-pour-3N.S/DO
'With you (in charge) Sumer produces extra fat.' (Cyl A 11:11; L; 22)

With verbs expressing a kind of removal, {da} refers to the participant out of whose charge or possession the subject or direct object is removed:

(45) **0.0.3 še-numun urdu$_2$ PN / engar-*da ba-an-da*-kar**
0.0.3 še.numun =Ø urdu$_2$.d PN engar =ak =da
3.ban seed.barley=ABS slave PN farmer=GEN=COM

Ø -ba -n -da -kar -Ø
VP-MM-3SG-with-take.away-3N.S/DO
'Three *ban* of barley seed was taken away from the slave of PN, the farmer.' (OrSP 47/49:502 9-10; U; 21)

(46) **1 gu-ú-gu / urdu$_2$ ur-^{d}nun-gal$^{!}$-*ka* / *ba-an-da*-zàḫ**
gu.ú.gu urdu$_2$.d ur.nun.gal.k=ak =Ø Ø -ba -n -da -zàḫ -Ø
Gugu slave Urnungal =GEN=ABS VP-MM-3SG-with-run.off-3SG.S/DO
'Gugu, the slave of Ur-Nungal, ran away from him.' (NRVN 1:1 1-3; N; 21)

With verbs expressing some emotion, the prefix {da} refers to the object of the emotion. E.g.:

(47) **^{d}*ba-ú* bara$_2$ iri-ka-*ge-na-ka-da am$_6$-da*-kúš**
ba.ú=Ø bara$_2$.g iri.ka.ge.na.k=ak =da ʔa -m(u) -da -kúš -Ø
Bau =ABS dais Irikagena =GEN=COM VP-VENT-with-be.tired-3SG.S/DO
'Bau tires herself on behalf of the dais of Irikagena.' (Ukg. 45 1; L; 24)

(48) **é-an-*na*-túm-*da* / elam saĝ *e-dab$_6$*-sìg**
é.an.na.túm=da elam=e saĝ =Ø ʔi -n -da -b -sìg-Ø
Eannatum =COM Elam=ERG head=ABS VP-3SG-with-3N.A-hit -3N.S/DO
'Elam trembled before Eannatum (lit. "shook its head with")' (Ean. 2 6:6-7; L; 25)

(49) **é-*da* lugal *im-da*-ḫúl**
é.j =da lugal =Ø ʔi-m(u) -da -ḫúl -Ø
house=COM master=ABS VP-VENT-with-be.happy-3SG.S/DO
'The owner was happy with the house.' (Cyl B 20:14; L; 22)

(50) **iri-*né-da* / saĝ-ki-⌜*né*⌝ / *ḫa-ba-da*-⌜gíd⌝-[*e*]**
iri =ane=da saĝ.ki =ane=Ø ḫa =Ø -ba -da -gíd -e
town=his =COM forehead=his =ABS MOD=VP-MM-with-be.long-3SG.A:IPFV
'May he frown upon his city! (lit. "make long his forehead with")' (FAOS 9/2 Urnammu 47 4:2-4; ?; 21)

In these constructions, {da} has undergone a semantic shift from '(together) with' to 'because of', which is a shift from expressing accompaniment to expressing a reason.

Sometimes the prefix {da} marks ability (Gragg 1973a: 53-55). It then expresses that the person it refers to is able to perform the action expressed by the verb. In our corpus, this usage is only attested in negative forms. In active forms, {da} refers to the same person as the subject. In passive forms, {da} refers to the implied subject:

(51) **lú inim-*ma-bé nu-mu-da*-ře$_6$**
lú inim=ak =be=Ø nu =Ø -mu -n -da -n -ře$_6$ -Ø
man word=GEN=its=ABS NEG=VP-VENT-3SG-with-3SG.A-bring-3SG.S/DO
'She could not bring a witness for this.' (NG 82 6; L; 21)

(52) **bar še-*bé nu-da-sù-sù-da-ka***
bar še =be =Ø nu =ʔi -n -da -su.g:RDP -ed -Ø -ʔa =ak =ʔa
because.of barley=this=ABS NEG=VP-3SG-with-repay:IPFV-IPFV-3N.S-NOM=GEN=LOC
'because he could not repay that barley (lit. "because that barley would not be repaid with him")' (Ent. 28 2:27; L; 25)

(53) **mu *nu-da*-su-su-*da-šè* / šu bar-*re***
mu nu =ʔi -n -da -su.g:RDP -ed -Ø -ʔa =ak =še šu =Ø bar -ed -Ø
name NEG=VP-3SG-with-repay:IPFV-IPFV-3N.S-NOM=GEN=TERM hand=ABS open-IPFV-NFIN
'to be written off because he cannot repay this (lit. "the hand to be opened upon because it will not be repaid with him")' (PIOL 19:344 3-4; U; 21)

The preceding discussion has described the more general senses of {da}, which are found with entire groups of verbs. In addition, the prefix {da} occurs with certain individual verbs in more idiomatic uses. The verb **zu** 'know, learn', for instance, refers with the prefix {da} to the person from whom something is learned. E.g.:

(54) ***ĝe$_{26}$ a-na mu-ù-da*-zu**

ĝe=e a.na =Ø Ø -mu -e -da -ʔ -zu -Ø
I =ERG what=ABS VP-VENT-2SG-with-1SG.A-know-3N.S/DO
'What have I learned from you?' (Cyl A 9:4; L; 22)

The phrasal verb **á—áĝ** 'give instructions to' uses the prefix {da} to refer to the person receiving the instructions:

(55) **^{d}nin-zà-*ga-da* á *mu-da*-áĝ**
nin.zà.ga=da á =Ø Ø -mu -n -da -n -ʔáĝ -Ø
Ninzaga =COM strength=ABS VP-VENT-3SG-with-3SG.A-measure.out-3N.S/DO
'He gave instructions to Ninzaga.' (Cyl A 15:11; L; 22)

A final example of a verb construed with the prefix {da} is **sá** 'be equal to':

(56) ***a-ba-an-da*-sá**
a.ba=Ø ʔa -n -da -sá -Ø
who=ABS VP-3SG-with-be.equal-3SG.S/DO
'Who is equal to him?' (PN) (MAD 4:70 14; I; 23)

As stated above, if the clause contains a noun phrase which is coreferential with the prefix {da}, that phrase is, as a rule, in the comitative case. Sometimes, however, the scribes write a dative for an expected comitative, confusing the two case markers. Such a confusion only occurs word-finally after a vowel, an environment where the dative and comitative case markers were pronounced alike. See §7.11.1 for details.

19.3. The prefix {ta} 'from'

19.3.1. Forms and spellings

The prefix {ta} 'from' is cognate with the ablative postposition {ta} (§7.10). Its basic form is /ta/, which is written ***ta***. E.g.:

(57) **kišib-*ba-né-ta* / *ga-ab-ta*-tur**
kišib=ane=ta ga -b -ta -tur -Ø
seal =his =ABL MOD:1SG.A/S-3N-from-be.small-3N.S/DO
'I will deduct this from his sealed documents.' (LfEM 180=MTBM 313 6-7; L; 21)

(58) **kur *má-gan*^{ki}-*ta* / ^{na4}esi *im-ta*-e$_{11}$**
kur má.gan=ta esi =Ø ʔi -m(u) -ta -n -e$_{11}$.d -Ø
mountains Magan =ABL diorite=ABS VP-VENT-from-3SG.A-go.up/down-3N.S/DO
'He brought down diorite out of the mountain land Magan.' (St A 2:6-3:1; L; 22)

The /t/ of {ta} becomes /r/ after the vowels /a/ and /e/ (note that the prefix {ta} is not attested after other vowels). This can be illustrated with the two verbs **bala** 'cross' and **è** 'go out'. In certain expressions, these verbs consistently show the prefix {ta}: **bala** in the expression 'cross the wood/pestle (as a symbolic gesture for a legal transfer)' and **è** with the sense 'come forward (as a witness)'. The following two pairs of forms document the change of /ta/ to /ra/ after a vowel:

(59a) **ĝiš-*a íb-ta*-bala-*éš***
ĝiš =ʔa ʔi -b -ta -n -balaʔ-eš
wood=LOC VP-3N-from-3SG.A-cross -3PL.S/DO

'He had them cross the wood.' (RTC 80 16; L; 23)

(b) **ĝiš-*gen$_7$-na* *ba-ra-a*-bala-*eš***
ĝis.gan=ʔa Ø -ba -ta -e -balaʔ-eš
pestle =LOC VP-MM-from-on-cross -3PL.S/DO
'They were caused to cross the pestle.' (FAOS 17:121 18; ?; 21)

(60a) **lú inim-*ma-šè* / *im-ta*-è-*eš***
lú inim=ak =še ʔi -m(u) -ta -ʔè -eš
man word=GEN=TERM VP-VENT-from-go.out-3PL.S/DO
'They came forward as witnesses.' (NG 214 49-50; U; 21)

(b) **lú inim-*ma* saĝ sa$_{10}$-*a-šè mu-ne-ra*-è**
lú inim=ak saĝ sa$_{10}$ -Ø -ʔa =ak =še Ø-mu -nnē -ta -ʔè -Ø
man word=GEN head barter-NFIN-NOM=GEN=TERM VP-VENT-3PL.IO-from-go.out-3N.S/DO
'They came forward for them as witnesses of that the slave had been bought.' (NG 51 15; U; 21)

As in the two examples above under (b), the form /ra/ of the prefix {ta} is often written ***ra***. E.g.:

(61) **ĝiš-*gen$_7$ i-na-ra*-bala**
ĝiš.gan=ʔa ʔi -nna -ta -n -balaʔ-Ø
pestle =LOC VP-3SG.IO-from-3SG.A-cross -3SG.S/DO
'He had her cross the pestle for him.' (NATN 498 8; N; 21)

(62) **túg é-du$_6$-*la-ta ba-ra*-zi**
túg é.du$_6$.la=ak =ta Ø -ba -ta -zi.g-Ø
cloth estate =GEN=ABL VP-MM-from-rise-3N.S/DO
'They were raised from the clothes of the estate.' (SNAT 416 rev 13; U; 21)

(63) **a-*ta im-ma-ra*-túm**
a =ta ʔi -m(u)-ba -ta -túm-Ø
water=ABL VP-VENT-MM-from-take-3N.S/DO
'This (sunken boat) was taken out of the water.' (MVN 14:500 rev 1; U; 21)

However, the phonemic spelling ***ra*** is not the only one attested. It alternates with the morphophonemic spelling ***ta***. The following, frequently attested, expression, for instance, occurs with both spellings. E.g.:

(64) **iti-*ta* u4 22 *ba-ra*-zal**
iti.d =ta u$_4$.d 22=Ø Ø -ba -ta -zal -Ø
month=ABL day 22=ABS VP-MM-from-pass-3N.S/DO
'Out of the month, day 22 had passed.' (AUCT 1:686 10; D; 21)

(65) **iti-*ta* u4 24 *ba-ta*-zal**
iti.d =ta u$_4$.d 24=Ø Ø -ba -ta -zal -Ø
month=ABL day 24=ABS VP-MM-from-pass-3N.S/DO
'Out of the month, day 24 had passed.' (CST 470 5; D; 21)

This change of /t/ to /r/ is first attested in the time of Gudea, in the following clause, which contains a verbal form in which the prefix {ta} is written twice, once phonemically as ***ra*** and once morphophonemically as ***ta***:

(66) **diĝir-*zu* ^{d}nin-ĝiš-zi-*da* u$_4$-*gen$_7$* ki-*ša-ra ma-ra-da-^{ra}ta*-è**
diĝir=zu nin.ĝiš.zi.da.k=Ø u$_4$.d=gen ki.šár =ʔa
god =your Ningishzida =ABS day =EQU horizon=LOC

Ø -mu -ra -da -ta -e -ʔè -Ø
VP-VENT-2SG.IO-with-from-on-go.out-3SG.S/DO
'Your god Ningishzida came forth with it (=light) on the horizon for you like the day.' (Cyl A 5:20; L; 22)

Yet, spellings with ***ra*** only become common from the Ur III period onwards.

19.3.2. Usage

Just like the ablative case (§7.10), the prefix {ta} nearly always has non-human reference. Accordingly, if it is accompanied by an initial person-prefix, this usually is the non-human prefix {b}. Still, the corpus contains one certain attestation of {ta} used with a human person-prefix and referring to a person:

(67) **uš-*bé* ní-*ba ḫa-mu-ta*-è-*dé***
uš$_{11}$ =be =Ø ní =be=ʔa ḫa =Ø -mu -n -ta -ʔè -ed -e
poison=this=ABS self=its=LOC MOD=VP-VENT-3SG-from-go.out-IPFV-3SG.A:IPFV
'He must let that poison come out of him by itself.' (VS 10:193 14; ?; 21)

The prefix {ta} mostly refers to a place which is the starting-point of some movement. It can, for instance, have the meaning 'out of there':

(68) **gur$_4$-gur$_4$ kù luḫ-*ḫa* ì iti$^{!}$-*da* ^{d}nin-*ĝír-sú-ke$_4$ ab-ta*-gu$_7$-*a***
gur$_4$.gur$_4$ kù.g luḫ -Ø -ʔa ì iti.d =ak =Ø nin.ĝír.su.k=e
vessel silver purify-NFIN-NOM fat month=GEN=ABS Ningirsu =ERG

ʔa -b -ta -gu$_7$-e -ʔa
VP-3N-from-eat -3SG.A:IPFV-NOM
'a vessel of purified silver, out of which Ningirsu eats (his) monthly fat' (Ent. 34 15; L; 25)

(69) **pisaĝ *ù*-šub-*ba-ta* šeg$_{12}$ *ba-ta*-íl**
pisaĝ ù.šub =ak =ta šeg$_{12}$=Ø Ø -ba -ta -n -ʔíl-Ø
basket brick.mold=GEN=ABL brick =ABS VP-MM-from-3SG.A-lift-3N.S/DO
'Out of the brick mold he lifted up the brick.' (Cyl A 19:13; L; 22)

(70) **šà lú 216000-*ta* / šu-*né ba-ta-an*-dab$_5$-*ba-a***
šà.g lú 216000=ak =ta šu =ane=Ø Ø -ba -ta -n -dab$_5$-Ø -ʔa =ʔa
heart man 216000=GEN=ABL hand=his =ABS VP-MM-from-3SG.A-take -3N.S/DO-NOM=LOC
'when he had taken his hand out of the midst of 216000 men' (St B 3:10-11; L; 22)

With the meaning 'out of there', {ta} is primarily the antonym of the prefix {ni} 'into'. With the sense 'from there', it is more the antonym of the prefix {ši} 'towards'. E.g.:

(71) **e-bé íd-nun-ta / gú eden-na-šè / éb-ta-né-è**
e.g =be=Ø íd.nun=ta gú.eden.na.k=še ʔi -b -ta -ni-n -ʔè -Ø
dike=its=ABS Idnun =ABL Gu'edena =TERM VP-3N-from-in-3SG.A-go.out-3N.S/DO
'He let its dike go out from the Idnun to the Gu'edena.' (Ent. 28 2:1-3; L; 25)

The prefix {ta} can also refer to an object from which something or someone is removed or separated in some way. E.g.:

(72) **anše-*ta* / udu-*ta* / *ú-du-bé* / *e-ta*-ru**
anše =ta udu =ta ú.du.l =be=Ø ʔi -b -ta -n -ru -Ø
donkey=ABL sheep=ABL shepherd=its=ABS VP-3N-from-3SG.A-eject-3SG.S/DO
'From the donkeys and sheep, he dismissed their shepherds.' (Ukg. 4 8:17-20; L; 24)

(73) **mu sar-*ra-bé* / šu *íb-ta-ab*-ùr-*a***
mu sar -Ø -ʔa =be =e šu =Ø ʔi -b -ta -b -ʔùr-e -ʔa
name write-NFIN-NOM=this=DIR hand=ABS VP-3N-from-3N.OO-rub-3SG.A:IPFV-NOM
'who will erase this inscription (lit."will let (his) hand rub this written name from it")' (St B 8:8-9; L; 22)

(74) **^{ĝiš}dúr-ĝar lú *mu-na*-ře$_6$-*a-né* / saḫar-*ra ḫé-em-ta*-tuš**
dúr.ĝar lú =e Ø -mu -nna -n -ře$_6$ -Ø -ʔa =ane
seat man=ERG VP-VENT-3SG.IO-3SG.A-bring-3N.S/DO-NOM=his

saḫar=ʔa ḫa =ʔi -m(u)-ta -tuš-Ø
sand =LOC MOD=VP-VENT-from-sit -3SG.S/DO
'As for his seat which one brought to him, may he sit in the dust (being removed) from it!' (St B 9:10-11; L; 22)

(75) **PN / *nu*-banda$_3$ / dub še-ba ^{d}nin-*ĝír-su-ka-ta* / *e-ta*-sar**
PN nu.banda$_3$=e dub še.ba =ak nin.ĝír.su.k=ak =ta
PN overseer =ERG tablet barley.distribution=GEN Ningirsu =GEN=ABL

ʔi -b -ta -n -sar -Ø
VP-3N-from-3SG.A-write-3N.S/DO
'PN, the overseer, copied them from the barley-distribution tablet of Ningirsu.' (DP 140 4:1-4; L; 24)

The prefix {ta} never has the meaning 'from then'. In this it differs from the ablative case, which not only can refer to a place but also to a time.

The separative meanings 'out of there' and 'from there' represent the most common uses of {ta}, but, like the ablative case, {ta} also has instrumental uses, meaning 'with it' or the like. E.g.:

(76) **nam *e-na-ta*-ku$_5$**
nam=Ø ʔi -nna -ta -n -ku$_5$.ř-Ø
? =ABS VP-3SG.IO-from-3SG.A-cut -3N.S/DO
'He took an oath for him with it (viz. the battle-net of the god Utu).' (Ean. 1 rev 1:7; L; 25)

(77) **^{ĝiš}šinig (...)-*ta* / é-ninnu *im-ta*-sikil-*e-ne* / *im-ta*-zalag-zalag-*ge-éš***
šinig =ta é.ninnu=Ø ʔi -m(u) -ta -sikil -enē
tamarisk=ABL Eninnu =ABS VP-VENT-with-be.pure-3PL.A:IPFV

ʔi -m(u) -ta -n -zalag:RDP -eš
VP-VENT-from-3SG.A-brighten:PLUR-3PL
'Cleaning the Eninnu with (...) tamarisk, they brightened it up with it.' (Cyl B 4:10-12; L; 22)

It even occurs once expressing ‘with it’ in the sense of ‘in addition to it’:

(78) ***nam*-ensi$_2$ / lagas^{ki}-*ta* / *nam*-lugal kiš^{ki} / *mu-na-ta*-šúm**
nam.ensi$_2$ lagas =ak =ta nam.lugal kiš =ak =Ø
rulership Lagash=GEN=ABL kingship Kish=GEN=ABS

Ø -mu -nna -ta -n -šúm-Ø
VP-VENT-3SG.IO-from-3SG.A-give-3N.S/DO
‘In addition to the rulership over Lagash, she gave him the kingship over Kish.’ (Ean. 2 6:2-5; L; 25)

The Ur III texts from Nippur contain a few instances with {ta} in a more distributive sense: ‘(each) with it’. E.g.:

(79) **11 giĝ$_4$-*ta* / *ab-ta*-sa$_{10}$**
11 giĝ$_4$ =ta ʔa -b -ta -sa$_{10}$ -Ø
11 shekel=ABL VP-3N-from-barter-3N.S/DO
‘This has been bought with 11 shekels (per pound).’ (NRVN 1:315 2-3; N; 21)

Thus, the prefix {ta} is cognate with the ablative case marker {ta} (§7.10), not only in form but also in meaning. The two share the basic separative senses ‘out of’ and ‘from’, as well as the instrumental meaning ‘with’. Yet, the prefix {ta} is used far less often than the ablative case. The reason for this is that the use of {ta} is far more dictated by the grammatical and semantic properties of the verb than the use of the ablative case is (§16.3). The lesser the importance of a given adjunct in the action or state expressed by the verb, the greater the likelihood that the prefix {ta} is not used to refer to it. To the ablative case, however, no such restrictions apply. A clear case in point is that the prefix {ta} never expresses time adjuncts, while the ablative case does.

Precisely because the presence of the prefix {ta} is to a large extent dictated by the grammatical and semantic properties of the verb, {ta} is often used with particular verbs to signal specific constructions with specific meanings. If a finite form of the verb **sa$_{10}$** ‘barter’, for instance, contains the prefixes {ba} and {ta}, the subject always refers to the seller and never to the buyer. E.g.:

(80) **ses-kal-*la* / lú-^{d}iškur / dumu-*né* *ba-ra*-sa$_{10}$**
ses.kal.la=e lú.iškur dumu=ane=Ø Ø -ba -ta -n -sa$_{10}$ -Ø
Seskalla =ERG Lu.Ishkur son =his =ABS VP-MM-from-3SG.A-barter-3SG.S/DO
‘Seskalla sold his son Lu-Ishkur.’ (YOS 4:6 1-3; N; 21)

A finite form of the verb **e$_{11}$.d** ‘go up, go down’ with the local prefix {e} ‘onto (somewhere)’ has the meaning ‘go up’ (§20.3.2), but with the prefix {ta} ‘from (somewhere)’ it means ‘go down’. E.g.:

(81) **ḫur-saĝ má-gan^{ki}-*ta* / ^{na4}esi *im-ta*-e$_{11}$**
ḫur.saĝ má.gan=ak =ta esi =Ø ʔi-m(u)-ta -n -e$_{11}$.d -Ø
mountain Magan=GEN=ABL diorite=ABS VP-VENT-from-3SG.A-go.up/down-3N.S/DO
‘From the mountains of Magan he brought down diorite.’ (St D 4:15-16; L; 22)

The verb **ba-al** ‘dig’ always has the prefix {ta} when it means ‘recover (lit. “dig out of (somewhere)”)’, regardless of whether a specific place is referred to or not:

(82) **áb lugal-*ba-ta*-è / *ĝír-su*^{ki}-*ta* *ì-ma-ra-ba-al-la***

áb lugal.ba.ta.è=e ĝír.su=ta ʔi -m(u) -ba -ta -n -ba.al-Ø -ʔa
cow Lugalbatae =ERG Girsu =ABL VP-VENT-MM-from-3SG.A-dig -3N.S/DO-NOM
'a cow which Lugalbatae recovered from Girsu' (NG 137 1-2; U; 21)

(83) **gu$_4$ *ú-gu* dé-*a-zu* / *gú-mu-ra-ra-ba-al***
gu$_4$.ř ú.gu=e$^{?}$ **dé -Ø -ʔa =zu =Ø ga -mu -ra -ta -ba.al**
ox ? =DIR pour-NFIN-NOM=your=ABS MOD:1SG.A/S-VENT-2SG.IO-from-dig
'I will recover your lost ox for you (from wherever)!' (NG 132 4-5; U; 21). Note the phrasal verb **ú-gu—dé** 'lose'. Its construction is not entirely clear.

A final example is the verb **è** 'go out'. Its finite forms always include the prefix {ta}. E.g.:

(84) **lú é-ninnu-*ta* / *im-ta-ab*-È.È-*a***
lú é.ninnu=ta ʔi -m(u)-ta -b -ʔè:RDP -e -ʔa
man Eninnu =ABL VP-VENT-from-3N.DO-go.out:IPFV-3SG.A:IPFV-NOM
'whoever shall take it out of the Eninnu' (St B 8:6-7; L; 22)

(85) **u$_4$ ki-šár-*ra ma-ta*-è**
u$_4$.d=Ø ki.šár =ʔa Ø -ma -ta -e -ʔè -Ø
day =ABS horizon=LOC VP-1SG.IO-from-on-go.out-3N.S/DO
'Daylight rose (lit. "came out") for me on the horizon.' (Cyl A 4:22; L; 22)

19.4. The prefix {ši} 'to'

19.4.1. Forms and spellings

The prefix {ši} 'to' is cognate with the terminative case marker {še} (§7.8). Its basic form is /ši/, which is nearly always written ***ši***. E.g.:

(86) **kadra *íb-ši*-ak**
kadra=š(e) ʔi -b -ši-n -ʔak -Ø
gift =TERM VP-3N-to-3SG.A-make-3N.S/DO
'He made it into a gift.' (RTC 83 13'; L; 23)

(87) **igi-*ĝu$_{10}$-in-ši*-ĝál**
igi =ĝu =Ø ʔi -n -ši-ĝál -Ø
eye=my=ABS VP-3SG-to-be.there-3N.S/DO
'My eyes are towards him.' (PN) (TCTI 1:L.618 4:10; L; 21)

(88) **gukkal-*šè im-ši*-ĝen-*na***
gukkal =še ʔi -m(u)-ši-ĝen-Ø -ʔa
fat.tailed.sheep=TERM VP-VENT-to-go -3SG.S/DO-NOM
'who came for fat-tailed sheep' (RTC 378 5; L; 21)

(89) ***in-ne-ši*-sa$_{10}$**
ʔi -nnē-ši-n -sa$_{10}$ -Ø
VP-3PL -to-3SG.A-barter-3N.S/DO
'He bought it from them.' (FAOS 17:88* 14; U; 21)

The vowel of {ši} alternates between /e/ and /i/ according to the rule of vowel harmony which applies to Southern Old-Sumerian (§3.9.3). E.g.:

(90) ***e-šè*-sa$_{10}$**

ʔi -n -ši-n -sa$_{10}$ -Ø
VP-3SG-to-3SG.A-barter-3N.S/DO
'She bought it from him.' (VS 14:141 1:5; L; 24)

(91) ***mu-šè-ĝen-na-am$_6$***
Ø -mu -ʔ -ši-ĝen-Ø -ʔa =Ø =ʔam
VP-VENT-1SG-to-go -3SG.S/DO-NOM=ABS=be:3SG.S
'It was he who came to me.' (En. I 29 10:2; L; 25)

(92) ***ḫé-na-ši*-gub**
ḫa =ʔi -nna -ši-gub -Ø
MOD=VP-3SG.IO-to-stand-3SG.S/DO
'May he stand before him for it!' (Ent. 28 6:8; L; 25)

(93) **lú *ḫé-ši*-gi$_4$-gi$_4$-*a-ka***
lú =Ø ḫa =ʔi -n -ši-gi$_4$:RDP-e -ʔa =ak =ʔa
man=ABS MOD=VP-3SG-to-turn:IPFV-3SG.A:IPFV-NOM=GEN=LOC
'as soon as he sent someone to him' (Ukg. 6 4:2'; L; 24)

The Ur III texts from Nippur contain a few instances where the prefix {ši} is written ***si***:

(94) ***in-si-in-sà***
ʔi -n -ši -n -sa$_{10}$ -Ø
VP-3SG-to-3SG.A-barter-3SG.S/DO
'He bought her from him.' (FAOS 17:44 6; N; 21)

The same form occurs elsewhere in a slightly different spelling: ***in-si-sà*** 'he bought them from him' (NRVN 1:221 6; N; 21). These two divergent spellings of {ši} must be due to interference from Akkadian. In the period of these texts, that language did not distinguish any more between the two sibilants /s/ and /š/ (§3.4.1).

19.4.2. Usage

The prefix {ši} can have non-human or human reference. It refers to the destination or purpose of the action expressed by the verb and can usually be translated with 'to ...' or 'for ...'. If the clause contains a coreferential noun phrase, that phrase is, as a rule, in the terminative case.

The prefix {ši} can, for instance, refer to a destination, indicating the person, thing, or place approached and reached:

(95) **é-šà ní-*ĝá-šè* / *mu-šè*-ĝen-*na-am$_6$***
é.šà.g ní =ĝu =ak =še Ø -mu -ʔ -ši-ĝen-Ø -ʔa =Ø =ʔam
inner.room own=my=GEN=TERM VP-VENT-1SG-to-go -3SG.S/DO-NOM=ABS=be:3SG.S
'It was he who came to me[1], to my own inner room.' (En. I 29 10:1-2; L; 25)

(96) **$^{\text{anše}}$dur$_9$$^{\grave{u}r}$ *ù-ši*-lá**
dùr =Ø ʔu -b -ši-e -lá-Ø
male.donkey=ABS REL.PAST-3N-to-2SG.A-tie-3N.S/DO
'when you have harnessed a donkey stallion to it (viz. the chariot)' (Cyl A 6:18; L; 22)

[1] For the discrepancy in reference between the prefix {ši} and the noun phrase in the terminative case, see §16.3 end.

(97) ***ù*** **^{ĝiš}šu-kara$_2$-*bé* / ki-gub-*bé-šè* / *nu-ub-ši-íb*-gi$_4$-gi$_4$-*a***
ù šu.kara$_2$ =be=Ø ki.gub =be=še
and equipment=its=ABS position=its=TERM

nu =ʔi -b -ši-b -gi$_4$:RDP-e -ʔa
NEG=VP-3N-to-3N.DO-turn:IPFV-3SG.A:IPFV-NOM
'and (the one) who does not return its equipment to its position' (FAOS 9/2 Amarsuen 12 42-44; Ur; 21)

The prefix {ši} can also have simply the sense of 'towards, in the direction of':

(98) **gù-dé-*a* en ^{d}nin-*ĝír-su-ke$_4$* / igi zi *mu-ši*-bar**
gù.dé.a=š(e) en nin.ĝír.su.k=e igi zi.d =Ø
Gudea =TERM lord Ningirsu =ERG eye right=ABS

Ø -mu -n -ši-n -bar -Ø
VP-VENT-3SG-to-3SG.A-be.aside-3N.S/DO
'Lord Ningirsu directed his gaze approvingly to Gudea.' (Cyl A 23:16-17; L; 22)

(99) **ki-en-gi-*řá* kur-kur igi-*bé ḫa-mu-ši*-ĝál**
ki.en.gi.ř=ʔa kur -kur =ak igi =be=Ø
Sumer =LOC mountain-mountain=GEN eye=its=ABS

ḫa =Ø -mu -e -ši -e -ĝál -Ø
MOD=VP-VENT-2SG-to-on-be.there-3N.S/DO
'May the eyes of all mountain lands be (directed) to you, on Sumer!' (Cyl B 22:20; L; 22)

(100) **šeg$_{12}$ nam tar-*ra* saĝ *mu-ši-íb*-íl / é kù řú-*dè* gú-*bé mu-ši-íb*-zi**
šeg$_{12}$ nam =Ø tar-Ø -ʔa =e saĝ =Ø Ø -mu -n -ši-b -ʔíl-Ø
brick status=ABS cut-NFIN-NOM=ERG head=ABS VP-VENT-3SG-to-3N.A-lift-3N.S/DO

é kù.g=Ø řú -ed -Ø =e gú =be=Ø Ø -mu -n -ši -b -zi.g-Ø
house pure =ABS erect-IPFV-NFIN=DIR neck=its=ABS VP-VENT-3SG-to-3N.A-rise-3N.S/DO
'The brick for which fate had been decided lifted its head towards him. It raised its neck towards him to build the holy temple.' (Cyl A 1:15-16; L; 22)

The prefix {ši} can also designate the purpose, aim, or reason of an action or state. Votive inscriptions supply us with some examples of {ši} having a meaning 'for ...' in the sense of 'for the sake of ...':

(101) **diĝir-*ra-né* / ^{d}šul-utul$_{12}$ / *nam*-ti-*la-né-šè* / ^{d}nin-ĝír-sú-*ra* / é-ninnu-*a* / kiri$_3$ šu *ḫé-na-šè*-ĝál**
diĝir=ane šul.utul$_{12}$=e nam.ti.l=ane=še nin.ĝír.su.k=ra
god =his Shulutul =ERG life =his =TERM Ningirsu =DAT

é.ninnu=ʔa kiri$_3$=e šu =Ø ḫa =ʔi -nna -ši-n -ĝál -Ø
Eninnu =LOC nose=DIR hand=ABS MOD=VP-3SG.IO-to-3SG.A-be.there-3N.S/DO
'May his god Shulutul pray to Ningirsu in the Eninnu-temple for the sake of his (viz. Entemena's) life!' (Ent. 16 4:4-9; L; 25)

(102) **ĝuruš-*a-né* / bara$_2$-ki-TIL / sukkal-*le* / *nam*-ti / lugal-*né* / en-an-*na*-túm-*ma-šè* / a *mu-na-šè*-ru**
ĝuruš =ane bara$_2$.ki.til sukkal=e nam.ti.l lugal =ane
young.man=his Barakitil courier=ERG life master=his

en.an.na.túm=ak =še a =Ø Ø -mu -nna -ši-n -ru -Ø
Enannatum =GEN=TERM water=ABS VP-VENT-3SG.IO-to-3SG.A-throw-3N.S/DO
'His servant Barakitil, the courier, dedicated this to him (viz. the god Ningirsu) for the sake of his master Enannatum's life.' (En. I 19 6-12; L; 25)

The prefix {ši} can also mean 'for ...' in the sense of 'in order to obtain ...':

(103) **5 kù-babbar giĝ$_4$-*šè* / [i]nim-^{d}utu / ur-lugal-*ra* / *ì-na-ši*-ĝen**
5 kù.babbar giĝ$_4$ =še inim.utu=Ø ur.lugal.ak=ra
5 silver shekel=TERM Inim.utu =ABS Urlugal =DAT

ʔi -nna -ši-ĝen-Ø
VP-3SG.IO-to-go -3SG.S/DO
'Inim-Utu went to Urlugal for 5 shekels of silver.' (SRU 71 1-4; I; 23)

(104) ***šar-rum-ì-lí-šè mu-ši*-ĝen-*na***
šar.rum.ì.lí=še Ø -mu -n -ši-ĝen-Ø -ʔa
Sharrumili =TERM VP-VENT-3SG-to-go -3SG.S/DO-NOM
'who came for Sharrum-ilī' (MTBM 45 2; L; 21)

(105) **túg-*šè im-ši*-ĝen-*na***
túg =še ʔi-m(u) -ši-ĝen-Ø -ʔa
cloth=TERM VP-VENT-to-go -3SG.S/DO-NOM
'who came for cloth' (MVN 16:857 obv 3; U; 21)

A related usage is the prefix {ši} being coreferential with an imperfective participle in the directive case:

(106) **siki bala ba-*e-dè* / *im-ši*-ĝen-*na***
siki bala=ak =Ø ba ʔ -ed -Ø =e ʔi -m(u) -ši-ĝen-Ø -ʔa
wool turn=GEN=ABS portion.out-IPFV-NFIN=DIR VP-VENT-to-go -3SG.S/DO-NOM
'who came to distribute the wool of the turn-of-duty' (MVN 7:69 rev 1-2; L; 21)

(107) **tukum$_x$-*bé* / mu-*bé* šu ùr-*dè* / ĝeštu$_2$ *ḫé-em-ši*-gub**
tukum.be mu =be =e šu =Ø ʔùr -ed -Ø =e ĝeštu$_2$.g=Ø
if name=this=DIR hand=ABS sweep-IPFV-NFIN=DIR ear =ABS

ḫa =ʔi -m(u) -ši-gub -Ø
MOD=VP-VENT-to-stand-3N.S/DO
'if (his) mind is fixed on erasing this inscription (lit. "If the ear should stand to sweeping the hand over this name")' (St B 9:12-14; L; 22)

As the border between purpose and reason is somewhat fluid, the prefix can often be translated as 'for ...' in the sense of 'because of ...':

(108) **mu-*zu-šè* tùr *ḫé-em-ši*-řú-řú / *a-maš ḫé-em-ši-ne-ne***
mu =zu =še tùr =Ø ḫa =ʔi -m(u) -ši-řú -řú -ed -Ø
name=your=TERM cowpen=ABS MOD=VP-VENT-to-erect-erect-IPFV-3SG.S:IPFV

a.maš =Ø ḫa =ʔi -m(u)-ši-niĝin$_2$:RDP -ed -Ø
sheepfold=ABS MOD=VP-VENT-to-go.round:IPFV-IPFV-3SG.S:IPFV
'May because of you cowpens be erected and sheepfolds be fenced off!' (Cyl B 22:17-18; L; 22)

(109) **anzu$_2$^{mušen}-*gen$_7$ šeg$_{12}$* gi$_4$-*a-bé-šè* / an *im-ši*-dúb-dúb**
anzu$_2$.d=gen šeg$_{12}$ =Ø gi$_4$ -Ø -ʔa =be=še an =Ø
Anzu =EQU shriek=ABS turn-NFIN-NOM=its=TERM heaven=ABS

ʔi -m(u) -ši-dúb -dúb -Ø
VP-VENT-to-tremble-tremble-3N.S/DO
'Because of its roar as the Anzu-bird, the heavens tremble.' (Cyl A 9: 14-15; L; 22)

The prefix {ši} can mean 'for ...' in the sense of 'in place of ..., instead of ...':

(110) **10 TAR^{ku6} / 780 ki-mu$_{11}$^{ku6} / sumaš^{ku6} *ì-ši*-ku$_x$**(DU)
10 TAR 780 ki.mu$_{11}$=Ø sumaš=š(e) ʔi -m(u)^{ʔ}-ši-n(i)-ku$_4$.ř-Ø
10 a.fish 780 a.fish =ABS a.fish =TERM VP-VENT -to-in -enter -3N.S/DO
'Ten *TAR*-fish and 780 *kimu*-fish came in instead of *sumash*-fish.' (VS 25:52 1:1-3; L; 24)

(111) **0.0.2 gana$_2$-*bé-šè* / 0.0.4 gana$_2$ *ab-ši-ĝá-ĝá***
0.0.2 gana$_2$=be =še 0.0.4 gana$_2$=Ø ʔa -b -ši-ĝar:RDP -ed -Ø
2.*iku* land =this=TERM 4.*iku* land =ABS VP-3N-to-place:IPFV-IPFV-3SG.S:IPFV
'Instead of these two *iku* of land, four *iku* of land will be provided.' (MAD 4:151 11-12; I; 23)

(112) **ti-*la ba*-úš-*šè* buluĝ-ĝá tur-*ra-šè nu-ù-ši*-gíd-*da***
ti.l -Ø -ʔa =Ø ba.úš =še buluĝ -Ø -ʔa =Ø
live-NFIN-NOM=ABS dead.one=TERM grow.up-NFIN-NOM=ABS

tur -Ø -ʔa =še nu =ʔi -b -ši-n -gíd -Ø -ʔa
be.small-NFIN-NOM=TERM NEG=VP-3N-to-3SG.A-register-3N.S/DO-NOM
'that he had not registered living persons in the place of dead or grown-ups in the place of young ones' (BM 22859 4:10; L; 21)

(113) **geme$_2$ 5 giĝ$_4$ kù-babbar-*šè in-na-ši*-ĝar-*ra***
geme$_2$ =Ø 5 giĝ$_4$ kù.babbar=še ʔi -nna -ši-n -ĝar -Ø -ʔa
slave.woman=ABS 5 shekel silver =TERM VP-3SG.IO-to-3SG.A-place-3SG.S/DO-NOM
'that he provided to him the slave woman in place of the five shekels of silver' (NG 195 5; L; 21)

The prefix {ši} can mean 'for ...' in the sense of 'in exchange for ...':

(114) **lugal-šu-maḫ-[*e*] / *íb-ši*-lá**
lugal.šu.maḫ=e ʔi -b -ši-n -lá -Ø
Lugalshumah=ERG VP-3N-to-3SG.A-hang-3N.S/DO
'Lugalshumah weighed this (amount of silver) for it (viz. a house).' (CT 50:77 4-5; ?; 23)

(115) **ur-lugal-*ke$_4$* / *ì-ši*-šúm**
ur.lugal.k=e ʔi -n -ši-n -šúm-Ø
Urlugal =ERG VP-3SG-to-3SG.A-give-3N.S/DO
'Urlugal gave this (price) for her (viz. a slave woman).' (BIN 8:39 4:3-4; N; 24)

(116) **du$_{11}$-*ga*-^{d}*ba-ú-šè* / ur-^{d}[šu]l-utul$_x$-*ke$_4$* / kù níĝ-*ga-né-em in-ši-in*-lá-*a***
du$_{11}$.ga.ba.ú.k=še ur.šul.utul$_x$.k=e kù.g níĝ =ane=Ø =(ʔa)m
Duga.Bau =TERM Urshulutul =ERG silver thing=his =ABS=be:3N.S

ʔi -n -ši-n -lá -Ø -ʔa
VP-3SG-to-3SG.A-hang-3N.S/DO-NOM
'that Ur-Shulutul had paid (lit. "weighed") for Duga-Bau silver that was his property' (NG 210 4-6; L; 21)

The prefix {ši} can also mean 'into ...' in the sense of 'so as to become ...':

(117) **2 *ma-na* kù-sig$_{17}$ / kadra *íb-ši*-ak**
2 ma.na kù.sig$_{17}$=Ø kadra=š(e) ʔi -b -ši-n -ʔak -Ø
2 pound gold =ABS gift =TERM VP-3N-to-3SG.A-make-3N.S/DO
'He made two pounds of gold into a gift.' (RTC 83 12'-13'; L; 23)

Apart from having senses such as the ones illustrated above, the prefix {ši} is found in the finite forms of specific verbs, signalling specific constructions with specific meanings. In one construction of the verb **sa$_{10}$** 'barter', for instance, the prefix {ši} refers to the seller (see §16.3.2). Another example is the phrasal verb **šu—ti** 'receive (lit. "let approach (one's) hand")', in which the prefix {ši} is used to refer to the person from whom something is received. E.g.:

(118) **gù-dé-*a-áš* en ^{d}nin-ĝír-su-*ke$_4$* šu *ba-ši*-ti**
gù.dé.a=š(e) en nin.ĝír.su.k=e šu =e
Gudea =TERM lord Ningirsu =ERG hand=DIR

Ø -ba -n -ši-n -ti -Ø
VP-3N.IO-3SG-to-3SG.A-approach-3N.S/DO
'Lord Ningirsu received it from Gudea.' (Cyl B 3:4; L; 22)

As stated above, if the clause contains a noun phrase which is coreferential with the prefix {ši}, that phrase is, as a rule, in the terminative case. In the Ur III texts, however, such coreferential phrases are sometimes in the dative case. E.g.:

(119) **lú-ús *ĝá-ar ḫa-mu-ši-in*-gi$_4$-gi$_4$**
lú.ús =Ø ĝe=r(a) ḫa =Ø -mu -ʔ -ši -n -gi$_4$:RDP-e
driver=ABS I =DAT MOD=VP-VENT-1SG-to-3SG.DO-turn:IPFV-3SG.A:IPFV
'He should send me (lit. "turn to me") a driver!' (MVN 11:168 18; U; 21)

(120) **ur-níĝ lú-azlag$_2$-*ra* *ba-ši*-s[a$_{10}$-*a*]**
ur.níĝ lú.azlag$_2$=ra Ø -ba -n -ši -sa$_{10}$ -Ø -ʔa
Urnig fuller =DAT VP-MM-3SG-to-barter-3SG.S/DO-NOM
'that she had been bought from Urnig, the fuller' (NG 198 2:6; L; 21)

(121) **[m]u-*bé-šè* ur-^{d}ig-alim-*ra* / [igi]-*né* *in-ši*-ĝar^{ar}**
mu =be=še ur.ig.alim=ra igi=ane=Ø ʔi -n -ši -n -ĝar -Ø
name=its=TERM Urigalim =DAT eye=his =ABS VP-3SG-to-3SG.A-place-3N.S/DO
'Because of this he turned to Ur-Igalim.' (NG 6 6-7; L; 21)

(122) **PN$_1$ *dam-gara$_3$* / PN$_2$ *ù* PN$_3$-*ra* / *in-ne-ši*-sa$_{10}$**
PN$_1$ dam.gara$_3$=e PN$_2$ ù PN$_3$=ra ʔi -nnē-ši-n -sa$_{10}$ -Ø
PN merchant =ERG PN and PN =DAT VP-3PL -to-3SG.A-barter-3N.S/DO
'PN$_1$, the merchant, bought these (sheep) from PN$_2$ and PN$_3$.' (MVN 3:219 2-4; N; 21)

20. THE DIMENSIONAL PREFIXES: THE LOCAL PREFIXES

20.1. Introduction

A finite verbal form may contain one of the two local prefixes {ni} 'in' or {e} 'on', which belong to the dimensional prefixes (§16.1). In the relative order of the verbal prefixes, they follow all other dimensional prefixes (viz. the indirect-object prefixes and the prefixes {da}, {ta}, and {ši}), while they precede the final person-prefixes (chapter 13). The table below shows how they appear in various types of verbal forms:

	with initial person-prefix		**without initial person-prefix**	
	not before stem	***before stem***	***not before stem***	***before stem***
'in'	–	–	ni	n
'on'	bi	b	–	e

Thus, the local prefix {ni} is never used with an initial person-prefix and has a different form depending on whether it is immediately before the verbal stem or not. The local prefix {e} shows a wider variety of forms, but is completely absent from one type of form. The forms and spellings of the local prefix {ni} are dealt with in §20.2.1 and those of the local prefix {e} in §20.3.1.

Either local prefix can be coreferential with a noun phrase in the locative case, because the difference in meaning between {ni} 'in' and {e} 'on' does not correspond to a similar difference in meaning between two cases. The locative case expresses both the meanings 'in' and 'on'. Thus, the system of verbal prefixes is more subtle than that of the nominal cases. The meanings of the local prefixes are discussed in the sections about each prefix. Section 20.2.2 treats the uses of {ni} 'in' and section 20.3.2 those of {e} 'on'. However, four pairs of contrasting examples will be given here in order to illustrate the general difference in meaning between the two local prefixes:

(1a) **kisal é-ninnu-*ka* / *mu-na-ni*-řú**
kisal é.ninnu=ak =ʔa Ø -mu -nna -ni-n -řú -Ø
courtyard Eninnu =GEN=LOC VP-VENT-3SG.IO-in -3SG.A-erect-3N.S/DO
'He erected them (viz. a number of stelas) for him in the courtyard of the Eninnu.' (St B 6:11-12; L; 22)

(b) **ki-*ba na bí*-řú**
ki =be =ʔa na =Ø Ø -bi -n -řú -Ø
place=this=LOC stone=ABS VP-3N:on-3SG.A-erect-3N.S/DO
'He erected a stela on this place.' (Ent. 28 1:12; L; 25)

(2a) **temen abzu-*bé* dim gal-gal ki-*a mi-ni*-si-si**
temen abzu =ak =be dim gal-gal=Ø
foundation.peg Abzu=GEN=its pole big-big=ABS

ki =ʔa Ø -mu -ni-n -si.g-si.g-Ø
earth=LOC VP-VENT-in -3SG.A-put -put-3N.S/DO
'He put its Abzu foundation pegs, big poles, into the ground.' (Cyl A 22:11; L; 22)

(b) **^{na4}*na-lu-a* / má gal-gal-*a* / *im-mi*-si-si**

na.lu.a=Ø má gal-gal=ʔa ʔi -m(u)-bi -n -si.g-si.g-Ø
gravel =ABS boat big-big =LOC VP-VENT-3N:on-3SG.A-put -put-3N.S/DO
'He loaded gravel on large boats.' (St B 6:60-62; L; 22)

(3a) **kišib ur-^{d}šul-pa-è-*a-ka* / pisaĝ ur-^{d}*ba-ú-/ka ì-in*-ĝál-*la*-[*t*]*a***
kišib ur.šul.pa.è.a.k=ak pisaĝ ur.ba.ú.k=ak =ʔa
seal Urshulpae =GEN basket Urbau =GEN=LOC

ʔi -n(i)-ĝál -Ø -ʔa =ta
VP-in -be.there-3N.S/DO-NOM=ABL
'from Ur-Shulpae's sealed documents which are in Ur-Bau's basket' (MVN 3:363 9-11; ?; 21)

(b) **gú ur-^{d}lama$_3$-*ka* / *ì-íb*-ĝál**
gú ur.lama$_3$.k=ak =ʔa ʔi -b(i) -ĝál -Ø
neck Urlama =GEN=LOC VP-3N:on-be.there-3N.S/DO
'It is on Ur-Lama's neck.' (MVN 3:125 8-9; ?; 21)

(4a) **15 ^{ge}*gur-dub* 0.1.0-*ta* / *zú-lum ba-an*-si**
15 gur.dub 0.1.0=ta zú.lum=Ø Ø -ba -n(i)-si.g-Ø
15 basket 1 =ABL dates =ABS VP-MM-in -put -3N.S/DO
'Fifteen baskets of (one ***ba-rí-ga*** =) sixty litres each: dates were put into them.' (MVN 16 Um. 1677 obv 1-2; U; 21).

(b) **níĝ-àr-*ra* sig$_5$ utul$_2$-*a ba-a*-si**
níĝ.àr.ra sig$_5$ =Ø utul$_2$=ʔa Ø-ba -e -si.g-Ø
groats good=ABS plate =LOC VP-MM-on-put -3N.S/DO
'Fine groats were put on a plate.' (TuT 178 rev 1:1; L; 21)

20.2. The local prefix {ni} 'in'

20.2.1. Forms and spellings

The local prefix {ni} is not to be confused with the oblique-object prefix {nni} which has been treated in §18.2.3. The two prefixes differ in form and in meaning. Local {ni} has a single /n/ and always refers to a location, whereas {nni} has double /nn/ and always refers to a person. Only the spelling of the two prefixes can be the same.

The local prefix {ni} is the only dimensional prefix that is never combined with an initial person-prefix. Surprising as this may seem, there is a simple explanation for it. The prefix {ni} never refers to a person and has only non-human reference. Hence, there is nothing to be gained by adding the non-human initial person-prefix. It would be completely redundant.

The basic form of the local prefix {ni} is /ni/. It is only found before a final person-prefix. In the absence of such a prefix, {ni} is found in the environment /niCV/ where its vowel is lost (§3.9.4). The resulting form /n/ only occurs immediately before the verbal stem. In contrast with what is the norm in later texts, {ni} can be the first prefix of the verbal form in the texts of our corpus. These fundamental rules are much obscured by the spelling.

The form /ni/ of the local prefix {ni} is usually written ***ni***. The final person-prefix which always follows it is mostly left unwritten. E.g.:

(5) ***ad-da* / é-*a in-na-ni*-ku$_4$**

ad.da=e é =ʔa ʔi -nna -ni-n -ku$_4$.r-Ø
Adda=ERG house=LOC VP-3SG.IO-in-3SG.A-enter -3N.S/DO
'Adda brought this into the house for him.' (OSP 1:131 6:2-3; N; 24)

(6) **en-mete-*na-ke$_4$* / (...) / ^{d}nin-*ĝír-sú-ra* / íd-nun-*ta* / mu-*bé*-kur-*ra* / *e-na-ta-ni*-è**
en.mete.na.k=e nin.gír.su.k=ra íd.nun=ta
Enmetena =ERG Ningirsu =DAT Idnun =ABL

mu.bi.kur.ra=š(e) ʔi -nna -ta -ni-n -ʔè -Ø
Mubikurra =TERM VP-3SG.IO-from-in-3SG.A-go.out-3N.S/DO
'For (his master who loves him,) Ningirsu, Enmetena had it (=a canal) go out from the Idnun to Mubikurra.' (Ent. 41 3:2-4:2; L; 25)

(7) **u$_4$-*ba* ensi$_2$-*ke$_4$* kalam-*ma-na* zi-*ga* *ba-ni*-ĝar**
u$_4$.d=be =ʔa ensi$_2$.k=e kalam =ane=ʔa zi.ga=Ø Ø -ba -ni-n -ĝar -Ø
day =this=LOC ruler =ERG country=his =LOC levy =ABS VP-MM-in -3SG.A-place-3N.S/DO
'Then the ruler established a levy in his country.' (Cyl A 14:7; L; 22)

(8) **kalam-*ma* igi *mi-ni-íb*-ĝál**
kalam =ʔa igi =Ø Ø -mu -ni-b -ĝál -Ø
country=LOC eye=ABS VP-VENT-in-3N.A-be.there-3N.S/DO
'It kept an eye on the country (lit. "let an eye be in the country").' (Cyl A 27:4; L; 21)

(9) **šu *ù-ma-ni*-tag**
šu =Ø ʔu -m(u)-ba -ni-e -tag -Ø
hand=ABS REL.PAST-VENT-3N.IO-in-2SG.A-touch-3N.S/DO
'when you have decorated it (a chariot) with it (silver etc.)' (Cyl A 6:19; L; 22)

Ever since Poebel's classic study (1931:15f), it has been taken for granted that the Old Sumerian rule of vowel harmony applies to the vowel of {ni} (§3.9.3). Perhaps rightly so, but in actual fact there is no real proof for it. One and the same sign NI is used to write both ***ni*** and ***né***, so that the spelling of the prefix itself is ambiguous. Hence, only the forms of certain preceding prefixes can tell us which of the two readings is the correct one. In the following attestation, for instance, the assimilation of the preceding vowel proves the reading ***-ni-*** beyond any doubt:

(10) **lú saĝ šembi$_3$ *ì-ni*-dé**
lú =e saĝ =ʔa šembi$_3$ =Ø ʔu -ni-n -dé -Ø
man=ERG head=LOC cosmetics=ABS REL.PAST-in-3SG.A-pour-3N.S/DO
'when someone applied cosmetics to (lit. "poured cosmetics into the head") his head' (Ukg. 6 2:22'; L; 24)

Since the verb **dé** is normally preceded by prefixes with the vowel /i/ (§3.9.3), this attestation neither proves nor disproves that the rule of vowel harmony applies to {ni}. Unfortunately, there is not a single such attestation where the reading ***né*** of the local prefix {ni} is certain. The forms which Poebel adduced for this purpose are all instances of the oblique-object prefix {nni} (§18.2.3), with the exception of his ***e-né*-lá** (DP 481 1:3, 2:1; L; 24), the reading and meaning of which elude me. Since it is impossible to decide the matter one way or the other, I will follow Sumerological tradition and transliterate the prefix {ni} as if it is subject to the rule of vowel harmony.

In the absence of a final person-prefix, the prefix {ni} stands immediately before the stem. Since every stem begins with a consonant and a vowel (§3.10), {ni} is then found in the sequence /niCV/, where the /i/ of the prefix is lost (§3.9.4). E.g.:

(11) **bala šabra urim$_5^{ki}$-*ma-ke$_4$-ne-ka ba-an*-zi**
bala šabra urim$_5$=ak =enē=ak =ʔa Ø -ba -n(i)-zi.g-Ø
turn administrator Ur =GEN=PL =GEN=LOC VP-MM-in -rise-3N.S/DO
'This was expended (lit. "caused to rise") in the "turn" of the administrators from Ur.' (PDT 2:1121 obv 2; D; 21)

(12) **šeg$_{12}$ *nam* tar-*ra* ^{ĝiš}*ù*-šub-*ba ma-an*-ĝál**
šeg$_{12}$ nam =Ø tar-Ø -ʔa =Ø ù.šub =ʔa Ø -ma -n(i)-ĝál -Ø
brick status=ABS cut-NFIN-NOM=ABS brick.mold=LOC VP-1SG.IO-in -be.there-3N.S/DO
'The brick for which the fate had been decided was in the brick mold for me.' (Cyl A 5:7; L; 22)

(13) **še-ba ur-lugal-*ka* / guru$_7$-*a a-na mu-un*-taka$_4$-*a***
še.ba ur.lugal.k=ak guru$_7$ =ʔa a.na =Ø Ø -mu -n(i)-taka$_4$-Ø -ʔa
barley.ration Urlugal =GEN granary=LOC what=ABS VP-VENT-in -leave-3N.S/DO-NOM
'Ur-lugal's barley rations, whatever is left in the granary' (TCS 1:307 4-5; U; 21)

Having the form /n/ before the stem, the local prefix {ni} coincides formally with the final person-prefix {n} of the third person singular (§13.2.3). However, since local /n/ and personal /n/ have very different uses, they can be kept apart without much trouble on the basis of contextual information.

In such forms as the preceding ones, the /n/ of the local prefix {ni} is in syllable-final position. Since a syllable-final /n/ is hardly ever written before the Ur III period and only inconsistently during that period, defective spellings lacking the /n/ are numerous (§2.4). The following examples illustrate the variation in spelling in the Ur III texts:

(14a) **kaskal-*a mu-un-ti-il***
kaskal =ʔa Ø -mu -n(i)-ti.l -Ø
journey=LOC VP-VENT-in -live-3SG.S/DO
'He is on (lit. "lives in") a journey.' (NG 214 28; U; 21)

(b) ***a-bu-ni* kaskal-*a mu-ti-la-àm***
a.bu.ni=Ø kaskal =ʔa Ø -mu -n(i)-ti.l -Ø -ʔa =Ø =ʔam
Abūni =ABS journey=LOC VP-VENT-in -live-3SG.S/DO-NOM=ABS=be:3N.S
'It was (the case) that Abūni was on a journey.' (AOAT 25 p. 445 2:6; L; 21)

(15a) **níĝ-ka$_9$-*a ba-an-na-an*-zi**
níĝ.ka$_9$ =ʔa Ø -ba -nna -n(i)-zi.g-Ø
account=LOC VP-MM-3SG.IO-in -rise-3N.S/DO
'In the account, it was registered as expended (lit. "raised") for him.' (MVN 14:231 rev 7; U; 21)

(b) **lú-kal-*la* níĝ-ka$_9$-*a ba-na*-zi**
lú.kal.la=r(a) níĝ.ka$_9$=ʔa Ø -ba -nna -n(i)-zi.g-Ø
Lukalla =DAT account=LOC VP-MM-3SG.IO-in -rise-3N.S/DO
'In the account, it was registered as expended for Lukalla.' (SAT 3:1201 24; U; 21)

(16a) **bur-*ra ba-an*-dé**

bur =ʔa Ø-ba -n(i)-dé -Ø
bowl=LOC VP-MM-in -pour-3N.S/DO
'This (beer) was poured into a bowl.' (UET 3:174 6; Ur; 21)

(b) **tin bur gal-*la im-ma*-dé**
tin =Ø bur gal=ʔa ʔi -m(u)-ba -n(i)-dé -Ø
wine=ABS bowl big=LOC VP-VENT-MM-in -pour-3N.S/DO
'Wine was poured into large bowls.' (Cyl B 6:1; L; 22)

Before the Ur III period, defective spellings lacking the syllable-final /n/ are the norm. Then the syntactic behaviour of the verb is usually the only clue to the presence of the prefix {ni}. But in the two following examples the form /mu/ of the ventive prefix proves the presence of a following prefix, which in the present context cannot be anything else but the local prefix {ni}. E.g.:

(17) **máš bar$_6$-bar$_6$-*ra* šu *mu*-gíd-*dè***
máš bar$_6$ -bar$_6$ =ʔa šu =Ø Ø -mu -n(i)-gíd -e
kid white-white=LOC hand=ABS VP-VENT-in -be.long-3SG.A:IPFV
'He set out to perform extispicy on (lit. "to stretch out (his) hand into") a white kid.' (Cyl A 12:16; L; 22)

(18) **tir-*ba mu*-ĝál**
tir =be=ʔa Ø-mu -n(i)-ĝál -Ø
forest=its=LOC VP-VENT-in -be.there-3N.S/DO
'This (wood) is in its forest (i.e., the forest where it comes from).' (DP 431 3:3; L; 24)

The loss of the /i/ in the environment /niCV/ is accompanied by the lengthening of the /i/ of a preceding vocalic prefix {ʔi} (see §24.3.2).[1] The resulting form /ʔīn/ can be indicated with the plene writing ***ì-in***, but less explicit spellings are also found, especially before the Ur III period. E.g.:

(19a) **pisaĝ dub še ašag-*ga* bala-*a-ka e*-ĝál**
pisaĝ dub =ak še ašag=ʔa balaʔ-Ø -ʔa =ak =ʔa
basket tablet=GEN barley field=LOC cross -NFIN-NOM=GEN=LOC

ʔi -n(i)-ĝál -Ø
VP-in -be.there-3N.S/DO
'It is in the tablet basket of the barley transferred in the field.' (DP 562 3:2; L; 24)

(b) **pisaĝ dub-*ba* / di til-*la* / *ì*-ĝál**
pisaĝ dub =ak di.d til -Ø -ʔa =Ø ʔi -n(i)-ĝál -Ø
basket tablet=GEN judgement end-NFIN-NOM=ABS VP-in -be.there-3N.S/DO
'Tablet basket: the completed trials are in it.' (NG 216 1-3; L; 21)

(c) **pisaĝ dub-*ba* / kišib ra-*a* / *nu*-banda$_3$ gu$_4$-*ke$_4$-ne* / *ì-in*-ĝál**

[1] The vowel of a preceding vocalic prefix {ʔu} or {ʔa} is probably similarly lengthened, but for them explicit spellings proving their lengthening are lacking. Note that a vowel loss under similar conditions with a similar compensatory lengthening of a preceding vocalic prefix also takes place before the ventive prefix {mu} (§22.2) and before the form /bi/ of the local prefix {e} (§20.3.1).

pisaĝ dub =ak kišib ra -Ø -ʔa nu.banda$_3$ gu$_4$.r=ak =enē=Ø
basket tablet=GEN seal roll-NFIN-NOM overseer ox =GEN=PL =ABS

ʔi -n(i)-ĝál -Ø
VP-in -be.there-3N.S/DO
'Tablet basket: the documents sealed by the overseers of the oxen are in it.' (UET 3:53 1-4; Ur; 21)

In the Ur III period, the plene spelling ***ì-in-*** is the normal way to write the vocalic prefix {ʔi} followed by the form /n/ of the local prefix {ni}. It contrasts with the spelling ***in-*** which is then the norm for spelling the final person-prefix {n} after {ʔi} (§13.2.3). Occasionally, though, the spelling ***in-*** also occurs with the local prefix {ni}:

(20a) **u$_4$ *nam*-gala-*šè ì-in*-ku$_4$-*ra-a***
u$_4$.d nam.gala =še ʔi-n(i)-ku$_4$.r-Ø -ʔa =ʔa
day lamentation.priest.hood=TERM VP-in -enter -3SG.S/DO-NOM=LOC
'on the day he became lamentation priest' (AUCT 3:42 3; D; 21)

(b) **u$_4$ *nam*-gala-*šè in*-ku$_4$-*ra*** (MVN 5:116 10; D; 21)

In the Sumerian texts from the Old Babylonian period and later, the local prefix {ni} never begins a verbal form but is in the absence of other prefixes always preceded by the vocalic prefix {ʔi}. The following example comes from a royal inscription of Lipit-Ishtar of Isin, dated less than a century after the Ur III period:

(21) **lugal níĝ-si-sá / ki-en-gi ki-uri-*a* / *ì-ni-in*-ĝar-*ra***
lugal níĝ.si.sá=Ø ki.en.gi.r ki.uri =ʔa ʔi -ni-n -ĝar -Ø -ʔa
king justice =ABS Sumer Akkad=LOC VP-in -3SG.A-place-3N.S/DO-NOM
'the king who established justice in Sumer and Akkad' (RIM E4.1.5.1 14-16; I; 20)

Whereas such forms are the norm after the Ur III period, there is only one earlier attestation:

(22) **é ^{d}en-líl-*lá-k*[*a*] / *ì-ni*-ku$_4$-ku$_4$-*a***[2]
é en.líl=ak =ʔa ʔi -ni-b -ku$_4$.r:RDP-e -ʔa
house Enlil =GEN=LOC VP-in-3N.DO-enter:IPFV -3SG.A:IPFV-NOM
'that he would bring it (viz. barley) into the temple of Enlil' (TMHC NF 1/2:69 rev 3-4; N; 21)

These forms reflect a different dialect from the dominant dialects in our corpus. In the latter the vocalic prefixes {ʔi} and {ʔa} do not occur before a prefix with the form /CV/ (§24.3.1). Hence, in contrast with the dialects attested in later texts, in the texts of our corpus, the form /ni/ of the local prefix {ni} can actually be the first prefix of a finite verbal form and often is so. Unfortunately this initial form /ni/ is difficult to identify, because it is written ***ni-*** with the same sign NI that is used to write the vocalic prefix {ʔi} and then is read ***ì-***. Nevertheless, the available evidence is so compelling as to make the existence of an earlier initial form /ni/ (instead of later /ʔi-ni/) virtually certain.

Firstly, the modal proclitic {ḫa} contracts with following /ʔi/ to /ḫē/ (§25.4.1). Yet it remains /ḫa/ before the local prefix {ni}, proving that there is no /ʔi/ before {ni}:

[2] Prof. J. Oelsner kindly collated this passage for me, writing 'Das letzte Zeichen in Zeile 3 kann KA sein, wenn die Form auch nicht ganz dem Üblichen entspricht. In Zeile 4 steht aber deutlich ì-ni' (letter of 17/9/96).

(23) **šà iri-*na-ka* / *ḫa-né*-gaz-*e***
šà.g iri =ane=ak =ʔa ḫa =Ø -ni-n -gaz-e
heart town=his =GEN=LOC MOD=VP-in-3SG.DO-kill-3N.A:IPFV
'May it (viz. the people) kill him in the middle of his town!' (Ent. 28 6:28-29; L; 25)

Secondly, in an open syllable the vowel of the prefix {ʔu} assimilates to the vowel in the following syllable (§24.2.1). Now, the vowel of the prefix {ʔu} assimilates to the /i/ of local /ni/ but not to the /i/ of the oblique-object prefix {nni}, showing that the two forms are different:

(24) **lú saĝ šembi$_3$ *ì-ni*-dé**
lú =e saĝ =ʔa šembi$_3$ =Ø ʔu -ni-n -dé -Ø
man=ERG head=LOC cosmetics=ABS REL.PAST-in -3SG.A-pour-3N.S/DO
'when someone applied cosmetics to (lit. "poured cosmetics into the head") his head' (Ukg. 6 2:22'; L; 24)

(25) **^{d}nin-*ĝír-su-ke$_4$* / sa-šu$_4$-gal-*né* / *ù-ni*-šu$_4$**
nin.ĝír.su.k=e sa.šu$_4$.gal =ane=Ø ʔu -nni -n -šu$_4$ -Ø
Ningirsu =ERG big.battle.net=his =ABS REL.PAST-3SG.OO-3SG.A-cover-3N.S/DO
'after Ningirsu has thrown his large battle-net over him' (Ent. 28 6:21-23; L; 25)

Thirdly, the Old Sumerian rule of vowel harmony also provides evidence. According to this rule, the vocalic prefix {ʔi} only has the form /ʔi/ if the following syllable contains the vowel /i/ or /u/ (§3.9.3). Consequently, the sign NI can only have the value ***ì*** before such a syllable. If the following syllable contains the vowel /e/ or /a/, NI can only represent ***né***. The verb ***ḫa-lam*** 'destroy' provides a minimal pair. The form ***e-ḫa-lam*** in the first clause is found without a place adjunct, while ***né-ḫa-lam*** in the second is used with a place adjunct:

(26a) **umma^{ki} / *e-ḫa-lam***
umma=Ø ʔi -n -ḫa.lam-Ø
Umma=ABS VP-3SG.A-destroy-3N.S/DO
'He destroyed Umma.' (Ent. 30 2:5; L; 25)

(b) **ašag NN / ašag ki áĝ / ^{d}nin-*ĝír-su-ka-ka* / ^{d}nin-*ĝír-su-ke$_4$* / umma^{ki} / zi-*ga-bé* / *né-ḫa-lam***
ašag NN ašag ki áĝ nin.ĝír.su.k=ak =ʔa nin.ĝír.su.k=e
field NN field beloved Ningirsu =GEN=LOC Ningirsu =ERG

umma =ak zi.ga=be=Ø Ø -ni-n -ḫa.lam-Ø
Umma=GEN levy =its=ABS VP-in-3SG.A-destroy-3N.S/DO
'In the field NN, Ningirsu's beloved field, Ningirsu destroyed the levy of Umma.' (Ukg. 6 4:13'-19'; L; 24)

In the second of the two following two clauses, a reading ***ì*-gaz** would violate the Old Sumerian rule of vowel harmony.

(27a) **šà iri-*na-ka* / *ḫa-né*-gaz-*e***
šà.g iri =ane=ak =ʔa ḫa =Ø -ni-n -gaz-e
heart town=his =GEN=LOC MOD=VP-in-3SG.DO-kill-3N.A:IPFV
'May it (viz. the people) kill him in the middle of his town!' (Ent. 28 6:28-29; L; 25)

(b) **šà umma^{ki}-*ka* / *né*-gaz**

šà.g umma =ak =ʔa Ø -ni-n -gaz-Ø
heart Umma=GEN=LOC VP-in-3SG.A-kill -3SG.S/DO
'He killed him in the middle of Umma.' (Ean. 1 obv. 8:2-3; L; 25)

The following clause contains a further instance where the reading ***ì*** of the sign NI is excluded because of the Old Sumerian rule of vowel harmony:

(28) **PN / saĝ apin-*ke*$_4$ / numun *né*-ĝar**
PN saĝ apin =ak =e numun=Ø Ø -ni-n -ĝar -Ø
PN head plough=GEN=ERG seed =ABS VP-in-3SG.A-place-3N.S/DO
'PN, the chief ploughman, put in the seed.' (DP 601 1:3-2:1; L; 24)

This expression **numun *né*-ĝar** 'he put in seed' also occurs elsewhere (VS 14:184 1:3 and Nik 1:35 3:2; L; 24). Since it is attested three times and only in this spelling, a scribal mistake is ruled out.

Fourthly, the finite forms of several verbs normally contain the local prefix {ni}. Unless we accept an initial form /ni/, these verbs occasionally lack the prefix {ni} against all expectations. Compare, for instance, the verbal forms in the following pairs of clauses:

(29a) **^{d}lugal-urub^{ki}-*ra* / é-*a mu-na-ni*-ku$_x$**(DU)
lugal.urub.ak=ra é =ʔa Ø -mu -nna -ni-n -ku$_4$.r-Ø
Lugalurub =DAT house=LOC VP-VENT-3SG.IO-in -3SG.A-enter -3N.S/DO
'He brought it (a statue) for Lugalurub into the temple.' (En. I 26 2:7-8; L; 25)

(b) **PN / *nu*-banda$_3$ / é ki-sal$_4$-*la-ka* / *ni*-ku$_x$**(DU)
PN nu.banda$_3$=e é ki.sal$_4$=ak =ʔa Ø -ni-n -ku$_4$.r-Ø
PN overseer =ERG house Kisal =GEN=LOC VP-in-3SG.A-enter-3N.S/DO
'PN, the overseer, brought it (fish) into the house of Kisal.' (VS 14:139 2:2-5; L; 24)

(30a) **lugal-*ĝu*$_{10}$ é-*a-na mi-ni*-ku$_4$-ku$_4$**
lugal =ĝu =Ø é =ane=ʔa Ø -mu -ni-n -ku$_4$.r:RDP-en
master=my=ABS house=his =LOC VP-VENT-in -3SG.DO-enter:IPFV -1SG.A/S:IPFV
'I shall let my master enter his house.' (Cyl B 2:5; L; 22)

(b) **saĝ-sug$_5$-*ke*$_4$ / é-gal-*la* / *ni-íb*-ku$_4$-ku$_4$**
saĝ.sug$_5$.k=e é.gal =ʔa Ø -ni-b -ku$_4$.r:RDP-e
surveyor =ERG palace=LOC VP-in-3N.DO-enter:IPFV -3SG.A:IPFV
'The surveyor will bring this into the palace.' (Courtesy Marcel Sigrist, BM 20646 4-6; L; 21)

(31a) **temen abzu-*bé* dim gal-gal ki-*a mi-ni*-si-si**
temen abzu =ak =be dim gal-gal=Ø ki =ʔa
foundation.peg Abzu=GEN=its pole big-big=ABS earth=LOC

Ø -mu -ni-n -si.g-si.g-Ø
VP-VENT-in -3SG.A-put -put -3N.S/DO
'He put its Abzu foundation pegs, big poles, into the ground.' (Cyl A 22:11; L; 22)

(b) **temen-*bé* / ki-*a ni-si-si***
temen =be=Ø ki =ʔa Ø -ni-n -si.g-si.g-Ø
foundation.peg=its=ABS earth=LOC VP-in-3SG.A-put -put-3N.S/DO
'He put its foundation pegs into the ground.' (FAOS 7 Gutium 3:10-11; U; 23)

(32a) **šeg$_{12}$** ***ù*-šub-*ba mu-ni*-ĝar-*ra-né***
šeg$_{12}$ ù.šub =ʔa Ø-mu -ni-n -ĝar -Ø -ʔa =ane
brick brick.mold=LOC VP-VENT-in-3SG.A-place-3N.S/DO-NOM=his
'his brick which he had put into the brick mold' (Cyl A 19:8; L; 22)

(b) **gù-dé-*a* im *ù*-šub-*ba ni*-ĝar**
gù.dé.a=e im =Ø ù.šub =ʔa Ø -ni-n -ĝar -Ø
Gudea =ERG clay=ABS brick.mold=LOC VP-in-3SG.A-place-3N.S/DO
'Gudea put the clay into the brick mold.' (Cyl A 18:24; L; 22)

Fifthly and finally, with one exception (example 22), our corpus lacks any forms where the form /ni/ of the local prefix {ni} is preceded by the vocalic prefix {ʔi}. This in spite of the fact that the prefix {ni} occurs very frequently. In the texts from our corpus, the spelling of initial ***ì-ni-*** represents either the oblique-object prefix {nni} (§18.2.3) or the vocalic prefix {ʔu} followed by the local prefix {ni} (§24.2.1). The exceptional form in example 22 reflects a (Northern?) variety of Sumerian which is not very well represented in the earlier documents but has come to dominate later texts.

With the apparent exception of the local prefix {ni}, all dimensional prefixes are cognate with some case marker. However, there is some evidence that Sumerian used to have a case marker {ne}. This is suggested by the form of a non-finite construction which includes a clitic element {ne} that may very well be a left-over of an old locational case marker (§28.6). Krecher (1993d: 97) is surely right in linking the local prefix {ni} with that former case marker.

20.2.2. Usage

The local prefix {ni} 'in' has two basic uses. Usually it refers to some location which plays a specific role in the action or state expressed by the verbal form. Occasionally, however, it has a non-referential use instead, modifying the basic meaning of the verb by adding the notion 'in'. For instance, if a finite form of the verb **dé** 'pour' contains the local prefix {ni} 'in', this form can mean either 'pour (something into something)' (German *giessen* or *schenken*) or 'pour (something)' (German *eingiessen* or *einschenken*):

(33) ***a-šà* lú-ga-*a-ka* / a *ḫé-en*-dé-*e***
a.šà.g lú.ga=ak =ʔa a =Ø ḫa =ʔi -n(i)-dé -e
field Luga=GEN=LOC water=ABS MOD=VP-in -pour-3SG.A:IPFV
'He must irrigate (lit. "pour water into") Luga's field!' (TCS 1:154 3-4; ?; 21)

(34) **u$_4$ lugal-*ra* kaš *in-na-ni*-dé-*a***
u$_4$.d lugal=ra kaš =Ø ʔi -nna -ni-n -dé -Ø -ʔa =ʔa
day king =DAT beer=ABS VP-3SG.IO-in-3SG.A-pour-3N.S/DO-NOM=LOC
'when he poured beer for the king' (PDT 1:476 3; D; 21)

The non-referential use of local prefix {ni} 'in' also occurs with other verbs:

(35) ***du-du-ĝu$_{10}$ nu-un-na-ni*-ku$_4$**
du.du.ĝu$_{10}$=e nu =ʔi -nna -ni-n -ku$_4$.r-Ø
Dudugu =ERG NEG=VP-3SG.IO-in-3SG.A-enter -3N.S/DO
'Dudugu did not bring this in for him.' (NG 215 41; U; 21)

(36) **ensi$_2$-*ra* ama-*né* ^{d}nanše *mu-na-ni-íb*-gi$_4$-gi$_4$**

ensi$_2$.k=ra ama =ane nanše =e Ø -mu -nna -ni-b -gi$_4$:RDP-e
ruler =DAT mother=his Nanshe=ERG VP-VENT-3SG.IO-in-3N.DO-turn:IPFV-3SG.A:IPFV
'His mother Nanshe answered the ruler.' (Cyl A 5:11; L; 22)

The latter example illustrates the phrasal verb **(inim)—gi$_4$** 'answer (lit. something like "turn (a word) in")', which always includes the prefix {ni} in a finite form.

The local prefix {ni} mostly refers to a location which plays a specific role in the action or state expressed by the verbal form. In this use, the prefix is often coreferential with a noun phrase in the locative case. The local prefix {ni} can, for instance, refer to the place in which the intransitive subject or the direct object is located. Such a place can be an actual geographical location or a position in a more figurative sense:

(37) **ur$_5$-*šè* sila-*a an*-ĝál**
ur$_5$ =še sila =ʔa ʔa-n(i)-ĝál -Ø
loan=TERM street=LOC VP-in -be.there-3N.S/DO
'This is as loans in the street.' (OSP 2:70 3:12; N; 23)

(38) **di *ĝá-nun-ka* / *ba-an*-taka$_4$-*a***
di.d ĝá.nun =ak =ʔa Ø -ba -n(i)-taka$_4$-Ø -ʔa
judgement warehouse=GEN=LOC VP-MM-in -leave-3SG.S/DO-NOM
'that he had lost (lit. "had been left behind in") the trial about the warehouse' (Studies Pettinato pp.177f 3 BM 22871 11'-12'; L; 21)

(39) **sá-du$_{11}$-*ga mu*-ĝál / níĝ-ka$_9$-*a nu-un*-zi**
sá.du$_{11}$.g =ʔa Ø -mu -n(i)-ĝál -Ø níĝ.ka$_9$=ʔa nu =ʔi -n(i)-zi.g-Ø
provisions=LOC VP-VENT-in -be.there-3N.S/DO account=LOC NEG=VP-in -rise-3N.S/DO
'This is among the provisions; it is not registered as expended (lit. "is not raised") in the account.' (CST 803 13-14; U; 21)

(40) **bala urdu$_2$-*ĝu$_{10}$* ensi$_2$ *ĝír-su*^{ki}-*ka* / *ba-an*-zi**
bala urdu$_2$.ĝu$_{10}$ ensi$_2$.k ĝír.su=ak =ʔa Ø -ba -n(i)-zi.g-Ø
turn Urdumu governor Girsu =GEN=LOC VP-MM-in -rise-3N.S/DO
'This was expended (lit. "raised") in the "turn" of Urdumu, the governor of Girsu.' (PDT 2:1161 obv 2-4; D; 21)

The local prefix {ni} can also refer to the place into which the intransitive subject or direct object comes to be located as the result of some action. Having the meaning 'into', the local prefix {ni} is often coreferential with a noun phrase in the locative case but can also be associated with noun phrases in the terminative case:

(41) **é-gal-*la ba-an*-ku$_4$**
é.gal =ʔa Ø-ba -n(i)-ku$_4$.r-Ø
palace=LOC VP-MM-in -enter -3N.S/DO
'This was brought into the palace.' (ITT 3:6160 3; L; 21)

(42) **é-kišib-*ba-šè* / *ba-an*-ku$_4$**
é kišib=ak =še Ø -ba -n(i)-ku$_4$.r-Ø
house seal =GEN=TERM VP-MM-in -enter-3N.S/DO
'This was brought into the storehouse.' (MVN 13:559 8-9; D; 21)

(43) **e-*bé* íd-nun-*ta* / gú eden-*na-šè* / *éb-ta-ni*-è**

e.g =be =Ø íd.nun=ta gú.eden.na.k=še ʔi -b -ta -ni-n -ʔè -Ø
canal=this=ABS Idnun =ABL Guedena =TERM VP-3N-from-in-3SG.A-go.out-3N.S/DO
'He let this canal go out from the Idnun into the Guedena.' (Ent. 28 2:1-3; L; 25)

Referring to a location is the most common use of the local prefix {ni}. However, it can also refer to the material that is used for making something. E.g.:

(44) **úr-*bé* na$_4$-*a mu-na-ni*-řú**
úr =be=Ø na$_4$ =ʔa Ø -mu -nna -ni-n -řú -Ø
foundation=its=ABS stone=LOC VP-VENT-3SG.IO-in-3SG.A-erect-3N.S/DO
'Its foundation he built for him in stone.' (Ent. 28 5:13; L; 25)

(45) **sipa-*dè* é kù-*ga mu*-řú-*e***
sipa.d =e é kù.g =ʔa Ø -mu -n(i)-řú -e
shepherd=ERG house silver=LOC VP-VENT-in -erect-3SG.A:IPFV
'The shepherd was building the temple with silver.' (Cyl A 16:25; L; 22)

(46) **gù-dé-*a še-er-zi* an-*na-ka* / šu-tag *ba-ni*-du$_{11}$**
gù.dé.a=e še.er.zi an =ak =ʔa šu.tag =Ø
Gudea =ERG brilliance heaven=GEN=LOC decoration=ABS

Ø -ba -ni-n -du$_{11}$.g-Ø
VP-3N.IO-in-3SG.A-do -3N.S/DO
'Gudea decorated it with the splendour of heaven.' (Cyl A 28: 1-2; L; 22)

Closely related to this is the use of local {ni} to refer to the means through which an action is performed. E.g.:

(47) **^{d}nanše dumu eridu^{ki}-*ke$_4$ eš-bar-kíĝ-ĝá* mí *ba-ni*-du$_{11}$**
nanše dumu eridu.g=ak =e eš.bar.kíĝ=ʔa mí=Ø
Nanshe child Eridu =GEN=ERG oracle =LOC ? =ABS

Ø -ba -ni-n -du$_{11}$.g-Ø
VP-3N.IO-in-3SG.A-do -3N.S/DO
'Nanshe, Eridu's daughter, handled it carefully with an oracle.' (Cyl A 20:16; L; 22). The phrasal verb **mí—du$_{11}$.g** means 'treat with care'.

(48) **níĝ-*ú-rum-e* ka-*ga-na ba-ni-ge-en$_6$***
níĝ.ú.rum=e ka.g =ane=ʔa Ø -ba -ni-n -ge.n -Ø
Nigurum =ERG mouth=his =LOC VP-MM-in -3SG.A-be.firm-3N.S/DO
'Nigurum confirmed this with (lit. "in") his own mouth.' (NG 17 11; L; 21)

If the verb **sa$_{10}$** 'buy, sell, barter for' has the meaning 'barter for', it is construed with a noun phrase in the locative case, while a finite verbal form always contains the local prefix {ni}. Thus, Sumerian expresses English 'barter for' as 'barter into':

(49) **0.0.3 dabin / mun-*a* sa$_{10}$-*a***
dabin 0.0.3 mun=ʔa sa$_{10}$ -Ø -ʔa
barley.flour 3.ban salt =LOC barter-NFIN-NOM
'three bans of barley flour, bartered for salt' (BIN 3:530 1-2; U?; 21)

(50) **nita-*e* / me-ŠEŠ.ŠEŠ-*e* / nibru^{ki}-*ta* / še-*a mu-na-ni*-sa$_{10}$**
nita.ḫ=e me.ŠEŠ.ŠEŠ.e =r(a) nibru =ta še =ʔa
Nita =ERG Mesheshsheshe=DAT Nippur=ABL barley=LOC

Ø -mu -nna -ni-n -sa$_{10}$ -Ø
VP-VENT-3SG.IO-in-3SG.A-barter-3N.S/DO
'For Mesheshsheshe, Nita bartered this (silver) for barley from Nippur.' (MVN 3:1 2:5-9; I; 24)

The phrasal verb **šu—bala** 'change (lit. "let one's hand go across in")' is another example of a verb construed with the locative case while containing the local prefix {ni} in finite forms:

(51) **^{d}nin-*ĝír-sú-ke$_4$* iri-ka-ge-*na-da e-da*-du$_{11}$-*ga-a* šu *nu-dì-ni*-bala-*e***
nin.ĝír.su.k=e iri.ka.ge.na.k=da ʔi -n -da -n -du$_{11}$.g-Ø -ʔa =ʔa
Ningirsu =ERG Irikagena =COM VP-3SG-with-3SG.A-say -3N.S/DO-NOM=LOC

šu =Ø nu =ʔi -n -da -ni-b -balaʔ-e
hand=ABS NEG=VP-3SG-with-in -3N.DO-cross -3SG.A:IPFV
'What Ningirsu has agreed with Irikagena he will not change with him.' (Ukg. 34 1; L; 24)

(52) **di ku$_5$-*a-na* šu *ni-íb*-bala-*e-a***
di.d ku$_5$.ř-Ø -ʔa =ane=ʔa šu =Ø Ø -ni-b -balaʔ-e -ʔa
judgement cut -NFIN-NOM=his =LOC hand=ABS VP-in -3N.DO-cross -3SG.A:IPFV-NOM
'who will change a judgement passed by him' (St B 8:43; L; 22)

(53) **u$_4$-*da* inim-*ba* / šu *né*-bala-*e***
u$_4$.da inim =be =ʔa šu =Ø Ø -ni-b -balaʔ-e
if word=this=LOC hand=ABS VP-in-3N.DO-cross -3SG.A:IPFV
'if he changes this agreement' (Ean. 1 17:14-15; L; 25)

20.3. The local prefix {e} 'on'

20.3.1. Forms and spellings

The dimensional prefix {e} occurs in two different sets of forms. Firstly, it appears in the oblique-object prefixes {ri}, {nni}, and {bi}, which have been discussed in chapter 18. Secondly, it is found as the local prefix {e} 'on'. That prefix is the topic of this section and the following one.

The local prefix {e} does not yet feature in most older Sumerian grammars, because it has been identified only recently, largely through the work of Yoshikawa and Attinger. Basing himself on Ur III documents, Yoshikawa identified a 'locative infix' -a-, taking as the basic form of the morpheme the most common spelling in his sources (1977: OrNS 46,447-461). It is clear, though, that Yoshikawa's 'locative infix' -a- has the form -e- in texts from after the Ur III period. Since the earlier -a- can easily be explained from a basic form /e/, I will follow Attinger (1993: 240-247) and speak of the local prefix {e}.

The local prefix {e} 'on' is combined with the initial person-prefix non-human {b} where possible but never occurs with an initial person-prefix human. This is entirely according to expectations. The local prefix {e} is used in the same way as certain noun phrases in the locative case and that case is likewise restricted to non-human nouns (§7.7).

The morphological behaviour of the local prefix {e} is quite complicated. There is no single morpheme which occurs in all its forms. What form it actually has depends on the presence or absence of other prefixes. If the verbal form lacks any further dimensional prefix, the local prefix {e} is always combined with the initial person-prefix non-human {b}. It then

has the basic form /bi/. It is only found before a final person-prefix. In the absence of such a prefix, /bi/ loses its vowel and becomes /b/.

If, however, the verbal form contains a further dimensional prefix, the local prefix {e} cannot be combined with the initial person-prefix {b} and then has the basic form /e/. It is only found immediately before the stem. If the verbal form also contains a final person-prefix, the local prefix {e} cannot be used at all. These basic rules will now be discussed in more detail.

Combined with the initial person-prefix non-human {b}, the local prefix {e} has the basic form /bi/, which is usually written ***bí***. The final person-prefix which always follows it is mostly left unwritten. E.g.:

(54) **dub mul du$_{10}$-*ga* *bí*-ĝál-*la*-*a***
dub mul=ak =Ø du$_{10}$.g=ʔa Ø -bi -n -ĝál -Ø -ʔa =ʔa
tablet star=GEN=ABS knee =LOC VP-3N:on-3SG.A-be.there-3N.S/DO-NOM=LOC
'while she had (lit. "let be there") a star tablet on (her) knee' (Cyl A 5:23; L; 22)

(55) **zíd-sig$_{15}$ má-*a* *bí*-*ì*-*íb*-si**[3]
zíd.sig$_{15}$ =Ø má =ʔa Ø-bi -b -si.g-Ø
crushings.flour=ABS boat=LOC VP-3N:on-3N.A-put -3N.S/DO
'They loaded flour on boats.' (TENS 259 obv 6'; U; 21)

(56) **^{d}en-líl-*le* / absin$_3$-*na*-*na* / mun *ḫa*-*bí*-zi-zi**
en.líl=e absin$_3$=ane=ʔa mun=Ø ḫa =Ø -bi -b -zi.g:RDP-e
Enlil =ERG furrow=his =LOC salt =ABS MOD=VP-3N:on-3N.DO-rise:IPFV -3SG.A:IPFV
'May Enlil have salt come up on his furrows!' (Ean. 63 3:4-6; L; 25)

The vowel of /bi/ alternates between /i/ and /e/ according to the rule of vowel harmony in Southern Old Sumerian (§3.9.3). Compare the preceding example with the following ones:

(57) **é.gal *ti*-*ra*-*áš*-*ka* šu *bé*-bař$_4$**
é.gal ti.ra.áš=ak =ʔa šu =Ø Ø -bi -n -bař$_4$ -Ø
palace Tirash =GEN=LOC hand=ABS VP-3N:on-3SG.A-open-3N.S/DO
'He plundered (lit. "opened (his) hand on") the palace of Tirash.' (Ukg. 16 1:8-9; L; 24)

(58) **PN / *nu*-banda$_3$ / *bé*-ĝar**
PN nu.banda$_3$=e Ø -bi -n -ĝar -Ø
PN overseer =ERG VP-3N:on-3SG.A-place-3N.S/DO
'PN, the overseer, placed this (bitumen) thereon (viz. two boats).' (DP 346 2:3-5; L; 24)

If /bi/ is preceded by the ventive prefix, the /b/ of /bi/ assimilates to the /m/ before it:

(59) **má-gur$_8$-*ra*-*na* ĝiri$_3$ *nam*-*mi*-gub**
má.gur$_8$=ane=ʔa ĝiri$_3$ =Ø na -m(u) -bi -n -gub -Ø
boat =his =LOC footh=ABS PFM-VENT-3N:on-3SG.A-stand-3N.S/DO
'He truly stepped (lit. "had (his) footh stand") on his boat.' (Cyl A 2:4; L; 22)

(60) **dub mul$^{!}$** (=MUL.AN) **du$_{10}$-*ga* *im*-*mi*-ĝál**
dub mul=ak =Ø du$_{10}$.g=ʔa ʔi -m(u)-bi -n -ĝál -Ø
tablet star=GEN=ABS knee =LOC VP-VENT-3N:on-3SG.A-be.there-3N.S/DO
'She had a star tablet on (her) knee.' (Cyl A 4:26; L; 22). (See ex. 54 above for the same verbal form without a ventive prefix (***bí*-ĝál-*la*-*a***).)

[3] The plene writing with ***-ì-*** remains unexplained.

(61) **ĝiš dam-diĝir-*ĝu*$_{10}$ / tir abbar^{ki}-*ta* / má-*a e-me*-ĝar-*ra-am*$_6$**
ĝiš dam.diĝir.ĝu$_{10}$=e tir abbar=ak =ta má =ʔa
wood Damdingirmu =ERG forest Abbar=GEN=ABL boat=LOC

ʔi -m(u)-bi -n -ĝar -Ø -ʔa =Ø =ʔam
VP-VENT-3N:on-3SG.A-place-3N.S/DO-NOM=ABS=be:3N.S
'This is the wood which, out of Abbar forest, Damdingirmu placed upon a boat.' (DP 438 1:2-4; L; 24)

The forms of local {e} treated so far (i.e. /bi/ and its variants) are the same as those of the OO-prefix {bi} (§18.2.2). Although we are dealing with exactly the same forms of exactly the same prefix, they have nevertheless been treated separately, because /bi/ clearly belongs to two different paradigms, having two quite different uses. While local /bi/ can only be coreferential with a noun phrase in the locative case, the OO-prefix {bi} can only be coreferential with one in the directive case. Thus, /bi/ is involved in two different constructions. More importantly, however, these two constructions are associated with two different sets of forms, of which /bi/ is only one. In the position immediately before the stem, the OO-prefix {bi} is replaced by the *final* person-prefix {b}. But, as we shall see presently, local /bi/ is there replaced by either the bare *initial* person-prefix {b} or by the form /e/ (see §18.2.2 for a set of contrastive examples illustrating the two different paradigms).

In the absence of a final person-prefix, /bi/ stands immediately before the stem. Since every stem begins with a consonant and a vowel (§3.10), /bi/ is then found in the sequence /biCV/, where the /i/ of the prefix is lost (§3.9.4). This loss of the /i/ is accompanied by a lengthening of the vowel of a preceding vocalic prefix {ʔa} or {ʔi} (chapter 24).[4] The resulting vowel length can be indicated with the plene writings ***a-ab*** and ***ì-íb*** (§2.5), but before the Ur III period less explicit spellings are the norm. E.g.:

(62) **má-*a ab*-si**
má =ʔa ʔa-b(i) -si.g-Ø
boat=LOC VP-3N:on-put -3N.S/DO
'This (barley) was loaded on a boat.' (PPAC 1 p. 335 A.821; A; 23). (The transitive form ***bí-ì-íb*-si** 'they loaded it on it' occurs in ex. 55 above.)

(63) **lagas^{ki}-*a* / *ab*-durun$_x$(=KU.KU)-*né-éš***
lagas =ʔa ʔa-b(i) -durun -eš
Lagash=LOC VP-3N:on-sit:PLUR-3PL.S/DO
'They live in (lit. "sit on") Lagash.' (ITT 1:1100 14-15; L; 23)

(64) **dumu gaba-*na a-ab*-tab**
dumu=Ø gaba=ane=ʔa ʔa-b(i) -tab -Ø
child =ABS chest=her =LOC VP-3N:on-press-3N.S/DO
'A child was pressed to her chest.' (NATN 761 4; N; 21)

Due to the change of /biCV/ to /bCV/, the reduced form /b/ of local /bi/ is always in syllable-final position. Since a syllable-final /b/ is hardly ever written before the Ur III period and only inconsistently during that period, defective spellings lacking the /b/ are numerous (§2.4). E.g.:

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[4] The vowel of a preceding vocalic prefix {ʔu} is probably similarly lengthened, but examples are lacking. Note that a vowel loss under similar conditions with a similar compensatory lengthening of a preceding vocalic prefix also takes place before the ventive prefix {mu} (§22.2) and before the local prefix {ni} (§20.2.1).

(65a) **má gala-tur / *ì*-u$_5$-*a-kam***
má gala.tur=Ø ʔi -b(i) -u$_5$ -Ø -ʔa =ak =ʔam
boat Galatur =ABS VP-3N:on-sail-3SG.S/DO-NOM=GEN=be:3N.S
'This belongs to the boat on which Galatur sails.' (DP 483 5:2-3; L; 24)

(b) **má-laḫ$_5$-*bé ì-íb-ù***
má.laḫ$_5$ =be=Ø ʔi -b(i) -u$_5$ -Ø
boatman=its=ABS VP-3N:on-sail-3N.S/DO
'Their boatmen sail on them (i.e., three boats).' (MVN 14:241 obv 2; U; 21)

(66a) **ki ur-tur-*ka ì-ĝál***
ki ur.tur=ak =ʔa ʔi -b(i) -ĝál -Ø
place Urtur =GEN=LOC VP-3N:on-be.there-3N.S/DO
'This is on the place of Urtur.' (MVN 8:149 9; D; 21)

(b) **ki lú-^{d}en-líl-*lá-ka ì-íb*-ĝál**
ki lú.en.líl.lá.k=ak =ʔa ʔi -b(i) -ĝál -Ø
place Lu'enlilla =GEN=LOC VP-3N:on-be.there-3N.S/DO
'This is on the place of Lu-Enlilla.' (BCT 2:111 5; U; 21)

If /bi/ is reduced to a /b/ before the stem, the local prefix {e} has the same form as the non-human final person-prefix {b} (§13.2.2). Yet, the two can usually be kept apart with ease. Local /b/ 'thereon' and the non-human final person-prefix /b/ 'it' have quite different meanings and occur in quite different constructions. Moreover, there are often other clues as well that help distinguish between the two. A /b/ immediately before the stem can only represent local /b/ if the verbal form lacks any further dimensional prefixes. Moreover, as we saw above, a vocalic prefix is lengthened before local /b/. In the Ur III period, the plene spelling ***ì-íb-*** is the normal way to write /ʔīb/, the vocalic prefix {ʔi} followed by the reduced form /b/ of local /bi/. It contrasts with the spelling ***íb-*** which is then the normal spelling for /ʔib/, the final person-prefix {b} after {ʔi} (§13.2.2).

The form /b/ of /bi/ cannot be used between the ventive prefix {mu} and a following consonant. Compare the following two examples:

(67a) ***a-gù-a-na / ḫa-ab-ĝá-ĝá***
a.gùʔ=ane=ʔa ḫa =ʔa-b(i) -ĝar:RDP -e
top =his =LOC MOD=VP-3N:on-place:IPFV-3SG.A:IPFV
'He must place it on his account!' (BM 19370 9-10; L; 21)

(b) **má-*a ḫé-em-ĝá-ĝá***
má =ʔa ḫa =ʔi -m(u)-gar:RDP -e
boat=LOC MOD=VP-VENT-place:IPFV-3SG.A:IPFV
'He must load this on a boat!' (TCS 1:56 4; U; 21)

A more detailed discussion of this phenomenon can be found in section §22.4. Note, however, that, if necessary, the local prefix {e} can be expressed in a different way in such forms (cf. ex. 73 and 74 below).

Because of the relative order of prefixes, the local prefix {e} cannot be combined with the initial person-prefix {b} if the verbal form contains the middle marker {ba}, an indirect-object prefix, or one of the prefixes {da}, {ta}, and {ši} (§16.3.1). If a verbal form includes one of those prefixes, the local prefix {e} has either the form /e/ or is not expressed at all.

If the local prefix {e} cannot be combined with the initial person-prefix {b} and if the verbal form lacks a final person-prefix, the form /e/ is used. Hence, the form /e/ is only found immediately before the verbal stem. This /e/ has the same forms and spellings as the final person-prefix {e} of the second person. Just like the latter, it contracts with a preceding vowel, lengthening the preceding vowel (§13.2.4). With a preceding /a/, the form /e/ of the local prefix contracts to /ā/. The resulting length of the preceding vowel is usually ignored by the spelling, but from the time of Gudea onwards, it is often represented by writing an additional ***-a-***:

(68) **má gala-tur-*ka* / *ba*-ĝar**
má gala.tur=ak =ʔa Ø -ba -e -ĝar -Ø
boat Galatur =GEN=LOC VP-MM-on-place-3N.S/DO
'This (bitumen) was loaded on Galatur's boat.' (DP 346 1:2-3; L; 24)

(69) **má-*a ba-a*-ĝar**
má =ʔa Ø -ba -e -ĝar -Ø
boat=LOC VP-MM-on-place-3N.S/DO
'They (=slaughtered animals) were placed on a boat.' (SACT 1:171 7; D; 21)

(70) **iri-*e* ^{d}utu-*gen*$_7$ / ki-*ša-ra im-ma-ta-a*-è**
iri =e utu=gen ki.šár =ʔa ʔi -m(u)-ba -ta -e -ʔè -Ø
city=DIR Utu=EQU horizon=LOC VP-VENT-3N.IO-from-on-go.out-3N.S/DO
'Like the Sungod Utu, it (=a time of justice) came up (lit. "went out") on the horizon for the city.' (Cyl B 18:12-13; L; 22)

(71) **má-*a ba-na-a*-gub**
má =ʔa Ø -ba -nna -e -gub -Ø
boat=LOC VP-MM-3SG.IO-on-stand-3N.S/DO
'They (=living animals) were set on a boat for him.' (MVN 15:190 3; D; 21)

Because there are no prefixes with a final short /e/ that could precede it, the form /e/ of the local prefix {e} cannot occur after a short /e/. After a long /ē/, the texts show nothing that suggests the presence of some form of the local prefix {e}. Presumably the form /e/ was completely lost in this environment. Compare, for instance, the preceding example with the following one:

(72) **má-*a ba-ne*-gub**
má =ʔa Ø -ba -nnē -gub -Ø
boat=LOC VP-MM-3PL.IO-stand-3N.S/DO
'These (living animals) were set on a boat for them.' (MVN 15:189 20; D; 21)

If the preceding vowel is /u/, it contracts with local /e/ to /ū/, which can be represented by a plene spelling with ***-ù-***. E.g.:

(73) **maš *mu-ù-ĝá-ĝá***
maš =Ø Ø -mu -e -ĝar:RDP-e
interest=ABS VP-VENT-on-place:IPFV-3SG.A:IPFV
'He is to pay interest on it.' (TCS 1:19 10; L; 21)

(74) ***ma*^{ʔ}*-sá*^{ʔ}*-tum-ĝu*$_{10}$*-ù*** **saĝ kalam-*ma-ka* gug-sar *ḫa-mu-ù*-ak-*ke*$_4$**
ma.sá.tum=ĝu=e saĝ kalam =ak =ʔa
a.weapon =my=ERG head country=GEN=LOC

gug.sar=Ø ḫa =Ø -mu -e -ʔak -e
biting =ABS MOD=VP-VENT-on-make-3SG.A:IPFV
'My *maššatum*-weapon will bite the heads of the land!' (Shulgi D 189; ?; OB copy of Ur III royal hymn)

There seem to be as yet no attestations of local /e/ after the vowel /i/, where we would expect plene spellings with ***-ì-***.

As we saw in section 13.2.4, earlier and later written Sumerian differ in how the /e/ of the final person-prefix {e} contracts with a preceding vowel. In the earlier texts, the preceding vowel is lengthened but in the later texts, it is the /e/ itself that becomes long, at the expense of the preceding vowel. With the form /e/ of the local prefix, we find exactly the same dialectal difference. Instead of earlier /ā/, for instance, we find /ē/ in texts from the Old Babylonian period. E.g.:

(75) **saĝ-ki ḫuš-*a-za* saĝ *nu-mu-un-dè-ĝá-ĝá***
saĝ.ki ḫuš -Ø -ʔa =zu =ʔa saĝ =Ø
forehead be.furious-NFIN-NOM=your=LOC head=ABS

nu =Ø-mu -n -da -e -ĝar:RDP -e
NEG=VP-VENT-3SG-with-on-place:IPFV-3SG.A:IPFV
'No one can face up to your furious expression.' (Inanna B 37; OB copy)

As we saw above, the form /e/ only occurs between a vowel and the verbal stem. All other forms simply lack the local prefix {e}. In other words, the local prefix {e} never occurs in a verbal form which contains both a final person-prefix and one of the following prefixes: the middle marker {ba}, an indirect-object prefix, the prefix {da}, the prefix {ta}, or the prefix {ši}. Contrast, for instance, the following pairs of clauses. The first of each pair contains a verbal form with the local prefix {e}, while the second lacks it due to the presence of both a final person-prefix and an indirect-object prefix:

(76a) **PN / *nu*-banda$_3$ / íd súr-du$_7$-*ř́á* / al *ì-mi*-řú-*a-a***
PN nu.banda$_3$=e íd súr.du$_7$.ř=ʔa al =Ø
PN overseer =ERG river Falcon =LOC hoe=ABS

ʔi -m(u)-bi -n -řú -Ø -ʔa =ʔa
VP-VENT-3N:on-3SG.A-erect-3N.S/DO-NOM=LOC
'when PN, the overseer, dug the Falcon canal' (DP 480 1:3-2:2; L; 24)

(b) **íd niĝin$_6^{ki}$ du-*a* / al *mu-na*-řú**
íd niĝin$_6$=š(e) du -Ø =ʔa al =Ø Ø -mu -nna -n -řú -Ø
River Nigin =TERM go:IPFV-NFIN=LOC hoe=ABS VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO
'He dug for her the Canal Going to Nigin.' (Ukg. 1 3:6'-7'; L; 24)

(77a) **udu 30-*a nu-ub*-diri**
udu =Ø 30=ʔa nu =ʔi-b(i) -diri.g -Ø
sheep=ABS 30 =LOC NEG=VP-3N:on-exceed-3N.S/DO
'The sheep were not more than thirty.' (NG 138 12; U; 21)

(b) **é-an-*na* kur-kur-*ra* / *mu-na*-diri**
é.an.na=Ø kur -kur =ʔa Ø -mu -nna -n -diri.g -Ø
Eanna =ABS mountains-mountains=LOC VP-VENT-3SG.IO-3SG.A-exceed-3N.S/DO
'He had the Eanna temple rise above all mountain lands for her.' (En. I 29 3:7-8; L; 25)

The local prefix {e} is not only 'squeezed out' between a final person-prefix and an indirect-object prefix (as in the preceding examples) but also between a final person-prefix and other dimensional prefixes, for instance by the prefix {ši}:

(78) **PN šà-gu$_4$-*ka* / šu-*na ḫa-ab-ši-ib*-gi$_4$-gi$_4$**
PN šà.gu$_4$.k =ak šu =ane=ʔa ḫa =ʔa -b -ši-b -gi$_4$:RDP-e
PN ox.driver=GEN hand=his =LOC MOD=VP-3N-to-3N.S/DO-turn:IPFV-3SG.A:IPFV
'He should return it (viz. barley) for this into (lit. "on") the hands of PN, the ox-driver.' (TCS 1:116 5-6; L; 21)

All dimensional prefixes are cognate with some case marker and the local prefix {e} is no exception. It is generally taken to be related to the directive case marker {e} (§7.6). But that is nothing more than a historical relationship. In the actually attested Sumerian of our corpus, the prefix is only construed with the locative case. The only living link to the directive case lies in the form /bi/ of the prefix, which is also used as the OO-prefix {bi} and which is then indeed construed with the directive case (§18.2.2). Clearly some major restructuring of verbal morphology or nominal case marking or both must have taken place in prehistoric times.

The prefix {e} and case marker {e} drifted apart not only functionally but also formally. The Old Sumerian form /be/ is the only one in our corpus to reflect the original /e/ (see ex. 57 and 58 above). But that form too became /bi/ quite early, with a vowel change that also occurred with the prefixes {ni} (§20.2.1) and {ši} (§19.4).

20.3.2. Usage

The local prefix {e} 'on' has two basic uses. It mostly refers to some location playing a specific role in the action or state expressed by the verbal form. Local {e}, however, has also a non-referential use, modifying the basic meaning of the verb by adding the notion '(up)on'. A finite verbal form of the verb **e$_{11}$.d** 'go up, go down', for instance, has the meaning 'go up' if it includes the prefix {e}:

(79) **u$_4$ ^{d}šul-gi an-*na ba-a*-e$_{11}$-*da-a***
u$_4$.d šul.gi.r=Ø an =ʔa Ø-ba -e -ʔe$_{11}$.d-Ø -ʔa =ʔa
day Shulgi =ABS heaven=LOC VP-MM-on-go.up -3SG.S/DO-NOM=LOC
'when Shulgi went up into heaven' (BCT 1:132 5; ?; 21)

The most common use by far of the local prefix {e} is to refer to the location on which the intransitive subject or the direct object is (being) positioned. In this use, the prefix is often coreferential with a noun phrase in the locative case.

The local prefix {e} refers, for instance, to the place on which the intransitive subject or the direct object is located:

(80) **igi-5-ĝál-*bé a-gù-ba ì-íb*-ĝál**
igi.5.ĝál=be=Ø a.gù=be=ʔa ʔi -b(i) -ĝál -Ø
one.fifth=its=ABS top =its=LOC VP-3N:on-be.there-3N.S/DO
'One-fifth of this is on top of it.' (RA 76 p.28f 1:2; U; 21)

(81) **gu$_4$ ur-gi$_4$-gi$_4$ / *a-šà-ga a-ab*-gub**
gu$_4$.ř ur.gi$_4$.gi$_4$=ak =Ø a.šà.g=ʔa ʔa-b(i) -gub -Ø
bull Urgigi =GEN=ABS field =LOC VP-3N:on-stand-3N.S/DO
'Urgigi's ox serves in (lit. "stands on") the field.' (TCS 1:280 3-4; N; 21)

(82) **ki lugal-u$_5$-*a*^{ki}-*a* / *ab*-tuš**
ki lugal.u$_5$.a=ʔa ʔa-b(i) -tuš-Ø
place Lugalua =LOC VP-3N:on-sit -3SG.S/DO
'He lives in (lit. "sits on") the place Lugalua.' (ITT 1:1100 5-6; L; 23)

(83) **im še-ba-*ka* / *ḫé-bé-eb-ge-né***
im še.ba =ak =ʔa ḫa =Ø -bi -b -ge.n -e
clay barley.ration=GEN=LOC MOD=VP-3N:on-3N.DO-be.firm-3SG.A:IPFV
'He must confirm this on the claytablet of the barley rations!' (TCS 1:276 6-7; N; 21)

(84) **im-*ma ì-íb-ge-en*$_6$**
im =ʔa ʔi -b(i) -ge.n -Ø
clay=LOC VP-3N:on-be.firm-3N.S/DO
'It is confirmed on the tablet.' (MVN 13:172 7; L; 21)

The local prefix {e} can also refer to the place on which the intransitive subject or direct object comes to be located as the result of some action:

(85) **kù-*bé* šu-*na a-ab*-si**
kù.g =be=Ø šu =ane=ʔa ʔa-b(i) -si.g-Ø
silver=its=ABS hand=his =LOC VP-3N:on-put -3N.S/DO
'The silver (payment) for this was put on his (viz. the seller's) hands.' (MVN 3:330 7; N; 21)

(86) **kù-*bé* šu-*na ba-a*-si**
kù.g =be=Ø šu =ane=ʔa Ø -ba -e -si.g-Ø
silver=its=ABS hand=his =LOC VP-MM-on-put -3N.S/DO
'The silver (payment) for this was put on his (viz. the seller's) hands.' (NRVN 1:225 4'; N; 21)

(87) **SAḪAR.DU$_6$.TAG$_4$-*bé* / ki 5-*a* / *ì-mi*-dub**
SAḪAR.DU$_6$.TAG$_4$=be=Ø ki 5=ʔa ʔi -m(u)-bi -n -dub -Ø
burial.mound =its=ABS place 5=LOC VP-VENT-3N:on-3SG.A-heap-3N.S/DO
'He heaped up their burial mounds on five places.' (Ent. 28 3:25-27; L; 25)

(88) **na igi šu-*ga-lam-ma-ka bí*-řú-*a***
na igi šu.ga.lam=ak =ʔa Ø-bi -n -řú -Ø -ʔa =ʔa
stone eye Shugalam=GEN=LOC VP-3N:on-3SG.A-erect-3N.S/DO-NOM=LOC
'on the stone which he set up before the Shugalam' (Cyl A 23:25; L; 22)

(89) **e-*ba* na-rú-*a* / *e-me*-sar-sar**
e.g =be =ʔa na.rú.a=Ø ʔi -m(u)-bi -n -sar -sar -Ø
dike=this=LOC stela =ABS VP-VENT-3N:on-3SG.A-write-write-3N.S/DO
'He inscribed stelas on this dike.' (Ent. 28 2:4-5; L; 25)

(90) **im é-gal-*ka ì-íb*-sar**
im é.gal =ak =ʔa ʔi -b(i) -sar -Ø
clay palace=GEN=LOC VP-3N:on-write-3N.S/DO
'This is registered on the tablet of the palace.' (AUCT 1:867 8; ?; 21)

The local prefix {e} can also refer to something that is only in a more figurative sense the place on which the intransitive subject or direct object is or comes to be located:

(91) ***ugu$_4$-ba* máš *ì-íb-ĝá-ĝ[á]***
a.gù=be=ʔa máš =Ø ʔi -b(i) -ĝar:RDP-e
top =its=LOC interest=ABS VP-3N:on-place:IPFV-3SG.A:IPFV
'He will pay interest on this.' (NG 144 15; U; 21)

(92) **sá-du$_{11}$-*na* / é ^{d}nin-*ĝír-su-ka-ta* / inim *ḫé-éb*-gi$_4$**
sá.du$_{11}$.g =ane=ʔa é nin.ĝír.su.k=ak =ta
provisions=his =LOC house Ningirsu =GEN=ABL

inim=Ø ḫa =ʔi-b(i) -gi$_4$ -Ø
word=ABS MOD=VP-3N:on-turn-3SG.S/DO
'May from the Ningirsu temple the command be revoked on his provisions!' (St B 1:17-19; L; 22)

(93) **níĝ-ba-*ĝá* / *ba-a*-gi$_4$-gi$_4$-*da***
níĝ.ba=ĝu =ʔa Ø-ba -e -gi$_4$:RDP -ed -Ø -ʔa =ʔa
gift =my=LOC VP-MM-on-turn:IPFV-IPFV-3SG.S-NOM=LOC
'when he will go back on my gifts' (St B 8:19-20; L; 22)

A few verbs that refer to actions involving two participants are construed as intransitive verbs. One participant of all such verbs is expressed by the intransitive subject. How the second participant is indicated depends on the verb in question. If this participant belongs to the non-human class, some of these verbs express it with a form of the local prefix {e} and/or with a noun phrase in the locative case. Such intransitive verbs are, for instance, **řú** 'hold on to' and **túm** 'be fit for':

(94) **u$_4$ ašag-*ga* lú *ù-ma-a*-řú-*a***
u$_4$.d ašag=ʔa lú =Ø ʔu -m(u)-ba -e -řú -Ø -ʔa
day field=LOC man=ABS REL.PAST-VENT-MM-on-hold-3SG.S/DO-NOM
'when someone holds on to the field' (MAD 4:151 10; 23)

(95) **bara$_2$ iri kù-*ga-ka* túm-*ma***
bara$_2$.g iri kù.g=ak =ʔa túm -Ø -ʔa
dais town pure=GEN=LOC be.fit.for-NFIN-NOM
'who is fit for the dais of the Holy City' (Ukg. 50 1; L; 24)

There are also several transitive verbs that express a second object of the non-human class with a form of the local prefix {e} and/or a noun phrase in the locative case. E.g.:

(96) **še-*na* šu *ḫa-mu-na-a-ba-re***
še =ane=ʔa šu =Ø ḫa =Ø -mu -nna -e -bar -e
barley=his =LOC hand=ABS MOD=VP-VENT-3SG.IO-on-open-3SG.A:IPFV
'He must release (lit. "open (his) hand on") his barley for him!' (TENS 482 5; U; 21)

(97) **anše-*ba* šu *ḫé-eb*-bar-*re***
anše =be =ʔa šu =Ø ḫa =ʔi -b(i) -bar -e
donkey=this=LOC hand=ABS MOD=VP-3N:on-open-3SG.A:IPFV
'He should release this donkey!' (TCS 1:72 6; U; 21)

(98) **lú-*ge-na* áb-*ba* inim *bí*-ĝar**
lú.ge.na=e áb =ʔa inim =Ø Ø -bi -n -ĝar -Ø
Lugena =ERG cow=LOC word=ABS VP-3N:on-3SG.A-place-3N.S/DO
'Lugena claimed (lit. "placed a word upon") the cow.' (NG 194 31'; L; 21)

(99) **kù-*ba* i[ni]m *ba-a-ĝá-ar***
kù.g =be =ʔa inim =Ø Ø -ba -e -ĝar -Ø
silver=this=LOC word=ABS VP-MM-on-place-3N.S/DO
'This silver was claimed (lit. "A word was placed upon this silver").' (NG 212 2; U; 21)

(100) **é-*ĝá* á *bí-in*-dar**
é =ĝu=ʔa á =Ø Ø -bi -n -dar -Ø
house=my=LOC arm=ABS VP-3N:on-3SG.A-split-3N.S/DO
'He confiscated my house.' (SNAT 535 obv 11; U; 21)

The following phrasal verbs, among others, are construed in the same way: **al—řú** 'dig (a canal)', **šu—duḫ** '(lit.) loosen the hand on', **mu—sa$_4$** 'give a name to', **igi—saĝ$_5$** 'sort', **èn—tar** 'investigate', **nam—tar** 'determine the fate of', and **šu—ùr** 'erase'.

Verbs which express a participant of the non-human class with a form of the local prefix {e} and/or a noun phrase in the locative case, usually express a participant of the human class as an oblique object (§18.3.4).

21. THE PREFIX {ba} AS A MIDDLE MARKER

21.1. Introduction

The prefix {ba} has a wide range of uses. Some of them have already been treated in chapter 17, viz. those where {ba} is used to express a non-human indirect object, being the non-human counterpart of indirect-object prefixes such as {nna}. But, in contrast with the other indirect-object prefixes, {ba} has a number of additional uses that belong to the semantic range of middle marking (Kemmer 1993: 267-270). Those middle uses are the topic of the present chapter.

That {ba} has such middle uses is a view that has been around for quite some time in Sumerology. The use of {ba} for the middle voice features already in Langdon (1911: 136) and has a prominent place in Poebel (1923: 243-248) and Sollberger (1952: 158-162). Nevertheless it is completely absent from the more recent grammars, with the sole exception of Zólyomi (2005: 31-32). That this is so can be explained from the huge influence of Falkenstein's grammatical work. In his view {ba} is a 'Lokativpräfix', consisting of 'das pronominale Element' {b} and the locative case marker (Falkenstein 1959a: 46). The basic function of {ba} is, according to him, that of taking up locatives and related cases. He recognizes its use as a passive marker but sees that as something as yet unexplained (Falkenstein 1959a: 60).

Falkenstein's view has been the dominant one for the last fifty years or so. But whatever the merits of his etymology of {ba} may be, his functional analysis misses the mark: the prefix {ba} is certainly no *locative* prefix (see §17.2.1). When it comes to the functions of {ba}, the older grammars contribute valuable insights.

The first thing that needs to be established is that we have to do here with only a single prefix {ba} and not two different ones. This is the aim of the following section, which will show that the prefix {ba} has exactly the same formal properties in its middle uses as when used as the indirect-object prefix non-human (§21.2). Section 21.3 then addresses the semantic properties of middle {ba}, discussing the middle uses themselves, the relationship between them, and the links between the middle and non-middle uses of {ba} (§21.3).

21.2. Forms and spellings

The prefix {ba} has exactly the same forms and spellings in its middle uses as when used as the indirect-object prefix non-human (§17.2.1). Its basic form is /ba/, which occurs in most forms and is always fully written. Only after the ventive prefix (§22.2), {ba} has a slightly different form, because the /b/ of {ba} assimilates to the preceding /m/ of the ventive. Contrast the following pairs of examples:

(1a) **1 maš / ki-su$_7$ ašag sa$_6$-*ga* tur-*ra*-*ka* / na *ba*-ri**
1 maš ki.su$_7$ ašag sa$_6$.g -Ø -ʔa tur =ak =ʔa na=Ø
one kid threshing.floor field be.good-NFIN-NOM small=GEN=LOC ? =ABS

Ø -ba -b -ri.g -Ø
VP-MM-3N.OO-clear-3N.S/DO
'One kid: It was cleared away on the threshing floor of the Small Good Field.' (Nik 1:179 1:1-3; L; 24)

(b) **1 udu siki / na *e*-*ma*-ri**

1 udu siki =ak na=Ø ʔi -m(u)-ba -b -ri.g -Ø
one ram wool=GEN ʔ =ABS VP-VENT-MM-3N.OO-clear-3N.S/DO
'One wool ram: it was cleared away (hither).' (DP 260 1:1-2; L; 24)

(2a) **(...) / mu-*šè* *ba*-sa$_4$**
(...)=Ø mu =še Ø -ba -e -sa$_4$-Ø
(...)=ABS name=TERM VP-MM-on-call-3N.S/DO
'"(...)" was given as a name to this (stela).' (Ean. 7 2':7; L; 25)

(b) **(...) / na-*ba* mu-*šè* *im-ma*-sa$_4$**
(...)=Ø na =be =ʔa mu =še ʔi -m(u)-ba -e -sa$_4$-Ø
(...)=ABS stone=this=LOC name=TERM VP-VENT-MM-on-call-3N.S/DO
'"(...)" was given as a name to this stone.' (Cyl A 23:12; L; 22)

As can been seen from the second example of each pair, middle {ba} follows the ventive prefix in the relative order of the verbal prefixes. At the same time, it precedes the initial person-prefixes of the second and third persons of the human gender class. E.g.:

(3) **uru$_2$-*ĝu$_{10}$* u$_8$ zi-*gen$_7$* sila$_4$-*zu* *ba-e-da*-ku$_5$**
uru$_2$=ĝu=Ø u$_8$ zi.d=gen sila$_4$=zu =Ø Ø -ba -e -da -ku$_5$.ř-Ø
city =my=ABS ewe true=EQU lamb=your=ABS VP-MM-2SG-with-cut -3N.S/DO
'My city, your lamb was separated from you (lit. "was cut off with you") as from a good ewe.' (LU 67; OB)

(4) ***a-da-làl-e* *ba-an-da-an*-kar**
a.da.làl=e Ø -ba -n -da -n -kar -Ø
Adalal =ERG VP-MM-3SG-with-3SG.A-take.away-3SG.S/DO
'Adalal took her away from him.' (NG 214 32; U; 21)

Thus, in the relative order of the verbal prefixes, the prefix {ba} has exactly the same position in its middle uses as when used as the indirect-object prefix non-human (§17.2.1). But middle {ba} can also co-occur with the IO-prefixes of the second and third person human. This is, of course, impossible when {ba} is used as an IO-prefix, because a clause can contain only a single indirect object. E.g.:

(5) **níĝ-ka$_9$-*a* *ba-an-na-an*-zi**
níĝ.ka$_9$=ʔa Ø -ba -nna -n(i)-zi.g-Ø
account=LOC VP-MM-3SG.IO-in -rise-3N.S/DO
'This was registered for him as raised in the account.' (MVN 14:231 rev 7; U; 21)

(6) **má-*a* *ba-ne*-gub**
má =ʔa Ø -ba -nnē -gub -Ø
boat=LOC VP-MM-3PL.IO-stand-3N.S/DO
'These (sheep) were put (lit. "were caused to stand") on the boat for them.' (MVN 15:189 20; D; 21)

(See §17.2.4 for an example with the IO-prefix {ra} of the second person human.)

Middle {ba} cannot co-occur with {ba} used as the non-human IO-prefix. Thus there are no finite verbal forms which contain the prefix sequence ***ba-ba-**, as for instance a hypothetical form ****ba-ba-šúm*** '(something) was given to it'.

One final observation is in order. The vowel of {ba} is short, which is shown by the standard non-plene spelling ***ba***. Although there are many plene spellings of the type ***ba-a-***, they

typically represent a sequence of two different prefixes, mostly a contraction of {ba} and {e}. (The relevant forms can be found in §13.2.4, §13.2.5, §16.2.4, §16.2.5, and §20.3.1.). The typical contrast between the two standard spellings is illustrated by the following two examples:

(7) **má-*a* *ba-a*-ĝar**
má =ʔa Ø -ba -e -ĝar -Ø
boat=LOC VP-MM-on-place-3N.S/DO
'They (=animals) were placed on a boat.' (OIP 121:56 6; D; 21)

(8) **mu bàd *mar-dú ba*-řú**
mu bàd mar.dú=ak =Ø Ø -ba -řú -Ø
year wall Amorite=GEN=ABS VP-MM-erect-3N.S/DO
'The year: The Amorite wall was built.' (AUCT 2:236 6; D; 21)

While this contrast between plene and non-plene spelling is unambiguously the norm in the Ur III period, there are in Lagash texts quite a few irregular plene spellings. The year name in example 8, for instance, occurs in Lagash four times with the form ***ba-a*-řú** (ITT 3:5113 7 = ITT 5:6915 7 = ITT 5:6924 8 = DAS 18 5; L; 21). Although that is only a small number of attestations as compared with how often the correctly spelled form is found in Lagash, ***ba-a*-řú** is not the only misspelled form. There is also ***ba-a*-ḫulu** 'it was destroyed' (about eight attestations), ***ba-a*-dím** 'it was fashioned' (about three attestations), and ***ba-a*-zi** 'it was expended' (about seven attestations): far too many exceptions in all to be discounted as mere scribal mistakes, especially because such spellings hardly occur outside Lagash texts. These recurring deviations from the norm suggest to me that the prefix {ba} had a long vowel in the Lagash area, or at least, in part of it. Thus the non-standard spellings would reflect intrusions of the local dialect into the written standard language.

21.3. The middle uses of {ba}

21.3.1. General remarks

An often quoted definition of the meaning of the middle voice is the one given by Lyons (1968: 373): the middle voice indicates 'that the "action" or "state" affects the subject of the verb or his interests'. As an indication of meaning this is somewhat abstract. In fact, although middle voice markers are found in a great many languages, they do not have exactly the same uses in all these languages. In a study based on about thirty different languages with middle markers, Kemmer (1993: 267-270) identified sixteen possible uses for middle markers. The Sumerian prefix {ba} displays at least three of them.

The first middle use to be discussed is that of indirect reflexive (§21.3.2). For Poebel (1923: 243-248) the reflexive use of {ba} was its most central function, but although there can be no doubt that he overstates the significance of this function, its absence from almost all recent grammars is, in my view, an unfortunate oversight.

The second middle use is that of expressing a change of state (§21.3.3). To the best of my knowledge, this use has not been identified before.

The third and most common middle use of {ba} is that of a passive marker (§21.3.4). It is also the only middle use of {ba} that is completely uncontroversial. Its existence is something over which all Sumerian grammars have been in agreement for as long as a century.

In many respects, the semantics of middle {ba} are still poorly understood. Further research into the uses of {ba} with specific verbs and in specific contexts may easily lead to the discovery of further middle uses, or to an improved description of the three identified here.[1]

As we shall see in the following sections, the middle uses of {ba} are linked to each other as well as to the uses of {ba} as the indirect-object prefix non-human. Thus, all uses of {ba} are somehow semantically interlinked, which shows that the various uses of {ba} reflect an instance of polysemy: also from a semantic point of view, there is only one prefix {ba}.

21.3.2. Indirect reflexive

One middle use of {ba} is that it expresses the indirect reflexive. It then indicates that the verb has an indirect object which refers to the same person or thing as the subject. Compare, for instance, the following two clauses, which are about the same event:

(9) **u_4-*ba* ensi$_2$-*ke$_4$* kalam-*ma-na* zi-*ga ba-ni*-ĝar**
u_4.d=be =ʔa ensi$_2$.k=e kalam =ane=ʔa zi.ga=Ø Ø -ba -ni-n -ĝar -Ø
day=this=LOC ruler =ERG country=his =LOC levy =ABS VP-MM-in-3SG.A-place-3N.S/DO
'Then the ruler organized a levy for himself in his land.' (Cyl A 14:7; L; 22)

(10) **im-ru-*a* ^{d}nanše-*ka* / zi-*ga mu-na*-ĝál**
im.ru.a nanše =ak =ʔa zi.ga=Ø Ø -mu -nna -n(i)-ĝál -Ø
clan Nanshe=GEN=LOC levy =ABS VP-VENT-3SG.IO-in -be.there-3N.S/DO
'There was for him (=the ruler) a levy in Nanshe's clan.' (Cyl A 14:7; L; 22)

The second clause only refers to the person of the ruler by means of the indirect-object prefix {nna}, but in the first clause he is referred to twice: by the subject as well as by the indirect object. Hence, the use of {ba}.

The Old Sumerian phrasal verb **na—ri.g** 'clear, cut out (wood)' (Sallaberger 2005) occurs dozens of times in the texts of the Emi (Yoshikawa 1993: 177). Whenever an official of the Emi cuts out wood in woods of the Emi, the verb lacks {ba}, but if an outsider does the cutting, the verb nearly always shows {ba}. The Emi official cuts wood on behalf of the Emi, but the outsider cuts on his own behalf. E.g.:

(11) **tir abbar^{ki} / ^{d}*ba-ú-ka* / en-ig-gal / *nu*-banda$_3$ / na *bí*-ri**
tir abbar=ak ba.ú=ak =ʔa en.ig.gal nu.banda$_3$=e
forest Abbar=GEN Bau =GEN=LOC Eniggal overseer =ERG

na=e Ø -bi -n -ri.g -Ø
? =DIR VP-3N.OO-3SG.A-clear-3N.S/DO
'Eniggal, the overseer, cleared this (wood) out in Bau's (= the Emi's) forest in Abbar.' (DP 436 10:2-6; L; 24)

(12) **tir é-mí-*ka* / lugal-an-*da* / ensi$_2$ / lagas^{ki}-*ke$_4$* / na *ba-ni*-ri**

[1] For a much more detailed discussion of the middle uses of {ba}, based on a much larger corpus, see now Woods (2008: 163-212, 225-257). Note, however, that his semantic analysis is based on a different morphological analysis of the verb. Where Woods sees two separate middle-marking prefixes *imma-* and *ba-*, the present grammar sees only one, {ba}, taking Woods' *imma-* as a complex form consisting of three independent prefixes, viz. the vocalic prefix {ʔi}, the ventive prefix {mu}, and the prefix {ba}.

tir é.mí=ak =ʔa lugal.an.da ensi$_2$ lagas =ak =e na=e
forest Emi =GEN=LOC Lugalanda ruler Lagash=GEN=ERG ? =DIR

Ø -ba -ni-n -ri.g -Ø
VP-MM-in -3SG.A-clear-3N.S/DO
'In the forest of the Emi, Lugalanda, ruler of Lagash, cleared this (wood) out for himself.' (DP 426 2:2-3:2; L; 24)

An indirect object can have a variety of meanings (§17.3). It can, for instance, express the beneficiary of an action. Thus, middle {ba} can indicate that the subject performs the action for himself, as in example 9 above and in the following clauses:

(13) **kur-kur *e-ma*-ḫuĝ**
kur -kur =Ø ʔi -m(u) -ba -n -ḫuĝ-Ø
mountains-mountains=ABS VP-VENT-MM-3SG.A-hire-3N.S/DO
'He hired the foreign lands for himself.' (Ent. 28 3:1; L; 25)

(14) **šúm^{sar}-*ĝu$_{10}$* *ba-an*-zuḫ *bí*-du$_{11}$ / é-*a-na* *ba-ni*-ku$_4$-*ra-à*[*m*]**
šúm =ĝu =Ø ba -n -zuḫ -Ø bi -n -du$_{11}$.g-Ø
garlic=my=ABS MM-3SG.A-steal-3N.S/DO 3N.OO-3SG.A-say -3N.S/DO

é.j =ane=ʔa Ø -ba -ni-n -ku$_4$.r-Ø -ʔa =ʔam
house=his =LOC VP-MM-in -3SG.A-enter -3N.S/DO-NOM=be:3N.S
'"He stole my garlic (for himself)", he said, "and (it is the case that) he brought it into his house (for himself)".' (NG 129 8'-9'; L; 21)

(15) **é diĝir-*e-ne-ke$_4$* *ba-ab*-dab$_5$**
é diĝir=enē=ak =e Ø -ba -b -dab$_5$-Ø
house god =PL =GEN=ERG VP-MM-3N.A-take -3N.S/DO
'The temples of the gods took this for themselves.' (PDT 2:1240 2; D; 21)

With motion verbs the indirect object expresses the participant that is the endpoint of the motion. Expressing an indirect reflexive with such verbs, {ba} indicates that the subject is also the endpoint of the motion. E.g.:

(16) **u$_4$ é-gal-*e* *ba-ab*-túm-*ma-ta***
u$_4$.d é.gal =e Ø -ba -b -túm -Ø -ʔa =ta
day palace=ERG VP-MM-3N.A-bring-3SG.S/DO-NOM=ABL
'since the day the palace took him away (lit. "brought him to itself")' (NG 190 59; L; 21)

(17) ***ì-na-zé-er-e* / *ba-ab*-túm-*mu***
ì.na.zé.er=e Ø -ba -b -túm -e
Inazer =ERG VP-MM-3N.DO-bring-3SG.A:IPFV
'Inazer will take it (= a donkey) away (lit. "will bring it to himself").' (BPOA 1:1285 9-10; U; 21)

(18) **u$_4$ PN ensi$_2$ / *ḫa-ma-zé*^{ki}-*ke$_4$* / é-gi$_4$-*a-né* *ba-an*-túm-*ma-a***
u$_4$.d PN ensi$_2$.k ḫa.ma.zé=ak =e é.gi$_4$.ʔa =ane=Ø
day PN ruler Hamaze =GEN=ERG daughter.in.law=his =ABS

Ø -ba -n -túm -Ø -ʔa =ʔa
VP-MM-3SG.A-bring-3SG.S/DO-NOM=LOC

'when PN, the ruler of Hamaze took his daughter-in-law with him (lit. "brought her to himself")' (AUCT 3:84 2-4; D; 21)

(19) **saĝ apin-*ke$_4$*-*ne* / anše ĝiš-*šè* / *ba*-ra**
saĝ apin =ak =enē=e anše ĝiš =ak =še Ø -ba -b -ra -Ø
head plough=GEN=PL =ERG donkey wood=GEN=TERM VP-MM-3N.A-drive-3N.S/DO
'The chief ploughmen drove these (donkeys) off (lit. "drove them to themselves") as draught animals.' (Nik 1:198 2:5-3:2; L; 24)

The Old Sumerian texts from Lagash which register supplies include two kinds of transitive forms of the verb **ĝar** 'place', one with and one without middle {ba}. They differ as follows. The transitive forms of **ĝar** without {ba} mean 'supply (someone) with (something)' (lit. 'place (something for someone)'), with the recipient construed as an indirect object. E.g.:

(20) **PN / *nu*-banda$_3$ / é ki-sal$_4$-*la-ta* / *e-na-ta*-ĝar**
PN nu.banda$_3$=e é ki.sal$_4$=ak =ta ʔi -nna -ta -n -ĝar -Ø
PN overseer =ERG house Kisal =GEN=ABL VP-3SG.IO-from-3SG.A-place-3N.S/DO
'PN, the overseer, supplied him (viz. a chief ploughman) with this (barley for feeding oxen) out of the house of Kisal.' (VS 14:133 3:6-4:2; L; 24)

The transitive forms of **ĝar** with {ba} lack a separate indirect object, the recipient being the same person as the subject. The verb can then be translated as 'be supplied with' (lit. 'place (something) for oneself'). E.g.:

(21) **PN / sipa maš gal-gal-*ke$_4$* / *ba*-ĝar**
PN sipa.d maš gal-gal=ak =e Ø -ba -n -ĝar -Ø
PN shepherd goat big-big =GEN=ERG VP-MM-3SG.A-place-3N.S/DO
'PN, the shepherd of full-grown he-goats, was supplied with them (viz. fifty he-goats).' (Nik 1:186 3:3-5; L; 24)

All the preceding examples involved indirect reflexives where the indirect object refers to the same person or thing as the *transitive* subject. The construction with {ba} is also used with an indirect object referring to the same person or thing as the *intransitive* subject:

(22) ***a-šà in*-dab$_5$-*ba-na* / *na-ba-a*-řú**
a.šà.g ʔi -n -dab$_5$-Ø -ʔa =ane=ʔa nan -ba -e -řú -ed -Ø
field VP-3SG.A-seize -3N.S/DO-NOM=his =LOC NEG.MOD-MM-on-hold-IPFV-3SG.S:IPFV
'He should not hold on for himself to the field which he has seized!' (TCS 1:229 7-8; L; 21)

The use of {ba} to express indirect reflexives follows therefore a non-ergative, accusative pattern (§11.4.3). This is normal, also in ergative languages (Dixon 1994: 139).

The use of {ba} to express an indirect reflexive is obviously linked to its use to express an indirect object non-human. But there is an important difference: expressing an indirect reflexive, {ba} has no gender restrictions and is equally used for non-human and human indirect reflexives. This is clearly borne out by the examples above. Note, however, that indirect reflexive {ba} is not the only formative with {b} having human reference (§6.2).

While the indirect reflexive is the exclusive domain of the prefix {ba}, for all other reflexive situations Sumerian uses a special reflexive pronoun (§8.7). As a rule, that reflexive pronoun is not used as an indirect object, but there is one exception, an Umma text, where {ba} and the reflexive pronoun are used together. That text registers, among other things, beer

and bread supplies to priests. But the priests did not only take the amounts they were entitled to for their priestly duties, but also additional amounts. The text states about these extra's:

(23) **gudu$_4$-*e* diri-*šè* ní-*bé* *ba-ab*-dab$_5$**
gudu$_4$.g=e diri.g=še ní =be=e Ø -ba -b -dab$_5$-Ø
priest =ERG extra =TERM self=its=DIR VP-3N.IO/MM-3SG.A-place-3N.S/DO
'The priests took it as extra for themselves.' (SAT 3:2186 31; U; 21)

Elsewhere, such clauses with ***ba-ab*-dab$_5$** lack the reflexive pronoun, proving that the preceding example really is exceptional. E.g.:

(24) **má-*bé* gudu$_4$ ^{d}šara$_2$-*ke$_4$* / *ba-ab*-dab$_5$**
má =be =Ø gudu$_4$.g šara$_2$=ak =e Ø -ba -b -dab$_5$-Ø
boat=this=ABS priest Shara=GEN=ERG VP-3N.IO/MM-3SG.A-place-3N.S/DO
'This boat the priests of Shara took for themselves.' (MVN 14:35 obv 4-5; U; 21)

21.3.3. Change of state

The second middle use of {ba} is linked to what Kemmer (1993: 142-147) calls the semantic domain of 'spontaneous events', events whereby someone or something undergoes a change of state without the involvement of an agent. This particular use accounts for the presence of {ba} in clauses such as the following:

(25) **má-*bé* *ba*-su**
má =be =Ø Ø -ba -su.ř-Ø
boat=this=ABS VP-MM-sink -3N.S/DO
'This boat sank.' (NG 62 8; U; 21)

(26) ***ba*-ug$_7$-*ge-éš***
Ø -ba -ug$_7$ -eš
VP-MM-die:PLUR-3PL.S/DO
'They have died.' (Nik 1:7 1:4; L; 24)

(27) **u$_4$ geme$_2$-^{d}lama$_3$ *ba*-ug$_7$-*e-da-a***
u$_4$.d geme$_2$.lama$_3$=Ø Ø -ba -ug$_7$ -ed -Ø -ʔa =ʔa
day Geme.Lama =ABS VP-MM-die:IPFV-IPFV-3SG.S:IPFV-NOM=LOC
'when Geme-Lama dies' (NG 7 15; L; 21)

(28) **u$_4$ imin-*kam-ma-ka* / u$_4$ *ba*-búr**
u$_4$.d imin -kamma=ak =ʔa u$_4$.d Ø -ba -búr -Ø
day seven-ORD =GEN=LOC weather VP-MM-undo-3N.S/DO
'(After a period of extreme cold,) the weather improved on the seventh day.' (PPAC 1:A.988 7-8; A; 23)

With stative verbs, the prefix {ba} specifically indicates that the subject enters the state expressed by the verb. Thus, an adjectival verb then has the meaning 'become (adjective)' instead of 'be (adjective)' or 'make (adjective)' (§10.5.1). E.g.:

(29) **é *a-ba*-sumun**
é =Ø ʔu -ba -sumun-Ø
house=ABS REL.PAST-MM-be.old -3N.S/DO
'after the temple has become old' (FAOS 9/2 Amarsuen 12 32; Ur; 21)

(30) **u_4 aš ĝi$_6$ aš-*a* *ba*-sa$_6$**
u_4.d aš ĝi$_6$ aš =ʔa Ø -ba -sa$_6$.g -Ø
day one night one=LOC VP-MM-be.good-3N.S/DO
'In a day and a night he (=the patient) will become better.' (TMHC 6:6 28; N; 21/20)

This use of {ba}, expressing that the subject enters the state expressed by the verb, is not restricted to 'spontaneous events' but is also found with other kinds of stative verbs. E.g.:

(31) **mu gibil an-*na* *im-ma*-gub**
mu gibil=Ø an =ʔa ʔi -m(u)-ba -n(i)-gub -Ø
year new =ABS heaven=LOC VP-VENT-MM-in -stand-3N.S/DO
'A new year took its stand in heaven.' (Cyl B 3:6; L; 22)

Similarly, the verb **tuku** 'have, possess': its finite forms with the prefix {ba} have the basic meaning 'come to have, get'. Thus, in finite forms with the meaning 'marry (a woman)' (lit. 'come to have (a woman)'), **tuku** always has middle {ba}:

(32) **PN$_1$ dumu *ab-ba* unu$_3$-*ke$_4$* / PN$_2$ dumu ur-še-íl-*la-ka* / *ba-an*-tuku**
PN$_1$ dumu ab.ba unu$_3$.d =ak =e PN$_2$ dumu ur.še.íl.la.k=ak =Ø
PN$_1$ child Abba shepherd=GEN=ERG PN$_2$ child Ursheilla =GEN=ABS

Ø -ba -n -tuku-Ø
VP-MM-3SG.A-get -3SG.S/DO
'PN$_1$, the son of Abba the cattle shepherd, married PN$_2$, the daughter of Ur-Sheilla.' (NG 2 2-4; L; 21)

Cross-linguistically, it is not at all strange for middle markers to combine the use as an indirect reflexive with that of expressing a change of state (cf. Kemmer 1993). In this sense, it is not a problem that {ba} combines these two uses. But such middle markers tend to be used for the direct reflexive as well, which according to Kemmer (1993: 211) serves as a semantic link between all these uses. The prefix {ba}, however, lacks this link because it is never used to express a direct reflexive. Nor am I able to offer some other plausible semantic link between the use of {ba} for designating a change of state and its use to express an indirect reflexive or a non-human indirect object. Perhaps the missing link is to be found in a still unrecognized use.

21.3.4. Passive

A third middle use of the prefix {ba} is to express a kind of passive. This use is limited to intransitive forms. The prefix {ba} then indicates that the subject is directly affected by an action performed by an anonymous agent. This agent is never expressed in the clause. The passive use of {ba} can be illustrated with Ur III year names, which often have both a transitive and an intransitive variant. The intransitive variants, lacking the agent, consistently display verbal forms with the middle marker {ba}. Contrast, for instance, the following two pairs of variant year names:

(33a) **mu PN lugal-*e* *ur-bí-lum*^{ki} *mu*-ḫulu**
mu PN lugal=e ur.bí.lum=Ø Ø -mu -n -ḫulu -Ø
year PN king =ERG Urbilum =ABS VP-VENT-3SG.A-destroy-3N.S/DO
'The year: PN, the king, destroyed Urbilum.' (AUCT 1:70 7; D; 21)

(b) **mu *ur-bí-lum*^{ki} *ba*-ḫulu**

mu ur.bí.lum=Ø Ø -ba -ḫulu -Ø
year Urbilum =ABS VP-MM-destroy-3N.S/DO
'The year: Urbilum was destroyed.' (AUCT 1:883 7; D; 21)

(34a) **mu PN lugal-*e* bàd *ma-da mu*-řú**
mu PN lugal=e bàd ma.da=ak =Ø Ø -mu -n -řú -Ø
year PN king =ERG wall land =GEN=ABS VP-VENT-3SG.A-erect-3N.S/DO
'The year: PN, the king, built the wall of the land.' (MVN 14:125 rev 1; U; 21)

(b) **mu bàd *ma-da ba*-řú**
mu bàd ma.da=ak =Ø Ø -ba -řú -Ø
year wall land =GEN=ABS VP-MM-erect-3N.S/DO
'The year: The wall of the land was built.' (MVN 2:359 9; ?; 21)

Middle {ba} also expresses the passive of causatives (§18.3.2). In one such use, it indicates the passive of a causative derived from an intransitive verb. The intransitive verb **ku$_4$.r** 'enter', for instance, can also be used transitively and then has the causative meaning 'cause to enter, bring into'. If an intransitive form of the verb **ku$_4$.r** 'enter' contains middle {ba}, **ku$_4$.r** has the meaning 'be brought into', a passive meaning derived from the causative meaning 'bring into':

(35) **é-gal-*la ba-an*-ku$_4$**
é.gal =ʔa Ø -ba -n(i)-ku$_4$.r-Ø
palace=LOC VP-MM-in -enter -3N.S/DO
'This was brought into the palace.' (ITT 3:6160 3; L; 21)

If an intransitive form of the verb **ku$_4$.r** 'enter' lacks the prefix {ba}, **ku$_4$.r** simply means 'enter':

(36) ***an-nu-ni-tum* / šà é-*šè mu*-ku$_4$-*ra***
an.nu.ni.tum=Ø šà.g é =ak =še Ø -mu -n(i)-ku$_4$.r-Ø -ʔa =ʔa
Annunitum =ABS heart house=GEN=TERM VP-VENT-in -enter -3SG.S/DO-NOM=LOC
'when Annunitum entered the heart of the temple' (MVN 1:143 7-8; D; 21)

The verb **nú** 'lie' shows the same pattern. In intransitive verbal forms with the prefix {ba}, this verb means 'be caused to lie, be laid down':

(37) **u$_4$ *ba*-nú-*a***
u$_4$.d Ø -ba -nú-Ø -ʔa =ʔa
day VP-MM-lie -3SG.S/DO-NOM=LOC
'when she was laid down (in her grave)' (UET 3:335 7'; Ur; 21)

The prefix {ba} also expresses the passive of causatives derived from transitive verbs. The following pair of examples illustrates both the causative of the transitive verb **gu$_7$** 'eat' and the passive belonging to it:

(38a) **geme$_2$ dumu diĝir-*ne* / PN$_1$ / dam PN$_2$ / lugal / lagas^{ki}-*ka-ke$_4$* / é-mí-*a* / *bí*-gu$_7$**
geme$_2$ dumu diĝir=ak =enē=e PN$_1$ dam PN$_2$ lugal
slave.woman child god =GEN=PL =DIR PN$_1$ wife PN$_2$ king

lagas =ak =ak =e é.mí=ʔa Ø -bi -n -gu$_7$-Ø
Lagash=GEN=GEN=ERG Emi =LOC VP-3N.OO-3SG.A-eat -3N.S/DO
'PN$_1$, the wife of PN$_2$ the king of Lagash, gave the slave women and children of the gods this to eat (lit. "caused them to eat this") in the Emi.' (DP 159 8:5-7:12; L; 24)

(b) **geme$_2$-*uš*-*bar*-*e* *ba*-*ab*-gu$_7$**
geme$_2$.uš.bar =e Ø -ba -b -gu$_7$-Ø
weaver.woman=DIR VP-MM-3N.OO-eat -3N.S/DO
'The weaver women were given this to eat (lit. "were caused to eat this").' (UNT p.250:59 2; L; 21)

Contrast the preceding two causative forms of **gu$_7$** 'eat' with the following two non-causative ones. The first example is transitive and lacks {ba}, while the second is intransitive and includes {ba} with passive use:

(39) **1 udu ur-*re* *íb*-gu$_7$**
1 udu=Ø ur =e ʔi -b -gu$_7$-Ø
1 ram=ABS dog=ERG VP-3N.A-eat -3N.S/DO
'One ram: the dogs ate it.' (BM 21797 12; L; 21)

(40) ***ba*-gu$_7$**
Ø -ba -gu$_7$-Ø
VP-MM-eat -3N.S/DO
'These (goats) were eaten.' (DP 245 3:3; L; 24)

Passive {ba} is not restricted to perfective forms, as in the preceding examples, but occurs in imperfective forms as well:

(41) **u$_4$-*da* ka-*ka*-*na* níĝ erim$_2$ *ba*-*ĝá*-*ĝá***
u$_4$.da ka.k =ane=ʔa níĝ erim$_2$=Ø Ø -ba -n(i)-ĝar:RDP-ed -Ø
if mouth=her =LOC thing evil =ABS VP-MM-in -place:IPFV-IPFV-3SG.S:IPFV
'if something evil is placed in her mouth' (RTC 16 6:1; L; 25)

The passive use of {ba} originated in Southern Sumerian and is already attested there in the Old Sumerian period. It is extremely common in the texts from the Ur III period and is then even found in texts from the North. Nevertheless, Northern Sumerian usually has the prefix {ʔa} in verbal forms which have passive {ba} in Southern Sumerian (§24.5.2).

While the use of {ba} as a passive marker is, at least in origin, restricted to Southern Sumerian, its use to express a change of state (see the previous section) is not limited to a particular dialect: the form ***ba*-úš** 'it/he/she died', for instance, is attested in Old Sumerian texts from the entire country.

Without doubt, this passive use of {ba} developed from its use to express a change of state. It resulted from a semantic development similar to the one that gave rise to the German passive auxiliary *werden*. That verb was first used in expressions like *gekocht werden* 'become cooked' (cf. *alt werden* 'become old'), but at some point in time a shift in meaning took place from the resultant state to the action which led to that state, so that *gekocht werden* came to mean 'be cooked'. A similar shift in meaning happened with {ba}. Thus, the meaning 'it was eaten' of ***ba*-gu$_7$** comes from something like 'it entered the state of having been eaten'.

This shift of meaning has led to ambiguity in those verbal forms where {ba} could already be used to express a change of state. Thus, **ba-úš** can mean both 'it/he/she died' (change of state) and 'it/he/she was killed' (passive of causative). Only the context can make clear which one of the two possible interpretations applies.

22. THE VENTIVE PREFIX {mu}

22.1. Introduction

The principal treatment of the Sumerian ventive is still Foxvog (1974), which unfortunately has remained unpublished except for a brief summary (Foxvog 1975: 400-1 note 17). The following description owes a great deal to Foxvog, although it does not follow his analysis in every respect.

The ventive prefix is {mu} and means 'hither' or 'here'. In the relative order of the verbal prefixes, it follows the prefix {nga} (chapter 23) and precedes the prefix {ba} (§17.2.1 and chapter 21) and the initial person-prefix non-human {b} (§16.2.1):

(1) **é-an-*na*-túm-*me* / gal *na-ga-mu*-zu**
é.an.na.túm=e gal =Ø na -nga-mu -n -zu -Ø
Eannatum =ERG greatness=ABS PFM-also-VENT-3SG.A-know-3N.S/DO
'Eannatum truly knows greatness too!' (Ean. 1 obv 21:12-13; L; 25)

(2) **é-*e* *im-ma*-ĝen**
é.j =e ʔi-m(u) -ba -ĝen-Ø
house=DIR VP-VENT-3N.IO-go -3SG.S/DO
'He came to the temple.' (Cyl A 18:8; L; 22)

(3) **kur-kur *e-ma*-ḫuĝ**
kur -kur =Ø ʔi -m(u) -ba -n -ḫuĝ-Ø
mountains-mountains=ABS VP-VENT-MM-3SG.A-hire -3N.S/DO
'He hired himself the foreign lands.' (Ent. 28 3:1; L; 25)

The following section will treat the forms and spellings of the ventive prefix in detail (§22.2), while its meaning and usage will be the topic of the third section of this chapter (§22.3). The final section discusses the verbal forms in which the non-human person prefix {b} cannot co-occur with the ventive prefix (§22.4).

22.2. Forms and spellings

The basic form of the ventive prefix is /mu/, but the /u/ of the prefix is lost in the sequence /muCV/, that is, if followed by a consonant and a vowel (§3.9.4). Before the indirect-object prefix {ra}, the oblique-object prefix {ri}, and the local prefix {ni}, however, the /u/ is always retained but may assimilate to the vowel of the following syllable. These fundamental rules are much obscured by the spelling.

Before a cluster of two consonants, the ventive prefix always has the form /mu/. E.g.:

(4) **guru$_7$-*a* *a-na* *mu-un*-taka$_4$-*a***
guru$_7$ =ʔa a.na=Ø Ø -mu -n(i)-taka$_4$-Ø -ʔa
granary=LOC what=ABS VP-VENT-in -leave -3N.S/DO-NOM
'whatever is left in the granary' (TCS 1:306 6; U; 21)

Because the writing system tends to ignore syllable-final consonants (§2.4), usually only the second of the two consonants following /mu/ is written. In the texts of our corpus, /mu/ is mostly followed by the consonant /n/, because /n/ is the initial consonant of those prefixes which happen to be attested most often after the ventive prefix. The full spelling ***mu-un-***, though, is not attested before the Ur III period and is extremely rare even in that period, so that

the sequence /mun/ nearly always is written ***mu-***, without the syllable-final /n/. The first of the following two examples gives one of the rare full spellings, while the second illustrates a typical defective spelling:

(5) **kaskal-*a mu-un-ti-il***
kaskal =ʔa Ø -mu -n(i)-ti.l -Ø
journey=LOC VP-VENT-in -live-3SG.S/DO
'He was on a journey.' (NG 214 28; U; 21)

(6) ***a-bu-ni* kaskal-*a mu-ti-la-àm***
a.bu.ni=Ø kaskal =ʔa Ø -mu -n(i)-ti.l -Ø -ʔa =Ø =ʔam
Abūni =ABS journey=LOC VP-VENT-in -live-3SG.S/DO-NOM=ABS=be:3N.S
'It was (the case) that Abūni was on a journey.' (AOAT 25 p. 445 2:6; L; 21)

Another contrasting pair of forms can be found in the royal inscriptions of Amarsuen. The following clause contains a for the Ur III period unique spelling of the verbal form:

(7) **en ki áĝ-*ĝá-né* / *mu-un-na-ni-in*-ku$_4$**
en ki áĝ =ane=Ø Ø -mu -nna -ni-n -ku$_4$.r-Ø
highpriestess beloved=his =ABS VP-VENT-3SG.IO-in -3SG.A-enter-3SG.S/DO
'He (viz. king Amarsuen) let his (viz. of the god Nanna) beloved highpriestess enter it (viz. her newly built residence) for him (viz. Nanna).' (FAOS 9/2 Amarsuen 8 9-10; ?; 21)

The same clause is attested in the texts FAOS 9/2 Amarsuen 6 (ll. 23-24) and 11 (ll. 23-24) with the verbal form written ***mu-na-ni*-ku$_4$**. The latter spelling is the normal one for texts prior to the Old Babylonian period. But from that period onwards, the full spelling **mu-un-** is quite common.

The presence of a consonant cluster after /mu/ can also be obscured by how certain verbal stems are transliterated. Although all verbal stems begin with a consonant (§3.10), the initial consonant of the verbal stem is ignored in the transliteration if it is a glottal stop or some consonant lost before the Old Babylonian period. E.g.:

(8) **gurum$_2$-*bé mu*-ak**
gurum$_2$ =be=Ø Ø -mu -n -ʔak -Ø
inventory=its=ABS VP-VENT-3SG.A-make-3N.S/DO
'He made its inventory.' (DP 247 4:5; L; 24)

The following are further examples of the ventive prefix with the form /mu/:

(9) ***mu-ne*-řú**
Ø -mu -nnē -n -řú -Ø
VP-VENT-3PL.IO-3SG.A-erect-3N.S/DO
'He built it for them.' (Ent. 74 3:2; L; 25)

(10) (...) **mu *mu-né*-sa$_4$**
mu =š(e) Ø -mu -nni -n -sa$_4$ -Ø
name=TERM VP-VENT-3SG.OO-3SG.A-name-3N.S/DO
'She gave him (...) as a name.' (Ean. 1 obv. 4:23; L; 25)

(11) **en-ig-gal / *nu*-banda$_3$ / saĝ apin-*na-ke$_4$-ne* / *mu-neda*-gíd**
en.ig.gal nu.banda$_3$=e saĝ apin =ak =enē=d(a)
Eniggal overseer =ERG head plough=GEN=PL =COM

Ø -mu -nnē-da -n -gíd -Ø
VP-VENT-3PL -with-3SG.A-survey-3N.S/DO
'Eniggal the overseer surveyed this (land) together with the chief ploughmen.' (DP 598 4:5-3:3; L; 24)

The ventive prefix also has the form /mu/ before the first person prefix {ʔ} (§13.2.5 and §16.2.5), the second person prefix {e} (§13.2.4 and §16.2.4), and the local prefix {e} (§20.3.1). These prefixes contract with the /u/ of /mu/, lengthening it. The spelling often ignores the resulting long vowel, but from the time of Gudea onwards, we occasionally find the plene spelling ***mu-ù***, which indicates the long vowel explicitly (§3.9.2). (For more details, see the sections referred to.):

(12) ***mu-da-an*-kar**
Ø -mu -ʔ -da -n -kar -Ø
VP-VENT-1SG-with-3SG.A-take.away-3N.S/DO
'He took it away from me.' (NG 214 25; U; 21)

(13) ***nu-mu-ù*-gi$_4$-*éš* *nu-mu-ù*-daĝal-*e-ša-a***
nu =Ø -mu -ʔ -gi$_4$ -eš nu =Ø -mu -ʔ -daĝal -eš -ʔa
NEG=VP-VENT-1SG.A-turn-3PL NEG=VP-VENT-1SG.A-be.wide-3PL-NOM
'those, whom I did not turn back and did not disperse' (Shulgi D 217; ?; OB copy of Ur III royal hymn)

(14) ***ĝe$_{26}$ a-na mu-ù-da*-zu**
ĝe=e a.na=Ø Ø -mu -e -da -ʔ -zu -Ø
I =ERG what=ABS VP-VENT-2SG-with-1SG.A-know-3N.S/DO
'What have I learned from you?' (Cyl A 9:4; L; 22)

(15) **1 úr-níĝ-du$_{10}$ urdu$_2$ é-lú-*ta* *ù-mu*-duḫ**
úr.níĝ.du$_{10}$.g urdu$_2$.d=Ø é.lú=ta ʔu -mu -e -duḫ -Ø
Urnigdu slave =ABS Elu =ABL REL.PAST-VENT-2SG.A-loosen-3N.S/DO
'when you redeem Urnigdu, the slave, from Elu' (NG 28 9'; L; 21)

(16) **maš *mu-ù-ĝá-ĝá***
maš =Ø Ø -mu -e -ĝar:RDP-e
interest=ABS VP-VENT-on-place:IPFV-3SG.A:IPFV
'He will pay interest on it.' (TCS 1:19 10; L; 21)

If followed by a consonant and a vowel, the /u/ of the ventive prefix is lost, mostly without a trace. But immediately before the stem, the loss of /u/ is accompanied by the lengthening of the vowel of a preceding vocalic prefix {ʔu}, {ʔa}, or {ʔi} (chapter 24).[1] The resulting long vowel can be indicated with plene writings such as ***ù-um*** and ***ì-im*** from the Old Akkadian period onwards, but less explicit spellings are also found. (A plene spelling ***a-àm-*** with a preceding vocalic prefix {ʔa} is not attested, but that may be a coincidence.) E.g.:

(17) **lugal ki-en-gi-*šè* / *ì-im*-ĝen-*na-a***
lugal=Ø ki.en.gi.r=še ʔi -m(u)-ĝen-Ø -ʔa =ʔa
king =ABS Sumer =TERM VP-VENT-go -3SG.S/DO-NOM=LOC

[1] Note that a vowel loss under similar conditions with a similar compensatory lengthening of a preceding vocalic prefix also takes place before the local prefix {ni} (§20.2.1) and before the form /bi/ of the local prefix {e} (§20.3.1).

'when the king came to Sumer' (MCS 9:247 29-30; U; 23)

(18) **ensi$_2$** ***a-ga-dè^{ki}-ta / im-*****ĝen-*****na***
ensi$_2$.k=Ø a.ga.dè=ta ʔi -m(u) -ĝen-Ø -ʔa =ʔa
ruler =ABS Akkad =ABL VP-VENT-go -3SG.S/DO-NOM=LOC
'when the ruler came from Akkad' (ITT 1:1104 17-18; L; 23)

(19) **kišib** ***gu-du-du / ù-um-*****ře$_6$**
kišib gu.du.du=ak =Ø ʔu -m(u) -ře$_6$ -Ø
seal Gududu =GEN=ABS REL.PAST-VENT-bring-3N.S/DO
'when Gududu's sealed document is brought' (MVN 16:1530 obv 3-4; U; 21)

(20) ***en-na àm-*****du**
en.na ʔa-m(u) -du -Ø
until VP-VENT-go:IPFV-3SG.S:IPFV
'until he comes' (TCS 1:125 8; N; 21)

In other environments, the loss of the /u/ does not seem to have led to compensatory lengthening of a preceding vowel, but a few irregular plene writings suggest that there are exceptions to this rule. Take, for example, the following form:

(21) **túg-*****šè im-ši-*****ĝen-*****na***
túg =še ʔi -m(u)-ši-ĝen-Ø -ʔa
cloth=TERM VP-VENT-to-go -3SG.S/DO-NOM
'who came for cloth' (MVN 16:857 obv. 3; U; 21)

This spelling ***im-ši-*****ĝen-*****na*** is the normal one and it occurs dozens of times. Yet, once or twice we find ***ì-im-ši-*****ĝen-*****na*** (UET 3:898 10; Ur; 21; and probably also in STA 8 7:24; L; 21).[2] With the ventive prefix before the stem, though, the numbers are the exact opposite. The spelling ***ì-im-*****ĝen-*****na-*****(*****a*****)**, as e.g. in ex. 17 above, is the regular one during the Ur III period, occurring more than thirty times. But the spelling ***im-*****ĝen-*****na*** seems to occur only once in that period (UTAMI 4:2525 obv. 4; U; 21).

The loss of the /u/ in the environment /muCV/ results in a consonant cluster /mC/. This change of the ventive prefix has huge consequences for the behaviour of the two vocalic prefixes {ʔi} and {ʔa} before it. Whereas they are always represented by zero before the form /mu/ of the ventive prefix (for examples see above), they are always retained before the consonant cluster /mC/ (§24.3.1). E.g.:

(22) **zadim** ***im-da-*****tuš**
zadim =Ø ʔi -m(u)-da -tuš-Ø
stonecutter=ABS VP-VENT-with-sit -3SG.S/DO
'A stonecutter was on duty with it.' (Cyl A 16:27; L; 22)

(23) ***é-e im-mi-*****dab$_6$**
é.j =e ʔi -m(u) -bi -n -dab$_6$ -Ø
house=DIR VP-VENT-3N.OO-3SG.A-surround-3N.S/DO
'He had them surround the temple.' (Cyl A 23:4; L; 22)

(24) **lú inim-*****ma-šè im-ta-*****è-*****eš***

[2] The various plene spellings have been collected by Wilcke (1988).

lú inim=ak =še ʔi -m(u)-ta -ʔè -eš
man word=GEN=TERM VP-VENT-from-go.out-3PL.S/DO
'They came forward as witnesses.' (NG 214 55; U; 21)

The spelling of the form /m/ of the ventive prefix suffers from the same fate as other syllable-final consonants (§2.4). It is only during the later Old Akkadian period that the sound sign ***im*** comes into use. Earlier, a syllable-final /m/ is never written after an /i/ or an /e/, so that the ventive prefix is not represented at all in most forms where it lacks the vowel /u/. E.g.:

(25) **má-*a* *e-me*-ĝar**
má =ʔa ʔi-m(u) -bi -n -ĝar -Ø
boat=LOC VP-VENT-3N:on-3SG.A-place-3N.S/DO
'He put this on a boat.' (DP 470 4:5; L; 24)

(26) **é-gal-*šè* / *e-ma*-ře$_6$**
é.gal =še ʔi -m(u) -ba -ře$_6$ -Ø
palace=TERM VP-VENT-MM-bring-3N.S/DO
'It was brought to the palace.' (DP 416 2:5-3:1; L; 24)

(27) **"..." / *ì-mi*-du$_{11}$**
ʔì -m(u)-bi -n -du$_{11}$.g-Ø
VP-VENT-3N.OO-3SG.A-do -3N.S/DO
'He said: "...".' (Ent. 28 4:29; L; 25)

In these three forms, the assimilation of the /b/ to the preceding /m/ proves the presence of the ventive prefix beyond any doubt. But in other types of form, only the general context and a comparison with parallel constructions of the same verb can give us clues as to whether a given form may contain the ventive prefix or not. E.g.:

(28a) **elam^{ki}-*ta* / *e*-ĝen-*na-a***
elam=ta ʔi -m(u) -ĝen-Ø -ʔa =ʔa
Elam=ABL VP-VENT-go -3SG.S/DO-NOM=LOC
'when he came from Elam (i.e., from abroad)' (Nik 1:313 1:6-2:1; L; 24)

(b) **lugal sig-*ta* / *ì-im*-ĝen-*na-a***
lugal=Ø sig =ta ʔi -m(u)-ĝen-Ø -ʔa =ʔa
king =ABS below=ABL VP-VENT-go -3SG.S/DO-NOM=LOC
'when the king came from the Lower Country' (OSP 2:135 6-7; N; 23)

For another instance, where the presence of the ventive prefix can be reconstructed with some confidence, see example 55 below.

There are three specific exceptions to the rule that the vowel /u/ of the ventive prefix is lost in the environment /muCV/. The /u/ is always retained before the indirect-object prefix {ra} (§17.2.4), before the oblique-object prefix {ri} (§18.2.4), and before the local prefix {ni} (§20.2.1). Before these three prefixes, the ventive prefix has the basic form /mu/, but the /u/ may assimilate to the following vowel if the ventive prefix makes up the first syllable of the verbal form. E.g.:

(29) **é-*zu* *ma-ra*-řú-*e***
é =zu =Ø Ø -mu -ra -řú -en
house=your=ABS VP-VENT-2SG.IO-erect-2SG.S/A:IPFV
'I am going to build your temple for you.' (Cyl A 8:18; L; 22)

(30) **ĝi$_6$-*e* *ma-ra-ab*-mú-mú**
ĝi$_6$ =e Ø -mu -ra -b -mú:RDP -e
night=ERG VP-VENT-2SG.IO-3N.DO-grow:IPFV-3N.A:IPFV
'The night will let it grow for you.' (Cyl A 12:2; L; 22)

(31) **ga *nam*-šul-*la* *mi-ri-in*-gu$_7$**
ga nam.šul =ak =Ø Ø -mu -ri -n -gu$_7$-Ø
milk youthfulness=GEN=ABS VP-VENT-2SG.OO-3SG.A-eat -3N.S/DO
'She let you drink youthful-making milk.' (Lipit-Eštar D 6; OB)[3]

(32) **en-an-*né* saĝ udu gal-gal-*šè* / šà udu-*ka* *mi-ni*-gi$_4$**
en.an.né=e saĝ udu gal-gal=ak =še šà.g udu =ak =ʔa
Enane =ERG head sheep big-big=GEN=TERM heart sheep=GEN=LOC

Ø -mu -ni-n -gi$_4$ -Ø
VP-VENT-in-3SG.A-turn-3N.S/DO
'Instead of full-grown sheep, Enane returned these (lambs) among the sheep.' (MAD 4:75 17; U; 23)

Occasionally, however, the ventive prefix is written ***mu*** in such forms, suggesting the absence of any assimilation. E.g.:

(33) **é-*zu* *mu-ra*-řú**
é =zu =Ø Ø -mu -ra -ʔ -řú -Ø
house=your=ABS VP-VENT-2SG.IO-1SG.A-erect-3N.S/DO
'I built your temple for you.' (Cyl B 2:21; L; 22)

(34) **ḫur-sag *ki-maš-ka* / *mu-ni-ba-al***
ḫur.saĝ ki.maš =ak =ʔa Ø -mu -ni-n -ba.al-Ø
mountain Kimash=GEN=LOC VP-VENT-in-3SG.A-dig -3N.S/DO
'He mined copper in the mountains of Kimash.' (St B 6:22-23; L; 22)

Sometimes such spellings are morphophonemic spellings, whereby the actual pronunciation is ignored in favour of the spelling ***mu***, which reflects the more basic and more widespread form of the ventive prefix. However, this can only be the explanation for a small number of forms, for true variant spellings are hardly ever found (Attinger pers. comm.). That is to say, each of the alternative spellings ***mu-ra-*/*ma-ra-***, ***mu-ri-*/*mi-ri-***, and ***mu-ni-*/*mi-ni-*** is attested but almost never in exactly the same verbal form. Hence, for the /u/ of /mu/ to assimilate, its position in the first syllable in the environment /muCV/ is a necessary condition but it is not sufficient. A further condition remains to be identified.

Generally speaking, the /u/ of the ventive prefix does not assimilate to the vowel of the following syllable if the ventive prefix is not the first syllable of the verbal form. That such forms really contain the vowel /u/ is proven by the consistent spellings with ***mu*** as well as by the assimilation of the /a/ to the vowel of the ventive prefix in forms such as the following:

(35) **gu$_4$ *ú-gu* dé-*a-zu* / *gú-mu-ra-ra-ba-al***
gu$_4$.ř ú.gu=Ø dé -Ø -ʔa =zu =Ø ga -mu -ra -ta -ba.al-Ø
ox ? =ABS pour-NFIN-NOM=your=ABS MOD:1SG.A/S-VENT-2SG.IO-from-dig -3N.S/DO

[3] Since our corpus lacks relevant attestations of {ri}, an example from an Old Babylonian text is given here instead.

'I will recover (lit. "dig out") your lost ox for you!' (NG 132 4-5; U; 21). The phrasal verb ***ú-gu*—dé** means 'lose'.

(36) **nam du$_{10}$** ***gú-mu-rí-íb*-tar**^{ar}
nam du$_{10}$.g=Ø ga -mu -ri -b -tar
status good =ABS MOD:1SG.A/S-VENT-2SG.OO-3N.DO-cut
'I want to decide you a good fate!' (Shulgi D 385; OB copy of an Ur III text)

(37) **ninda** ***ḫu-mu-ni*-gu$_7$**
ninda=Ø ḫa =Ø -mu -ni-ʔ -gu$_7$-Ø
bread=ABS MOD=VP-VENT-in-1SG.A-eat -3N.S/DO
'I truly ate bread therein (= in Ninegal's palace).' (Shulgi A 59; ?; OB manuscript of Ur III text)

The following are further examples of forms with unassimilated /mu/:

(38) ***ḫa-mu-ra-ab*-šúm-*mu***
ḫa =Ø -mu -ra -b -šúm-e
MOD=VP-VENT-2SG.IO-3N.DO-give-3SG.A:IPFV
'He should give this to you!' (PPAC 1 rev 5; A; 24-23)

(39) **é-*zu* *ga-mu-ra*-řú**
é =zu =Ø ga -mu -ra -řú
house=your=ABS MOD:1SG.A/S-VENT-2SG.IO-erect
'I will build your temple for you!' (Cyl A 2:14; L; 22)

(40) **an-*ta* *ḫé*-ĝál *ḫa-mu-ra-ta*-ĝen**
an =ta ḫé.ĝál =Ø ḫa =Ø -mu -ra -ta -ĝen-Ø
heaven=ABL abundance=ABS MOD=VP-VENT-2SG.IO-from-go -3N.S/DO
'May abundance come from above for you!' (Cyl A 11:8; L; 22)

(41) **pisaĝ-*ĝá* *ù-mu-ni-ĝá-ar***
pisaĝ =ʔa ʔu -mu -ni-n -ĝar -Ø
basket=LOC REL.PAST-VENT-in -3SG.A-place-3N.S/DO
'after he has put them (= documents) in a basket' (TCS 1:290 4; U; 21)

Yet, there is also one clear example where the /u/ of the ventive assimilates even though it is found in the second syllable:

(42) ***nam-mi-ni-íb*-taka$_4$-taka$_4$**
nan -mu -ni-b -taka$_4$:RDP-e
NEG.MOD-VENT-in-3N.DO-leave:IPFV -3SG.A:IPFV
'He should not leave it therein!' (TCS 1:307 7; U; 21)

Here the first syllable is closed and not open as in the other examples with /u/ in the second syllable. Is that the reason for the exception?

In some varieties of Sumerian, the vocalic prefixes {ʔi} and {ʔa} are similarly retained before the prefixes {ra}, {ri}, and {ni} (see chapter 24). Clearly, these prefixes have a preserving effect on preceding vowels. Since each of them begins with a liquid, one could easily think that this liquid is the reason why the vowel is preserved. That cannot be the whole truth, though. Perhaps such a rule existed at some stage in prehistoric Sumerian, but it certainly is not valid for Sumerian as we know it, because the /u/ of the ventive is always lost immediately before the verbal stem, also when this stem has an initial /r/ or /n/. E.g.:

(43) **saĝ *im*-rig$_7$-*ge***
saĝ =Ø ʔi -m(u) -rig$_7$-e
head=ABS VP-VENT-ʔ -3SG.A:IPFV
'He bestowed gifts upon it.' (Cyl B 13:17; L; 22). Note that the phrasal verb **saĝ—rig$_7$** means 'bestow gifts'.

(44) **é-ninnu tu^{mušen}-*e im-ne-ne***
é.ninnu=Ø tuʔ =e ʔi -m(u) -niĝin$_2$:RDP -e
Eninnu =ABS dove=ERG VP-VENT-go.round:IPFV-3N.A:IPFV
'Doves circled around the Eninnu.' (Cyl A 29:10; L; 22)

In an imperative form that lacks a further affix after the ventive, the ventive prefix has the form /um/, probably through metathesis:

(45) **kù urdu$_2$-*da* ře$_6$-*um***
kù.g urdu$_2$.d=ak =Ø ře$_6$ -Ø -mu
silver slave =GEN=ABS bring-VP-VENT
'Bring the silver for the slave!' (Studies Sigrist p. 138 BM 106527 rev 4; U; 21)

In imperative forms where the ventive is followed by some other affix, the ventive has its regular form. E.g.:

(46) **túm-*mu-un***
túm -Ø -mu -n
bring-VP-VENT-3SG.DO
'Bring him!' (NG 121 12, 17; U; 21)

To conclude this section, it is necessary to point out that the ventive prefix {mu} is also a part of the indirect-object prefix {ma} for the first person singular (§17.2.5) as well as of the initial person-prefix {mē} for the first person plural (§16.2.6).

22.3. Meaning

The ventive prefix expresses more or less the same meanings as the English adverbs 'here' and 'hither'. Also, while English has different words to express the distinction between 'go' and 'come' and between 'bring' and 'take away', Sumerian makes such distinctions with the ventive prefix. Thus, the verb **ĝen** means 'go' without with the ventive prefix but 'come' with it. The same principle applies to other motion verbs: **è** 'go/come out', **e$_{11}$.d** 'go/come up/down', and **ře$_6$** 'bring/take away'.

If the ventive prefix is used with verbs expressing some kind of motion, it means 'in the direction of the speaker', 'nearer to the speaker', 'hither'. An excellent and often quoted example of this use is offered by the text RTC 19, which documents an exchange of gifts through intermediaries between Baranamtarra, the queen of Lagash, and Ningiskimtil, the queen of Adab. The document originates from the administration of the queen of Lagash and the ventive prefix is used whenever an action is directed towards Lagash, while the ventive prefix is absent when the same actions are directed towards Adab. Compare the following pairs of clauses, one with (a) and one without (b) the ventive prefix:

(47a) **nin-ĝiskim-ti / dam ensi$_2$ adab^{ki}-*ka-ke$_4$* / bara$_2$-nam-tar-*ra* / dam lugal-an-*da* / ensi$_2$ / lagas^{ki}-*ka-ra* / ... / šu *mu-na*-taka$_4$**

nin.ĝiskim.ti.l dam ensi$_2$.k adab=ak =ak =e bara$_2$.nam.tar.ra dam
Ningiskimtil wife ruler Adab=GEN=GEN=ERG Baranamtarra wife

lugal.an.da ensi$_2$.k lagas =ak =ak =ra šu =Ø
Lugalanda ruler Lagash=GEN=GEN=DAT hand=ABS

Ø -mu -nna -n -taka$_4$-Ø
VP-VENT-3SG.IO-3SG.A-leave -3N.S/DO
'Ningiskimtil, the wife of the ruler of Adab, sent this (hither) ... to Baranamtarra, the wife of Lugalanda, the ruler of Lagash.' (RTC 19 2:1-3:2; L; 24)

(b) **bara$_2$-nam-tar-*ra* / dam lugal-an-*da* / ensi$_2$ / lagas^{ki}-*ka-ke$_4$* / ... / nin-ĝiskim-ti / dam ensi$_2$ adab^{ki}-*ka-ra* / šu *e-na*-taka$_4$**
bara$_2$.nam.tar.ra dam lugal.an.da ensi$_2$.k lagas =ak =ak =e
Baranamtarra wife Lugalanda ruler Lagash=GEN=GEN=ERG

nin.ĝiskim.ti.l dam ensi$_2$.k adab =ak =ak =ra šu =Ø
Ningiskimtil wife ruler Adab=GEN=GEN=DAT hand=ABS

ʔi -nna -n -taka$_4$-Ø
VP-3SG.IO-3SG.A-leave -3N.S/DO
'Baranamtarra, the wife of Lugalanda, the ruler of Lagash sent this ... to Ningiskimtil, the wife of the ruler of Adab.' (RTC 19 5:1-6:3; L; 24)

(48a) ***a-ne-da-nu-me-a* / lú-*né* / *ma-al-ga*-sù-*da* / *mu-da*-ĝen-*na-a* / *mu*-ře$_6$**
a.ne.da.nu.me.a=Ø lú =ane ma.al.ga.sù.g=da
Anedanumea =ABS person=his Malgasu =COM

Ø -mu -n -da -ĝen-Ø -ʔa =ʔa Ø -mu -n -ře$_6$ -Ø
VP-VENT-3SG-with-go -3SG.S/DO-NOM=LOC VP-VENT-3SG.A-bring-3N.S/DO
'When Anedanumea, her man (i.e., the envoy of the queen of Adab), came (hither) with Malgasu (the envoy of the queen of Lagash), the former brought this (hither).' (RTC 19 3:3-7; L; 24)

(b) ***ma-al-ga* / *e-da*-ĝen**
ma.al.ga=Ø ʔi -b -da -ĝen-Ø
Malga =ABS VP-3N-with-go -3SG.S/DO
'Malga (the envoy of the queen of Lagash) went with this (to Adab).' (RTC 19 6:4-5; L; 24)

(49a) **nin-ĝiskim-ti-*e* / *ma-al-ga* / *mu-na*-šúm**
nin.ĝiskim.ti.l=e ma.al.ga=r(a) Ø -mu -nna -n -šúm-Ø
Ningiskimti =ERG Malga =DAT VP-VENT-3SG.IO-3SG.A-give-3N.S/DO
'Ningiskimti (the queen of Adab) gave this to Malga (the envoy of the queen of Lagash).' (RTC 19 4:1-3; L; 24)

(b) **bara$_2$-nam-tar-*ra* / *a-ne-da-nu-me-a* / *e-na*-šúm**
bara$_2$.nam.tar.ra=e a.ne.da.nu.me.a=r(a) ʔi -nna -n -šúm-Ø
Baranamtarra =ERG Anedanumea =DAT VP-3SG.IO-3SG.A-give-3N.S/DO
'Baranamtarra (the queen of Lagash) gave this to Anedanumea (the envoy of the queen of Adab).' (RTC 19 7:3-5; L; 24)

The following are further examples of the ventive prefix meaning 'hither':

(50) **ki-sur-*ra* / ^{d}nin-*ĝír-su-ka-ke$_4$* / *ba-ra-mu*-bala-*e***
ki.sur.ra nin.ĝír.su.k=ak =e bara -mu -n(i)-bala$^{?}$-en
border Ningirsu =GEN=DIR CAT.NEG-VENT-in -cross -1SG.A/S:IPFV
'I (, the ruler of Umma,) promise not to cross Ningirsu's border (hither) (into Lagash)!' (Ean. 1 obv 20:17-19; L; 25)

(51) **uruda-*da a-dam-dun-ta* / *im-da*-ĝen-*na***
uruda=da a.dam.dun=ta ?i -m(u) -da -ĝen-Ø -?a
copper=COM Adamdun =ABL VP-VENT-with-go -3SG.S/DO-NOM
'who came out of Adamdun with copper' (TCTI 2:L.3573 4-5; L; 21)

(52) **ur-^{d}dumu-zi-*da-ke$_4$* / lú inim-*ma im-ta-an*-è**
ur.dumu.zi.da.k=e lú inim =ak =Ø ?i -m(u) -ta -n -?è -Ø
Urdumuzi =ERG person word=GEN=ABS VP-VENT-from-3SG.A-go.out-3SG.S/DO
'(During a trial) Ur-Dumuzi had a witness come forward (lit. "out").' (NG 202 13-14; U; 21)

Expressing that the action is directed towards the speaker, the ventive prefix is often associated with a noun phrase in the ablative or terminative case which designates 'from' where or 'towards' where the action takes place. This can be nicely illustrated with the forms of the phrasal verb **na—ri.g** 'clear out (wood)' (Sallaberger 2005), which frequently occurs in the Old Sumerian texts from Lagash. As a rule, the verbal form contains a ventive prefix whenever it is used with a noun phrase in the ablative case, while it lacks the prefix in the absence of such a phrase:

(53a) **kiri$_6$ ur-ki-*ta* / en-šu / agrig-*ge* / na *e-ma*-ri**
kiri$_6$ ur.ki=ak =ta en.šu agrig =e na=e ?i -m(u) -ba -n -ri.g -Ø
orchard Urki =GEN=ABL Enshu steward=ERG ? =DIR VP-VENT-MM-3SG.A-clear-3N.S/DO
'Enshu the steward cleared this (wood) out for himself from Urki's orchard.' (DP 416 2:1-4; L; 24)

(b) **tir é-mí-*ka* / lugal-an-*da* / ensi$_2$ / lagas^{ki}-*ke$_4$* / na *ba-ni*-ri**
tir é.mí=ak =?a lugal.an.da ensi$_2$.k lagas =ak =e na=e
forest Emi =GEN=LOC Lugalanda ruler Lagash=GEN=ERG ? =DIR

Ø -ba -ni-n -ri.g -Ø
VP-MM-in -3SG.A-clear-3N.S/DO
'Lugalanda, the ruler of Lagash, cleared this (wood) out for himself in the forest of the Emi.' (DP 426 2:2-3:2; L; 24)

(54a) **kiri$_6$ ur-ki / *nu*-kiri$_6$-*ka-ta* / en-ig-gal / *nu*-banda$_3$ / na *ì-mi*-ri**
kiri$_6$ ur.ki nu.kiri$_6$.k=ak =ta PN nu.banda$_3$=e na=e
orchard Urki gardener =GEN=ABL PN overseer =ERG ? =DIR

?i -m(u)-bi -n -ri.g -Ø
VP-VENT-3N.OO-3SG.A-clear-3N.S/DO
'Eniggal the overseer cleared this (wood) out from the orchard of Urki the gardener.' (VS 14:98 5:1-5; L; 24)

(b) **en-ig-gal / *nu*-banda$_3$ / kiri$_6$ ur-ki-*ka* / na *bí*-ri**
en.ig.gal nu.banda$_3$=e kiri$_6$ ur.ki=ak =?a na=e Ø -bi -n -ri.g -Ø
Eniggal overseer =ERG orchard Urki =GEN=LOC ? =DIR VP-3N.OO-3SG.A-clear-3N.S/DO

'Eniggal the overseer cleared this (wood) out in the orchard of Urki.' (DP 4112:4-3:2; L; 24)

Because of this pattern, it is virtually certain that the following form contains the ventive prefix, even though it is left unwritten (for the absence of the final person-prefix /b/ after the ventive, see §22.4 below):

(55) **kiri$_6$ ur-ki-*ta* / na *i*-ri**
kiri$_6$ ur.ki.k=ak =ta na=e ʔi -m(u)-ri.g -Ø
orchard Urki =GEN=ABL ʔ =DIR VP-VENT-clear-3N.S/DO
'This (wood) is cleared out from Urki's orchard.' (DP 410 6:2; L; 24)

The ventive prefix does not only express a motion towards the speaker in a purely spatial meaning. It can also indicate a motion 'hither' in a more abstract sense, such as a motion from invisible to visible. The verb ***ba-al*** 'dig (up)', e.g., has always a ventive prefix if it means 'dig up (onions) (from under ground)':

(56) **ki šúm-*ma* ašag ĝír-*ka-ta* / en-ig-gal / *nu*-banda$_3$ / *mu-ba-al***
ki šúm =ak ašag ĝír =ak =ak =ta en.ig.gal nu.banda$_3$=e
place garlic=GEN field knife=GEN=GEN=ABL Eniggal overseer =ERG

Ø -mu -n -ba.al-Ø
VP-VENT-3SG.A-dig -3N.S/DO
'Eniggal the overseer dug them (various onions and leeks) out from the garlic plot of the Field of the Knife.' (VS 27:65 2:2-3:2; L; 24)

If there is no movement involved, the ventive prefix denotes a certain nearness to the speaker. This 'nearness' can be purely spatial. The ventive then means 'here'. The following clauses occur in documents which originate from the administration of the Emi, the household of the queen of Lagash:

(57) **ensi$_2$ / é-mí-*a* / *mu-ti-la-a***
ensi$_2$.k=Ø é.mí=ʔa Ø -mu -n(i)-ti.l -Ø -ʔa =ʔa
ruler =ABS Emi =LOC VP-VENT-in -live-3SG.S/DO-NOM=LOC
'when the ruler stayed here in the Emi' (DP 164 3:5-7; L; 24)

(58) **é-mí-*a* / *mu*-ĝál**
é.mí=ʔa Ø -mu -n(i)-ĝál -Ø
Emi =LOC VP-VENT-in -be.there-3N.S/DO
'These (shallots) are here in the Emi.' (DP 89 3:3-4; L; 24)

The following clause is found in the same document as the previous clause but lacks the ventive prefix:

(59) **é KI.LAM-*ka-ka* / *e*-ĝál**
é KI.LAM.k=ak =ʔa ʔi -n(i)-ĝál -Ø
house market =GEN=LOC VP-in -be.there-3N.S/DO
'These (shallots) are (not here in the Emi but) in the market house.' (DP 89 1:5-6; L; 24)

The ventive prefix can also express a nearness to the speaker which is not spatial but more abstract. It then expresses merely an involvement of the speaker in the action expressed by the verb. This can be illustrated with the part of Cylinder A which is about the dream of Gudea. This dream is first told by Gudea himself to the goddess Nanshe. Subsequently, the goddess

repeats the dream while explaining it. Some verbal forms have a ventive prefix in Gudea's version but lack it in the goddess' version. The first clause of the following pair, e.g., offers Gudea's version with the ventive prefix, while the second clause presents the one of the goddess without this prefix:

(60) ***le-um* za-gìn šu *im-mi*-du$_8$**
le.um za.gìn =ak =Ø šu =e ʔi -m(u) -bi -n -du$_8$-Ø
board lapis.lazuli=GEN=ABS hand=DIR VP-VENT-3N.OO-3SG.A-? -3N.S/DO
'He held a lapis lazuli board in his hand.' (Cyl A 5:3; L; 22)

(61) ***le-um* za-gìn šu *bí*-du$_8$-*a***
le.um za.gìn =ak =Ø šu =e Ø -bi -n -du$_8$-Ø -ʔa
board lapis.lazuli=GEN=ABS hand=DIR VP-3N.OO-3SG.A-? -3N.S/DO-NOM
'the one who held a lapis lazuli board in his hand' (Cyl A 6:4; L; 22)

The ventive prefix can express the involvement of the speaker also outside of direct speech. It is particularly frequent in royal inscriptions where the prefix is present in basically all verbal forms that express an action by the king on whose behalf the inscription has been written.

The ventive prefix can also express an indirect or oblique object of the first person. This usage has obviously arisen from a more specific interpretation of the general meaning 'hither', which merely signifies that the action is directed towards the speaker.[4]

For the ventive prefix used to express an indirect object of the first person singular, one example will suffice here:

(62) **lugal-ezem-*àm* / *ma-an*-šúm**
lugal.ezem=Ø =ʔam Ø -ma -n -šúm-Ø
Lugalezem =ABS=be:3SG.S VP-1SG.IO-3SG.A-give-3N.S/DO
'It was Lugalezem who gave them (some sheep) to me.' (NG 127 4-5; U; 21)

See §17.2.5 for details.

The ventive prefix is also used to express an oblique object of the first person. The following pair of clauses illustrate this. The first clause contains an oblique object of the third person, while the second exemplifies one of the first person:

(63a) **^{d}nin-ĝír-su-*ke$_4$* / gù-dé-*a* / lú é řú-*a-ra* / nam du$_{10}$ *mu-ni*-tar**
nin.ĝír.su.k=e gù.dé.a lú é řú -Ø -ʔa =ak =ra
Ningirsu =ERG Gudea man house erect-NFIN-NOM=GEN=DAT

nam du$_{10}$.g=Ø Ø -mu -nni -n -tar-Ø
status good =ABS VP-VENT-3SG.OO-3SG.A-cut-3N.S/DO
'Ningirsu decided a good fate for Gudea, the one who built the temple.' (St D 5:4-7; L; 22)

(b) **nam sa$_6$-*ga* / *mu*-tar-*re-éš-a***
nam sa$_6$.g -Ø -ʔa Ø -mu -n -tar-eš -ʔa =ʔa
status be.good-NFIN-NOM VP-1SG.OO-3SG.A-cut-3PL-NOM=LOC
'the good fate which they decided for me' (FAOS 5/2 Luzag. 1 3:32-33; N; 24)

[4] Mithun (1996) documents such a development for 'cislocative' (= ventive) affixes in several different languages.

Note that the ventive in the first clause has a different function from the one in the second. In the first clause it expresses the involvement of the speaker, in this case the involvement of the ruler (Gudea) on whose behalf the text has been written.

The following two pairs similarly illustrate the use of the ventive prefix to express an oblique object of the first person:

(64a) (...) **mu *mu-né*-sa$_4$**
mu =š(e) Ø -mu -nni -n -sa$_4$ -Ø
name=TERM VP-VENT-3SG.OO-1SG.A-name-3N.S/DO
'She gave him (...) as a name.' (Ean. 1 obv. 4:23; L; 25)

(b) (...) **mu-*šè* *mu*-sa$_4$**
mu =še Ø -mu -n -sa$_4$ -Ø
name=TERM VP-1SG.OO-3SG.A-name-3N.S/DO
'He gave me (...) as name.' (Cyl A 10:5; L; 22)

(65a) **é-an-*na*-túm-*ra* / lú ti *mu-né*-ra**
é.an.na.túm=ra lú =e ti =Ø Ø -mu -nni -n -ra-Ø
Eannatum =DAT person=ERG arrow=ABS VP-VENT-3SG.OO-3SG.A-hit-3N.S/DO
'Someone hit Eannatum with an arrow.' (Ean. 1 obv 9:2-3; L; 25)

(b) **PN-*àm* igi-*šè* ĝešba$_2$^{ba} *mu*-ra**
PN=Ø =ʔam igi =še ĝešba$_2$=Ø Ø -mu -n -ra-Ø
PN=ABS=be:3SG.S eye=TERM fist =ABS VP-1SG.OO-3SG.A-hit-3N.S/DO
'It was PN who hit me first with his fist.' (NG 202 18; U; 21)

One final example:

(66) ***ĝá-ra ḫa-mu-ù*-šub**
ĝe$_{26}$=ra ḫa =Ø -mu -e -šub-Ø
I =DAT MOD=VP-1SG.OO-2SG.A-fall -3N.S/DO
'Indeed you let it fall on me!' (Cyl A 3:17; L; 22)

22.4. Restrictions on co-occurrence with the person prefix {b}

The initial person-prefix non-human {b} (§16.2.1) has the same form as the final person-prefix non-human {b} (§13.2.2). In certain verbal forms, they cannot be used together with the ventive prefix {mu}. This restriction seems to be phonologically conditioned: neither prefix can occur between the ventive prefix and a consonant. In other words, the non-human person-prefix {b} is never used in syllable-final position immediately after the ventive prefix. According to the rules given in the preceding section, one would expect a sequence /mubC/ in such forms where the ventive prefix {mu} is followed by the person marker {b} and a consonant (C). Yet, such forms with /mubC/ do not exist in our corpus. Instead, one always finds /mC/, without the person marker {b}.[5]

The following pairs of clauses illustrate this phenomenon for the initial person-prefix {b}. The first of each pair contains a sequence /mun/, with the initial person-prefix {n} of the third person singular human, while the second simply has /m/, lacking the expected initial person-prefix non-human {b}:

[5] In actual fact, forms with /mubC/ are found in certain Old Babylonian and later texts, but they are a later innovation. In earlier texts, they clearly are ungrammatical.

(67a) **PN-*da* / ^{d}nin-*ĝír-sú* / *mu-da*-ḫúl**
PN=da nin.ĝír.su.k=Ø Ø -mu -n -da -ḫúl -Ø
PN=COM Ningirsu =ABS VP-VENT-3SG-with-be.happy-3SG.S/DO
'Ningirsu was happy about PN.' (Ean. 1 obv. 5:1-5; L; 25)

(b) **é-*da* lugal *im-da*-ḫúl**
é.j =da lugal =Ø ʔi -m(u)-da -ḫúl -Ø
house=COM master=ABS VP-VENT-with-be.happy-3SG.S/DO
'The master was happy about the temple.' (Cyl B 20:14; L; 22)

(68a) **PN-*šè mu-ši*-ĝen-*na***
PN=še Ø-mu -n -ši-ĝen-Ø -ʔa
PN=TERM VP-VENT-3SG-to-go -3SG.S/DO-NOM
'who came for PN' (MTBM 45 2; L; 21)

(b) **ú-*šè im-ši*-ĝen-*na***
ú =še ʔi -m(u) -ši-ĝen-Ø -ʔa
hay=TERM VP-VENT-to-go -3SG.S/DO-NOM
'who came for hay' (SAT 1:135 4; L; 21)

(69a) **^{d}en-líl-*e* en ^{d}nin-*ĝír-su-šè* igi zi *mu-ši*-bar**
en.líl=e en nin.ĝír.su.k=še igi zi.d=Ø Ø -mu -n -ši-n -bar -Ø
Enlil =ERG lord Ningirsu =TERM eye true=ABS VP-VENT-3SG-to-3SG.A-be.out-3N.S/DO
'Enlil looked with favour at lord Ningirsu.' (Cyl A 1:3; L; 22)

(b) **u_4 ^{d}nin-*ĝír-su-ke$_4$* / iri-*né-šè* igi zi *im-ši*-bar-*ra***
u_4.d nin.ĝír.su.k=e iri =ane=še igi zi.d =Ø
day Ningirsu =ERG town=his =TERM eye true=ABS

ʔi -m(u) -ši-n -bar -Ø -ʔa =ʔa
VP-VENT-to-3SG.A-be.out-3N.S/DO-NOM=LOC
'on the day when Ningirsu looked with favour at his city' (St B 3:6-7; L; 22)

The following pair shows that the absence of the prefix {b} correlates with the presence of the ventive prefix {mu}. The verbal form of the first clause contains the final person-prefix {b} but lacks the ventive prefix. The verbal form of the second, very similar, clause contains the ventive prefix but lacks the person prefix:

(70a) ***a-gù-a-na nu-ub*-ĝál-*la***
a.gù=ane=ʔa nu =ʔi -b(i) -ĝál -Ø -ʔa
top =his =LOC NEG=VP-3N:on-be.there-3N.S/DO-NOM
'which is not on his account' (AUCT 2:8 14; D; 21)

(b) ***a-gù na-ra-am-ì-lí-ka* / *ì-im*-ĝál**
a.gù na.ra.am.ì.lí=ak =ʔa ʔi -m(u) -ĝál -Ø
top Narāmilī =GEN=LOC VP-VENT-be.there-3N.S/DO
'This is on Narām-ilī's account.' (AOAT 240 p. 80:6 6-7; ?; 21)

The final person-prefix {b} behaves similarly, as illustrated by the following contrasting pair of clauses. The second clause contains a verbal form with the form /m/ of the ventive prefix and lacks the expected final person-prefix non-human {b}:

(71a) **diĝir-*ra-né* / ^{d}nin-ĝiš-zi-*da* / eger-*bé íb*-ús**

diĝir=ane nin.ĝiš.zi.da.k=Ø eger=be=e ʔi -b -ʔús -Ø
god =his Ningishzida =ABS back=its=DIR VP-3N.OO-be.next.to-3SG.S/DO
'His personal god Ningishzida went behind it (lit. "was next to its back").' (St G 4:8-10; L; 22)

(b) **^{d}lama$_3$ sa$_6$-*ga*-*né* eger-*né* *im*-ús**
lama$_3$.r sa$_6$.g -Ø -ʔa =ane=Ø eger=ane=e
protective.spirit be.good-NFIN-NOM=his =ABS back=his =DIR

ʔi -m(u) -ʔús -Ø
VP-VENT-be.next.to-3SG.S/DO
'His good protective spirit went behind him (lit. "was next to his back").' (Cyl B 2:10; L; 22)

Why is the person prefix {b} not found with the ventive prefix in such forms? Although I feel unable to explain the phenomenon fully, I suspect that part of the explanation lies in a rule discovered by Krecher (1985: 133 note 1): a dimensional prefix without a person prefix has non-human reference. Hence, the presence of a non-human person-prefix before a dimensional prefix is to a large extent redundant. Of course, such a redundancy does not explain why the non-human person-prefix should be absent in such forms only after the ventive prefix. Nor does it explain why, in spite of this, the initial person-prefix {b} can follow the ventive prefix as a part of the sequences /mma/ and /mmi/. Clearly, some additional factor must be involved. In all likelihood, the present unbalanced distribution of the non-human person-prefix is to a certain extent due to some historical development that as yet eludes us.

23. THE PREFIX {nga}

The prefix {nga} is rare. It occurs perhaps a dozen times in our corpus and is restricted to letters and narrative texts. Its meaning is generally described as 'also', 'and then', or the like (Thomsen 1984: 171; Edzard 2003: 123-27). Although it is difficult to improve upon it, this view of {nga} is nevertheless somewhat problematic. A broad meaning such as 'also' is hard to reconcile with the very small number of actual attestations. Or are we to assume that the prefix was hardly productive anymore? Then, of course, the few available attestations would only represent more or less fixed expressions, with fossilized uses of an all but obsolete prefix.

But that is not the only problem with a meaning like 'also'. Although it fits many attestations of the prefix {nga}, it certainly does not fit all. It is not for nothing that Edzard (2003: 123) follows Attinger (1993: 298) in summing up six possible translations of {nga}. Clearly, the precise function and meaning of {nga} still eludes us. For this reason I will gloss {nga} as *also* in the examples below but give its actual translation in italics, discussing aspects of its usage along the way.

In the relative order of prefixes, {nga} follows the preformatives and precedes the ventive prefix:

(1) **é-an-*na*-túm-*me* / gal *na-ga-mu*-zu**
é.an.na.túm=e gal =Ø na -nga-mu -n -zu -Ø
Eannatum =ERG greatness=ABS PFM-also-VENT-3SG.A-know-3N.S/DO
'Indeed, Eannatum *also* understood it greatly!' (Ean. 1 obv 21:12-13; L; 25)

Being a syllable-final consonant, the /n/ of {nga} is often ignored in the spelling (§2.4), particularly in the earlier periods. E.g.:

(2) **lagas^{ki} / bar níĝ ní-*ba-ka-ka* / gaba-*bé* / šu *e-ga-ma*-ús**
lagas =ak bar níĝ ní =be=ak =ak =ʔa gaba =be=e
Lagash=GEN outside thing own=its=GEN=GEN=LOC breast=its=DIR

šu =Ø ʔi -nga-m(u)-ba -n -ʔús -Ø
hand=ABS VP-also-VENT-MM-3SG.A-touch-3N.S/DO
'He *too* opposed (?, lit. "he let his hand be next to the breast of") Lagash because of its own property.' (Ean. 1 obv 3:19-22; L; 25)

(3) **[…] / *mu*-ku$_5$ / ur-^{d}nin-*ĝír-su* / *ù nam*-erim$_2$ / *nu-ga-ma*-ku$_5$**
… Ø -mu -n -ku$_5$.ř-Ø ur.nin.ĝír.su.k ù nam.erim$_2$=Ø
… VP-VENT-3SG.A-cut -3N.S/DO Urningirsu also oath =ABS

nu =ʔi -nga-ma -n -ku$_5$.ř-Ø
NEG=VP-also-1SG.IO-3SG.A-cut -3N.S/DO
'[NN] took [an oath], (but) Ur-Ningirsu, he did not *also* take an oath for me.' (ITT 2/2:5758 rev 1'-4'; L; 23)

(4) ***a-na* gur sá-du$_{11}$-*ta* / *à*[*m*]-áĝ-[*ĝá*] / *ù ĝe$_{26}$*-[*e*] / gur ki-su$_7$-*ta* / *nu-ga*-áĝ**
a.na =Ø gur sá.du$_{11}$.g =ak =ta ʔa -m(u)-ʔáĝ -Ø ù ĝe=e
what=ABS *gur* provisions=GEN=ABL VP-VENT-measure-3N.S/DO also I =ERG

gur ki.su$_7$.r =ak =ta nu =ʔi -nga-ʔ -ʔáĝ -Ø
gur threshing.floor=GEN=ABL NEG=VP-also -1SG.A-measure-3N.S/DO
'What was measured with the *gur* of the provisions, I did not measure with the *gur* of the threshing floor *as well*.' (BIN 8:156 9-11; I; 23)

(5) **sipa zi gù-dé-*a* / gal *mu*-zu gal *ì-ga*-túm-*mu***
sipa.d zi.d gù.dé.a=e gal =Ø
shepherd right Gudea =ERG greatness=ABS

Ø -mu -n -zu -Ø gal =Ø ʔi -nga-túm -e
VP-VENT-3SG.A-know-3N.S/DO greatness=ABS VP-also-carry-3SG.A:IPFV
'The true shepherd Gudea understood it greatly and carried it out greatly *as well*.' (Cyl A 7:9-10; L; 22)

The vowel /a/ of {nga} may assimilate to the vowel of the ventive prefix {mu}, as is shown by the verbal form ***in-gú-mu*-šúm-*m*[*u*]** (Shulgi O 83; N; 21, OB copy), which unfortunately occurs in a partly broken and poorly understood context.

Turning now our attention to the function of {nga}, we can start our discussion with the one text for which we can formulate a straightforward and unambigous rule for when {nga} is used. This text is a bilingual inscription of the Old Akkadian king Sargon which has come down to us in copies from the Old Babylonian period. Each time that the Old Akkadian version of the inscription has a series of clauses coordinated by the conjunction *ù* 'and', the Sumerian version shows a similar series with the prefix {nga}. There is only one difference between the two versions. While *ù* 'and' is used between each of the coordinated clauses, {nga} only appears in the last finite verb of the entire series:

(6) **^{ĝiš}tukul / *e-da*-sìg / aga$_3$-kár / e-né-sè / iri-*né* / *e*-ḫulu / bàd-*bé* / *e-ga*-sè**
tukul=Ø ʔi -n -da -n -sìg-Ø aga$_3$.kár=Ø ʔi -nni -n -sè.g-Ø
mace =ABS VP-3SG-with-3SG.A-hit -3N.S/DO defeat =ABS VP-3SG.OO-3SG.A-put -3N.S/DO

iri =ane=Ø ʔi -n -ḫulu -Ø bàd=be=Ø ʔi -nga-n -sè.g-Ø
city=his =ABS VP-3SG.A-be.bad-3N.S/DO wall=its=ABS VP-also-3SG.A-put -3N.S/DO
'He fought with him, defeated him, sacked his city, *and* leveled its wall.' (RIM E2.1.1.1 34-41; N; 24, OB copy)

(7) **^{ĝiš}tuku[l] / [*e*]-*d*[*a*-sìg] / *e-ga*-dab$_5$**
tukul=Ø ʔi -n -da -n -sìg-Ø ʔi -nga -n -dab$_5$-Ø
mace =ABS VP-3SG-with-3SG.A-hit -3N.S/DO VP-also-3SG.A-seize-3SG.S/DO
'He fought with him *and* captured him.' (RIM E2.1.1.1 26; N; 24, OB copy)

(8) **^{d}utu / suḫuš-*a-né* / *ḫé-bù-ře$_6$* / numun-*na-né* / *ḫé-ga*-ri-ri-*ge***
utu =e suḫuš =ane=Ø ḫa =ʔi -bu.ř -e
Utu=ERG foundation=his =ABS MOD=VP-tear.out-3SG.A:IPFV

numun=ane=Ø ḫa =ʔi-nga -ri.g -ri.g -e
seed =his =ABS MOD=VP-also-pick..up-pick.up-3SG.A:IPFV
'May Utu tear out his foundation *and* take away his offspring!' (RIM E2.1.1.1 98-102; N; 24, OB copy)

The conclusion seems inescapable: the prefix {nga} has a conjunctive function, coordinating clauses, and is attached to the last verb of a series of coordinated clauses (cf. Zólyomi 2005: 32). But there are problems. To begin with, this rule seems to be restricted to this one text. Elsewhere the pattern is not repeated, not even in an almost contemporary Old Akkadian bilingual royal inscription:

(9) **suḫuš-*sa-né* / *ḫé-bu$_{15}$-ře$_6$-ne* / [numun-*na-n*]*é* / *ḫé*-ri-ri-*ge-ne***

suḫuš =ane=Ø ḫa =ʔi -bu.ř -enē
foundation=his =ABS MOD=VP-tear.out-3PL.A:IPFV

numun=ane=Ø ḫa =ʔi-ri.g -ri.g -enē
seed =his =ABS MOD=VP-pick..up-pick.up-3PL.A:IPFV
'May they tear out his foundation and take away his offspring!' (RIM E2.1.2.18 24-27; N; 24, OB copy)

Here, too, the Old Akkadian version coordinates the two clauses with the conjunction *ù* 'and', but the Sumerian version shows no {nga}, even though the two clauses in this example are almost identical to those of example (8) above.

But there is a further indication for the unusualness of the Sargon inscription. This text of a little over one hundred words contains as much as five attestations of the prefix {nga}, which make up more than one-third of all the attestations of {nga} in our entire corpus. This is so outrageously out of proportion that we cannot take the forms of this text at face value.

What, then, are we to make of the conjunctive usage of {nga} in this text? The most likely explanation seems to be that it is only a creative attempt of some scribe to represent an Old Akkadian conjunction in the Sumerian translation. In other words, we are probably dealing with an Akkadianism here. But even in the less likely case that the Sargon inscription reflects a genuine Sumerian usage of {nga}, we will have to conclude that this conjunctive usage is only a dialectal phenomenon, restricted to an as yet poorly attested variety of Sumerian.

Whatever the truth may be, elsewhere the prefix {nga} is clearly not used as a clause coordinator but rather with an adverbial function. It is often found in the first clause of a text (Thomsen 1984: 171) or occurs in a single clause, which is not in any way connected to a preceding independent clause. E.g.:

(10) **níĝ *ì*-zu-*a a-ne in-ga-an*-zu**
níĝ =Ø ʔi -ʔ -zu -Ø -ʔa =Ø a.ne=e ʔi -nga -n -zu -Ø
thing=ABS VP-1SG.A-know-3N.S/DO-NOM=ABS he =ERG VP-also-3SG.A-know-3N.S/DO
'The things I know, he knows *too*.' (TrD 1 13; ?; 21)

(11) ***za-gen*$_7$ *a-ba an-ga*-kalag *a-ba an-ga-a-da*-sá**
za =gen a.ba=Ø ʔa -nga-kalag -Ø
you=EQU who=ABS VP-also-be.strong-3SG.S/DO

a.ba=Ø ʔa-nga -e -da -sá -Ø
who=ABS VP-also-2SG-with-be.equal-3SG.S/DO
'Who is *as* strong as you? Who equals you?' (Shulgi D 14; N?; 21 (OB copy))

Example (1) above is also a clear instance of {nga} in an unconnected, single clause.

Except in its attestations in the Sargon inscription discussed above, the prefix {nga} can usually be translated with English 'also' or with 'as', as in the previous example. In all such instances, its meaning might be defined as 'in the same way'.

In the following attestation, the prefix {nga} seems to be used as a synonym of the word ***ù*** 'also', which is a loanword from Akkadian *ù* 'and':

(12) ***ù* kù *nu* za-gìn *nu-ga-àm* / *ù* uruda *nu ù* AN.NA *nu***
ù kù.g =Ø nu =ʔi -m(e)-Ø za.gìn =Ø nu =ʔi -nga -m(e)-Ø
also silver=ABS NEG=VP-be -3N.S lapis.lazuli=ABS NEG=VP-also-be -3N.S

ù uruda=Ø nu =ʔi -m(e)-Ø AN.NA=Ø nu =ʔi -m(e)-Ø
also copper=ABS NEG=VP-be -3N.S tin =ABS NEG=VP-be -3N.S

‘It is neither silver, nor lapis-lazuli, nor copper, nor tin.’ (St B 7:50-51; L; 22)

24. THE PREFORMATIVES: THE VOCALIC PREFIXES {ʔu}, {ʔi}, AND {ʔa}

24.1. Introduction

This chapter is the first of three treating the preformatives (§11.2.2). It discusses those preformatives which, for lack of an already established name, I have dubbed the vocalic prefixes. There are three of them: the relative-past prefix {ʔu} (§24.2), the prefix {ʔi}, and the prefix {ʔa} (§24.3-§24.6). In the relative order of prefixes, they precede the prefix {nga}, which was treated in the previous chapter:

(1) ***un-ga-*ti**
ʔu -nga-ti.l -Ø
REL.PAST-also-live-3SG.S/DO
'when he will have lived' (Shulgi B 302; ?; 21, OB copy)

(2) **níĝ *ì-*zu-*a a-ne in-ga-an-*zu**
níĝ =Ø ʔi -ʔ -zu -Ø -ʔa =Ø a.ne=e ʔi -nga -n -zu -Ø
thing=ABS VP-1SG.A-know-3N.S/DO-NOM=ABS he =ERG VP-also-3SG.A-know-3N.S/DO
'The things I know, he knows too.' (TrD 1 13; ?; 21)

(3) ***za-gen*$_7$ *a-ba an-ga-*kalag**
za =gen a.ba=Ø ʔa -nga-kalag -Ø
you=EQU who=ABS VP-also-be.strong-3SG.S/DO
'Who is as strong as you?' (Shulgi D 14; N?; 21, OB copy)

They are always the first prefix of the verbal form, except that the prefix {ʔi} (and to a very limited extent also the prefix {ʔa}) can be preceded by one of the proclitics {nu} (§25.2) and {ḫa} (§25.4.1).

In earlier grammars, the prefixes {ʔi} and {ʔa} have generally been treated separately from the preformatives, because they were supposed to have a different position in the verbal form (e.g., Falkenstein 1959a: 45). However, this is not borne out by the facts. Just like the other preformatives, they precede the prefix {nga} (see above). That they, in contrast with the other preformatives, are absent from certain types of forms is entirely due to a phonological rule (§24.3.1) and has no bearing on their position in the relative order of verbal prefixes.

The next section describes the forms and functions of the relative-past prefix {ʔu} (§24.2). The two prefixes {ʔi} and {ʔa} are best discussed in relation to each other. Their forms and spellings are treated in §24.3. Identifying and describing their uses is fraught with problems. One thing is absolutely clear, though: they differ across time and place. Their usage in Southern Sumerian is analysed in §24.4 and that in Northern Sumerian in §24.5. The chapter concludes with an overview of the main lines of development of {ʔi} and {ʔa} (§24.6).

Because their uses differ according to period and area, the two prefixes {ʔi} and {ʔa} are both simply glossed as VP (vocalic prefix), so as to avoid undue burdening of the examples.

24.2. The relative-past prefix {ʔu}

24.2.1. Forms and spellings

In contrast with the vocalic prefix {ʔi}, the prefix {ʔu} cannot be used together with the negative proclitic {nu} (§25.2). Hence, there are no negative forms with the prefix {ʔu}. In contrast with the vocalic prefixes {ʔi} and {ʔa}, the prefix {ʔu} is only found in perfective

forms. A verbal form with the prefix {ʔu} is subordinate to the following verb and expresses an anterior action. A clause with such a form can usually be translated into English with a temporal clause introduced by 'when' or 'after' (see §24.2.2 below for details). The basic form of the prefix {ʔu} is /ʔu/. E.g.:

(4) **^{d}nin-*ĝír-su-ke$_4$* / sa-šu$_4$-gal-*né* / *ù-ni*-šu$_4$**
nin.ĝír.su.k=e sa.šu$_4$.gal =ane=Ø ʔu -nni -n -šu$_4$ -Ø
Ningirsu =ERG big.battle.net=his =ABS REL.PAST-3SG.OO-3SG.A-cover-3N.S/DO
'after Ningirsu has thrown his large battle net over him' (Ent. 28 6:21-23; L; 25)

(5) **mu-*zu ù-mi*-sar**
mu =zu =Ø ʔu -m(u)-bi -e -sar -Ø
name=your=ABS REL.PAST-VENT-3N:on-2SG.A-write-3N.S/DO
'when you have written your name on it' (Cyl A 6:23; L; 22)

(6) ***nam*-erim$_2$-*bé un*-ku$_5$**
nam.ʔerim$_2$=be=Ø ʔu -n -ku$_5$.ř-Ø
oath =its=ABS REL.PAST-3SG.A-cut -3N.S/DO
'when he takes an oath about this' (NG 215 42; U; 21)

(7) ***nam*-er[im$_2$]-*bé* eren$_2$-*e ù-ub*-ku$_5$**
nam.ʔerim$_2$=be=Ø eren$_2$ =e ʔu -b -ku$_5$.ř-Ø
oath =its=ABS troops=ERG REL.PAST-3N.A-cut -3N.S/DO
'when the troops take an oath about this' (NG 215 45; U; 21)

(8) **kišib an-*na-ḫi-li-bé* / *ù-um*-ře$_6$**
kišib an.na.ḫi.li.be=ak =Ø ʔu -m(u) -ře$_6$ -Ø
seal Annahilibi =GEN=ABS REL.PAST-VENT-bring-3N.S/DO
'when Annahilibi's sealed document is brought' (MVN 16:1037 rev 1-2; U; 21)

In an open syllable the /u/ of the prefix {ʔu} assimilates to the vowel of the following syllable. E.g.:

(9) **kišib ur-^{d}*ba-ú-ka ì-bí*-ra**
kišib ur.ba.ú.k=ak =Ø ʔu -bi -n -ra -Ø
seal Urbau =GEN=ABS REL.PAST-3N.OO-3SG.A-impress-3N.S/DO
'when he has sealed it with Ur-Bau's seal' (TCS 1:332 5'; L; 21)

(10) **lú saĝ šembi$_3$ *ì-ni*-dé**
lú =e saĝ =ʔa šembi$_3$ =Ø ʔu -ni-n -dé -Ø
man=ERG head=LOC cosmetics=ABS REL.PAST-in-3SG.A-pour-3N.S/DO
'when someone applied cosmetics to his head' (Ukg. 6 2:22'; L; 24)

If the following syllable contains the vowel /a/, assimilation causes the prefix {ʔu} to have the form /ʔa/, which is the basic form of the vocalic prefix {ʔa}. This does not cause any ambiguity because the prefix {ʔa} is never found in this type of form (§24.3.1):

(11) **siki-*bé* é-gal-*la a-ba*-ku$_x$**
siki =be=Ø é.gal =ʔa ʔu -ba -n(i)-ku$_x$.ř-Ø
wool=its=ABS palace=LOC REL.PAST-MM-in -enter-3N.S/DO
'when its wool was brought into the palace' (Ukg. 6 1:19'; L; 24)

(12) **máš *a-šà-ga a-ba-ra*-zi**

máš a.šà.g=ak =Ø ʔu -ba -ta -zi.g-Ø
rent field =GEN=ABS REL.PAST-MM-from-rise-3N.S/DO
'when the field rent has been raised from it' (NG 144 14; U; 21)

If the following syllable contains the vowel /u/, the prefix {ʔu} retains its basic form /ʔu/:

(13) **pisaĝ-*ĝá ù-mu-ni-ĝá-ar***
pisaĝ =ʔa ʔu -mu -ni-n -ĝar -Ø
basket=LOC REL.PAST-VENT-in -3SG.A-place-3N.S/DO
'when he has placed them in a basket' (TCS 1:290 4; U; 21)

As the preceding examples show, the assimilation rule for the prefix {ʔu} can be documented for forms with /a/, /i/, or /u/ in the following syllable. Evidence for forms with an /e/ in the following syllable is lacking, since the prefix {ʔu} is as yet unattested in Southern Old Sumerian before the form /be/ of the prefix {bi} (§18.2.2 and §20.3.1) or before a possible form /ne/ of the local prefix {ni} (§20.2.1).

Since the writing system tends to ignore syllable-final consonants, closed syllables are often written as if they were open ones (§2.4). As a consequence, there are many apparent exceptions to the assimilation rule given above. In actual fact, however, all such instances are defective spellings ignoring a syllable-final consonant. Each time the form /ʔu/ of the prefix {ʔu} is actually followed by a consonant cluster, even though the first of the two following consonants is not written. Compare, e.g.:

(14a) **gana$_2$-zi-*bé* gig zíz gú-gú *um*-ře$_6$**
gana$_2$.zi.d =be=e gig zíz gú.gú =Ø ʔu -m(u)-ře$_6$ -Ø
arable.land=its=ERG wheat emmer pulses=ABS REL.PAST-VENT-bring-3N.S/DO
'when its arable land has brought wheat, emmer, and pulses' (Cyl B 11:21; L; 22)

(b) **abbar-*bé* ^{ku6}ḪI+SUḪUR ^{ku6}suḫur *ù*-ře$_6$**
abbar=be=e ḪI+SUḪUR suḫur =Ø ʔu -m(u) -ře$_6$ -Ø
marsh =its=ERG carp giant.carp=ABS REL.PAST-VENT-bring-3N.S/DO
'when its marshes have brought carps and giant carps' (Cyl B 12:1; L; 22)

(15a) **zi-*ga* šu-*a ge-na ù-ub-ta*-zi**
zi.g-Ø -ʔa šu =ʔa ge.n -Ø -ʔa =ak =Ø ʔu -b -ta -zi.g-Ø
rise-NFIN-NOM hand=LOC be.firm-NFIN-NOM=GEN=ABS REL.PAST-3N-from-rise -3N.S/DO
'when the regular expenditures (lit. "what was raised of what is firm in the hand") have been raised from it' (TPTS 80 4; U; 21)

(b) **še *nu*-dib *ù-ta*-zi**
še nu =dib -Ø =Ø ʔu -b -ta -zi.g-Ø
barley NEG=pass.by-NFIN=ABS REL.PAST-3N-from-rise-3N.S/DO
'when the barley "which has not passed by" has been raised from it' (SNAT 2 tablet rev 3; L; 21)

When the prefix {ʔu} occurs immediately before the stem, that is, when it is the only verbal prefix, it has the special form /ʔul/. E.g.:

(16) **bar níĝ-bún-*na* / *ù-ul*-bíl**
bar níĝ.bún.na=ak =Ø ʔu -bíl -Ø
outside turtle =GEN=ABS REL.PAST-burn-3N.S/DO
'after a turtle's shell has been burned' (TMHC NF 1/2:259 1-2; N; 21)

(17) **šuku-*bé* *ù-ul*-gíd**
šuku.ř =be=Ø ʔu -gíd -Ø
prebend=its=ABS REL.PAST-survey-3N.S/DO
'after their prebendal lands have been surveyed' (NG 215 3; U; 21)

The additional /l/ remains unexplained, though. Note, however, that a similar /l/ occurs with the vocalic prefix {ʔa} (§24.3.3).

Earlier grammarians have interpreted the form /ʔul/ rather differently, following Falkenstein (1956: II 392). Commenting on the form ***ù-ul*-gíd** in the previous example, he analysed it as "*ù-al-gíd", that is, in terms of the present grammar, the vocalic prefix {ʔu} followed by the form /ʔal/ of the vocalic prefix {ʔa}. In support of this analysis, Falkenstein refers to the following two examples which contain in his view parallel forms:

(18) **kišib-*bé* *ú-gu* *ba-an*-dé / *ù-ul*-pà / *ze-re-dam***
kišib=be=Ø ú.gu=e ba -n(i)-dé -Ø ʔu -pà.d-Ø
seal =its=ABS ? =DIR MM-in -pour-3N.S/DO REL.PAST-find -3N.S/DO

ze.r -ed -Ø =ʔam
destroy-IPFV-NFIN=be:3N.S
'The sealed document about this was lost. When it is found, it is to be destroyed.' (OrSP 47/49:411 7-9; U; 21). The phrasal verb ***ú-gu*—dé** means 'lose'.

(19) **kišib-*ba-ne-ne* / *ú-gu* *ba*-dé / *al*-pà / *ze-re-dam***
kišib=anēnē=Ø ú.gu=e ba -n(i)-dé -Ø ʔa-pà.d-Ø
seal =their =ABS ? =DIR MM-in -pour-3N.S/DO VP-find -3N.S/DO

ze.r -ed -Ø =ʔam
destroy-IPFV-NFIN=be:3N.S
'Their sealed document was lost. (When) it is found, it is to be destroyed.' (TMHC NF 1/2:47 10-13; N; 21)

However, the perceived parallelism does not exist. First of all, ***al*-pà** is a dialect form, typical for Nippur but never found in Umma, where the text with the form ***ù-ul*-pà** comes from: the use of the prefix {ʔa} as a passive marker is restricted to Northern Sumerian (§24.5.2). Moreover, the use of the form ***al*-pà** in what is used as a subordinate clause is rather unexpected and without parallel. I suspect that it is a scribal mistake for *(***ù-**)***ul*-pà**, a form which is not only attested in Umma but also in Nippur: ***ul*-pà *zi-rí-dam*** 'When it is found, it is to be destroyed.' (BBVO 11 p.298:6 NT 773 rev 3; N; 21). In conclusion, the form ***ù-um*-ře$_6$** in the following example provides a much better parallel for the form ***ù-ul*-pà** in example 18 above:

(20) **kišib gu-du-du / *ù-um*-ře$_6$ / kišib lú-^{d}suen / *ze-re-dam***
kišib gu.du.du=ak =Ø ʔu -m(u) -ře$_6$ -Ø
seal Gududu =GEN=ABS REL.PAST-VENT-bring-3N.S/DO

kišib lú.suen =ak =Ø ze.r -ed -Ø =ʔam
seal Lu.Suen=GEN=ABS destroy-IPFV-NFIN=be:3N.S
'When Gududu's sealed document is brought, Lu-Suen's sealed document is to be destroyed.' (MVN 16:Um. 1530 obv 3 - rev 2; U; 21)

Since **ře$_6$** 'bring' is a verb of movement, the form ***ù-um*-ře$_6$** includes a ventive prefix, but otherwise the construction is highly similar to the one in example 18 above.

One more point needs to be made in connection with the form /ʔul/. In nearly all attestations known to me, it is written ***ù-ul-***, with a plene spelling: ***ù-ul-*bìl** (TMHC NF 1/2:259 1-2; N; 21), ***ù-ul-*dím** (NG 215 20; U; 21), ***ù-ul-*gaz** (TMHC 6:20 8; N; 21), ***ù-ul-*gíd** (NG 215 3; U; 21), and ***ù-ul-*pà** (OrSP 47/49:411 7-9; U; 21). Only once a non-plene spelling is found: ***ul-*pà** (BBVO 11 p.298:6 NT 773 rev 3; N; 21). Clearly, this large number of plene spellings points to a form /ʔūl/, with a long vowel. Can we conclude from this that the basic form of the vocalic prefix {ʔu} actually includes a long vowel? It would seem so, if we compare these plene spellings with the consistent non-spelling ***al-*** for the form /ʔal/ of the prefix {ʔa} (§24.3.3). Unfortunately, because the prefix {ʔu} is relatively uncommon, we have few other forms to go on. But one of them is also suggestive. The form ***ù-ub-ta-*zi** 'when it was raised from it' occurs twice: (Civil FI p.201:A.3354 3; L; 21) and (TPTS 1:80 4; Ur; 21). Both times with a plene spelling. The parallel forms with the other two vocalic prefixes show non-plene spellings. There is one Ur III attestation with the prefix {ʔa}: ***ab-ta-*zi** 'it was raised from it' (BBVO 11 p.257: 6 NT 197 4:14; N; 21). But such forms with the prefix {ʔi} occur far more often in the Ur III texts, overwhelmingly with the non-plene spelling ***íb-ta-*zi** 'it was raised from it', which occurs dozens of times (e.g., MVN 12:284 obv 2; L; 21). In contrast, the plene spelling ***ì-íb-ta-*zi** is found only twice: (YOS 4:306 13; D; 21) and (SAT 1:69 4; L; 21).

All in all, it seems likely that the vocalic prefix {ʔu} actually has the basic form /ʔū/, with a long vowel, while the other two vocalic prefixes, {ʔi} and {ʔa}, have short vowels in their basic forms. Such a difference in vowel length between {ʔu} on the one hand and {ʔi} and {ʔa} on the other would also explain why {ʔu} was retained, albeit in reduced form, in exactly those environments where {ʔi} and {ʔa} were completely lost (§24.3.1).

24.2.2. Usage

The relative-past prefix {ʔu} is incompatible with the imperfective and only occurs in perfective verbal forms. A form with {ʔu} is subordinate to the following verb and expresses an action with the approximate meaning 'under the circumstance that (…) has happened'. It designates an action which is both anterior and circumstantial to the action expressed by the following verb. A clause with such a verbal form can usually be translated into English with a temporal clause introduced by 'when' or 'after', or with a participial construction. E.g.:

(21) ***nam-*lú-ulu$_3$ iri-*na* / šu *ù-na-*zi / šà iri-*na-ka* / *ḫa-né-*gaz-*e***
nam.lú.ulu$_3$=e iri =ane=ʔa šu =Ø ʔu -nna -b -zi.g-Ø
people =ERG city=his=LOC hand=ABS REL.PAST-3SG.IO-3N.A-rise-3N.S/DO

šà.g iri =ane=ak =ʔa ḫa =Ø-ni-n -gaz-e
heart city=his =GEN=LOC MOD=VP-in-3SG.DO-kill -3N.A:IPFV
'May the population, having raised their hands against him in his city, kill him in the middle of his city!' (Ent. 28 6:26-29; L; 25)

(22) **lú dam *ù-*taka$_4$ / kù giĝ$_4$ 5-*am$_6$* / ensi$_2$-*ke$_4$* / *ba-*ře$_6$**
lú =e dam=Ø ʔu -n -taka$_4$-Ø kù.g giĝ$_4$ 5=Ø =ʔam
man=ERG wife=ABS REL.PAST-3SG.A-leave-3N.S/DO silver shekel 5=ABS=be:3N.S

ensi$_2$.k=e Ø -ba -n -ře$_6$ -Ø
ruler =ERG VP-MM-3SG.A-bring-3N.S/DO
'When someone divorced his wife, the ruler took five shekels of silver for himself.' (Ukg. 6 2:15'-18'; L; 24)

The prefix {ʔu} has a subordinating function. If a clause has a verbal form with the prefix {ʔu} as its predicate, it is a subordinate clause and part of a larger sentence. The following example shows this unambiguously. It contains two clauses with {ʔu}-forms (both underlined) which are clearly parts of a superordinate clause (itself a relative clause belonging to **lú** 'person'):

(23) **lú é <u>*a-ba*-sumun</u> / <u>*ù-un-řú*</u> / mu sar-*ra-bé* / *ù* ^{ĝiš}šu-kár-*bé* / ki gub-*ba-bé* / *nu-ub-da-ab*-kúr-*re-a* / igi ^{d}nanna-*ka* / *ḫé-en*-sa$_6$**
lú é =Ø ʔu -ba -sumun-Ø ʔu -n -řú -Ø
man house=ABS REL.PAST-MM-be.old -3N.S/DO REL.PAST-3SG.A-erect-3N.S/DO

mu sar -Ø -ʔa =be ù šu.kár =be ki gub -Ø -ʔa =be=Ø
name write-NFIN-NOM=this or equipment=its place stand-NFIN-NOM=its =ABS

nu =ʔi -b -da -b -kúr -e -ʔa =Ø igi nanna=ak =ʔa
NEG=VP-3N-with-3N.DO-spoil-3SG.A:IPFV-NOM=ABS eye Nanna=GEN=LOC

ḫa =ʔi -n(i)-sa$_6$.g -Ø
MOD=VP-in -be.good-3SG.S/DO
'May the person who, having rebuilt the temple after it has become old, does not change this inscription or its outfit and position (may he) be good in Nanna's eyes!' (FAOS 9/2 Amarsuen 12 32-37; Ur; 21)

A verbal form with the prefix {ʔu} expresses an action which is anterior to the action expressed by the following verb. In this sense, a form with the prefix {ʔu} signifies a kind of relative past. It denotes an action which is a past action relative to what the following verb refers to. If the following verb refers to a future action, the verbal form with {ʔu} refers to a past in the future:

(24) **^{d}nin-*ĝír-su-ke$_4$* / sa-šu$_4$-gal-*né* / *ù-ni*-šu$_4$ / šu maḫ ĝiri$_3$ maḫ-*né* / an-*ta ḫé-ĝá-ĝá***
nin.ĝír.su.k=e sa.šu$_4$.gal =ane=Ø ʔu -nni -n -šu$_4$ -Ø
Ningirsu =ERG big.battle.net=his =ABS REL.PAST-3SG.OO-3SG.A-cover-3N.S/DO

šu maḫ ĝiri$_3$ maḫ=ane=Ø an =ta
hand great foot great=his =ABS heaven=ABL

ḫa =ʔi -n -ĝar:RDP -e
MOD=VP-3SG.OO-place:IPFV-3SG.A:IPFV
'May Ningirsu, having thrown his large battle net over him, set his mighty hand and foot on him from above!' (Ent. 28 6:21-25; L; 25)

(25) **èn-du ka keše$_2$-*řá-ĝu$_{10}$* / mu-*ĝu$_{10}$ ù-ta*-ĝar / mu-*né ba-ĝá-ĝá***
èn.du ka keše$_2$.ř -Ø -ʔa =ĝu=t(a) mu =ĝu=Ø
hymn bind.together-NFIN-NOM=my=ABL name=my=ABS

ʔu -b -ta -n -ĝar -Ø mu =ane=Ø Ø -ba -n(i)-ĝar:RDP -e
REL.PAST-3N-from-3SG.A-place-3N.S/DO name=his =ABS VP-MM-in -place:IPFV-3SG.A:IPFV
'After removing my name from my hymn collection, he will replace it with his own name.' (St B 8:21-23; L; 22)

(26) ***ú-gu a-ba*-dé *a-ba*-úš / ur-^{d}suen-*ke$_4$* / ur-^{d}šul-pa-è / inim *nu-un-ĝá-ĝá***
ú.gu=Ø ʔu -ba -dé -Ø ʔu -ba -ʔúš-Ø
? =ABS REL.PAST-MM-pour-3N.S/DO REL.PAST-MM-die -3N.S/DO

ur.suen.k=e ur.šul.pa.è.k=ra inim =Ø nu =ʔi -n -ĝar:RDP-e
Ursuen =ERG Urshulpae =DAT word=ABS NEG=VP-3SG.OO-place:IPFV-3SG.A:IPFV
'When she (viz. a slave bought) gets lost or when she dies, Ur-Suen will not place a claim on Ur-Shulpae.' (FAOS 17:94** 8-11; U; 21). Note that the phrasal verb ***ú-gu*—dé** means 'lose'.

If the following verb refers to a past action, the form with {ʔu} refers to a past in the past:

(27) **RU-lugal-*ke*$_4$ / saĝ ašag-*ga-na-ka* / pú *ì-ni*-řú / igi-*nu*-du$_8$ / *ba*-dab$_5$**
RU.lugal.k=e saĝ ašag=ane=ak =ʔa pú =Ø
subordinate=ERG head field=his =GEN=LOC well=ABS

ʔu -ni-n -řú -Ø igi.nu.du$_8$=Ø Ø -ba -n -dab$_5$-Ø
REL.PAST-in-3SG.A-erect-3N.S/DO slave =ABS VP-MM-3SG.A-seize-3N.S/DO
'When a subordinate had built a well in the front part of his field, he seized himself a slave.' (Ukg. 4 7:17-21; L; 24)

(28) **ge ^{d}en-ki-*ka-ka* / lú *ù*-ře$_6$ / kas-*né* 7 dug / ninda 420-*nam***
ge en.ki.k=ak =ʔa lú =Ø ʔu -n(i)-ře$_6$ -Ø
reed Enki =GEN=LOC man=ABS REL.PAST-in -bring-3SG.S/DO

kas=ane=Ø 7 dug ninda 420.n=Ø =ʔam
beer=his=ABS 7 pot bread 420 =ABS=be:3N.S
'When someone was brought in the reed of Enki (i.e. for burial), his (payment in) beer was seven pots and the loaves of bread were 420.' (Ukg. 4 6:15-18; L; 24)

(29) **udu *ù*-sa$_{10}$ / udu-*ba* udu sa$_6$-*ga-bé* / lú *ba-ta*-túm-*mu***
udu =Ø ʔu -n -sa$_{10}$-Ø udu =be =ak udu
sheep=ABS REL.PAST-3SG.A-buy-3N.S/DO sheep=this=GEN sheep

sa$_6$.g -Ø -ʔa =be=Ø lú =e Ø -ba -ta -túm -e
be.good-NFIN-NOM=its=ABS person=ERG VP-MM-from-carry-3SG.A:IPFV
'When he had bought sheep, someone would carry off the best of those sheep.' (Ukg. 6 1:2'-4'; L; 24)

As stated above, a clause which has a verbal form with the prefix {ʔu} as its predicate can usually be translated into English with a subordinate clause introduced by 'when'. However, this is true in so far as 'when' is used in the sense of 'under the circumstance(s) that', not if it is used in the sense of 'at the time when'. For expressing the latter meaning, Sumerian uses subordinate clauses in the locative case (§27.6.2). Still, both meanings are quite close and there are two instances of temporal clauses in the locative case which actually have verbal forms with the prefix {ʔu} as their predicates:

(30) **u$_4$ ašag-*ga* lú *ù-ma-a*-řú-*a***
u$_4$.d ašag=ʔa lú =Ø ʔu -m(u) -ba -e -řú -Ø -ʔa =ʔa
day field=LOC man=ABS REL.PAST-VENT-MM-on-hold-3SG.S/DO-NOM=LOC
'(On the day) when someone holds on to the field, (it will be replaced by a plot of land which is twice as large)' (MAD 4:151 10; I; 23)

(31) **u$_4$ šà-*ĝu$_{10}$ um-ši-mi-rí-a***
u$_4$.d šà.g =ĝu =Ø ʔu -m(u) -ši-mi.rí -Ø -ʔa =ʔa
day heart=my=ABS REL.PAST-VENT-to -be.angry-3N.S/DO-NOM=LOC
'on the day when my heart has grown angry with it' (Cyl A 10:22; L; 22)

At the same time, however, a meaning 'under the circumstances that' is nearly a meaning 'if', so that a clause with an {ʔu}-form can also come close to expressing a conditional clause. E.g.:

(32) **LÚ-*ša-lim-e nam*-erim$_2$-*bé un*-ku$_5$ / ur-^{d}ùr-bar-tab-*ke$_4$ íb-su-su***
LÚ.ša.lim =e nam.ʔerim$_2$=be=Ø ʔu -n -ku$_5$.ř-Ø
Awīlumšalim=ERG oath =its=ABS REL.PAST-3SG.A-cut -3N.S/DO

ur.ʔùr.bar.tab.k=e ʔi -b -su.g:RDP-e
Ururbartab =ERG VP-3N.DO-repay:IPFV-3SG.A:IPFV
'When Awīlum-šalim takes an oath about this, Ur-Urbartab will replace this.' (NG 215 32-33; U; 21)

(33) **kišib a-tu / *ù-um*-ře$_6$ / kišib ur-^{d}šara$_2$ / *ze-re-dam***
kišib a.tu=ak =Ø ʔu -m(u)-ře$_6$ -Ø
seal Atu=GEN=ABS REL.PAST-VENT-bring-3N.S/DO

kišib ur.šara$_2$.k=ak =Ø ze.r -ed -Ø =ʔam
seal Urshara =GEN=ABS break-IPFV-NFIN=be:3N.S
'When Atu's sealed document is brought, Ur-Shara's sealed document is to be broken.' (MCS 2 p.75 BM 112952 3-6; U; 21)

In fact, there is a unique example of a conditional clause which has a form with the prefix {ʔu} as its predicate:

(34) **tukum-*bé* / ur-àm-ma sipa / *nam*-erim$_2$-*bé ù-un*-ku$_5$ / kišib-*bé ze-re-dam***
tukum.bé ur.àm.ma sipa.d =e nam.ʔerim=be=Ø
if Uramma shepherd=ERG oath =its=ABS

ʔu -n -ku$_5$.ř-Ø kišib=be =Ø ze.r -ed -Ø =ʔam
REL.PAST-3SG.A-cut -3N.S/DO seal =this=ABS break-IPFV-NFIN=be:3N.S
'If Ur-Amma the shepherd takes an oath about this, this sealed document is to be broken.' (CST 533 7-10; U; 21)

Nevertheless, a clause with an {ʔu}-form is not a conditional clause. For that Sumerian uses clauses introduced by **u$_4$-*da*** 'if' or **tukum-*bé*** 'if' (§27.6.6). Indeed, there are instances where a sentence contains both a subordinate clause with an {ʔu}-form and a conditional clause. E.g.:

(35) **RU-lugal-*ra* / anše sa$_6$-*ga* / *ù-na*-dú / ugula-*né ga-šè*-sa$_{10}$ / *ù-na*-du$_{11}$ / u$_4$-*da mu-šè*-sa$_{10}$-sa$_{10}$ / kù šà-*ĝá a*-sa$_6$-*ga* / lá-*ma* / *ù-na*-du$_{11}$ / u$_4$-*da nu-šè*-sa$_{10}$-sa$_{10}$ / ugula lipiš-*bé* / *na-na*-tag-*ge***
RU.lugal.k=ra anše sa$_6$.g -Ø -ʔa =Ø ʔu -nna -dú.d -Ø
subordinate=DAT donkey be.good-NFIN-NOM=ABS REL.PAST-3SG.IO-be.born-3N.S/DO

ugula =ane=e ga -e -ši-sa$_{10}$ ʔu -nna -n -du$_{11}$.g-Ø
foreman=his =ERG MOD:1SG.A/S-2SG-to-barter REL.PAST-3SG.IO-3SG.A-say -3N.S/DO

u$_4$.da Ø -mu -n -ši-n -sa$_{10}$:RDP -e kù.g šà.g =ĝu =ʔa
if VP-VENT-3SG-to-3SG.OO-barter:IPFV-3SG.A:IPFV silver heart=my=LOC

ʔa -n(i)-sa$_6$.g -Ø -ʔa =Ø lá -Ø -ma -b
VP-in -be.good-3N.S/DO-NOM=ABS weigh-VP-1SG.IO-3N.DO

ʔu -nna -n -du$_{11}$.g-Ø u$_4$.da
REL.PAST-3SG.IO-3SG.A-say -3N.S/DO if

nu =ʔi -n -ši-n -sa$_{10}$:RDP -e ugula =e lipiš =be=Ø
NEG=VP-3SG-to-3SG.OO-barter:IPFV-3SG.A:IPFV foreman=ERG anger=its=ABS

na -nna -tag -e
NEG.MOD-3SG.IO-touch-3SG.A:IPFV
'When a beautiful donkey is born to a subordinate and his foreman says to him "I want to buy it from you"; whether he lets him buy it from him and has said "Pay me the price I want," or whether he does not let him buy it from him, the foreman must not become angry with him!' (Ukg. 4 11:20-31; L; 24)

(36) **im-*ba* igi *ù*-bar / tukum-*bé nu-ub*-sar / ur-*me-me-ke$_4$* / *íb-su-su***
im =be =ʔa igi=Ø ʔu -b(i) -bar -Ø tukum.be
clay=its=LOC eye=ABS REL.PAST-3N:on-be.outside-3N.S/DO if

nu =ʔi -b(i) -sar -Ø ur.me.me.k=e ʔi -b -su.g:RDP-e
NEG=VP-3N:on-write-3N.S/DO Urmeme =ERG VP-3N.DO-repay:IPFV-3SG.A:IPFV
'When the tablet about this is looked at, if this is not written on it, Ur-Meme will replace it.' (NG 209 18-21; N; 21)

(37) **šuku-*bé ù-ul*-gíd / tukum-*bé ì*-lá / lú 3 šuku-*bé ì*-lá-*a* / *ba-ab*-tùm / tukum-*bé íb*-si / *lú-ša-lim-e ba-an*-tùm**
šuku.ř =be=Ø ʔul -gíd -Ø tukum.be ʔi -lá -Ø
prebend=its=ABS REL.PAST-survey-3N.S/DO if VP-be.short-3N.S/DO

lú 3 šuku.ř =be=Ø ʔi -lá -Ø -ʔa =e Ø -ba -b -tùm -Ø
man 3 prebend=its=ABS VP-be.short-3N.S/DO-NOM=ERG VP-MM-3N.A-carry:IPFV-3N.S/DO

tukum.be ʔi -b -si -Ø lú.ša.lim=e Ø -ba -n -tùm -Ø
if VP-3N.OO-fill-3N.S/DO Lū.šalim =ERG VP-MM-3SG.A-carry:IPFV-3N.S/DO
'When their prebends have been surveyed, if they are too small, the three men whose prebends are too small will take it, (but) if they are sufficient, Lū-šalim will take it.' (NG 215 3-8; U; 21)

Thus, as to their meaning, the clauses with an {ʔu}-form border on the one hand on the temporal clauses in the locative case and on the other hand on the conditional clauses.

Verbal forms with the prefix {ʔu} are also found in nominalized clauses (chapter 27). Since such clauses are already subordinate, the prefix {ʔu} primarily adds the notion 'anterior action' to the event expressed by such clauses. E.g.:

(38) **igi ùĝ-*šè ù-ši*-bar-*ra-zu* šeĝ$_x$** (=IM.A) ***ḫé*-ĝál-*la-àm***
igi ùĝ =še ʔu -m(u) -ši-e -bar -Ø -ʔa =zu =Ø
eye people=TERM REL.PAST-VENT-to-2SG.A-be.outside-3N.S/DO-NOM=your=ABS

šeĝ$_x$ ḫé.ĝál =Ø =ʔam
rain abundance=ABS=be:3N.S
'Your having directed your eyes to the people means rain and abundance (lit. "Your eyes which you have brought out towards the people are rain and abundance").' (Cyl A 3:4; L; 22)

From the Old Akkadian period onwards, a verbal form with the prefix {ʔu} is found in the standard address formula of letters:

(39) **lugal-*e* / *na-ab-bé-a* / ur-^{d}li$_9$-si$_4$-*na-ra* / *ù-na-a*-du$_{11}$**
lugal=e (a.)na=Ø ʔa-b -ʔe -e -ʔa ur.li$_9$.si$_4$.na.k=ra
king =ERG what =ABS VP-3N.OO-say:IPFV-3SG.A:IPFV-NOM Urlisina =DAT

ʔu -nna -e -du$_{11}$.g-Ø
REL.PAST-3SG.IO-2SG.A-say -3N.S/DO
'Say to Ur-Lisina what the king says:' (TCS 1:1 1-4; U; 21)

Earlier Sumerian letters have an imperative instead of a form with the prefix {ʔu}:

(40) **gú-*bé* / *na-e-a* / lugal-*mu* / du$_{11}$-*ga-na***
gú.bé=e a.na =Ø ʔa-b -ʔe -e -ʔa lugal.mu=r(a)
Gube=ERG what=ABS VP -3N.OO-say:IPFV-3SG.A:IPFV-NOM Lugalmu =DAT

du$_{11}$.g-ʔa -nna -b
say -VP-3SG.IO-3N.OO
'Say to Lugalmu what Gube says:' (Nik 1:177 2:2-3:1; L; 24)

Akkadian letters also show an imperative form in the address. Accordingly, the form ***ù-na-a*-du$_{11}$** '(lit.) when you have said to him' must express here an instruction, probably in a polite way.

24.3. Forms and spellings of the prefixes {ʔi} and {ʔa}

24.3.1. Loss in open syllables

The vocalic prefixes {ʔi} and {ʔa} share a formal property that sets them apart from the other preformatives: they show a systematic gap in their distribution. Unlike the other preformatives they are never found before a prefix with the shape /CV/. Instead of a vocalic prefix we then find zero, that is, no preformative at all.

Thus, like the other preformatives, {ʔi} and {ʔa} can be used before the stem:

(41) **esir$_2$ eren$_2$-*na ì-me-a***
esir$_2$ eren$_2$ =ak =Ø ʔi -me-Ø -ʔa
bitumen troops=GEN=ABS VP-be -3N.S-NOM
'that it was bitumen of the troops' (NG 214 58; U; 21)

(42) **šà-gal lú *al*-dab$_5$-*ba-ne***
šà.gal lú ʔa-dab$_5$-Ø -ʔa =enē=ak
fodder man VP-take -3N.S/DO-NOM=PL =GEN
'fodder for the captives (lit. "of the men who have been taken (captive)")' (UMTBM 2:87 rev 3; U; 21)

If followed by other prefixes, {ʔi} and {ʔa} are found in closed syllables, just like the other preformatives. E.g.:

(43) ***in-na-an*-šúm**
ʔi -nna -n -šúm-Ø
VP-3SG.IO-3SG.A-give-3N.S/DO
'He gave it to him.' (NRVN 1:57 7; N; 21)

(44) **ur-^{d}nuska-*ke$_4$* / *na-ga-mu-ur* / *an-da*-tuku**
ur.nuska.k=e nagamu=d(a) ʔa-n -da -n -tuku-Ø
Urnuska =ERG Nagamu=COM VP-3SG-with-3SG.A-have -3N.S/DO
'Ur-Nuska is owed this by Nagamu (lit. "has this with N.").' (NRVN 1:65 2-4; N; 21)

But unlike the other preformatives, {ʔi} and {ʔa} are never found before a prefix that consists of a consonant and a vowel (/CV/). Then the verbal form contains no preformative at all, instead of expected {ʔi} or {ʔa}. To avoid any misunderstanding: it is not the following prefix itself but only its form that is the determining factor. Thus, in a closed syllable {ʔi} and {ʔa} are found before the ventive prefix (§22.2), but before the form /mu/ of that prefix, we find zero instead of {ʔi} or {ʔa}. E.g.:

(45a) **ú-*šè im-ši*-ĝen-*na***
ú =še ʔi -m(u) -ši-ĝen-Ø -ʔa
hay=TERM VP-VENT-to-go -3SG.S/DO-NOM
'who came for hay' (SAT 1:135 4; L; 21)

(b) **PN-*šè mu-ši*-ĝen-*na***
PN=še Ø-mu -n -ši-ĝen-Ø -ʔa
PN=TERM VP-VENT-3SG-to-go -3SG.S/DO-NOM
'who came for PN' (MTBM 45 2; L; 21)

Likewise, in a closed syllable {ʔi} and {ʔa} can occur before the local prefix (§20.3.1), but we find zero again before its form /bi/. E.g.:

(46a) **má-*a ab*-si**
má =ʔa ʔa-b(i) -si.g-Ø
boat=LOC VP-3N:on-put -3N.S/DO
'This (barley) was loaded on a boat.' (PPAC 1 p. 335 A.821; A; 23)

(b) **zíd-sig$_{15}$ má-*a bí-ì-íb*-si**
zíd.sig$_{15}$ =Ø má =ʔa Ø-bi -b -si.g-Ø
crushings.flour=ABS boat=LOC VP-3N:on-3N.A-put -3N.S/DO
'They loaded flour on boats.' (TENS 259 obv 6'; U; 21)

Nor are {ʔi} and {ʔa} ever found immediately before the form /ba/ of the prefix {ba} (§17.2.1 and §21.2). But they can precede that prefix if they are in a closed syllable:

(47a) **(...) / mu-*šè ba*-sa$_4$**
(...)=Ø mu =še Ø -ba -e -sa$_4$-Ø
(...)=ABS name=TERM VP-MM-on-call-3N.S/DO
'"(...)" was given as a name to this (stela).' (Ean. 7 2':7; L; 25)

(b) **(...) / na-*ba* mu-*šè im-ma*-sa$_4$**
(...)=Ø na =be =ʔa mu =še ʔi -m(u)-ba -e -sa$_4$-Ø
(...)=ABS stone=this=LOC name=TERM VP-VENT-MM-on-call-3N.S/DO
'"(...)" was given as a name to this stone.' (Cyl A 23:12; L; 22)

Thus, {ʔi} and {ʔa} are never found immediately before a prefix with the structure /CV/. At the same time verbal forms that begin with such a prefix are the only finite verbal forms that lack a preformative. Clearly, this situation must be the outcome of a change in the language: at some point in time, initial /ʔi/ and /ʔa/ were lost immediately before a prefix with the form

/CV/. In fact, a similar loss of initial /ʔV/ is also documented elsewhere, in words of three or more syllables (§3.9.4).

But there is more evidence for such a change in the language. In a way, we can observe the change itself in our data, because the loss of {ʔi} and {ʔa} before prefixes with the structure /CV/ did not proceed at exactly the same pace everywhere. Thus, in imperative forms the vocalic prefix {ʔa} may still be found before a /CV/-prefix, but only very rarely so (cf. Attinger 1993: 298). E.g.:

(48) **ḫúl-ḫúl-*la-mu-un-da***
ḫúl -ḫúl -ʔa -mu -n -da
be.happy-be.happy-VP-VENT-3SG-with
'Rejoice with him!' (Inanna E 19 = CT 36 pl. 33 19; OB)

In such forms, /ʔa/ was probably retained longer because it was not in word-initial position.

But more importantly, in one dialect the loss of {ʔi} and {ʔa} went further than in the other. Consider the following two examples:

(49a) **é ^{d}en-líl-*lá-k*[*a*] / *ì-ni*-ku$_4$-ku$_4$-*a***
é en.líl=ak =ʔa ʔi -ni-b -ku$_4$.r:RDP-e -ʔa
house Enlil =GEN=LOC VP-in-3N.DO-enter:IPFV -3SG.A:IPFV-NOM
'that he would bring it (viz. barley) into the temple of Enlil' (TMHC NF 1/2:69 rev 3-4; N; 21)

(b) **saĝ-sug$_5$-*ke$_4$* / é-gal-*la* / *ni-íb*-ku$_4$-ku$_4$**
saĝ.sug$_5$.k=e é.gal =ʔa Ø -ni-b -ku$_4$.r:RDP-e
surveyor =ERG palace=LOC VP-in-3N.DO-enter:IPFV -3SG.A:IPFV
'The surveyor will bring this into the palace.' (Courtesy Marcel Sigrist, BM 20646 4-6; L; 21)

These two forms reflect a difference in dialect. The second form, with loss of {ʔi} before the form /ni/ of the local prefix, is typical for the dialect which is dominant in the texts of our corpus. But the first form, with retention of {ʔi} before /ni/, is the norm in the dialect which dominates later texts (see §20.2.1 for details). A similar difference in dialect applies to the IO-prefix {ra} (§17.2.4) and the OO-prefix {ri} (§18.2.4), with retention of {ʔi} and {ʔa} before /ra/ and /ri/ in one dialect but loss in the other. (See for details the sections referred to).

Thus, in the dialect dominating the texts of our corpus, the vocalic prefixes {ʔi} and {ʔa} are represented by zero before all prefixes with the structure /CV/. But because both {ʔi} and {ʔa} are represented by zero, any distinction between them is obviously lost. For this reason, I have glossed these forms with **Ø-** and not with **(ʔi)-** or **(ʔa)-**.

Just one more point needs to be made. The preceding discussion could have been done entirely in terms of closed and open syllables. That I have preferred to speak of "before /CV/" instead of "in an open syllable" is because of the total absence of one specific type of form from our corpus. Through lack of data it is impossible to say whether {ʔi} and {ʔa} are retained or not before the /e/ of the initial and final person prefixes of the second person (§16.2.4 and §13.2.4). If they are, they can actually occur in an open syllable before another prefix.

24.3.2. Forms and spellings of the prefix {ʔi}

As discussed in the previous section, the vocalic prefix {ʔi} shows a systematic gap in its distribution. It is found immediately before the verbal stem, but if followed by another prefix it

is only attested in closed syllables. Its basic form is /ʔi/, also immediately before the stem, where the other two vocalic prefixes show an additional /l/ (§24.2.1 and §24.3.3). E.g.:

(50) **u$_4$ tu-*ra* *ì*-me-*a***
u$_4$.d tu.r -Ø -ʔa ʔi -me-Ø =ʔa
day be.ill-NFIN-NOM VP-be -3SG.S=LOC
'when he was ill' (PDT 2:1171 rev 2; D; 21)

(51) ***in-na*-ba**
ʔi -nna -n -ba -Ø
VP-3SG.IO-3SG.A-portion.out-3N.S/DO
'He donated it (viz. a seal) to him.' (AUCT 3:440 seal 2:4; D; 21)

(52) ***íb-ze-re-a***
ʔi -b -ze.r -e -ʔa
VP-3N.DO-break-3SG.A:IPFV-NOM
'who breaks it' (St B 8:10; L; 22)

This basic distribution of the prefix {ʔi} is much obscured by the tendency of the scribes to ignore syllable-final consonants (§2.4). Yet, a morphological analysis will always bear out the presence of two consonants after {ʔi} wherever it is followed by one or more other prefixes.[1] E.g.:

(53) **áb lugal-*ba-ta*-è / *ĝír-su*^{ki}-*ta* *ì-ma-ra-ba-al-la***
áb lugal.ba.ta.è=ak =Ø ĝír.su=ta ʔi -m(u) -ba -ta -ba.al -Ø -ʔa
cow Lugalbatae =GEN=ABS Girsu =ABL VP-VENT-MM-from-dig.up-3N.S/DO-NOM
'that Lugalbatae's cow was recovered from Girsu' (NG 137 1-2; U; 21)

Many such defective spellings can be found in the preceding chapters on the various verbal prefixes.

The tendency to ignore syllable-final consonants causes yet another ambiguity, one which unfortunately is much more difficult to resolve. A spelling ***ì***-STEM sometimes represents the prefix {ʔi} immediately before the stem, but usually it stands for forms with initial /ʔim/, /ʔin/, /ʔib/, and so on. Again, a simple grammatical analysis of the clause may make things clear. E.g.:

(54) **munus-*e* dumu *ì*-dú-*da-a***
munus =e dumu=Ø ʔi -n -dú.d -Ø -ʔa =ʔa
woman=ERG child =ABS VP-3SG.A-give.birth.to-3N.S/DO-NOM=LOC
'when Madam gave birth to a son' (TSA 45 5:3; L; 24)

But sometimes the situation is less straightforward. The verb **ĝen** 'go, come', for instance, has rarely a ventive prefix if construed with the terminative case but nearly always shows it with the ablative. Hence, the first of the following two clauses is almost certainly no defective spelling:

(55) **u$_4$ kur *mar-dú-šè* *ì*-ĝen-*na-a***

[1] There are as yet no attestations of the vocalic prefix {ʔi} before the /e/ of the initial and final person prefixes of the second person (§16.2.4 and §13.2.4), so that the behaviour of {ʔi} in such forms remains unknown.

u_4.d kur mar.dú =ak =še ʔi -ĝen-Ø -ʔa =ʔa
day mountains Amorite=GEN=TERM VP-go -3SG.S/DO-NOM=LOC
'when he went to the land of the Amorites' (MVN 13:656 12; D; 21)

(56) **u_4 kur *mar-dú-ta* / *ì-im*-ĝen-*na-a***
u_4.d kur mar.dú =ak =ta ʔi -m(u)-ĝen-Ø -ʔa =ʔa
day mountains Amorite=GEN=ABL VP-VENT-go -3SG.S/DO-NOM=LOC
'when he came from the land of the Amorites' (AUCT 2:276 18-19; D; 21)

The vowel of the prefix {ʔi} alternates between /i/ and /e/ according to the Old Sumerian rule of vowel harmony (§3.9.3):

(57) **saĝĝa *e*-me-*a***
saĝĝa =Ø ʔi -me-Ø =ʔa
administrator=ABS VP-be -3SG.S=LOC
'when he was the temple administrator' (CT 50:26 3:6; L; 24)

(58) **lá-*a e-ta*-zi**
lá? -Ø -ʔa =Ø ʔi -b -ta -zi.g-Ø
be.short-NFIN-NOM=ABS VP-3N-from-rise-3N.S/DO
'The deficit was raised from these (animals).' (VS 14:127 8:1; L; 24)

(59) **mu lugal akšak^{ki}-*ka* / *ì*-zi-*ga-a***
mu lugal akšak =ak =Ø ʔi -zi.g-Ø -ʔa =ʔa
year king Akshak=GEN=ABS VP-rise-3SG.S/DO-NOM=LOC
'in the year when the king of Akshak rose up' (Ean. 2 4:25-26; L; 25)

(60) **en-ig-gal / *nu*-banda$_3$ / *ì*-řú**
en.ig.gal nu.banda$_3$=e ʔi -n -řú -Ø
Eniggal overseer =ERG VP-3SG.A-erect-3N.S/DO
'Eniggal, the overseer, built it.' (DP 643 6:2-4; L; 24)

The vowel of the prefix {ʔi} is long before the shortened forms /n/ of the local prefix {ni} (§20.2.1), /b/ of the local prefix {e} (§20.3.1), and /m/ of the ventive prefix {mu} (§22.2). Without doubt, this long /ī/ is the result of compensatory lengthening. This lengthened vowel is also subject to the Old Sumerian rule of vowel harmony. The long /ī/ of {ʔi} is usually written with a plene spelling in the texts from the Ur III period, but earlier less explicit spellings are the norm. E.g.:

(61a) **^{ĝiš}šinig *ì-in*-gub**
šinig =Ø ʔi -n(i)-gub -Ø
tamarisk=ABS VP-in -stand-3N.S/DO
'Tamarisks stand therein.' (NG 2:215 14; U; 21)

(b) **ĝiš tir abbar^{ki}-*ka* / *ì*-gub-*ba-am$_6$***
ĝiš tir abbar=ak =ʔa ʔi -n(i)-gub -Ø -ʔa =Ø =ʔam
wood forest Abbar=GEN=LOC VP-in -stand-3N.S/DO-NOM=ABS=be:3N.S
'This is wood that stands in the forest of Abbar.' (VS 14:178 3:2-3; L; 24)

(62a) **mu *á-mi-/a ì-in*-ti-*la-šè***
mu é.mí=ʔa ʔi -n(i)-ti.l -Ø -ʔa =ak =še
name Emi =LOC VP-in -live-3SG.S/DO-NOM=GEN=TERM

'because (lit. "for the name of that") she lives in the Emi' (ZA 60 [1970] p. 74 BM 12364 rev 5-6; L; 21)

(b) **é éš-*ka* / *ì*-ti**
é éš =ak =ʔa ʔi -n(i)-ti.l -Ø
house rope=GEN=LOC VP-in -live-3SG.S/DO
'He is in prison.' (DP 117 4:10-11; L; 24)

(63a) **šuku engar šà-*ba ì-in*-ĝál**
šuku.ř engar =ak =Ø šà.g =be =ʔa ʔi -n(i)-ĝál -Ø
prebend farmer=GEN=ABS heart=its=LOC VP-in -be.there-3N.S/DO
'The prebends of the farmers are among them (lit. "in its heart").' (CT 1 pl. 36-37:BM 19030 6:2; L; 21)

(b) **šuku engar šà-*ba ì*-ĝál** (e.g., TCTI 1:L.633 8:1; L; 21)

(64a) **igi-5-ĝál-*bé a-gù-ba ì-íb*-ĝál**
igi.5.ĝál=be=Ø a.gù=be=ʔa ʔi -b(i) -ĝál -Ø
one.fifth=its=ABS top =its=LOC VP-3N:on-be.there-3N.S/DO
'One-fifth of this is on top of it.' (RA 76 p.28f 1:2; U; 21)

(b) **má šubur-*ka* / *e*-ĝál**
má šubur =ak =ʔa ʔi -b(i) -ĝál -Ø
boat Shubur=GEN=LOC VP-3N:on-be.there-3N.S/DO
'This is on Shubur's boat.' (DP 344 1:2-3; L; 24)

(65a) **má-laḫ$_5$-*bé ì-íb-ù***
má.laḫ$_5$ =be=Ø ʔi -b(i) -u$_5$ -Ø
boatman=its=ABS VP-3N:on-sail-3N.S/DO
'Their boatmen sail on them (i.e., three boats).' (MVN 14:241 obv 2; U; 21)

(b) **má gala-tur / *ì*-u$_5$-*a-kam***
má gala.tur=Ø ʔi -b(i) -u$_5$ -Ø -ʔa =ak =ʔam
boat Galatur =ABS VP-3N:on-sail-3SG.S/DO-NOM=GEN=be:3N.S
'This belongs to the boat on which Galatur sails.' (DP 483 5:2-3; L; 24)

(66a) **u$_4$ umma^{ki}-*ta ì-im*-ĝen-*na-a***
u$_4$.d umma=ta ʔi -m(u) -ĝen-Ø -ʔa =ʔa
day Umma=ABL VP-VENT-go -3SG.S/DO-NOM=LOC
'when she came out of Umma' (SACT 1:154 6; D; 21)

(b) **elam^{ki}-*ta* / *e*-ĝen-*na-a***
elam=ta ʔi -m(u) -ĝen-Ø -ʔa =ʔa
Elam=ABL VP-VENT-go -3SG.S/DO-NOM=LOC
'when he came from Elam' (Nik 1:313 1:6-2:1; L; 24)

The prefix {ʔi} can be preceded by the modal proclitic {ḫa} (§25.4.1) or by the negative proclitic {nu} (§25.2). It then contracts with the preceding vowel. E.g.:

(67) ***ḫé-na-ab*-šúm-*mu***
ḫa =ʔi -nna -b -šúm-e
MOD=VP-3SG.IO-3N.DO-give-3SG.A:IPFV
'He should give it to him!' (TCS 1:262 7; L; 21)

(68) **urdu$_2$ ur-^{d}kuš$_7$-^{d}*ba-ú-ka nu-ù*-me-*èn***
urdu$_2$.d ur.kuš$_7$.ba.ú.k=ak =Ø nu =ʔi -me-en
slave Urkushbau =GEN=ABS NEG=VP-be -2SG.S
'I am not Urkushbau's slave.' (NG 32 3; L; 21)

See the sections on the two proclitics for details.

The prefix {ʔi} may also contract with the verbal stem, if the latter has an initial glottal stop. The first of the following two clauses, for instance, contains a verbal form showing such a contraction, while the second (with the ventive prefix) shows the full verbal stem:

(69a) **u$_4$ kaskal *mar-dú-šè ì-re-ša-a***
u$_4$.d kaskal mar.dú =ak =še ʔi -ʔer -eš -ʔa =ʔa
day road Amorite=GEN=TERM VP-go:PLUR-3PL.S/DO-NOM=LOC
'when they went for a military expedition against the Amorites' (AOAT 22 p. 135:3 4; ?; 21)

(b) **u$_4$ *na-wa-ar^{ki}-ta / ì-im-e-re-éš-ša-a***
u$_4$.d na.wa.ar=ta ʔi -m(u)-ʔer -eš -ʔa =ʔa
day Nawar =ABL VP-VENT-go:PLUR-3PL.S/DO-NOM=LOC
'when they came from Nawar' (TSDU 38 9-10; D; 21)

This is the only instance I know where {ʔi} contracts with the verbal stem, but there may be more of such contractions hidden behind the standard spellings with word signs.

24.3.3. Forms and spellings of the prefix {ʔa}

Much of what has been said about the vocalic prefix {ʔi} in the previous section also applies to the prefix {ʔa}. Not only as regards matters of spelling, which we shall not discuss in as much detail as we did for {ʔi}, but also as regards other matters. The prefix {ʔa}, too, shows a systematic gap in its distribution: it is never found before a prefix with the structure /CV/, except in a few abnormal imperative forms (§24.3.1). Its basic form is /ʔa/. E.g.:

(70) ***ì-lum-ba-ni / an-da*-ĝál**
ì.lum.ba.ni=d(a) ʔa-n -da -ĝál -Ø
Ilumbani =COM VP-3SG-with-be.there-3N.S/DO
'This is with Ilum-bani.' (ECTJ 104 3:6-7; N; 24)

(71) **mu *ab*-ús-*a***
mu ʔa-b -ʔús -Ø -ʔa
year VP-3N.OO-be.next.to-3N.S/DO-NOM
'the year which follows it' (OSP 2:96 8:7; N; 23)

(72) ***an-ne*-šúm**
ʔa -nnē -šúm-Ø
VP-3PL.IO-give-3N.S/DO
'This was given to them.' (PPAC 1:A.890 11; A; 23)

The /ʔa/ of a verbal form beginning with /ʔaba/ (***a-ba-***) is always the relative-past prefix {ʔu}, which assimilates in an open syllable to the vowel of the following syllable (§24.2.1). As stated before, the prefix {ʔa} cannot occur before a prefix with the structure /CV/ (§24.3.1).

As we saw in the previous section, the vowel of the prefix {ʔi} is long before the shortened forms /n/ of the local prefix {ni} (§20.2.1), /b/ of the local prefix {e} (§20.3.1), and /m/ of the

ventive prefix {mu} (§22.2). It is highly likely that the vowel of the prefix {ʔa} is likewise lengthened, but there are only explicit plene spellings for the form /ʔāb/. For /ʔān/ and /ʔām/ only less explicit spellings are found. But as the prefix {ʔa} occurs far more rarely than {ʔi}, this is probably a mere conincidence. E.g.:

(73) ⌜**é á-*me*mè-*ka* / *an*-si**
é á.mè=ak =ʔa ʔa-n(i)-si.g-Ø
house Ame=GEN=LOC VP-in -put -3N.S/DO
'This (barley) has been stored in the Ame house.' (PPAC 1 A.745 10-11; A; 23)

(74) **dumu gaba-*na a-ab*-tab**
dumu=Ø gaba=ane=ʔa ʔa-b(i) -tab -Ø
child =ABS chest=her =LOC VP-3N:on-press-3N.S/DO
'A child was pressed to her chest.' (NATN 761 4; N; 21)

(75) ***en-na àm*-du**
en.na ʔa-m(u) -du -Ø
until VP-VENT-go:IPFV-3SG.S:IPFV
'until he comes' (TCS 1:125 8; N; 21)

When the prefix {ʔa} occurs immediately before the stem, that is, when it is the only verbal prefix, it has the special form /ʔal/ (Black 1984: 37; Attinger 1993: 269). This additional /l/ remains unexplained, but note that such an /l/ also occurs with the prefix {ʔu} (§24.2.1). The following pairs of clauses clearly show that /ʔa/ and /ʔal/ are positional variants of a single prefix:

(76a) **šà-*be*$_6$-*ta* / 36.0.4 5 sila$_3$ šúm *líd-ga* / *ab-ta*-zi**
šà.g =be=ta 36.0.4 5 sila$_3$ šúm líd.ga=Ø ʔa-b -ta -zi.g-Ø
heart=its=ABL 36.0.4 5 litre garlic *lidga* =ABS VP-3N-from-rise-3N.S/DO
'Out of this, 36 *lidga* and 45 litres of garlic were expended (lit. "raised").' (OSP 2:166 4-6; N; 23)

(b) ***al*-zi**
ʔa-zi.g-Ø
VP-rise-3N.S/DO
'This (viz. an amount of vegetables) was expended.' (OSP 2:144 4:2; N; 23)

(77a) **a-*bé an*-tu$_{22}$-tu$_{22}$ / *a ù-ni*-tu$_{22}$**
a =be =Ø ʔa-n -tu$_5$:RDP -en
water=this=ABS VP-3SG.OO-bathe.in:IPFV-2SG:IPFV

a =Ø ʔu -nni -e -tu$_5$ -Ø
water=ABS REL.PAST-3SG.OO-2SG.A-bathe.in-3N.S/DO
'You will wash him with this water. After you have washed him, (...).' (RA 54 p. 62 123-124=136-137; N; 21)

(b) **a *al*-tu$_{17}$-tu$_{17}$ / a *ù*-tu$_{17}$**
a =Ø ʔa-tu$_5$:RDP -e
water=ABS VP-bathe.in:IPFV-3SG.A:IPFV

a =Ø ʔu -n -tu$_5$ -Ø
water=ABS REL.PAST-3SG.A-bathe.in-3N.S/DO
'He will bathe. After he has bathed, (...).' (TMHC NF 1/2:359 9-10; N; 21)

(78a) **řú-*a-bé an-sù-bé* / *ù-ni-sù***
řú.a.bé=Ø ʔa -n -su.b-e ʔu -nni -n -su.b-Ø
all =ABS VP-3SG.OO-rub -3SG.A:IPFV REL.PAST-3SG.OO-3SG.A-rub -3N.S/DO
'You will rub him in with everything. After you have rubbed him in, (...)' (RA 54 p. 62 109-110; N; 21)

(b) **kaš *sìg al-su-ub-bé* / kaš *sìg ù-su-ub***
kaš sig$_5$ =Ø ʔa -su.b-e kaš sig$_5$ =Ø ʔu -n -su.b-Ø
beer good=ABS VP-rub -3SG.A:IPFV beer good=ABS REL.PAST-3SG.A-rub -3N.S/DO
'He will rub in good beer. After he has rubbed in good beer, (...).' (TMHC NF 1/2:359 7-8; N; 21)

Being a syllable-final consonant, the /l/ of /ʔal/ may be ignored by the writing system (§2.4). Consider, for instance, the following name:

(79) ***a*-ḫuš-*a***
ʔa -ḫuš -Ø -ʔa
VP-be.fierce-3SG.S/DO-NOM
'one who is fierce' (BE 3/1:13 tablet 14; N; 21)

This name is written ***al-ḫu-ša*** on the envelope of the same text (line 12).

Just like the vocalic prefix {ʔu}, the vocalic prefix {ʔa} cannot be preceded by the negative proclitic {nu}, so that negative forms with the prefix {ʔa} are lacking. Nor can {ʔa} be preceded by the modal proclitic {ḫa}, except in a dialect from the Lagash area (see §25.4.1). Nor can the prefix {ʔa} be preceded by the vocalic prefix {ʔu}, as has been suggested on the basis of verbal forms with initial ***ù-ul-***. Such forms do not contain /ʔal/ (see §24.2.1 above).

The prefix {ʔa} is the only vocalic prefix to occur in imperative forms (§25.3). It is found as the only "prefix" (an imperative is formed by suffixing all the prefixes), in closed syllables, but is replaced by zero before a prefix with the structure /CV/. E.g.:

(80) **ĝen-*na***
ĝen-ʔa
go -VP
'Go!' (Shulgi X 90; ?; 21, OB copy)

(81) **du$_{11}$-*ga-na***
du$_{11}$.g-ʔa-nna -b
say -VP-3SG.IO-3N.DO
'Say it to him!' (Nik 1:309 3:3; L; 24)

(82) **lá-*ma***
lá -Ø -ma -b
weigh-VP-1SG.IO-3N.DO
'Pay this to me!' (Ukg. 4 11:27, 12:3; L; 24)

Exceptionally, though, {ʔa} also occurs before /CV/ in imperative forms (§24.3.1).

24.4. Usage of the prefixes {ʔi} and {ʔa} in Southern Sumerian

24.4.1. General remarks

At some point in time, the prefixes {ʔi} and {ʔa} were lost before a prefix with the structure /CV/, both of them being replaced by zero (§24.3.1). This change obviously obliterated any functional difference these two prefixes may have had in such forms. What happened next differs according to dialect. In Southern Sumerian the use of the prefix {ʔi} greatly expanded at the expense of {ʔa}, whereas in Northern Sumerian the prefix {ʔa} held its ground, acquiring the new function of passive marker. Accordingly, we shall treat the uses of {ʔi} and {ʔa} separately for each dialect, first for Southern Sumerian (§24.4) and then for Northern Sumerian (§24.5). In doing so, we shall use the Lagash material to represent Southern Sumerian and the Nippur texts for Northern Sumerian. In this way we use the best documented representative of each of the two main dialects, while at the same time we avoid muddling up any other dialectal distinctions that may exist within them.

In Southern Sumerian, subsequent changes led to an almost completely complementary distribution of the two prefixes. In the end, the prefix {ʔa} is the only one used in imperative forms, while the prefix {ʔi} is almost the only one found in other finite forms. There is only one type of form where either of them may occur and that is in subordinate finite forms with only one prefix.

This distribution, however, can be shown to be the result of linguistic change. The Old Sumerian texts from Lagash provide us with ample evidence showing that earlier the prefix {ʔa} could be used in all types of finite forms where we later find the prefix {ʔi} only. These texts make it possible for us to discern how this expansion of the prefix {ʔi} took place. At first, {ʔi} only replaced {ʔa} in main clauses (§24.4.2) but later also in subordinate clauses (§24.4.3), except in subordinate finite forms with just a single prefix (§24.4.4).

24.4.2. Usage in main clauses

The Old Sumerian texts from Lagash contain several perfective forms with the prefix {ʔa}. All these forms have a stative meaning. However, the prefix {ʔa} is not fully productive anymore in the language of these texts. While it is still in regular use in subordinate clauses (see §24.4.3 below), it is found in only a few main clauses, and all of these look very much like conservative expressions reflecting linguistic features from an earlier period when the prefix could still be freely used in main clauses. One such expression is the full form of Eannatum's name:

(83) **é-an-*na* / ^{d}inanna / eb-gal-*ka-ka a*-túm**
é.an.na inanna eb.gal=ak =ak =ʔa ʔa -b(i) -túm -Ø
Eanna Inanna Ebgal =GEN=GEN=LOC VP-3N:on-be.fit.for-3SG.S/DO
'He is fit for the Eanna(-temple) of Inanna of the Ebgal.' (Ean. 1 4:20-22 = 5:26-28; L; 25)

Then, there is the name of an object:

(84) ^{d}***ba-ú*** **bara$_2$ iri-ka-*ge-na-ka-da am$_6$-da*-kúš**
ba.ú=Ø bara$_2$.g iri.ka.ge.na.k=ak =da ʔa -m(u) -da -kúš -Ø
Bau =ABS dais Irikagena =GEN=COM VP-VENT-with-be.troubled-3N.S/DO
'Bau is troubled about Irikagena's dais.' (Ukg. 45 1; L; 24)

Finally, there is a clause from a literary text describing the beginning of time:

(85) **an en-*nam* šul-*le-éš al*-gub**
an =Ø en =Ø =ʔam šul =eš ʔa -gub -Ø
heaven=ABS lord=ABS=be:3SG.S youth=ADV VP-stand-3SG.S/DO
'Heaven was lord; he stood as a young man.' (Ukg. 15 2:1; L; 24)

These three forms express a present or a past state.

Many personal names have a clausal structure (§6.8.3) and several of them include verbal forms with the prefix {ʔa}. Since names tend to be conservative, they too reflect an earlier usage of the prefix {ʔa} in main clauses. However, also in these names, the forms with {ʔa} are later replaced by forms with the prefix {ʔi}:

(86a) **inim-^{d}en-líl-*lá-an*-dab$_5$**
inim en.líl=ak =Ø ʔa-n -dab$_5$-Ø
word Enlil =GEN=ABS VP-3SG.A-take -3N.S/DO
'He obeys (lit. "holds") Enlil's command.' (DP 553 2:2; L; 24)

(b) **inim-^{d}*ba-ú-ì*-dab$_5$**
inim ba.ú=ak =Ø ʔi -n -dab$_5$-Ø
word Bau =GEN=ABS VP-3SG.A-take -3N.S/DO
'He obeys Bau's command.' (SNAT 6 4; L; 21)

(87a) **zi-*ĝu$_{10}$-an-da*-ĝál**
zi =ĝu =Ø ʔa -n -da -ĝál -Ø
life=my=ABS VP-3SG-with-be.there-3N.S/DO
'My life is with him.' (CT 50:36 4:15; L; 24)

(b) **zi-*ĝu$_{10}$-in-da*-ĝál**
zi =ĝu =Ø ʔi -n -da -ĝál -Ø
life=my=ABS VP-3SG-with-be.there-3N.S/DO
'My life is with him.' (TuT 164-15 5:11; L; 21))

(88a) **igi-*ĝu$_{10}$-an-šè*-ĝál**
igi =ĝu =Ø ʔa -n -ši -ĝál -Ø
eye=my=ABS VP-3SG-to-be.there-3N.S/DO
'My eyes are towards him.' (DP 115 3:13; L; 24)

(b) **igi-*ĝu$_{10}$-in-ši*-ĝál**
igi =ĝu =Ø ʔi -n -ši -ĝál -Ø
eye=my=ABS VP-3SG-to-be.there-3N.S/DO
'My eyes are towards him.' (TCTI 1:L.618 4:10; L; 21)

(89a) **nin-*e-an*-su**
nin =e ʔa -n -zu -Ø
lady=ERG VP-3SG.A-know-3SG.S/DO
'The lady knows her.' (DP 176 6:2; L; 24)

(b) **nin-*e-in*-zu**
nin =e ʔi -n -zu -Ø
lady=ERG VP-3SG.A-know-3SG.S/DO
'The lady knows her.' (NG 16 8; L; 21)

(90a) **lugal-*al*-sa$_6$**

lugal=Ø ʔa -sa$_6$.g -Ø
king =ABS VP-be.good-3SG.S/DO
'The king is good.' (VS 25:70 11:14; L; 24)

(b) **lugal-*ì*-sa$_6$**
lugal=Ø ʔi -sa$_6$.g -Ø
king =ABS VP-be.good-3SG.S/DO
'The king is good.' (MVN 1:164 6; L; 21)

The prefix {ʔa} occurs even more rarely in forms of the imperfective. One form, ***ab-e***, occurs in a few personal names. E.g.:

(91) **lugal-*ĝá-ab-e***
lugal =ĝu =ak ʔa -b -ʔe -en
master=my=GEN VP-3N.OO-say:IPFV-1SG.A/S:IPFV
'I say: "One of my master!".' (DP 623 7:2; L; 24)

But in another personal name a very similar form is attested with the prefix {ʔi}:

(92) ***a-ba*-di-*ì-bé***
a.ba=e di.d =Ø ʔi -b -ʔe -e
who=ERG judgement=ABS VP-3N.OO-say:IPFV-3SG.A:IPFV
'Who pronounces (or: will pronounce) judgement?' (DP 195 8:1'; L; 24)

A second imperfective form occurs in a literary text:

(93) **an ki téš-*ba šeg$_{12}$ an*-gi$_4$-gi$_4$**
an ki =e téš =be=ʔa šeg$_{12}$ =Ø ʔa -n(i)-gi$_4$:RDP-e
heaven earth=ERG unity=its=LOC shriek=ABS VP-in -turn:IPFV-3N.A/S:IPFV
'Heaven and earth cried in unison.' (Ukg. 15 2:2; L; 24)

There is little one can say on the basis of just two forms, except that both clearly have a non-stative, dynamic meaning and that the second expresses a kind of past action.

Thus, in main clauses the prefix {ʔa} is only attested in conservative expressions. The perfective forms with {ʔa} express a state, while the imperfective forms refer to an action.

24.4.3. Usage in subordinate clauses

Already in the Old Sumerian period, the prefix {ʔa} had ceased to be used in main clauses, except in some conservative expressions. The prefix {ʔi} had replaced it in all but a few fossilized forms (§24.4.2). Yet, during that same period {ʔa} remains in regular use in subordinate clauses. This may seem odd, but it is not uncommon for subordinate clauses to retain morphosyntactic features which main clauses have lost (Bybee, Perkins and Pagliuca 1994: 230-236). The Akkadian verbal form *iprusu*, for instance, is in origin the old Semitic present but was replaced in that function by the new form *iparras*. Yet, it remained to be used in subordinate clauses and acquired the new function of subjunctive (Kouwenberg 1997: 36-37). In Southern Old Sumerian the prefix {ʔa} likewise became restricted to subordinate clauses. Highly similar forms show the prefix {ʔa} in subordinate clauses but lack it in main clauses. Compare, for instance, the following clauses:

(94a) **lú umma^{ki} / úr-MUD / *an-da*-ti-*la***

lú umma =ak úr.MUD=d(a) ʔa -n -da -ti.l -Ø -ʔa
man Umma=GEN Urmud =COM VP-3SG-with-live-3SG.S/DO-NOM
'the Umma'ite who lives with Urmud' (DP 143 1:4-2:2; L; 24)

(b) **lugal-apin-*né* / *e-da*-ti**
lugal.apin.né=d(a) ʔi-n -da -ti.l -Ø
Lugal'apine =COM VP-3SG-with-live-3SG.S/DO
'He lives with Lugal'apine.' (DP 116 12:1-2; L; 24)

(95a) **ku$_6$ á È.È / en-*na*-u$_4$-*ĝu$_{10}$* / *an-da*-ĝál-*la-am$_6$***
ku$_6$ á =Ø è:RDP -ed -Ø en.na.u$_4$.ĝu$_{10}$=d(a)
fish arm=ABS go.out:IPFV-IPFV-NFIN Enna'ugu =COM

ʔa -n -da -ĝál -Ø -ʔa =Ø =ʔam
VP-3SG-with-be.there-3N.S/DO-NOM=ABS=be:3N.S
'These are fish to be raised which are with Enna'ugu.' (DP 341 2:3-2:1; L; 24)

(b) **en-*na*-u$_4$-*ĝu$_{10}$* / *e-da*-ĝál**
en.na.u$_4$.ĝu$_{10}$=d(a) ʔi -b -da -ĝál -Ø
Enna'ugu =COM VP-3N-with-be.there-3N.S/DO
'These (fish) are with Enna'ugu.' (DP 300 2:4-5; L; 24)

As in main clauses (§24.4.2), all perfective forms with the prefix {ʔa} express a state. E.g.:

(96) **lugal ki *an-na*-áĝ-*ĝá-né***
lugal ki =Ø ʔa-nna -n -ʔáĝ -Ø -ʔa =ane
master place=ABS VP-3SG.IO-3SG.A-measure.out-3N.S/DO-NOM=his
'his master who loves him (lit. "whom has measured out a place for him")' (Ent. 28 5:14; L; 25)

(97) **é lú *gu-la-ke$_4$* / é RU-lugal-*ka* / *ab*-ús-*sa***
é lú gu.l -Ø -ʔa =ak =e é RU.lugal.k =ak =Ø
house man be.big-NFIN-NOM=GEN=DIR house subordinate=GEN=ABS

ʔa -b -ʔús -Ø -ʔa =ak
VP-3N.OO-be.next.to-3N.S/DO-NOM=GEN
'of that the house of an important man borders on the house of a subordinate' (Ukg. 4 11:32-34; L; 24)

(98) **an-*ta*-sur-*ra* / é *me-lám-bé* kur-kur-*ra a*-dul$_5$**
an.ta.sur.ra é me.lám =be=Ø kur -kur =ʔa ʔa-b(i) -dul$_5$ -Ø
Antasurra house radiance=its=ABS mountains-mountains=LOC VP-3N:on-cover-3N.S/DO
'the Antasurra, the temple whose radiance covers the mountain lands' (Ent. 8 6:1-2 = Ent. 23 39-40; L; 25)

Derived from an action verb, a perfective form with the prefix {ʔa] has a resultative meaning, expressing a state which results from a previous action:

(99) **šu-*né-al*-dugud / gal-kinda$_2$ / *nam-nu*-banda$_3$ é-šà-*ga* / *an-na*-daḫ-*ḫa***
šu.né.al.dugud gal.kinda$_2$ nam.nu.banda$_3$ é.šà.g =ak =Ø
Shune'aldugud chief.barber overseership Inner.Room=GEN=ABS

ʔa -nna -daḫ-Ø -ʔa
VP-3SG.IO-add -3N.S/DO-NOM

'Shune-aldugud, the chief barber, who also holds the position of overseer over the Inner Room (lit. "for whom the position … has been added")' (En. I 30 2:3-6; L; 25)

(100) **im-nun é en-ku$_4$ *ab*-řú-*a* / zà-*bé***
im.nun é en.ku$_4$=ak =Ø ʔa-b(i) -řú -Ø -ʔa =Ø
imnun house Enku =GEN=ABS VP-3N:on-erect-3N.S/DO-NOM=ABS

zà.g =be=Ø =(ʔa)m
border=its=ABS=be:3N.S
'The *imnun* on which Enku's house is built is its border.' (DP 454 2:4-5; L; 24)

Such forms are always intransitive and express the state of the object of the previous action. Thus, in perfective forms of action verbs, the prefix {ʔa} expresses an objective resultative.[2]

In the examples given above, the perfective forms with the prefix {ʔa} refer to a present, a currently existing, state. In main clauses, a form with {ʔa} can also be used to express a past state, as example 85 above shows. In subordinate clauses, however, perfective forms with the prefix {ʔi} are used for that. Contrast the following pairs of clauses:

(101a) **ku$_6$ á È.È / en-*na*-u$_4$-*ĝu$_{10}$* / *an-da*-ĝál-*la-am$_6$***
ku$_6$ á =Ø è:RDP -ed -Ø en.na.u$_4$.ĝu$_{10}$=d(a)
fish arm=ABS go.out:IPFV-IPFV-NFIN Enna'ugu =COM

ʔa -n -da -ĝál -Ø -ʔa =Ø =ʔam
VP-3SG-with-be.there-3N.S/DO-NOM=ABS=be:3N.S
'These are fish to be raised which are with Enna'ugu.' (DP 341 2:3-2:1; L; 24)

(b) **níĝ a-lú-du$_{10}$ / má-laḫ$_5$-*da* / *e-da*-ĝál-*la-am$_6$***
níĝ a.lú.du$_{10}$ má.laḫ =da ʔi -n -da -ĝál -Ø -ʔa =Ø =ʔam
thing Aludu boatman=COM VP-3SG-with-be.there-3N.S/DO-NOM=ABS=be:3N.S
'These are things which were with Aludu, the boatman.' (DP 475 2:5-7; L; 24)

(102a) **kiri$_6$ ^{d}*ba-ú* / ur-^{d}nin-*ĝír-su* / dumu é-ku$_4$ / *ab-da*-tuš-*a***
kiri$_6$ ba.ú=ak ur.nin.ĝír.su.k dumu é.ku$_4$=ak =Ø
orchard Bau=GEN Urningirsu son Eku =GEN=ABS

ʔa-b -da -tuš-Ø -ʔa
VP-3N-with-sit -3SG.S/DO-NOM
'the orchard of Bau where Ur-Ningirsu, the son of Eku, is on duty (lit. "with which … sits")' (DP 419 6:2-5; L; 24)

(b) **lú unug^{ki}-*ga* iri-*da* / *ì-da*-tuš-*a***
lú unug=ak =Ø iri =da ʔi -b -da -tuš-Ø -ʔa =ʔa
man Uruk=GEN=ABS town=COM VP-3N-with-sit -3SG.S/DO-NOM=LOC
'when the man of Uruk besieged the city (lit. "sat with the city")' (DP 545 5:3-4; L; 24)

(103a) **kiri$_6$ ^{d}*ba-ú* / PN / *nu*-kiri$_6$ / *a*-tuš-*a***
kiri$_6$ ba.ú=ak PN nu.kiri$_6$.k=Ø ʔa -n(i)-tuš-Ø -ʔa
orchard Bau =GEN PN gardener =ABS VP-in -sit -3SG.S/DO-NOM
'the orchard of Bau where Etae, the gardener, is on duty' (VS 14:57 6:1-4; L; 24)

(b) **u$_4$ 2-*šè* ès-*a* *ì*-tuš-*a-a***

[2] For a general discussion of resultatives, see Nedjalkov and Jaxontov (1988).

u_4.d 2=še è̀s =ʔa ʔi -n(i)-tuš-Ø -ʔa =ʔa
day 2=TERM shrine=LOC VP-in -sit -3SG.S/DO-NOM=LOC
'when she stayed for two days in the shrine' (VS 14:94 1:3; L; 24)

However, there also seems to be a clear example of a perfective form with {ʔa} which refers to a past state:

(104) **má-gur_8 eren-*da-né* / *a*-u_5-*a*-am_6**
má.gur_8 eren.da.ne=Ø ʔa-b(i) -ʔu_5 -Ø -ʔa =Ø =ʔam
boat Erendane =ABS VP-3N:on-ride-3SG.S/DO-NOM=ABS=be:3N.S
'It was the boat on which Erendane sailed.' (DP 485 6:2-3; L; 24)

The text which contains this clause lists the parts of the boat (which had evidently been taken apart) and their destination (a storeroom). But perfective forms with the prefix {ʔi} occur in basically the same context. E.g.:

(105) **má gala-tur / *ì*-u_5-*a*-*kam***
má gala.tur=Ø ʔi -b(i) -ʔu_5-Ø -ʔa =ak =ʔam
boat Galatur =ABS VP-3N:on-ride-3SG.S/DO-NOM=GEN=be:3N.S
'This is of the boat on which Galatur sailed.' (DP 483 5:2-3; L; 24)

Thus, in subordinate clauses perfective forms with the prefix {ʔa} are used to express present and perhaps also past states, while perfective forms with the prefix {ʔi} are used to express past states.

But perfective forms with the prefix {ʔi} do not only refer to states. Mostly they are used to express past actions. E.g.:

(106) **mu ^{d}inanna-*ke*$_4$ / *e*-*né*-sa_4-*a*-*né***
mu inanna.k=e ʔi -nni -n -sa_4 -Ø -ʔa =ane
name Inanna =ERG VP-3SG.OO-3SG.A-name-3N.S/DO-NOM=his
'his name which Inanna had given to him' (Ean. 1 obv 5:24-25; L; 25)

(107) **$gurum_2$ anše *e*-ak-*a***
$gurum_2$ anše =ak =Ø ʔi -n -ak -Ø -ʔa =ʔa
inventory donkey=GEN=ABS VP-3SG.A-make-3N.S/DO-NOM=LOC
'when he made the donkey inventory' (DP 238 3:2; L; 24)

(108) **$guru_7$ *ì*-dub-*ba*-*a***
$guru_7$ =Ø ʔi -n -dub -Ø -ʔa =ʔa
granary=ABS VP-3SG.A-heap.up-3N.S/DO-NOM=LOC
'when he heaped up a grain heap' (Nik 1:246 2:5; L; 24)

The subordinate clauses attested in the Old Sumerian texts from Lagash do not contain any imperfective forms with the prefix {ʔi}, whereas the prefix {ʔa} is found in several of them. E.g.:

(109) **ĝeštu$_2$-*né* / *al*-zu-zu-*a***
ĝeštu$_2$.g=ane=e ʔa-zu:RDP -e -ʔa
ear =his =ERG VP-know:IPFV-3SG.A:IPFV-NOM
'whose ear learns that (…)' (Ean. 62 Face A 4:2'-3'=6'-7'=9'-5:1'=5:2'-3'; L; 25) (in broken context)

(110) **(…) / *am*$_6$-*ta*-bala-*e*-*da* / (…)**

ʔa -m(u)-ta -e -bala-ed -Ø -ʔa
VP-VENT-from-on-cross -IPFV-3SG.S:IPFV-NOM
'(The Ummaite) who crosses (Ningirsu's border dike and Nanshe's border dike in order to take fields by force …: may Enlil annihilate him!)' (Ent. 28 6:16; L; 25)

(111) **gur$_4$-gur$_4$ kù luḫ-*ḫa* ì iti-*da* ^{d}nin-*ĝír-su-ke$_4$ ab-ta*-gu$_7$-*a***
gur$_4$.gur$_4$ kù.g luḫ -Ø -ʔa =ak ì iti.d =ak =Ø
vessel silver purify-NFIN-NOM=GEN fat month=GEN=ABS

nin.ĝír.su.k=e ʔa -b -ta -gu$_7$-e -ʔa
Ningirsu =ERG VP-3N-from-eat -3SG.A:IPFV-NOM
'a vessel of purified silver out of which Ningirsu eats the monthly fat' (Ent. 34 15; L; 25)

(112) **bar udu bar$_6$-*ka* / bar sila$_4$ gaba-*ka-ka* / kù *a-ĝá-ĝá-da* / maškim-*bé***
bar udu bar$_6$ =ak =ʔa bar sila$_4$ gaba =ak =ak =ʔa
because sheep white=GEN=LOC because lamb breast=GEN=GEN=LOC

kùg =Ø ʔa -b(i) -ĝar:RDP -ed -ʔa =ak maškim =be
silver=ABS VP-3N:on-place:IPFV-IPFV-NOM=GEN commissioner=its
'of that (a) silver (tax) is placed because of white sheep and because of suckling lambs: the commissioner (in charge) of this (he threw out)' (Ukg. 4 8:28-31; L; 24)

Thus, in the subordinate clauses of the Old Sumerian texts from Lagash, the prefix {ʔa} is still widely used as an alternative for {ʔi}. But the two prefixes {ʔa} and {ʔi} have different uses: the prefix {ʔa} is found in all imperfective forms and in those perfective forms that refer to a present state or – less certainly – to a past state. The prefix {ʔi} is restricted to perfective forms that refer to a past action or state.

24.4.4. Usage in forms with a single prefix

After the Old Sumerian period, the use of the prefix {ʔi} expands in Southern Sumerian even further at the expense of {ʔa}, which all but disappears from non-imperative finite forms. The Gudea texts lack the prefix altogether but that must be partly due to the accidents of textual transmission, because the prefix {ʔa} is attested in the slightly later texts from the Ur III period. Those Ur III texts, however, show that by then the prefix {ʔi} had largely replaced the prefix {ʔa} in subordinate clauses as well. Compare, for instance, the following examples, giving side by side an Old Sumerian verbal form with {ʔa} and a highly similar Ur III form with {ʔi}:

(113a) **ku$_6$ (…) / en-*na*-u$_4$-*ĝu$_{10}$* / *an-da*-ĝál-*la-am$_6$***
ku$_6$ … en.na.u$_4$.ĝu$_{10}$=d(a) ʔa -n -da -ĝál -Ø -ʔa =Ø =ʔam
fish … Enna'ugu =COM VP-3SG-with-be.there-3N.S/DO-NOM=ABS=be:3N.S
'These are … fish which are with Enna'ugu.' (DP 341 2:3-2:1; L; 24)

(b) **še (…) / *in-da*-ĝál-*la-aš***
še ʔi -n -da -ĝál -Ø -ʔa =š(e)
barley VP-3SG-with-be.there-3N.S/DO-NOM=TERM
'barley which is with him' (TCS 1:22 3-5; L; 21)

(114a) **lú umma^{ki} / úr-MUD / *an-da*-ti-*la***

lú umma =ak úr.MUD=d(a) ʔa -n -da -ti.l -Ø -ʔa
man Umma=GEN Urmud =COM VP-3SG-with-live-3SG.S/DO-NOM
'the Ummaite who lives with Urmud' (DP 143 1:4-2:2; L; 24)

(b) **ur-^{d}a-šár / gu$_4$ ur-^{d}*ba-ú* / *in-da*-ti-*la***
ur.a.šár=da gu$_4$.ř ur.ba.ú=ak =Ø ʔi -n -da -ti.l -Ø -ʔa
Urashar=COM ox Urbau =GEN=ABS VP-3SG-with-live-3SG.S/DO-NOM
'that Ur-Bau's ox stays with Ur-Ashar' (SNAT 221 7-9; L; 21)

(115a) **kiri$_6$ ^{d}*ba-ú* / PN / *nu*-kiri$_6$ / *a*-tuš-*ša*$_4$**
kiri$_6$ ba.ú=ak PN nu.kiri$_6$.k=Ø ʔa -n(i)-tuš-Ø -ʔa
orchard Bau =GEN PN gardener =ABS VP-in -sit -3SG.S/DO-NOM
'the orchard of Bau where Etae, the gardener, is on duty' (VS 14:57 6:1-4; L; 24)

(b) **é lú-^{d}igi-*ma-šè* / ur-^{d}*ba-ú* *i*-tuš-*a***
é lú.igi.ma.šè=ak ur.ba.ú=Ø ʔi -n(i)-tuš-Ø -ʔa
house Lu.Igimashe=GEN Ur.Bau=ABS VP-in -sit -3SG.S/DO-NOM
'the house of Lu-Igimashe, where Ur-Bau is on duty' (SAT 1:45 11-12; L; 21)

Yet, the prefix {ʔi} did not completely oust {ʔa} from subordinate clauses. The Southern Sumerian texts from the Ur III period show several forms with {ʔa} albeit in a narrow range of use. All of them are in relative clauses and show a single type of form, viz. one which lacks any prefix but {ʔa}. E.g.:

(116) **kuš *al*-ḫulu-*a***
kuš ʔa-ḫulu -Ø -ʔa
skin VP-be.bad-3N.S/DO-NOM
'skins which have become bad' (ITT 5:6949 4; L; 21)

(117) **lú *al*-dab$_5$-*ba* šà en-*nu*-*me***
lú ʔa -dab$_5$-Ø -ʔa šà.g en.nu.ĝ=ak =Ø =me-eš
man VP-take -3N.S/DO-NOM heart guard =GEN=ABS=be -3PL.S
'They are men taken captive and in the guardhouse.' (DAS 206 17; L; 21)

(118) **1 ^{ĝiš}*gu-za al-ze-ra***
1 gu.za ʔa-ze.r -Ø -ʔa
one chair VP-break-3N.S/DO-NOM
'one broken chair' (Berens 89 1:14; L; 21)

Thus, in the South the prefix {ʔa} is found in only two types of forms during the Ur III period: imperatives and subordinate forms with only a single prefix. In these two types of forms, {ʔa} differs formally as well as functionally. In imperatives, {ʔa} always has the form /ʔa/ and has the same function as the prefix {ʔi} in other finite forms. In subordinate forms with only one prefix, {ʔa} always has the form /ʔal/ and a stative meaning. Hence, {ʔa} can be said to have split up into two different prefixes: one prefix which is the equivalent of {ʔi} in imperatives, and a second, stative, prefix {ʔal} which only occurs in subordinate clauses.

24.5. Usage of the prefixes {ʔi} and {ʔa} in Northern Sumerian

24.5.1. General remarks

In both Southern and Northern Sumerian, the prefixes {ʔi} and {ʔa} were lost before a prefix with the structure /CV/ (§24.3.1). But after this prehistoric change, the two prefixes underwent a very different development in each dialect. In Southern Sumerian, the prefix {ʔi} gradually expanded in usage at the expense of the prefix {ʔa} (§24.4). In Northern Sumerian, both prefixes remain in use, side by side, both in main and in subordinate clauses. This rather different development has a simple reason. In Northern Sumerian, the distinction between the two prefixes was reinforced, because the prefix {ʔa} gained an additional function not found in the South, viz. that of passive marker.

For reasons explained earlier (§24.4.1), we selected Lagash to represent Southern Sumerian and Nippur as the representative of Northern Sumerian (§24.4.1). Unfortunately, the documentation from Nippur is not as rich as from Lagash, so that we have quite limited data for what happened in the North. Although the main line of development is quite clear, the details of it must therefore remain a little sketchy. As perfective forms with {ʔi} and {ʔa} are relatively well documented, we will start our discussion with them (§24.5.2) and only then treat the imperfective forms (§24.5.3).

24.5.2. Usage in perfective forms

In perfective forms, the prefixes {ʔi} and {ʔa} show the same uses as they have in subordinate clauses in the Old Sumerian dialect of Lagash (§24.4.3). In contrast with Southern Sumerian, however, these uses do not only apply to subordinate clauses but also to main clauses. Thus, a perfective form with the prefix {ʔi} usually refers to a past action:

(119) **é-*a in-na-ni*-ku$_4$**
é =ʔa ʔi -nna -ni-n -ku$_4$.ř-Ø
house=LOC VP-3SG.IO-in -3SG.A-enter-3N.S/DO
'He brought it into the house for him.' (OSP 1:131 6:3; N; 24)

(120) **lugal igi-nim-*ta* / *ì-im*-ĝen-*na-a***
lugal=Ø igi.nim=ta ʔi -m(u)-ĝen-Ø -ʔa =ʔa
king =ABS North =ABL VP-VENT-go -3SG.S/DO-NOM=LOC
'when the king came from the North' (OSP 2:135 4-5; N; 23)

A perfective form with {ʔi} may also express a past state:

(121) **ensi$_2$ nibru^{ki} / iri-saĝ-rig$_7^{ki}$-*da* / *ì-da*-tuš-*a***
ensi$_2$.k nibru =ak =Ø iri.saĝ.rig$_7$=da ʔi -b -da -tuš-Ø -ʔa =ʔa
ruler Nippur=GEN=ABS Irisagrig =COM VP-3N-with-sit -3SG.S/DO-NOM=LOC
'when the ruler of Nippur besieged (lit. "sat with") Irisagrig' (ECTJ 211 2:1-3; N; 24)

As in the South, a perfective form with the prefix {ʔa} may refer to a state. In contrast with Southern Sumerian, however, such forms are also regularly used in main clauses:

(122) **ur-*ra-né* / *an-da-še***
ur.ra.ne=d(a) ʔa-n -da -sig$_7$ -Ø
Urrane =COM VP-3SG-with-live:PLUR-3N.S/DO
'They (viz. 42 oxen) live with Urrane.' (ECTJ 81 2-3; N; 24)

(123) **šuku-*šè* *an*-dab$_5$**
šuku.ř =še ʔa-n -dab$_5$-eš
prebend=TERM VP-3SG.A-take -3PL
'They hold it as prebendal land.' (ECTJ 124 4:2; N; 24)

(124) ***a-ba*-^{d}utu-*gen$_7$-e* / *an-da*-tuku**
a.ba.utu.gen$_7$=e ʔa -n -da -n -tuku-Ø
Aba'utugen =ERG VP-3SG-with-3SG.A-have -3N.S/DO
'He owes this to Aba'utugen (lit. "Aba'utugen has this with him").' (OIP 14:192 4-5; A; 23)

A perfective form with the prefix {ʔa} may also have a resultative meaning:

(125) **á gabu$_2$-*be$_6$* / *ab-ta*-ḫaš**
á gabu$_2$=be =Ø ʔa -b -ta -ḫaš -Ø
arm left =its=ABS VP-3N-from-break-3N.S/DO
'Its left foreleg (viz. of an ox) is broken.' (OSP 1:101 2-3; N; 24)

Such examples show the same meanings as found in the South. However, in Northern Sumerian the prefix {ʔa} has one additional usage, which is completely absent from Southern texts: it is used as a passive marker. Such perfective forms with the prefix {ʔa} express past passives (Westenholz 1975: 8). E.g.:

(126) **PÙ.ŠA-⌜x⌝ / *la-am-si-da* / *íb-da*-ĝen-*na-a* / *an-na*-šúm**
PÙ.ŠA.x=Ø la.am.si=da ʔi -b -da -ĝen-Ø -ʔa =ʔa
PN =ABS ? =COM VP-3N-with-go -3SG.S/DO-NOM=LOC

ʔa -nna -šúm-Ø
VP-3SG.IO-give-3N.S/DO
'When PN went with the ..., these [dates] were given to him.' (OSP 1:83 3:3-6; N; 24)

(127) **u$_4$-*ba* 1.0.0 še gur / *al*-áĝ**
u$_4$.d=be =ʔa 1 še gur=Ø ʔa-ʔáĝ -Ø
day =this=LOC 1 barley *gur* =ABS VP-measure.out-3N.S/DO
'At that time one *gur* of barley was measured out (for one shekel of silver).' (BIN 8:39 1:2-3; I; 23)

(128) **u$_4$-*ba* 6 ì sila$_3$ *al*-dé**
u$_4$.d=be =ʔa 6 ì sila$_3$=Ø ʔa -dé -Ø
day =this=LOC 6 fat litre =ABS VP-pour-3N.S/DO
'At that time six litres of fat were poured (for one shekel of silver).' (BIN 8:39 1:5; I; 23)

It is this additional usage that makes up the most frequent use by far of the prefix {ʔa} and it is this usage, more than anything else, that kept the opposition between the two prefixes {ʔi} and {ʔa} alive in Northern Sumerian. Thus, a perfective form with the prefix {ʔa} usually expresses a past passive and a perfective form with the prefix {ʔi} a past active. E.g.:

(129a) ***a-ne-da* / ugula é-sikil-*ra* / *an-na*-šúm**
a.ne.da ugula é.sikil=ak =ra ʔa-nna -n -šúm-Ø
Aneda foreman Esikil =GEN=DAT VP-3SG.IO-SG.A-give-3N.S/DO
'This was given to Aneda, the foreman of the Esikil.' (ECTJ 47 2-4; N; 24)

(b) PN-***e*** **/ lugal-an-*na*-túm-*ra* / *ì-na*-šúm**
PN**=e** **lugal.an.na.túm=ra** **ʔi -nna -n -šúm-Ø**
PN=ERG Lugal'annabtum =DAT VP-3SG.IO-SG.A-give-3N.S/DO
'PN gave this to Lugal'annabtum.' (MVN 3:25 13-15; I; 23)

(130a) **^{d}en-líl-*le-ma*-ba-*ra* / *an-na*-lá**
en.líl.le.ma.ba=ra **ʔa-nna -n -lá -Ø**
Enlilemaba =DAT VP-3SG.IO-SG.A-weigh-3N.S/DO
'This (silver) was paid to (lit. "weighed for") Enlilemaba.' (OSP 2:58 3-4; N; 23)

(b) **^{d}en-líl-*le* / *dam-gara*$_3$-*ra* / ⌜lugal⌝-ĝiš šandana-*ke*$_4$ / *in-na*-lá**
en.líl.le dam.gara$_3$=ra lugal.ĝiš šandana.k =e ʔi -nna -n -lá -Ø
Enlile merchant =DAT Lugalgish chief.gardener=ERG VP-3SG.IO-3SG.A-weigh-3N.S/DO
'Lugalgish, the chief gardener, paid this (silver) to Enlile, the merchant.' (OSP 2:62 3:5-8; N; 23)

This passive use of the prefix {ʔa} must have originated from its use in expressing an objective resultative: a perfective form of an action verb with the prefix {ʔa} originally expressed the state of the object as resulting from a previous action. At some point, {ʔa} came to be used to refer to the previous action itself, instead of to the resulting state. This is a common semantic shift, which can, for instance, be illustrated with the English phrase 'was shut' in: *When I came at five, the door was shut, but I do not know when it was shut* (Jespersen 1924: 274).

The semantic shift from objective resultative to passive took only place in the North. In the South, by contrast, the prefix {ba} acquired the function of passive marker through a similar semantic shift (§21.3.4). Compare, for instance, the following pairs of clauses, the first of each from the North and the second from the South:

(131a) **⌜é⌝ á-^{me}mè-*ka* / *an*-si**
é **á.mè=ak** **=ʔa** **ʔa-n(i)-si.g-Ø**
house Ame =GEN=LOC VP-in -put -3N.S/DO
'This was put into the room of the Ame.' (PPAC 1:A.745 10-11; A; 23)

(b) **é en-*da*-nir-ĝál-*ka* / *ba*-si**
é **en.da.nir.ĝál=ak** **=ʔa** **Ø -ba -n(i)-si.g-Ø**
house Endanirgal =GEN=LOC VP-MM-in -put -3N.S/DO
'This was put into the room of Endanirgal.' (RTC 70 3:3-4; L; 24)

(132a) **ki lugal-níĝ-BE-du$_{10}$-*ta* *al*-zi**
ki **lugal.níĝ.BE.du$_{10}$.g=ak** **=ta** **ʔa -zi.g-Ø**
place Lugalnigbedu =GEN=ABL VP-rise -3N.S/DO
'This was expended by (lit. "was raised from the place of") Lugalnigbedu.' (OSP 2:167 15; N; 23)

(b) **ki *na*-sa$_6$-*ta* *ba*-zi**
ki **na.sa$_6$.g=ak** **=ta** **Ø -ba -zi.g-Ø**
place Nasa =GEN=ABL VP-MM-rise -3N.S/DO
'This was expended by Nasa.' (AUCT 1:101 9; D; 21)

(133a) **mu lugal-*bé* *al*-pà**
mu **lugal=ak** **=be=Ø** **ʔa-pà.d-Ø**
name king =GEN=its=ABS VP-call -3N.S/DO

'An oath by the king's name was taken about this.' (NRVN 1:117 9; N; 21)

(b) **mu lugal-*bé ba*-pà**
mu lugal=ak =be=Ø Ø -ba -pà.d-Ø
name king =GEN=its=ABS VP-MM-call -3N.S/DO
'An oath by the king's name was taken about this.' (UET 3:17 14; Ur; 21)

The uses of perfective forms with the prefixes {ʔi} or {ʔa} seem to have remained stable in the Nippur dialect throughout the entire period of our corpus, from Old Sumerian up to and including the Ur III period. However, there is a complication in the material. During the Ur III period Southern Sumerian functioned as a kind of standard written Sumerian, in the South as well as in the North. While several Nippur texts from that period show typically Northern forms, with the prefix {ʔa}, many contain Southern ones, with the prefix {ba} instead of {ʔa} in passive function or with the prefix {ʔi} instead of {ʔa}. In fact, in their eagerness to write standard, that is Southern, Sumerian, some Nippur scribes can be caught at producing hypercorrect forms. Thus, in a perfective form expressing a present state, a Northern form with {ʔa} corresponds to a Southern one with {ʔi}:

(134a) **ur-^{d}nuska-*ke*$_4$ / lú-du$_{10}$-*ga-ra* / *an-da*-tuku**
ur.nuska.k=e lú.du$_{10}$.ga=da ʔa-n -da -n -tuku-Ø
Ur.Nuska =ERG Luduga =COM VP-3SG-with-3SG.A-have -3N.S/DO
'Ur-Nuska is owed this by Luduga (lit. "U. has this with L.").' (NRVN 1:64 2-4; N; 21)

(b) **1/3 *ma-na* 3 giĝ$_4$ kù-babbar *in-da*-tuku**
1/3 ma.na 3 giĝ$_4$ kù.babbar=Ø ʔi -n -da -ʔ -tuku-Ø
1/3 pound 3 shekel silver =ABS VP-3SG-with-1SG.A-have -3N.S/DO
'I am owed by him one-third of a pound and three shekels of silver.' (AOAT 25 p.245 4:3; L; 21)

But, as we saw above, in a perfective form expressing a passive, a Northern form with {ʔa} corresponds to a Southern one with {ba}. Now, the Nippur scribes are clearly aware of the dialectal nature of the prefix {ʔa} but at the same time have trouble with keeping the stative and passive uses of {ʔa} apart. As the passive use of {ʔa} is far more frequent than its stative use, at least some Nippur scribes mechanically replace their dialectal forms with {ʔa} by ones with {ba}. It most instances this gives the desired result, a correct 'standard' Sumerian form. But this procedure fails horribly if the dialectal form with {ʔa} does not have a passive meaning but refers to a state. It then produces a hypercorrect form which is neither correct Northern nor correct Southern Sumerian. E.g.:

(135) **á-zi-*da* un-da-*ga* *ba-an-da*-tuku**
á.zi.da=e un.da.ga=d(a) ba -n -da -tuku-Ø
Azida =ERG Luduga =COM MM-3SG-with-3SG.A-have -3N.S/DO
'Ur-Nuska is owed this by Luduga.' (NATN 344 4; N; 21)

There actually are several attestations of this hypercorrect form: ***ba-da*-tuku** (NRVN 1:62 4; N; 21) and ***ba-an-da*-tuku** (NRVN 1:63 1'; N; 21).

24.5.3. Usage in imperfective forms

In the Old Sumerian dialect of Lagash, the opposition between the two prefixes {ʔi} and {ʔa} remained alive in subordinate clauses only. There, the prefix {ʔa} was the only one of the two

to occur in forms of the imperfective (§24.4.3). For Northern Sumerian, we would therefore expect imperfective forms to be the exclusive domain of the prefix {ʔa}, not only in subordinate clauses but also in main clauses. And indeed, Northern forms of the imperfective with the prefix {ʔa} are attested during the entire period which the corpus covers:

(136) **lú mu sar-*ra-e* / *ab-ḫa-lam-e-a***
lú mu sar -Ø -ʔa =ʔe =Ø ʔa-b -ḫa.lam-e -ʔa =ak
man name write-NFIN-NOM=this=ABS VP-3N.DO-destroy-3SG.A:IPFV-NOM=GEN
'of the man who will destroy this inscription' (FAOS 7 Sar C 2:45-46; N; 24, OB copy)

(137) ***ĝe$_{26}$-e* šà-*ga-né* *ab*-ḫúl-*le-en$_6$***
ĝe$_{26}$=e šà.g =ane=Ø ʔa -b -ḫúl -en
I =ERG heart=his =ABS VP-3N.DO-be.happy-1SG.A/S:IPFV
'I will make his heart happy.' (FAOS 19 Ad 8 22; A; 23)

(138) **0.0.2 gana$_2$-*bé-šè* / 0.0.4 gana$_2$ *ab-ši-ĝá-ĝá***
0.0.2 gana$_2$=be=še 0.0.4 gana$_2$=Ø ʔa -b -ši-ĝar:RDP -Ø
2.dike land =its=TERM 4.dike land =ABS VP-3N-to-place:IPFV-3SG.S:IPFV
'(When someone holds on to the field,) for two dikes of land of it four dikes of land are to be placed.' (MAD 4:151 11-12; I; 23)

(139) **PN$_1$ / dumu PN$_2$ *dam-gara$_3$-ke$_4$* / *ab-ge-né***
PN$_1$ dumu PN$_2$ dam.gara$_3$=ak =e ʔa-b -ge.n -e
PN$_1$ son PN$_2$ merchant =GEN=ERG VP-3N.DO-be.firm-3SG.A:IPFV
'PN$_1$, the son of PN$_2$ the merchant, guarantees this.' (OSP 2:55 5-7; N; 23)

(140) **ur-sukkal-*ke$_4$* / é $^{ki\text{-}ĝiš}$kiri$_6$-*ka-né* / *al*-řú-*e***
ur.sukkal.k=e é kiri$_6$ =ak =ane=Ø ʔa-řúʔ -e
Ursukkal =ERG house orchard=GEN=his =ABS VP-erect-3SG.A:IPFV
'Ursukkal is building his garden house.' (NRVN 1:236 1-3; N; 21)

(141) ^{ĝiš}**ù-suḫ$_5$ *ù*-kum *ab*-si-*ge***
ù.suḫ$_5$=Ø ʔu -n -kum -Ø ʔa-b(i) -si.g-e
fir =ABS REL.PAST-3SG.A-crush-3N.S/DO VP-3N:on-put -3SG.A:IPFV
'After he has crushed fir-wood, he shall put it thereon.'(TMHC NF 1/2:359 11; N; 21)

(142) **tukum-*bé* / kù *nu*-lá *ab*-tab-*bé***
tukum.bé kùg =Ø nu =ʔi -n -lá -Ø ʔa -b -tab -e
if silver=ABS NEG=VP-3SG.A-weigh-3N.S/DO VP-3N.DO-double-3SG.A:IPFV
'If he does not pay the silver, he will double it (as a penalty).' (NRVN 1:104 9-10; N; 21)

Such imperfective forms with {ʔa} are exactly what we expect from our findings in the Lagash material (§24.4.3). Unfortunately, the picture is more complicated than that. There are not only imperfective forms with the prefix {ʔa} but also with {ʔi}, with no obvious difference in meaning. Apart from the form ***ab*-tab-*bé*** 'he will double it' in the last example above, for instance, we find elsewhere in more or less the same context: ***íb*-tab-*bé*** 'he will double it' (NRVN 1:53 7 & NRVN 1:111 7; N; 21), ***ab*$^{!}$-tab-*bé-a*** 'that he will double it' (AUCT 3:319 8; N; 21), ***íb*-tab-*be$_6$-a*** 'that he will double it' (BE 3/1:13 tablet 10; N; 21), and ***íb*-tab-*a*** 'that he will double it' (TMHC NF 1/2:63 6 & TMHC NF 1/2:65 10; N; 21).

In so far as such forms with the prefix {ʔi} are found in texts from the Ur III period, they can be explained from the influence of standard Sumerian. As we saw in the previous section

(§24.5.2), the Nippur scribes made quite an effort to write in the Southern Sumerian dialect which was the written norm during the Ur III period. And in that dialect the prefix {ʔi} was the only one used in imperfective forms (§24.4.2). Only the use, side by side, of forms from the standard language and from the local dialect can explain the variety of forms given above for the verb **tab** 'double', where typical Nippur forms with {ʔa} are attested beside typical Southern forms with {ʔi}.

But dialect mixing cannot account for all Northern imperfective forms with the prefix {ʔi}, because such forms are also found before the Ur III period. E.g.:

(143) **é-lú *i*-su-su**
é.lú=e ʔi -b -su.g:RDP-e
Elu =ERG VP-3N.DO-repay:IPFV-3SG.A:IPFV
'Elu will repay it.' (OSP 2:55 23; N; 23)

Unfortunately, the number of imperfective forms available from the earlier periods is extremely small. I have not been able to observe any regularity in the use of {ʔi} and {ʔa} in such forms, whether according to form, type of clause, meaning, or subdialect (Nippur, Isin, or Adab).

24.6. A brief history of {ʔi} and {ʔa}

Identifying and describing the functions of the two vocalic prefixes {ʔi} and {ʔa} is not an easy task. Their usage not only changes across time but differs according to region as well. We have textual documentation from only a few of the main cities and far too little from those few. Our conclusions about what happened to these two prefixes must therefore remain tentative and sketchy. New data, which sooner or later are bound to be uncovered, will certainly lead to a much improved understanding of the issues.

Looking at the earliest documented uses of the prefixes {ʔi} and {ʔa}, we find that the prefix {ʔa} regularly occurs in imperative, stative, and imperfective forms. At the same time, the prefix {ʔi} is almost exclusively found in perfective forms. Although this is not nearly enough evidence to base a full-fledged reconstruction upon, it seems safe to conclude that the preformatives {ʔi} and {ʔa} were originally aspectual markers, {ʔi} a kind of perfective marker and {ʔa} a kind of imperfective marker. For them something like the following development can be reconstructed.

In a prehistoric form of Sumerian, every finite verbal form had an overt (non-zero) preformative. Among the many preformatives from which it was possible to choose, there were the perfective prefix {ʔi} and the imperfective prefix {ʔa}, the latter with both stative and non-stative uses. This state of affairs was altered through two, almost certainly related, formal changes which took place before the 26th century BCE.

One change was the loss of the prefixes {ʔi} and {ʔa} before a prefix with the structure /CV/, a change which obliterated the distinction between the two prefixes in a large number of finite forms (§24.3.1). The second change was the rise of the perfective and imperfective inflections, with functions very similar to those of the two preformatives {ʔi} and {ʔa}.[3] Only

[3] The perfective inflection (§15.2.2) and imperfective inflection (§15.2.3) are distinctive systems of subject and object marking. They share many person markers, with exactly the same form but partly expressing different syntactic functions. This suggests that the two inflections have a single inflection as their common source. According to one reconstruction, the perfective inflection arose from an old passive (Coghill and Deutscher 2002). According to

in relation to stative forms, they are the exact opposite of each other. Whereas the old imperfective marker {ʔa} regularly expressed a stative meaning, the new imperfective never did (§15.4). What happened next differs per dialect.

In Southern Sumerian, the distinction between the old perfective marker {ʔi} and the old imperfective marker {ʔa} remained alive during the entire Old Sumerian period, but only in subordinate clauses, with {ʔi} being used in perfective forms and {ʔa} occurring in all imperfective forms and in perfective forms with a stative meaning (§24.4.3). Because all perfective forms with the prefix {ʔa} had a stative meaning, {ʔa} became directly associated with a stative meaning in such forms.

In main clauses, the original distinction between the two prefixes had already largely been lost in the Old Sumerian period, with the prefix {ʔi} having been generalized at the expense of the prefix {ʔa}, except in some conservative expressions and in imperative forms (§24.4.2). After the Old Sumerian period, this development was extended to subordinate clauses too, so that by then the two prefixes {ʔi} and {ʔa} had completely lost their original function as aspectual markers, having become a kind of default preformative with no particular meaning of their own, {ʔa} being used in imperative forms and {ʔi} in all other finite forms.

During the Ur III period, only the old form /ʔal/ of the prefix {ʔa} had survived the expansion of {ʔi}. It remained in use with a stative meaning as a single prefix in perfective forms in subordinate clauses but with no clear functional relationship anymore with the other fossil of {ʔa}: its use in imperative forms (§24.4.4).

In Northern Sumerian, the relationship between the two old aspectual markers {ʔi} and {ʔa} developed into a completely different direction. In perfective forms, the distinction between {ʔi} and {ʔa} remained alive in both main and subordinate clauses but changed in character. Perfective forms with {ʔa} originally only expressed a state, just as in Southern Sumerian. But through a semantic shift they acquired the additional meaning of past passive (§24.5.2). Since such passive forms are already attested in the Fara texts, this semantic shift had already taken place in the 26th century BCE.

The development in imperfective forms is unclear in Northern Sumerian. Already in the earlier periods, both {ʔi} and {ʔa} are attested in such forms but due to the very limited evidence it is as yet impossible to give rules for their use in such forms.

Thus, how {ʔi} and {ʔa} developed differed for the two main dialects Southern and Northern Sumerian, which are the dialects of Lagash and Nippur with their respective neighbouring regions. Major textual discoveries from other cities will almost certainly lead to more subtle dialectal distinctions. Take, for instance, the Ur III royal hymn Urnamma B, which is only known from Old Babylonian copies (Flückiger-Hawker 1999: 183-203). It is full of finite forms with the prefix {ʔa} in a much wider range of uses than found in any of the dialects attested in our corpus. Clearly, the two main lines of development sketched above do not reflect the whole picture.

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another, the imperfective developed from an earlier antipassive (Schulze and Sallaberger 2007).

25. THE PREFORMATIVES: THE MODAL AND NEGATIVE VERBAL FORMS

25.1. Introduction

This chapter deals with a set of verbal forms which have similar and related meanings, but which also have quite different formal properties. They are the negative and modal verbal forms. Sumerian has three negations, two of which have a modal meaning. In addition, there are three types of forms with a modal meaning which are not negated.

The three negations are {nu} (§25.2), {na(n)} (§25.5), and {bara} (§25.7). All three begin the verbal form, but {nu} is a proclitic element, while {na(n)} and {bara} are simple prefixes. The proclitic {nu} negates statements, the prefix {na(n)} negates wishes, requests, or commands, and the prefix {bara} negates assertions.

Apart from the negative modal forms with {na(n)} and {bara}, Sumerian has three kinds of positive modal forms: the imperative (§25.3) and the verbal forms which begin with the proclitic {ḫa} (§25.4) or the prefix {ga} (§25.6). Imperatives are formed by placing the prefixes of the corresponding non-imperative form after the verbal stem.

The morphemes {nu}, {ḫa}, {na(n)}, {bara}, and {ga} have similar and related meanings. They also have in common that, if used, they always begin the verbal form. However, {nu} and {ḫa} differ from {na(n)}, {bara}, and {ga} in that the former are always used in combination with a following vocalic prefix. Thus, {nu} and {ḫa} are the only preformatives which are themselves always followed by a further preformative. Because of this, the present grammar treats {nu} and {ḫa} as proclitic elements and {na(n)}, {bara}, and {ga} as prefixes.

Together, the prefixes {na(n)}, {bara}, and {ga}, the proclitic {ḫa}, and the imperative make up the modal system of Sumerian. A verbal form with the prefix {ga} usually expresses a promise on the part of the speaker. It only occurs with a subject of the first person. Its negative counterpart is a form with {bara}. The imperative expresses a direct command to the addressee. It is only found with a subject of the second person. Its negative counterpart is a form with {na(n)}. Verbal forms with the proclitic {ḫa} have two main uses. They either express assertions, having forms with {bara} as their negative counterparts, or they express requests, having forms with {na(n)} as their negative counterparts.

Some grammarians include two further types of forms in the Sumerian modal system, viz. those with 'affirmative' {na} and {še}. Evidence for a modal meaning of such forms is lacking, though. They are never translated with Akkadian modal forms in bilingual texts. In fact, the prefix {še} seems to have rather a connective function. For these reasons the two, both {še} and non-negative {na}, are treated in a separate chapter (chapter 26).

25.2. The negative proclitic {nu}

Verbal forms are negated with one of the morphemes {nu}, {na(n)}, or {bara}. Of these, {na(n)} (§25.5) and {bara} (§25.7) negate modal verbal forms, being used to express negative wishes, commands, or assertions. The third, {nu}, negates non-modal verbal forms and is, accordingly, found in negative statements or questions. It is used with both the perfective and the imperfective. E.g.:

(1) **níĝ *na-me nu-mu-da-a-*tuku**
níĝ na.me=Ø nu =Ø -mu -? -da -e -tuku-Ø
thing any =ABS NEG=VP-VENT-1SG-with-2SG-have -3N.S/DO
'I owe you nothing (lit."You do not have anything with me").' (SNAT 535 13; U; 21)

(2) ***a-na-aš-àm* / ur-^{d}lama$_3$-*ke$_4$* / ú gu$_7$-*dè* / *nu-ub-še-ge***
a.na =š(e) =ʔam ur.lama$_3$.k=e ú =Ø gu$_7$-ed -Ø =e
what=TERM=be:3N.S Urlama =ERG grass=ABS eat -IPFV-NFIN=DIR

nu =ʔi -b -še.g -e
NEG=VP-3N.DO-allow-3SG.A:IPFV
'Why does Ur-Lama not allow them to graze?' (TCS 1:121 6-9; L; 21)

The proclitic {nu} also negates participles:

(3) **eren$_2$ še *nu*-tuku-*me***
eren$_2$ še =Ø nu =tuku-Ø =Ø =me-eš
labourer barley=ABS NEG=have -NFIN=ABS=be -3PL.S
'These are labourers who have no barley.' (TuT 175 3; L; 21)

(4) **gana$_2$ a *nu*-ĝar-*ra***
gana$_2$ a =Ø nu =ĝar -Ø -ʔa
land water=ABS NEG=place-NFIN-NOM
'land which was not irrigated' (ASJ 4 p.113:15 1:3; L; 21)

In being used with participles too, {nu} shows rather unique behaviour. As a rule, a participle lacks all proclitics, prefixes, and suffixes which may occur in a finite verbal form. The negative proclitic {nu} and the imperfective suffix {ed} are the only exceptions (chapter 28). But {nu} is also unique in another respect: it is the only preformative that can occur as an independent word in its own right, albeit only rarely (see §30.4).

Being a proclitic, {nu} is attached to the front of the verbal form it negates. Its basic form is /nŭ/, which is the only form used with participles (chapter 28). With finite verbal forms, the basic form /nŭ/ of {nu} undergoes certain changes, depending on which sounds begin the verbal form. If the finite verbal form begins with /ʔi/ or /ʔe/, the glottal stop is lost and the following vowel contracts with the /ŭ/ of {nu}, with a long /ū/ as a result. From about the time of Gudea onwards, this /ū/ is often explicitly written with a plene spelling ***nu-ù-***. E.g.:

(5) **dub anše ĝiš-*ka-ta* / *nu-ta*-zi**
dub anše ĝiš =ak =ak =ta nu =ʔi -b -ta -zi.g-Ø
tablet donkey wood=GEN=GEN=ABL NEG=VP-3N-from-rise-3N.S/DO
'This was not raised from the tablet of the draught donkeys.' (VS 27:14 4:4-5; L; 24)

(6) **im ur-níĝ-*ta* / *nu-ù-ta*-zi**
im ur.níĝ=ak =ta nu =ʔi -b -ta -zi.g-Ø
clay Urnig =GEN=ABL NEG=VP-3N-from-rise-3N.S/DO
'This was not raised from Urnig's tablet.' (MVN 6:57 rev 1-2; L; 22)

(7) **lugal-gu$_4$-*e* ensi$_2$-*ra* *nu-ù-na-an*-du$_{11}$**
lugal.gu$_4$.e=e ensi$_2$.k =ra nu =ʔi -nna -n -du$_{11}$.g-Ø
Lugalgue =ERG governor=DAT NEG=VP-3SG.IO-3SG.A-say -3N.S/DO
'Lugalgue did not say it to the governor.' (JCS 52 p.53:92 11; U; 21)

(8) **tukum-*bé* / *nu-ù-um*-ĝen**
tukum.bé nu =ʔi -m(u)-ĝen-Ø
if NEG=VP-VENT-go -3SG.S/DO
'if he does not come' (RA 73 p.26:2 7-9; L; 21)

(9) ***nu-ù-ub*-gi$_4$-gi$_4$-*dè-ša***

nu =ʔi -b(i) -gi$_4$:RDP-ed -eš -ʔa
NEG=VP-3N:on-turn:IPFV-IPFV-3PL.S:IPFV-NOM
'that they will not come back on this' (NATN 920 8; N; 21)

While an initial /ʔi/ or /ʔe/ contracts with {nu} to /nū/, it is less clear what happens if the finite verbal form begins with either /ʔa/ or /ʔu/. Initial /ʔu/ occurs when the verbal form contains the vocalic prefix {ʔu} (§24.2). This prefix is apparently never used together with the proclitic {nu}, so that forms with {nu} and initial /ʔu/ simply do not exist.

With initial /ʔa/ the matter is more complicated. It is only found when the verbal form contains the vocalic prefix {ʔa} (§24.3). A unique form suggests that no contraction takes place when initial /ʔa/ and {nu} co-occur:

(10) ***nu-an-na-áĝ-e***
nu =ʔa -nna -ʔáĝ -e
NEG=VP-3SG.IO-measure.out-3SG.A:IPFV
'He will not pay this (barley) to him.' (BE 3/1:10 8; N; 21)

However, this indeed is a unique form and therefore somewhat suspicious. In the second half of the third millennium, the prefix {ʔa} is in the process of dying out in Southern Sumerian, while acquiring the new function of passive marker in Northern Sumerian. This process of change makes it very hard to identify a form where /nū/ unambiguously comes from /nuʔa/ instead of /nuʔi/. This discussion of what happens with {nu} before /ʔa/ must therefore remain inconclusive.

If the finite verbal form begins with another consonant than a glottal stop /ʔ/, no contraction takes place, but the /ŭ/ of {nu} assimilates to the vowel of the following syllable. If this following vowel is /u/, the negative proclitic remains of course /nu/:

(11) **im-*ma nu-mu*-ĝál**
im =ʔa nu =Ø -mu -n(i)-ĝál -Ø
clay=LOC NEG=VP-VENT-in -be.there-3N.S/DO
'It is not (recorded) in the clay tablet.' (ASJ 9 p.125:56 6; L; 21)

(12) **gu$_4$-*bé nu-mu-da*-túm**
gu$_4$.r=be =Ø nu =Ø -mu -n -da -n -túm -Ø
ox =this=ABS NEG=VP-VENT-3SG-with-3SG.A-bring-3N.S/DO
'He was not able to bring this ox.' (NG 132 10; U; 21)

If the following vowel is /a/, {nu} becomes /na/. This /na/ is written explicitly from the Ur III period onwards. Earlier texts have ***nu***.[1] E.g.:

(13) ***nu-ma*-ba**
nu =Ø -ma -n -ba -Ø
NEG=VP-1SG.IO-3SG.A-portion.out-3N.S/DO
'He did not assign it to me.' (FAOS 19 Ad 8 6; A; 23)

(14) **0.2.0 *zú-lum* sig$_5$ / šu *nu-ma*-ús**
0.2.0 zú.lum sig$_5$ =Ø šu =e nu =Ø -ma -n -ʔús -Ø
0.2.0 date good=ABS hand=DIR NEG=VP-1SG.IO-3SG.A-be.next.to-3N.S/DO

[1] But a possible earlier example with /na/ from /nu/ may be: ***na-ma*-šúm**, meaning probably (cf. ex. 16): 'he did not give it to me' (AOAT 274 p.248:1 Erm. 14378 8; ?; 23). Its interpretation remains somewhat uncertain, though.

'He did not dispatch two *bariga* (i.e., 120 litres) of good quality dates to me.' (FAOS 19 Is 3; I; 23)

(15) ***na-ba-ra*-sa$_{10}$-*a***
nu =Ø -ba -ta -n -sa$_{10}$ -Ø -ʔa
NEG=VP-MM-from-3SG.A-barter-3SG.S/DO-NOM
'that he had not sold her' (NG 123 3; L; 21)

(16) **1-*àm* lú *na-ma*-šúm**
1=Ø =ʔam lú =e nu =Ø -ma -n -šúm-Ø
1=ABS=be:3N.S man=ERG NEG=VP-1SG.IO-3SG.A-give-3N.S/DO
'Nobody gave me one.' (TCS 1:147 4; U; 21)

The last example comes from a difficult text and its interpretation is not beyond doubt. The change of /nŭ/ to /na/, though, is also documented elsewhere. The noun ***nu-ma*-kuš** 'widow' (e.g., Ukg. 4 12:24; L; 24) occurs in a Gudea text as ***na-ma*-kuš** (St B 7:43; L; 22), showing a similar change of /nu/ to /na/. Also, the texts from after the Ur III period contain several instances. E.g.:

(17) **dúr *na-ma-ta-an*-zi ki-*a* *nu-ub*-za**
dúr =Ø nu =Ø -ma -ta -n -zi.g-Ø
buttocks=ABS NEG=VP-1SG.IO-from-3SG.A-rise-3N.S/DO

ki =ʔa nu =ʔi -b(i) -za -Ø
place=LOC NEG=VP-3N:on-prostrate-3SG.S/DO
'No one rose up for me or bowed down.' (Letter A 1 11; OB)

If the verbal form begins with the consonant /b/, an additional change takes place. Not only the /ŭ/ assimilates to the following vowel, but also the /n/ of {nu} becomes /l/ (§3.5.3). Thus, before initial /ba/ {nu} becomes /la/. This /la/ is written explicitly from the Old Akkadian period onwards. Earlier texts have only ***nu***. E.g.:

(18) **ku$_6$-*bé* lú *nu-ba-dab$_6$*-kar-*re***
ku$_6$=be=Ø lú =e nu =Ø -ba -da -b -kar -e
fish=its=ABS man=ERG NEG=VP-MM-with-3N.DO-take.away-3SG.A:IPFV
'Nobody takes away its fish.' (Ukg. 6 3:9'; L; 24)

(19) **lú lú *la-ba*-gi$_4$-gi$_4$-*da***
lú =r(a) lú =Ø nu =Ø -ba -n -gi$_4$:RDP-ed -Ø -ʔa
man=DAT man=ABS NEG=VP-MM-3SG.OO-turn:IPFV-IPFV-3SG.S:IPFV-NOM
'that the one would not come back on the other' (SRU 78a 17; I; 23). With the spelling ***nu***: **lú lú *nu-ba*-gi$_4$-gi$_4$-*da*** idem (SRU 71 6; I; 23)

(20) **šu *la-ba*-ti**
šu =e nu =Ø -ba -n -ti -Ø
hand=DIR NEG=VP-3N.IO-3SG.A-approach-3N.S/DO
'He did not receive it.' (MCS 9:263 7; U; 23)

(21) **usan$_3$ *la-ba*-sìg**
usan$_3$=Ø nu =Ø -ba -sìg -Ø
whip =ABS NEG=VP-MM-strike-3N.S/DO
'No whip-lashing took place (lit. "The whip was not struck").' (St B 4:10; L; 22)

(22) ***la-ba-ra*-sa$_{10}$**
nu =Ø -ba -ta -ʔ -sa$_{10}$ -Ø
NEG=VP-MM-from-1SG.A-barter-3SG.S/DO
'I did not sell her.' (NG 46 5; L; 21)

(23) **é kišib-*ka la-ba-an*-ku$_4$**
é kišib=ak =ʔa nu =Ø -ba -n(i)-ku$_4$.r-Ø
house seal =GEN=LOC NEG=VP-MM-in -enter -3N.S/DO
'This was not brought into the storeroom.' (StOr 9/1 pl. 14:36 18; U; 21)

Similarly, {nu} becomes /li/ before initial /bi/. This /li/ is written explicitly from the Ur III period onwards. Earlier texts have only ***nu***. E.g.:

(24) **é-an-*na*-túm-[*e*] / *nu-bí*-dib**
é.an.na.túm=e nu =Ø -bi -n -dib -Ø
Eannatum =ERG NEG=VP-3N.OO-3SG.A-pass-3N.S/DO
'Eannatum did not let it go beyond it.' (Ean. 7 4':7-8; L; 25)

(25) **ama ér-*ke$_4$* ér *nu-bí*-du$_{11}$**
ama ér =ak =e ér =Ø nu =Ø -bi -n -du$_{11}$.g-Ø
mother tear=GEN=ERG tear=ABS NEG=VP-3N.OO-3SG.A-do -3N.S/DO
'No wailing woman was wailing.' (St B 5:4; L; 22)

(26) **tukum-*bé* / (...) / *lí-bí*-gi$_4$ 1.1.0 še gur / áĝ-*da***
tukum.bé nu =Ø -bi -n -gi$_4$ -Ø
if NEG=VP-3N:on-3SG.A-turn-3N.S/DO

1.1.0 še gur=Ø áĝ -ed -Ø =ak
1.1.0 barley *gur*=ABS measure.out-IPFV-NFIN=GEN
'(He took an oath) to pay one *gur* and one *bariga* (i.e., 360 litres) of barley if he did not return it (at a certain date.)' (NATN 102 7, 10-11; N; 21)

(27) **mu *a-šà* abbar lagas^{ki}-*ke$_4$* / a *lí-bí-in-eš-a-šè***
mu a.šà.g abbar lagas =ak =e a =Ø
name field marsh Lagash=GEN=DIR water=ABS

nu =Ø -bi -n -ʔe -eš -ʔa =ak =še
NEG=VP-3N.OO-3SG.A-do:PLUR-3PL-NOM=GEN=TERM
'because they had not irrigated the field Marsh of Lagash' (MVN 5:201 5-6; L; 22)

(28) **inim *lí-*[*b*]*í-in-ge***
inim =Ø nu =Ø -bi -n -ge.n -Ø
word=ABS NEG=VP-3N:on-3SG.A-be.firm-3N.S/DO
'He did not corroborate (his) statement about it.' (Studies Veenhof p. 324 7 4; L; 21)

In the Ur III period and earlier, the sign NI had a value ***lí*** and the sign LI a value ***le***. Accordingly, initial /li/ was written ***lí***. After the Ur III period, the sign LI acquired the additional value ***li*** and initial /li/ was from then onwards consistently written ***li***, with the sign LI (***li***) instead of NI (***lí***).

25.3. The imperative

Sumerian has a special imperative form for expressing a direct command to the addressee to perform some action. This imperative form consists of a verbal stem with the prefixes positioned after the stem instead of before. Compare, for instance, the following declarative and imperative forms of the verb **du$_{11}$.g** 'say':

(29) ***in-na-an*-du$_{11}$**
ʔi -nna -n -du$_{11}$.g-Ø
VP-3SG.IO-3SG.A-say -3N.S/DO
'He said it to him.' (NRVN 1:59 6; N; 21)

(30) **du$_{11}$-*ga-na***
du$_{11}$.g-ʔa -nna -b
say -VP-3SG.IO-3N.OO
'Say it to him!' (Nik 1:177 3:1; L; 24)

This example illustrates several properties that are typical for imperative forms. The first is that the prefixes of a comparable non-imperative form appear as suffixes in the imperative form. This is somewhat similar to the situation in French, where the imperative *dis-le-moi!* has a declarative counterpart in *tu me le dis*.

Secondly, an imperative form has the vocalic prefix {ʔa} after the stem where a comparable non-imperative form has {ʔi}. Indeed, imperative forms never show the vocalic prefix {ʔi} (§24.4.1). E.g.:

(31) **kišib-*ĝu$_{10}$* ze-*ra-ab***
kišib=ĝu =Ø ze.r -ʔa -b
seal =my=ABS break-VP-3N.DO
'Cancel my sealed document!' (NG 208 17; L; 21)

(32) **ĝen-*na***
ĝen-ʔa
go -VP
'Go!' (Shulgi X 90; ?; 21, OB copy)

Thirdly, imperative forms have a hybrid make-up, just like forms with the modal prefix {ga} (§25.6). Their stems are as in the perfective (§15.3.1). E.g.:

(33) **gi$_4$-*mu-un***
gi$_4$ -Ø -mu -n
turn-VP-VENT-3SG.DO
'Send him to me!' (TCS 1:149 9; ?; 21)

(34) **kišib-*ba-né* šu ti-*ba-ab***
kišib=ane=Ø šu =e ti -Ø -ba -b
seal =his =ABS hand=DIR approach-VP-3N.IO-3N.DO
'Receive his sealed document!' (TCS 1:345 5; D; 21)

(35) **geme$_2$-^{d}*ba-ú* dumu lú-kiri$_3$-zal gudu$_4$ tuku-*ba-an***
geme$_2$.ba.ú dumu lú.kiri$_3$.zal gudu$_4$.g=ak =Ø tuku-Ø -ba -n
Gemebau child Lukirizal priest =GEN=ABS have-VP-MM-3SG.DO

'Marry (lit. "Have for yourself") Gemebau, the daughter of Lukirizal, the priest!' (NG 6 8; L; 21)

While the stems of imperative forms are as in the perfective, their usage of the final person-prefixes is as in the imperfective (§15.2.3). A final person-prefix is used to designate the direct object. E.g.:

(36) **túm-*mu-un***
túm -Ø -mu -n
bring-VP-VENT-3SG.DO
'Bring him!' (NG 121 12, 17; U; 21)

(37) **é-gal-*šè la-ḫa-ab***
é.gal =še laḫ$_5$ -ʔa-b
palace=TERM bring:PLUR-VP-3N.DO
'Bring them to the palace!' (Pettinato L'uomo 45 19; ?; 21)

(38) **ká é-gal-*šè* / mu lugal pà-*mu-ni-ib***
ká é.gal =ak =še mu lugal=ak =Ø pà.d-Ø -mu -nni -b
gate palace=GEN=TERM name king =GEN=ABS call -VP-VENT-3SG.OO-3N.DO
'Let him take an oath by the king at the palace gate!' (TCS 1:39 8-9; U; 21)

As in the imperfective and in forms with {ga}, the use of a final person-prefix is optional with a non-human direct object. This is difficult to prove, because an imperative form without such a final person-prefix can usually also be interpreted as a defective spelling. The following clause, for instance, may contain an imperative form without a final person-prefix expressing the direct object. Alternatively, it may simply be one more instance where the scribe ignored a syllable-final consonant:

(39) **še si-*ma-ni***
še =Ø si.g-Ø -ma -ni-(b)
barley=ABS put -VP-1SG.IO-in-(3N.DO)
'Put barley into it for me!' (Ukg. 4 12:5; L; 24)

However, as in the imperfective and in forms with {ga}, a final person-prefix can also be used in an imperative form to express an oblique object. E.g.:

(40) **šu *ba-mu-u$_8$***
šu =Ø bar -Ø -mu -ʔ
hand=ABS open-VP-VENT-1SG.OO
'Set me free!' (DI D 19 manuscript C; N; OB)

In such forms, the final person-prefix is obviously not used to refer to the direct object.

A singular imperative form lacks a person suffix for expressing the subject. The form as such makes it already clear that there is a transitive or an intransitive subject of the second person. E.g.:

(41) **kù-*ĝu$_{10}$* šúm-*ma-ab***
kù.g =ĝu =Ø šúm-Ø -ma -b
silver=my=ABS give -VP-1SG.IO-3N.DO
'Give me my silver!' (NATN 493 3; N; 21)

(42) **ĝen-*na***

ĝen-ʔa
go -VP
'Go!' (Shulgi X 90; ?; 21, OB copy)

Imperative forms with a plural subject have a suffix {zen} after the series of suffixed prefixes. The corpus contains only one example, which occurs twice in the name of a festival:

(43) **u_4 zi-*ga-zé-na***
u_4.d zi.g-ʔa -zen =ak
day rise-VP-2PL.A/S=GEN
'the day of "Rise, you people!"' (CTNMC 9 15; D; 21)

This is also found written as **u_4 zi-*ga-ze-na-a*** (MVN 18:58 6; D; 21)

The imperative cannot be negated. A form with the negative modal prefix {na(n)} is used instead (§25.5).

For the imperative form **ře$_6$-*um*** 'bring it!', with an irregular form /um/ of the ventive prefix {mu}, see §22.2.

25.4. The modal proclitic {ḫa}

25.4.1. Forms and spellings

In the Old Sumerian period, the modal proclitic {ḫa} has two different forms and spellings. Their use follows clear rules and is completely predictable. The basic form of {ḫa} is /ḫa/, which is always written ***ḫa***. E.g.:

(44) **^{d}en-líl-*le* / absin$_3$-*na-na* / mun *ḫa-bí*-zi-zi**
en.líl=e absin$_3$=ane=ʔa mun=Ø ḫa =Ø -bi -b -zi.g:RDP-e
Enlil =ERG furrow=his =LOC salt =ABS MOD=VP-3N:on-3N.DO-rise:IPFV -3SG.A:IPFV
'May Enlil have salt come up on his furrows!' (Ean. 63 3:4-6; L; 25)

(45) ***ḫa-ma*-ti**
ḫa =Ø -ma -ti.l -Ø
MOD=VP-1SG.IO-live-3SG.S/DO
'May he live for me!' (PN) (DP 192 4:9; L; 24)

(46) ***ḫa-mu-ra*-ÁĜ.ÁĜ**[2]
ḫa =Ø -mu -ra -ʔáĝ -e
MOD=VP-VENT-2SG.IO-measure.out-3SG.A:IPFV
'He should measure out this (barley) for you!' (BIN 8:47 3; U; 24)

If the verbal form begins with the vocalic prefix /ʔi/ (§24.3), /ḫa/ contracts with it. The sequence /ḫaʔi/ thus becomes /ḫē/, which is written ***ḫé***. E.g.:

(47) **ĝiri$_3$-*ba* / zú *ḫé-mi*-řú-řú-*e***
ĝiri$_3$ =be=ʔa zú =Ø ḫa =ʔi -m(u)-bi -b -řú -řú -e
footh=its=LOC tooth=ABS MOD=VP-VENT-3N:on-3N.DO-hold-hold-3SG.A:IPFV
'May it (viz. a snake) let its teeth hold onto its legs!' (Ean. 1 rev 5:35-36; L; 25)

(48) **šu maḫ ĝiri$_3$ maḫ-*né* / an-*ta ḫé-ĝá-ĝá***

[2] For this type of spelling for indicating an imperfective form, see §12.3.

šu maḫ ĝiri$_3$ maḫ =ane=Ø an =ta ḫa =ʔi -b(i) -ĝar:RDP-e
hand mighty foot mighty=his =ABS heaven=ABL MOD=VP-3N:on-place:IPFV-3SG.A:IPFV
'May he place his mighty hands and mighty feeth upon him from above!' (Ent. 29 6:24-25; L; 25)

(49) ***ḫé-na-bé***
ḫa =ʔi -nna -b -ʔe -e
MOD=VP-3SG.IO-3N.OO-say:IPFV-3SG.A:IPFV
'May he say it to him!' (FAOS 5/2 Luzag. 1 3:18; N; 24)

A contraction of two vowels gives, as a rule, a long vowel. For this reason, the vowel of /ḫē/ is here taken to be long.

This straightforward distribution between /ḫa/ and /ḫē/ accounts for every form of {ḫa} attested in the Old Sumerian and early Old Akkadian periods. However, there are three phenomena, two linguistic and one orthographic, which lead to a more complex picture in the later periods. Accordingly, from the later Old Akkadian period onwards there is an increasing number of exceptions to the rules mentioned above.

The first phenomenon involves an assimilation. From the later Old Akkadian period onwards, there are occasional spellings which show that the /a/ of /ḫa/ has assimilated to the vowel of the following syllable. E.g.:

(50) ***ḫu-mu-na-ab-*šúm*-mu***
ḫa =Ø -mu -nna -b -šúm-e
MOD=VP-VENT-3SG.IO-3N.DO-give-3SG.A:IPFV
'He should give it to him.' (NATN 506 rev 1'; N; 21)

(51) ***ḫé-me-*šúm*-mu***
ḫa =Ø -mē -šúm-e
MOD=VP-1PL.IO-give-3SG.A:IPFV
'He should give it to us.' (STTIAM 11 8; L; 23)

(52) **im še-ba-*ka* / *ḫé-bé-eb-ge-né***
im še.ba =ak =ʔa ḫa =Ø -bi -b -ge.n -e
clay barley.ration=GEN=LOC MOD=VP-3N:on-3N.DO-be.firm-3SG.A:IPFV
'He should confirm it on the clay tablet of barley rations.' (TCS 1:276 6-7; "N"; 21)

(53) **[*ḫ*]*é-bé-*[*eb*]-sè-*g*[*e*]**
ḫa =Ø -bi -b -sè.g-e
MOD=VP-3N:on-3N.DO-put -3SG.A:IPFV
'He should put them on it.' (UET 3:2 6; Ur; 21)

In such forms, the spelling ***ḫé*** does not represent a long, contracted vowel, but an /a/ assimilated to /e/, that is to say, probably a short vowel. Thus, ***ḫé*** has come to represent the form /ḫe/ as well as /ḫē/ of the prefix {ḫa}. Moreover, ***ḫé*** is now also used to write the assimilated form of /ḫa/ before an /i/ in the following syllable. Whether the resulting form was not only written but also pronounced with the vowel /e/ is, as yet, unclear. E.g.:

(54) **še-ba *ḫé-bí-íb*-dab$_5$-*bé***
še.ba =Ø ḫa =Ø -bi -b -dab$_5$-e
barley.ration=ABS MOD=VP-3N.OO-3N.DO-take -3SG.A:IPFV
'He should let them take barley rations!' (TCS 1:82 4; L; 21)

(55) **má-*a ḫé-bí-ĝá-ĝá***
má =ʔa ḫa =Ø -bi -b -ĝar:RDP-e
boat=LOC MOD=VP-3N:on-3N.DO-place:IPFV-3SG.A:IPFV
'He should place it on a boat!' (MVN 15:372 6; ?; 21)

In this way, the assimilation of the /a/ of /ḫa/ to the following vowel has two results. On the one hand, it has reduced the actual number of forms with spoken /ḫa/, while on the other hand it has increased the number of forms with spoken /ḫe/ or /ḫē/. The number of spellings with ***ḫa*** and ***ḫé*** change accordingly.

The second phenomenon is undoubtedly due to the first. It involves a change in spelling habits. The writing ***ḫé*** increasingly becomes the standard spelling of the proclitic {ḫa}, also in those forms which used to contain the form /ḫa/. Take, for instance, the following spelling from the Ur III period:

(56) ***ḫu-mu-na-ab*-šúm-*mu***
ḫa =Ø -mu -nna -b -šúm-e
MOD=VP-VENT-3SG.IO-3N.DO-give-3SG.A:IPFV
'He should give it to him.' (NATN 506 rev 1'; N; 21)

The spelling with ***ḫu*** represents the assimilated form of /ḫa/ and closely reflects the spoken language. However, it is the only attestation of such a spelling from the third millennium, although there are several more from later periods. Usually, this form is written with the old spelling ***ḫa-mu-na-ab*-šúm-*mu*** (e.g., TCS 1:349 3; U; 21). Yet, the spelling ***ḫé-mu-na-ab*-šúm-*mu*** also occurs (e.g., TCS 1:89 7; U; 21). In this form ***ḫé*** may very be a morphophonemic spelling, whereby a less common form of {ḫa} is written with a more common one. Such spellings occur quite often in the Ur III period (see below for additional evidence).

The third phenomenon is only documented for the Ur III period. In that period, /ḫa/ and /ḫē/ seem to be in free variation in certain forms. E.g.:

(57a) **šu *ḫé-eb*-bar-*re***
šu =Ø ḫa =ʔi -b(i) -bar -e
hand=ABS MOD=VP-3N:on-open-3SG.A:IPFV
'He should release (lit. "open his hands upon") it!' (TCS 1:72 6; U; 21) (Similarly, TCS 1:69 4; L; 21)

(b) **šu *ḫa-ab*-bar-*re***
šu =Ø ḫa =ʔa-b(i) -bar -e
hand=ABS MOD=VP-3N:on-open-3SG.A:IPFV
'He should release it!' (TCS 1:120 5 & TCS 1:23 4; L; 21)

(58a) ***ḫé-eb*-sù-*e***
ḫa =ʔi -b -sù.ř -e
MOD=VP-3N.DO-be.distant-3SG.A:IPFV
'May he make it distant!' (PN) (e.g., MVN 15:45 1; U; 21)

(b) ***ḫa-ab*-sù-*e***
ḫa =ʔa -b -sù.ř -e
MOD=VP-3N.DO-be.distant-3SG.A:IPFV
'May he make it distant!' (PN) (DAS 334 1; L; 21)

(59a) ***ḫé-eb-ĝá-ĝá***

ḫa =ʔi -b(i) -ĝar:RDP -e
MOD=VP-3N:on-place:IPFV-3SG.A:IPFV
'He should place it on it!' (e.g., TCS 1:109 19; ?; 21)

(b) ***ḫa-ab-ĝá-ĝá***
ḫa =ʔa -b(i) -ĝar:RDP -e
MOD=VP-3N:on-place:IPFV-3SG.A:IPFV
'He should place it on it!' (e.g., TCS 1:224 13; L; 21)

There is no discernible difference in meaning between the forms with /e/ and those with /a/. Yet, since in each instance two cuneiform signs make the vowel quite explicit, the two spellings must really represent two different forms. The only possible explanation is that the forms with /e/ include the vocalic prefix {ʔi}, while the forms with /a/ contain the vocalic prefix {ʔa}. But that is not all: notably, the forms with /a/ are hardly found outside of Lagash, while the forms with /e/ show up everywhere, including in Lagash texts. The forms with ***ḫa-ab-*** must therefore be somehow dialectal, reflecting the spoken language in (parts of) the Lagash region.

Note, incidently, that even such forms with the vocalic prefix {ʔa} can be written with ***ḫé***. E.g.:

(60) **šu *ḫé-ab*-bar-*re***
šu =Ø ḫa =ʔa-b(i) -bar -e
hand=ABS MOD=VP-3N:on-open-3SG.A:IPFV
'He should release it!' (TCS 1:67 5; L; 21)

There are about a dozen of such spellings with ***ḫé-ab-***, or the like. They too are clear examples of ***ḫé*** used as a kind of standard spelling for any form of {ḫa}. Note that the opposite kind of spelling, with ***ḫa-eb-***, or the like, does not occur.

25.4.2. Usage

Verbal forms with the proclitic {ḫa} always have a modal meaning. They express assertions, wishes, or commands. Their meaning differs according to whether the verbal form is perfective or imperfective.

An imperfective form with {ḫa} is always transitive, always refers to an action, and always expresses a wish or a command. E.g.:

(61) **^{d}en-líl-*le* / *ḫé-ḫa-lam-me***
en.líl=e ḫa =ʔi -n -ḫa.lam -e
Enlil=ERG MOD=VP-3SG.DO-annihilate-3SG.A:IPFV
'May Enlil annihilate him!' (Ent. 28 6:19-20; L; 25)

(62) **numun-*na-né* / ^{d}nanna / *ḫé-eb*-til-*le***
numun=ane=Ø nanna =e ḫa =ʔi -b -til -e
seed =his =ABS Nanna=ERG MOD=VP-3N.DO-end-3SG.A:IPFV
'May Nanna bring his offspring to an end!' (FAOS 9/2 Amarsuen 12 47-49; Ur; 21)

(63) **má-*a ḫa-mu-na-ĝá-ĝá***
má =ʔa ḫa =Ø -mu -nna -e -ĝar:RDP -e
boat=LOC MOD=VP-VENT-3SG.IO-on-place:IPFV-3SG.A:IPFV
'He should place it on a boat for him!' (ASJ 6 p.127:1 6; ?; 21)

(64) ***ḫé-na-ab*-šúm-*mu***

ḫa =ʔi -nna -b -šúm-e
MOD=VP-3SG.IO-3N.DO-give-3SG.A:IPFV
'He should give it to him!' (TCS 1:345 3; D; 21)

Perfective forms with {ḫa} present a more complex picture in having a variety of uses. They too can express wishes or commands, but they differ from imperfective forms with {ḫa} in that they are intransitive or stative or both. E.g.:

(65) **mu-*né* (...) / dub-*ta ḫé-em-ta*-ĝar**
mu =ane=Ø dub =ta ḫa =ʔi-m(u) -ta -ĝar -Ø
name=his =ABS tablet=ABL MOD=VP-VENT-from-place-3N.S/DO
'May his name be removed from the tablet!' (St B 9:15-16; L; 22)

(66) **inim *ḫé-éb*-gi$_4$**
inim =Ø ḫa =ʔi -b(i) -gi$_4$ -Ø
word=ABS MOD=VP-3N:on-turn-3N.S/DO
'May the order be reversed on it!' (St B 1:19; L; 22)

(67) **numun-*a-né ḫé*-til / bala-*a-né ḫé*-ku$_5$**
numun=ane=Ø ḫa =ʔi -til -Ø bala?=ane=Ø ḫa =ʔi -ku$_5$.ř-Ø
seed =his =ABS MOD=VP-end-3N.S/DO reign =his =ABS MOD=VP-cut -3N.S/DO
'May his offspring come to an end and may his reign be cut off!' (St C 4:16-17; L; 22)

(68) **lugal-*ĝu$_{10}$ ḫé-en*-zu**
lugal=ĝu=e ḫa =ʔi -n -zu -Ø
king =my=ERG MOD=VP-3SG.A-know-3N.S/DO
'May my king know it!' (TMHC NF 4:42 31; ?; 21, OB copy)

(69) **nin-dub-sar dumu ka$_5$-*a* / dam-*šè ḫa*-tuku**
nin.dub.sar dumu ka$_5$.a=Ø dam=še ḫa =ʔa-ʔ -tuku-Ø
Nindubsar child Ka'a =ABS wife =TERM MOD=VP-1SG.A-have -3SG.S/DO
'I wish to have Nindubsar, daughter of Ka'a, as wife!' (NG 15 5-6; L; 21)

(70) **bala-*a-na še-ĝar ḫé*-ĝál**
bala?=ane=ʔa še.ĝar=Ø ḫa =ʔi -ĝál -Ø
reign =his =LOC famine=ABS MOD=VP-be.there-3N.S/DO
'Let there be famine during his reign!' (St B 9:22; L; 22)

(71) ***ḫa-ma*-ti**
ḫa =Ø -ma -ti.l -Ø
MOD=VP-1SG.IO-live-3SG.S/DO
'May he live for me!' (PN) (DP 192 4:9; L; 24)

Perfective forms with {ḫa} do not only express wishes or commands but can also be used to assert strongly a past action or state. E.g.:

(72) **urim$_5^{ki}$-*e* gi$_{16}$-*sa-aš* / *ḫé-mi-na***
urim$_5$=e gi$_{16}$.sa =š(e) ḫa =ʔi -m(u) -bi -n -ʔak -Ø
Ur =DIR treasure=TERM MOD=VP-VENT -3N.OO-3SG.A-make-3N.S/DO
'He truly let Ur make this (dike) into a treasure.' (FAOS 9/2 Urnammu 27 2:5-6; Ur; 21)

(73) ***ab-ba*-kal-*la* / ur-mes-*ra* / zi lugal / *ĝe$_{26}$-e-me* / *ḫa-na*-šúm**

ab.ba.kal.la=Ø ur.mes=ra zi lugal=ak ĝe$_{26}$=Ø =me-en
Abbakalla =ABS Urmes=DAT life king =GEN I =ABS=be -1SG.S

ḫa =ʔa -nna -ʔ -šúm-Ø
MOD=VP-3SG.IO-1SG.A-give-3SG.S/DO
'By the king's life, it is me who gave Abbakalla to Umes!' (TCS 1:81 3-7; L; 21)

(74) **é-kiš-*nu*-ĝál-*šè* *ḫa-ba-an*-ku$_4$-*re-en***
é.kiš.nu.ĝál=še ḫa =Ø -ba -n(i)-ku$_4$.r-en
Ekishnugal =TERM MOD=VP-MM-in -enter -1SG.S/DO
'I truly entered into the Ekishnugal!' (Shulgi A 50; ?; 21, OB copy)

(75) ***ḫu-mu-da-an*-tuš-*àm***
ḫa =Ø -mu -ʔ -da -n(i)-tuš-Ø =ʔam
MOD=VP-VENT-1SG-with-in -sit -3SG.S/DO=be:3SG.S
'It was (the case) that she truly sat with me in it!' (Shulgi A 83; ?; 21, OB copy)

Forms with {ḫa} cannot be negated. For expressing a negative assertion the prefix {bara} is used (§25.7).

Thus, perfective forms with {ḫa} can express assertions, while both perfective and imperfective forms with {ḫa} are used to express wishes or commands. This latter usage is the most common by far. It is, for instance, attested in curses and oath formulas:

(76) **lú mu sar-*ra-ba* / šu *bí-íb*-ùr-*a* / ^{d}bìl-ga-mes-*e* / nam *ḫa-ba-da*-ku$_5$-*e***
lú mu sar -Ø -ʔa =be =ʔa šu =Ø
man name write-NFIN-NOM=this=LOC hand=ABS

Ø -bi -b -ʔùr-e -ʔa =d(a) bìl.ga.mes=e
VP-3N:on-3N.DO-rub -3SG.A:IPFV-NOM=COM Gilgamesh=ERG

nam =Ø ḫa =Ø -ba -n -da -ku$_5$.ř-e
status=ABS MOD=VP-MM-3SG-with-cut -3SG.A:IPFV
'May Gilgamesh curse (lit. "cut the status with") the man who erases this inscription!' (FAOS 9/2 Urnammu 40 12-15; Ur; 21)

(77) **mu lugal / PN urdu$_2$-*ra* / ama-gi$_4^{gi8}$-*né* *ḫé*-^{ĝá}ĝar^{ar}**
mu lugal=ak PN urdu$_2$.d=ra ama.gi$_4$=ane=Ø ḫa =ʔi -ĝar -Ø
name king =GEN PN slave =DAT freedom=his=ABS MOD=VP-place-3N.S/DO
'By the king's name! For the slave PN, let his freedom be established!' (NG 75 5-7; L; 21)

A positive command to a third person is always expressed by means of a verbal form with {ḫa}:

(78) **še-*ĝu$_{10}$* *ḫa-mu*-tùm**
še =ĝu =Ø ḫa =Ø -mu -e -tùm -Ø
barley=my=ABS MOD=VP-VENT-2SG.A-bring:IPFV-3N.S/DO
'You should bring my barley!' (Ukg. 6 4:3'; L; 24)

In letters, the addressee is, as a rule, addressed in the third person. Accordingly, forms with {ḫa} are the normal way to formulate a request or a command to the addressee of the letter. E.g.:

(79) ***sà-sí* / *ù-na-a*-du$_{11}$ / ur-^{d}šul-pa-è / 1 udu / *ḫé-na-ab*-šúm-*mu* / *na-mi*-gur-*re***

sà.sí=r(a) ʔu -nna -e -du$_{11}$.g-Ø ur.šul.pa.è=r(a) 1 udu=Ø
Sasi =DAT REL.PAST-3SG.IO-2SG.A-say -3N.S/DO Urshulpae =DAT 1 ram =ABS

ḫa =ʔi -nna -b -šúm-e na -m(u)-bi -b -gur -e
MOD=VP-3SG.IO-3N.DO-give-3SG.A:IPFV NEG.MOD-VENT-3N:on-3N.DO-go.back-3SG.A:IPFV
'Say to Sasi: "He should give one ram to Urshulpae! He should not refuse this (lit. "He should not let it, viz. the order, go back on this")!' (TCS 1:202 1-6; D; 21)

Forms with {ḫa} cannot be negated. For negative wishes, requests or commands, forms with {na(n)} are used (§25.5). The preceding example illustrates this nicely.

The proclitic {ḫa} is also used in verbal forms with a subject of the first person, but has there a different meaning from the prefix {ga}, which is normally used in first person forms. See §25.6 for examples and a discussion.

A clause containing a verbal form with {ḫa} can have such a meaning that it can be translated into English with a subordinate clause. A clause with {ḫa} can, for instance, express a supposition or a condition:

(80) ***ḫé-éb-ta*-ku$_5$-*e* / *ga-mu-na-ab*-silim**
ḫa =ʔi -b -ta -ku$_5$.ř-e ga -mu -nna -b -silim
MOD=VP-3N-from-cut -3SG.A:IPFV MOD:1SG.A/S-VENT-3SG.IO-3N.DO-repair
'If he breaks it (viz. the axe) off, I shall repair it for him.' (TMHC NF 4:45 10-11; OB)

A more literal translation of these clauses is 'Should he break it off, I shall repair it for him!'. A similar meaning of {ḫa} is found in the following clauses:

(81) **[na]-lú dumu ur-sa$_6$-*ga-ke$_4$* kù-*ĝu$_{10}$* *ḫa-ma*-šúm-*mu* / [é]-*zu* túm-*ba***
na.lú dumu ur.sa$_6$.ga=ak =e kù.g =ĝu =Ø ḫa =Ø -ma -šúm-e
Nalu child Ursaga =GEN=ERG silver=my=ABS MOD=VP-1SG.IO-give-3SG.A:IPFV

é =zu =Ø túm -Ø -ba -b
house=your=ABS bring-VP-MM-3N.DO
'If Nalu, the son of Ursaga, gives me my silver, you, take away your house!' (NG 179 9-10; L; 21)

(82) **tukum$_x$-*bé* / mu-*bé* šu ùr-*dè* / ĝeštu$_2$ *ḫé-em-ši*-gub**
tukum.be mu =be =e šu =Ø ʔùr -ed -Ø =e ĝeštu$_2$.g=Ø
if name=this=DIR hand=ABS sweep-IPFV-NFIN=DIR ear =ABS

ḫa =ʔi -m(u) -ši-gub -Ø
MOD=VP-VENT-to-stand-3N.S/DO
'if (his) mind is fixed on erasing this inscription (lit. "if the ear should stand to sweeping the hand over this name")' (St B 9:12-14; L; 22)

(83) **lú umma^{ki} *ḫé* / lú kur-*ra ḫé* / ^{d}en-líl-*le* / *ḫé-ḫa-lam-me***
lú umma=ak =Ø ḫa =ʔi -m(e)-Ø lú kur =ak =Ø
man Umma=GEN=ABS MOD=VP-be -3SG.S man mountains=GEN=ABS

ḫa =ʔi -m(e)-Ø en.líl=e ḫa =ʔi -n -ḫa.lam -e
MOD=VP-be -3SG.S Enlil =ERG MOD=VP-3SG.DO-annihilate-3SG.A:IPFV
'Whether he is (lit. "Should he be") someone from Umma or someone from the mountain land, may Enlil annihilate him!' (Ent. 28 6:17-20; L; 25)

For more common methods for expressing conditional clauses, see §27.6.6.

A clause containing a verbal form with {ḫa} can also express the purpose of a preceding action:

(84) ***ga-na-ab*-du$_{11}$ / inim-*ba ḫa-mu-da*-gub**
ga -nna -b -du$_{11}$.g inim =be =ʔa
MOD:1SG.A/S-3SG.IO-3N.OO-say word=this=LOC

ḫa =Ø -mu -ʔ -da -gub -Ø
MOD=VP-VENT-1SG-with-stand-3SG.S/DO
'Let me tell it to her, so that she may stand by me in this matter!' (Cyl A 1:24-25 = Cyl A 3:23-24; L; 22)

(85) **u$_4$-*bé-a* á-*zu* izi *bí*-tag / ĝiskim-*ĝu$_{10}$ ḫa-mu-ù*-zu**
u$_4$.d=be =ʔa á =zu =e izi =Ø bi -ʔ -tag -Ø
day=this=LOC arm=your=DIR fire=ABS 3N.OO-1SG.A-touch-3N.S/DO

ĝiskim=ĝu =Ø ḫa =Ø -mu -e -zu -Ø
sign =my=ABS MOD=VP-VENT-2SG.A-know-3N.S/DO
'On that day, I will cause fire to touch your arm, so that you will know my sign.' (Cyl A 12:10-11; L; 22)

Finally, a verbal form with {ḫa} is found in a kind of temporal clause (see §27.6.8 for details). E.g.:

(86) **bar še-ba-*ka* / lú *ḫé-ši*-gi$_4$-gi$_4$-*a-ka***
bar še =be =ak =ʔa lú =Ø
because.of barley=this=GEN=LOC man=ABS

ḫa =ʔi -n -ši-n -gi$_4$:RDP-e -ʔa =ak =ʔa
MOD=VP-3.SG-to-3SG.DO-turn:IPFV-3SG.A:IPFV-NOM=GEN=LOC
'whenever he sent a messenger concerning that barley' (Ukg. 6 4:1'-2'; L; 24)

25.5. The negative modal prefix {na(n)}

The negative prefix {na(n)} expresses a negative command or a negative request. It is almost exclusively associated with the imperfective, both in transitive and intransitive forms. The very rare perfective forms with negative {na(n)} are restricted to stative verbs (ex. 101 below). Negative {na(n)} cannot be preceded by another prefix or by a proclitic and is therefore invariably the first morpheme of the verbal form.

Negative {na(n)} has two basic forms: /na/ and /nan/ (Attinger 1993: 289). Because nothing is known about their origin or historical relationship, it is impossible to decide which form is more basic and which secondary and I treat therefore the two forms as being of equal standing.

The distribution of /na/ and /nan/ is much obscured by defective spellings. However, keeping in mind that the scribes tend to ignore syllable-final consonants (§2.4), we can formulate the following rule: /nan/ is used before a single consonant (i.e., before /CV/) and /na/ before a cluster of two consonants (i.e., before /CC/). The form /na/ is probably also the one used before a vowel – for instance, before the second person prefix {e} – but there seem to be no clear examples.

Thus, the form /na/ is found before a cluster of two consonants. It is usually written ***na***. E.g.:

(87) **lú *na-ab*-dab$_5$-*e***

lú =e na -b -dab$_5$-e
man=ERG NEG.MOD-3N.DO-take -3SG.A:IPFV
'Nobody should seize it!' (Ean. 62 Face A=4 2:6'; L; 25)

(88) **šu *na-an-na*-zi-zi**
šu =Ø na -nna -zi.g:RDP-e
hand=ABS NEG.MOD-3SG.IO-rise:IPFV -3SG.A:IPFV
'He should not raise his hand against him!' (En. I 29 10:5; L; 25)

The syllable-final consonant following /na/ is often ignored in the spelling:

(89) **lú ì-ĝiš *na-ne*-zi-zi**
lú =e ì.ĝiš=Ø na -nnē -zi.g:RDP-e
man=ERG oil =ABS NEG.MOD-3PL.IO-rise:IPFV -3SG.A:IPFV
'Nobody should register oil as an expenditure for them!' (TCS 1:142 5; N; 21)

(90) **lú *gu-la-bé* / RU-lugal-*ra* / lipiš-*bé* / *na-na*-tag-*ge***
lú gu.l -Ø -ʔa =be=e RU.lugal.ak=ra lipiš =be=Ø
man be.big-NFIN-NOM=its=ERG subordinate =DAT anger=its=ABS

na -nna -tag -e
NEG.MOD-3SG.IO-touch-3SG.A:IPFV
'That powerful person must not touch the subordinate with his anger about this!' (Ukg. 4 12:8-11; L; 24)

The spelling ***na*** is also used for the non-negative prefix {na} (§26.3) and the form /na/ of the negative proclitic {nu} (§25.2). Non-negative {na}, however, is largely restricted to perfective forms, while negative {na(n)} is almost exclusively used in imperfective forms. The form /na/ of {nu} is quite rare and restricted to very specific types of forms. The spelling ***na*** is therefore hardly ever ambiguous.

If the form /na/ is followed by the reduced form /m/ of the ventive prefix, the two prefixes are either written with the sign ***nam*** or, ignoring the syllable-final /m/, just with ***na***. Take, for instance, the following verbal form:

(91) ***nam-mi*-gur-*re***
na -m(u)-bi -b -gur -e
NEG.MOD-VENT-3N:on-3N.DO-go.back-3SG.A:IPFV
'He should not refuse this (lit. "He should not let it, viz. the order, go back on this")!' (e.g., TCS 1:49 12; L; 21)

Often this form is written simply ***na-mi*-gur-*re*** (e.g., TCS 1:87 10; L; 21).

The form /nan/ is found before a single consonant, that is, before /CV/. A by-form /nam/ occurs before /b/ or /m/ and is the result of an assimilation of the final /n/ to the following labial consonant. The usual spellings are ***na-an***, ***nam***, or just ***na***, the last of which ignores the syllable-final consonant.

Thus, the form /nan/ or /nam/ is used before the form /ba/ of the prefix {ba}. All three spellings occur. E.g.:

(92) **kišib-*a-né* šu *na-an-ba-ab*-ti-ti**
kišib=ane=Ø šu =e nan -ba -b -te.ĝ -e
seal =his =ABS hand=DIR NEG.MOD-3N.IO-3N.DO-approach:IPFV-3SG.A:IPFV
'He should not receive his sealed document!' (TCS 1:202 7; D; 21)

(93) ***nam-ba-an-*řú**
nan -ba -n -řú -ed -Ø
NEG.MOD-MM-3SG.OO-hold-IPFV-3SG.S:IPFV
'He should not hold on to him!' (TCS 1:92 5; L; 21)

This last form occurs elsewhere written as ***na-an-ba-an-*řú** (TCS 1:193 3; U; 21) and ***na-ba-an-*řú** (e.g., TCS 1:22 7; L; 21).

The form /nan/ or /nam/ is also used before the form /bi/ of the local prefix {e} or of the oblique-object prefix non-human. E.g.:

(94) **mušen-*gen*$_7$ (...) *nam-bí-ib-*dal-*en***
mušen=gen nan -bi -b -dal-en
bird =EQU NEG.MOD-3N:on-3N.DO-fly -1SG.A:IPFV
'I don't want to let it fly up like a bird on it(s nest)!' (ELA 116; OB copy)

But, again, defective spellings occur which ignore the final consonant of the prefix:

(95) **u$_4$ *na-bí-íb-*zal-*e***
u$_4$.d=Ø nan -bi -b -zal -e
day=ABS NEG.MOD-3N:on-3N.DO-pass-3SG.A:IPFV
'He should not spend a day over it!' (TCS 1:170 7; L; 21)

The form /nam/ – but never /nan/ – is also used before the form /mV/ of the ventive prefix. E.g.:

(96) ***nam-mi-ni-íb-*taka$_4$-taka$_4$**
nan -mu -ni-b -taka$_4$:RDP-e
NEG.MOD-VENT-in-3N.DO-leave:IPFV -3SG.A:IPFV
'He should not leave it therein!' (TCS 1:307 7; U; 21)

(97) **lú *nam-mu-da-*du**
lú =Ø nan -mu -ʔ -da -du -Ø
man=ABS NEG.MOD-VENT-1SG-with-go:IPFV-3SG.S:IPFV
'Let no one come with me!' (Lugalbanda II 285; OB)

(98) **šu *na-mu-da-ni-*bala-*e-ne***
šu =Ø nan -mu -ʔ -da -ni-b -balaʔ-enē
hand=ABS NEG.MOD-VENT-1SG-with-in -3N.DO-cross -3PL.A:IPFV
'May they not change (lit. "let their hand go across") it with me!' (FAOS 5/2 Luzag. 1 3:34; N; 24)

The form /nan/ is also the form used immediately before the verbal stem. E.g.:

(99) **é-gal-*šè na-an-*du-*un***
é.gal =še nan -du -en
palace=TERM NEG.MOD-go:IPFV-1SG.A/S:IPFV
'I do not want to go to the palace.' (YOS 4:1 5; U; 21)

(100) **^{ĝiš}*gu-za* gub-*ba-na* / suḫuš-*bé* / *na-an-ge-né***
gu.za gub -Ø -ʔa =ane=ak suḫuš =be=Ø nan -ge.n -e
chair stand-NFIN-NOM=his =GEN foundation=its=ABS NEG.MOD-be.firm-3SG.A:IPFV
'May she not make firm the foundation of his standing throne!' (St C 4:13-15; L; 22)

Before the stem of the verb **me** 'be', the form is always /nam/. E.g.:

(101) **ĝidri ĝiš *nam-me***
ĝidri ĝiš =Ø nan -me-Ø
sceptre wood=ABS NEG.MOD-be -3N.S
'a sceptre which must not be (of) wood' (ELA 398; OB)

The form /nan/ also seems to be used before the form /ni/ of the local prefix {ni} 'in', but the only available evidence is from after the Ur III period. E.g.:

(102) **é *na-a-an-ni*-buru$_3$-*e-en***
é =Ø nan -ni-b -buru$_3$ -en
house=ABS NEG.MOD-in -3N.DO-be.deep-2SG.A/S:IPFV
'Do not break (lit. "make a hole") into a house!' (Instr.Shur. 33; OB)

(103) **ki-tuš *na-an-ni*-du$_{10}$-*ge***
ki.tuš =Ø nan -ni-b -du$_{10}$.g -e
dwelling=ABS NEG.MOD-in-3N.DO-be.sweet-3SG.A:IPFV
'Let him not make sweet a dwelling in there!' (Curse of Agade 270; OB)

(104) **šu *na-an-ni-íb*-bala-*e***
šu =Ø nan -ni-b -bala$^?$-e
hand=ABS NEG.MOD-in-3N.DO-cross -3SG.A:IPFV
'May he not change (lit. "let his hands go across") it!' (Shulgi X 72; ?; 21, OB copy)

The negative modal prefix {na(n)} has two basic functions. Firstly, it is the negative counterpart of the imperative (§25.3). As it happens, the corpus lacks examples, but the literary texts from the Old Babylonian period contain them in abundance. In the Instructions of Shuruppak, for instance, positive instructions to the addressee are given as imperative forms and negative ones as forms with {na(n)}. E.g.:

(105) **[kar]-*ked na-an*-sa$_{10}$-sa$_{10}$-*an***
kar.ked =Ø na -n -sa$_{10}$:RDP -en
prostitute=ABS NEG.MOD-3SG.DO-barter:IPFV-2SG.A/S:IPFV
'Do not buy a prostitute!' (Instr.Shur. 159; OB)

(106) **inim du$_{11}$-*ga-ĝu$_{10}$* *na-ab-ta-ab*-bala-*e-dè***
inim du$_{11}$.g-Ø -$^?$a =ĝu=e na -b -ta -b -bala$^?$-ed -en
word say -NFIN-NOM=my=DIR NEG.MOD-3N-from-3N.OO-cross-IPFV-2SG.A/S:IPFV
'Do not transgress the words I have spoken!' (Instr.Shur. 157; OB)

Secondly, {na(n)} is the negative counterpart of the modal proclitic {ḫa} (§25.4.2):

(107) **^{ĝiš}*gu-za* gub-*ba-na* / suḫuš-*bé* / *na-an-ge-né* / numun-*a-né* *ḫé*-til**
gu.za gub -Ø -$^?$a =ane=ak suḫuš =be=Ø
chair stand-NFIN-NOM=his =GEN foundation=its=ABS

nan -ge.n -e numun=ane=Ø ḫa =$^?$i -til -Ø
NEG.MOD-be.firm-3SG.A:IPFV seed =his =ABS MOD=VP-end-3N.S/DO
'May she not make firm the foundation of his standing throne! May his offspring come to an end!' (St C 4:13-16; L; 22)

(108) **^{d}nanna-*ì*-sa$_6$-*ra* / *ḫé-na-ab*-šúm-*mu* / du$_{11}$-*ga* *na-mi-ib*-gur-*re***
nanna.ì.sa$_6$.g=ra ḫa =$^?$i -nna -b -šúm-e
Nanna'isa =DAT MOD=VP-3SG.IO-3N.DO-give-3SG.A:IPFV

du_{11}.ga=Ø na -m(u) -bi -b -gur -e
order =ABS NEG.MOD-VENT-3N:on-3N.DO-go.back-3SG.A:IPFV
'He should give this to Nanna'isa! He should not refuse this (lit. "He should not let the order go back on this")!' (TCS 1:255 6-8; U; 21)

25.6. The modal prefix {ga}

The modal prefix {ga} is restricted to verbal forms with a subject of the first person. It has a double function: It signals not only that the verbal form has a modal meaning, but also that it has a subject of the first person. Its basic form is /ga/ and it expresses either a transitive subject or an intransitive subject of the first person. E.g.:

(109) **é-*zu* *ga-mu-ra*-řú**
é =zu =Ø ga -mu -ra -řú
house=your=ABS MOD:1SG.A/S-VENT-2SG.IO-erect
'I will build your house for you!' (Cyl A 2:14; L; 22)

(110) **é-*za* *ga*-gub / *ga-àm-ta*-è**
é =zu =ʔa ga -n(i)-gub ga -m(u) -ta -ʔè
house=your=LOC MOD:1SG.A/S-in -stand MOD:1SG.A/S-VENT-from-go.out
'I will serve in your house! I will go out of it!' (BE 3:4 5-6; N; 21)

The prefix {ga} is always the first morpheme of the verbal form. It is never preceded by another prefix or by a proclitic. It cannot be negated. Instead a form with {bara} (§25.7) is used. The previous example, for instance, is continued as follows:

(111) ***ba-ra-ba-*zàḫ-*dè-e*[n_6']**
bara -ba -zàḫ -ed -en
CAT.NEG-MM-run.away-IPFV-1SG.A/S:IPFV
'I will not run away!' (BE 3:4 7; N; 21)

The verbal forms with the prefix {ga} have a hybrid make-up, just like those of the imperative (§25.3). They have perfective stem forms (§15.3.1) but they use the final person-prefixes as in the imperfective inflection (§15.2.3). A final person-prefix can, for instance, be used to designate the direct object. E.g.:

(112) **ĝiskim-*bé* *ga-ra-ab*-šúm**
ĝiskim=be=Ø ga -ra -b -šúm
sign =its=ABS MOD:1SG.A/S-2SG.IO-3N.DO-give
'I will give you its sign!' (Cyl A 9:9; L; 22)

(113) **tukum-*bé* é-*ĝá* *mu*-ku_4-ku_4 / *ga-ra-an*-túm**
tukum.bé é =ĝu =ʔa mu -n(i)-ku_4.ř-ku_4.ř-Ø
if house=my=LOC VENT-in -enter -enter-3SG.S/DO

ga -ra -n -túm
MOD:1SG.A/S-2SG.IO-3SG.DO-bring
'If he (viz. a slave) ever entered my house, I will bring him to you!' (SNAT 360 obv 13-14; U; 21)

This usage of the final person-prefixes is optional, though. A non-human direct object does not have to be referred to in a verbal form with {ga}. E.g.:

(114) **gu$_4$ *e-a-a* / ki-*ba* *ga-ra-a-ĝá-ar***
gu$_4$.ř e.a?=ak =Ø ki =be=?a ga -ra -e -ĝar
ox Ea =GEN=ABS place=its=LOC MOD:1SG.A/S-2SG.IO-on-place
'I will put Ea's ox in its place!' (TCS 1:58 7-8; L; 21)

The final person-prefixes can also be used to refer to the oblique object. E.g.:

(115) ***ga-na-ab*-du$_{11}$**
ga -nna -b -du$_{11}$.g
MOD:1SG.A/S-3SG.IO-3N.OO-say
'I will say it to her!' (Cyl A 3:22; L; 22)

(116) **šu zi *ga-mu-ra-ab*-ĝar**
šu zi.d =Ø ga -mu -ra -b -ĝar
hand right=ABS MOD:1SG.A/S-VENT-2SG.IO-3N.OO-place
'I will set the hand rightly to it for you!' (Cyl A 2:13; L; 22)

(117) **me šu *ga-mu-ra-ab*-du$_7$**
me =e šu =Ø ga -mu -ra -b -du$_7$
being=DIR hand=ABS MOD:1SG.A/S-VENT-2SG.IO-3N.OO-push
'I will bring (its) features to perfection!' (Cyl A 2:15; L; 22)

These uses of the final person-prefixes are the same as in the imperfective.

The verbal forms with {ga} lack, as a rule, a person suffix for the subject, since that is already expressed by {ga} itself. With a plural subject, the Sumerian texts from the Old Babylonian period and later show a person suffix,[3] but the texts of our corpus seem to make no difference between forms with a singular or a plural subject. E.g.:

(118) **lú inim-*ma-bé* *ga-mu*-túm *bí-in-eš***
lú inim=ak =be=Ø ga -mu -n -túm
man word=GEN=its=ABS MOD:1PL.A/S-VENT-3SG.DO-bring

Ø -bi -n -?e -eš
VP-3N.OO-3SG.A-say:PLUR-3PL
'They said: "We will bring a witness for this."' (NG 169 11; L; 21)

(119) **ama-*né* / *ù* nin$_9$-*a-ne-ne* / *ga-an*-duḫ *bí-eš***
ama =ane ù nin$_9$ =ane=enē=e ga -n -duḫ
mother=his and sister=his =PL =ERG MOD:1PL.A/S-3SG.DO-loosen

Ø -bi -n -?e -eš
VP-3N.OO-3SG.A-say:PLUR-3PL
'His mother and his sisters said: "We will redeem him!"' (Studies Pettinato pp.176f BM 22861 obv. 6'-8'; L; 21)

The basic form of the prefix {ga} is /ga/, but occasional spellings from the Ur III period onwards show that, in an open syllable, the /a/ of {ga} assimilates to the vowel of the following syllable. E.g.:

(120) **saĝ-*éš* *gú-mu-ni*-rig$_7$**

[3] See the discussion with earlier literature in Cavigneaux (1987: 47-48).

šaĝ =eš ga -mu -nni -b -rig$_7$
head=ADV MOD:1SG.A/S-VENT-3SG.OO-3N.DO-?
'I will give this as a present to him!' (Shulgi D 210; ?; 21, OB copy). Note that the phrasal verb **saĝ-*éš*—rig$_7$** means 'give as a present'.

(121) **saḫar sis-sis *gi$_4$-bí-íb*-gu$_7$**
saḫar sis -sis =Ø ga -bi -b -gu$_7$
sand bitter-bitter=ABS MOD:1SG.A/S-3N.OO-3N.DO-eat
'I will let them eat "bitter sand"!' (Shulgi D 176; ?; 21, OB copy)

(122) ***ù-mun* sur-*ra gi$_4$-ni-in*-úš**
ù.mun sur-Ø -ʔa =ʔa ga -ni-n -ʔúš
blood drip-NFIN-NOM=LOC MOD:1SG.A/S-in -3SG.DO-die
'I will kill him amid dripping blood!' (Shulgi D 156; ?; 21, OB copy)

(123) ***nam gi$_4$-rí-íb*-tar^{ar}**
nam =Ø ga -ri -b -tar
status=ABS MOD:1SG.A/S-2SG.OO-3N.DO-cut
'I will decree the fate for you!' (Shulgi D 384; ?; 21, OB copy)

The spellings of these forms represent the actual pronunciation of {ga} and are therefore clear instances of a phonemic spelling of the prefix. As usual, however, there are also quite a few morphophonemic spellings, where {ga} is simply represented by the spelling ***ga*** of its more basic form /ga/. The following two, quite similar, examples illustrate either type of spelling:

(124) ***gú-mu-ra-ra-ba-al***
ga -mu -ra -ta -ba.al
MOD:1SG.A/S-VENT-2SG.IO-from-dig
'I will recover it (lit. "dig it out") for you.' (NG 132 5; U; 21)

(125) ***ga-mu-ra-ab*-túm**
ga -mu -ra -b -túm
MOD:1SG.A/S-VENT-2SG.IO-3N.DO-bring
'I will bring it to you!' (AfO 4 p.23 8; U; 21)

This susceptibility to change suggests that the /a/ of {ga} is a short vowel (cf. §26.3).

The modal proclitic {ḫa} (§25.4) also occurs in verbal forms with a subject of the first person. These forms, however, differ in meaning from those with the prefix {ga}.[4] With a form containing {ga}, the speaker states his firm intention to perform a certain action. A form with {ga} expresses a promise or undertaking on the part of the speaker. With a form containing {ḫa}, the speaker states a request, the realisation of which does not depend on a decision of the speaker himself but is determined by someone or something else. E.g.:

(126) **nin$_9$-*ab-ba-na* dumu ur-níĝ / *ḫa-a*-tuku**
nin$_9$.ab.ba.na dumu ur.níĝ=Ø ḫa =ʔa-ʔ -tuku-Ø
Ninabbana child Urnig=ABS MOD=VP-1SG.A-have-3SG.S/DO
'I wish to have Ninabbana, daughter of Urnig(, as wife)!' (NG 16 5-6; L; 21)

(127) **geme$_2$ *ì-bí-la* a-tu-*ke$_4$-ne ḫa-a-me-èn***

[4] This paragraph owes a great deal to Krecher (1993b).

geme$_2$ ì.bí.la a.tu=ak =enē=ak =Ø ḫa =ʔa-me-en
slave.woman heir Atu =GEN=PL =GEN=ABS MOD=VP-be -1SG.S
'(If I do not produce a witness that PN, son of Atu, has freed me), let me be the slave woman of Atu's heirs!' (AOAT 25 p. 441 BM 19356 9; L; 21)

Verbal forms with the modal prefix {ga} always have a subject of the first person. The corpus contains only one exception to this rule, viz. the form ***ga-nam-me-àm***, which occurs three times in the Gudea texts:

(128) **šeg$_{12}$ zi é-ninnu *ga-nam-me-àm***
šeg$_{12}$ zi.d é.ninnu=ak =Ø ga -na -me-Ø =ʔam
brick right Eninnu =GEN=ABS MOD-PFM-be -3SG.N=be:3SG.N
'It surely was the right brick of the Eninnu!' (Cyl A 6:8; L; 22)

(129) **ses-*ĝu$_{10}$* ^{d}nin-*ĝír-su ga-nam-me-àm***
ses =ĝu nin.ĝír.su.k=Ø ga -na -me-Ø =ʔam
brother=my Ningirsu =ABS MOD-PFM-be -3SG.S=be:3SG.S
'He surely was my brother Ningirsu!' (Cyl A 5:17; L; 22)

The third attestation is similar to the second: **nin$_9$-*ĝu$_{10}$* ^{d}nisaba *ga-nam-me-àm*** 'She surely was my sister Nisaba!' (Cyl A 5:25; L; 22). This ***ga-nam-me-àm*** has a rather unique form and meaning, differing strongly from the other forms with {ga}. Moreover, it is not found anymore in later texts. For these reasons, I consider ***ga-nam-me-àm*** to be an archaic form, retained in the language as a fixed expression. It suggests that in an earlier period {ga} could be used for the third person.

There is actually more evidence that {ga} has not always been restricted to the first person. Sumerian has a few nouns of the type ***gáb*-íl** 'basket' (§6.6.2). That noun is in origin a form of the verb **íl** 'lift' with the prefix {ga}. A noun with the meaning 'basket' can hardly come from a verbal form that means 'I will lift it!'. Far more likely is a derivation from a nominalized verbal form meaning something like 'which will carry it'. Hence, this type of nouns also points to an earlier use of {ga} for the third person.

Thus, the prefix {ga} may have had a wider range of uses in an earlier form of Sumerian. It lost probably some of its functions to {ḫa}, which, as a proclitic element, anyway looks as a more recent addition to the inventory of grammatical elements with a modal meaning.

25.7. The negative modal prefix {bara}

The negative modal prefix {bara} expresses a categorical negation, meaning something like 'certainly not' or 'absolutely not'. It can be used with the perfective and the imperfective. It cannot be preceded by another prefix or by a proclitic and, consequently, always begins the verbal form. Its basic form is /bara/, which is always written ***ba-ra-***. E.g.:

(130) **na-rú-*a-bé ba-ra*-bu$_x$-*ře$_6$***
na.rú.a=be=Ø bara -bù.ř -en
stela =its=ABS CAT.NEG-tear.out-1SG.A/S:IPFV
'I will not tear out its stelas!' (Ean. 1 obv 21:2-3; L; 25)

(131) ***ba-ra-ba*-řú-*dè***
bara -ba -n -řú -ed -en
CAT.NEG-MM-3SG.OO-hold-IPFV-1SG.A/S:IPFV
'I will not hold her back!' (BIN 8:164=SRU 85 rev 15'; I; 23)

(132) **má-*e* *ba-ra*-tag-*ge***
má=e bara -b -tag -en
boat=DIR CAT.NEG-3N.OO-touch-1SG.A/S:IPFV
'I will not let them touch the boat!' (RTC 82=SRU 87 8; L; 23)

(133) **[m]u lugal *ba-ra-ab*-gi$_4$-gi$_4$-*dè***
mu lugal=ak bara -b(i) -gi$_4$:RDP-ed -en
name king =GEN CAT.NEG-3N:on-turn:IPFV -IPFV-1SG.A/S:IPFV
'By the king's name! I will not come back on this!' (NG 164 1:3'; L; 21)

If the standard orthography is taken for granted, {bara} always has the form /bara/ and does not undergo any changes. However, linguistic reality may be more complex, as the following non-standard spelling seems to suggest:

(134) ***sa-ab-ra-mu-ni*-du$_{11}$**
sá=Ø bara -mu -nni -ʔ -du$_{11}$.g-Ø
? =ABS CAT.NEG-VENT-3SG.OO-1SG.A-do -3N.S/DO
'I certainly did not get to him!' (VS 2:2 2:41 & 42; OB). Note that the phrasal verb **sá—du$_{11}$.g** means 'reach'.

The standard spelling of this phrase is **sá *ba-ra-mu-ni*-du$_{11}$**.

A verbal form which in its written form begins with ***ba-ra-*** does not necessarily contain the prefix {bara}, because that spelling can also represent other prefixes. Quite frequently, in fact, ***ba-ra-*** stands for /ba/ followed by the form /ra/ of the prefix {ta} (§19.3.1). E.g.:

(135) **iti-*ta* u4 27 *ba-ra*-zal**
iti.d =ta u$_4$.d 27=Ø Ø -ba -ta -zal -Ø
month=ABL day 27=ABS VP-MM-from-pass-3N.S/DO
'Out of the month, day 27 had passed.' (MVN 15:193 4; D; 21)

Theoretically, ***ba-ra-*** could also stand for /ba/ followed by the indirect-object prefix {ra} of the second person (§17.2.4), but actual attestations for such a form seem to be lacking.

Verbal forms with {bara} always categorically deny some action or state, but their precise meaning depends on whether the form is imperfective or perfective. An imperfective form with {bara} strongly denies some action happens or will happen. Such {bara} forms can be transitive or intransitive. E.g.:

(136) **má *ba-ra-mu-e-da-ab*-bala-*e***
má =Ø bara -mu -e -da -b -balaʔ-e
boat=ABS CAT.NEG-VENT-2SG-with-3N.DO-cross -3SG.A:IPFV
'You cannot bring a boat across!' (Proverb Collection 3.76; OB)

(137) ***ba-ra*-gi$_4$-gi$_4$-*nam***
bara -gi$_4$:RDP-en =ʔam
CAT.NEG-turn:IPFV-2SG.A/S:IPFV=be:3N.S
'You will never return!' (Lugalbanda II 336; OB)

(138) **u$_4$-*da-ta* kur-*ra* lú *ba-ra-ra-an*-zi-zi**
u$_4$.da=ta kur =ʔa lú =Ø
today=ABL mountains=LOC man=ABS

bara -ra -n(i)-zi.g:RDP-ed -Ø
CAT.NEG-2SG.IO-in -rise:IPFV -IPFV-3SG.S:IPFV

'From today nobody in the mountain lands will ever rise against you!' (Lugal-e 312; OB copy)

An imperfective form with the prefix {bara} and with a subject of the first person is the negative counterpart of a verbal form with the modal prefix {ga} (§25.6). With such a {bara} form, the speaker states his firm intention not to perform a certain action. The form expresses a promise or undertaking on the part of the speaker. It is common in oath formulas. E.g.:

(139) **ki-sur-*ra* / ^{d}nin-*ĝír-sú-ka-ke$_4$* / *ba-ra-mu*-bala-*e***
ki.sur.ra nin.ĝír.su.k=ak =e bara -mu -n(i)-balaʔ-en
border Ningirsu =GEN=DIR CAT.NEG-VENT-in -cross -1SG.A/S:IPFV
'I will not cross Ningirsu's border!' (Ean. 1 obv 20:17-19; L; 25)

(140) **é-*za ga*-gub / *ga-àm-ta*-è / *ba-ra-ba*-zàḫ-*dè-e*[n_6']**
é =zu =ʔa ga -n(i)-gub ga -m(u) -ta -ʔè
house=your=LOC MOD:1SG.A/S-in -stand MOD:1SG.A/S-VENT-from-go.out

bara -ba -zàḫ -ed -en
CAT.NEG-MM-run.away-IPFV-1SG.A/S:IPFV
'I will serve in your house. I will go out of it, but I will not run away!' (BE 3:4 5-7; N; 21)

(141) **di *ba-ra-a-da-ab-bé-en$_6$***
di.d=Ø bara -e -da -b -ʔe -en
trial=ABS CAT.NEG-2SG-with-3N.OO-say:IPFV-1SG.A/S:IPFV
'I will not go to trial with you!' (NG 20 8; L; 21)

Imperfective forms with {bara} differ in meaning from those with the negative prefix {na(n)} (§25.5) in that the former express a far more categorical negation than the latter. Forms with {na(n)} express negative wishes, requests, or command, forms with {bara} negative assertions.

Perfective forms with the prefix {bara} are the negative counterparts of perfective forms with the modal proclitic {ḫa} (§25.4.2). While imperfective forms with {bara} strongly deny present and future actions, perfective forms with {bara} are used to deny strongly a past, present, or future state. E.g.:

(142) **u$_4$-*bé-ta* im-*ma* ⌜gub-*bu ḫé*-ĝál⌝ im ⌜si-si⌝-*ge ba-ra*-ĝál-*la-àm***
u$_4$.d=be =ta im =ʔa gub -ed -Ø =Ø ḫa =ʔi -ĝál -Ø
day=this=ABL clay=LOC stand-IPFV-NFIN=ABS MOD=VP-be.there-3N.S/DO

im =Ø si.g -si.g -ed -Ø =Ø bara -ĝál -Ø =ʔam
clay=ABS put.into-put.into-IPFV-NFIN=ABS CAT.NEG-be.there-3N.S/DO=be:3SG.S
'It was so that in those days, writing on tablets certainly existed, but enveloping tablets did not exist!' (JAOS 103 [1983] p.73 = Sargon Legend 53; OB manuscript)

(143) **ki-*né ba-ra*-zu**
ki =ané=Ø bara -ʔ -zu -Ø
place=his =ABS CAT.NEG-1SG.A-know-3N.S/DO
'I don't know where he is!' (Dumuzi's Dream 144; OB manuscript)

(144) **PN mí-ús-*sá-zu* mí-ús-*sá-ĝu$_{10}$ ba-ra-me***
PN mí.ús.sá =zu =Ø mí.ús.sá =ĝu=Ø bara =ʔi -me-Ø
PN son.in.law=your=ABS son.in.law=my=ABS CAT.NEG =VP-be -3SG.S
'PN, your son-in-law, will certainly not be my son-in-law!' (NG 18 24; L; 21)

Perfective forms with {bara} can also express a strong denial that some action happened in the past:

(145) **zi lugal diri-*ga-šè* / *ba-ra-a*-su**
zi lugal=ak diri.g -Ø -ʔa =še bara -ʔ -su.g -Ø
life king =GEN exceed-NFIN-NOM=TERM CAT.NEG-1SG-repay-3N.S/DO
'By the king's life! I certainly did not pay back too much!' (TCTI 2:L.3916 10-11; L; 21)

(146) **LÚxKÁR-*a* / *ḫa-ni*-dab$_5$ / šu-*ĝu$_{10}$* *ba-ra-ba-ta*-è**
LÚxKÁR=ʔa ḫa =ni-ʔ -dab$_5$-Ø
prisoner =LOC MOD=in -1SG.A-take -3SG.S/DO

šu =ĝu =ta bara -ba -ta -ʔ -ʔè -Ø
hand=my=ABL CAT.NEG-MM-from-1SG.A-go.out-3SG.S/DO
'I truly took him prisoner and did not let him go out of my hands!' (OrNS 54 [1985] p.39 10:6'-8'; N; 21, OB copy)

The royal hymn Shulgi A contains numerous clauses which either strongly assert past events or strongly deny them. The strong assertions are expressed by perfective forms with the proclitic {ḫa} (see, e.g., examples 74 and 75 above). The strong denials have perfective forms with {bara}. E.g.:

(147) **lugal-*me-en* ní *ba-ra-ba-da*-te su *ba-ra-ba-da*-zi**
lugal=Ø =me-en ní =Ø bara -ba -ʔ -da -te -Ø
king =ABS=be -1SG.S fear=ABS CAT.NEG-MM-1SG-with-approach-3N.S/DO

su =Ø bara -ba -ʔ -da -zi.g-Ø
skin=ABS CAT.NEG-MM-1SG-with-rise-3N.S/DO
'I, the king, I feared not, nor was I terrified! (lit. "Me, the king, with me fear truly did not approach! The skin certainly did not rise with me!")' (Shulgi A 70; ?; 21, OB copy)

26. THE PREFORMATIVES: {ši} AND NON-NEGATIVE {na}

26.1. Introduction

The two preceding chapters have treated the most important preformatives. Chapter 24 featured the three vocalic prefixes, with functions in the area of tense and aspect. Chapter 25 discussed five modal and/or negative preformatives. Yet, the Old and Neo-Sumerian texts contain two additional preformatives, which are the topic of the present chapter: {ši} and non-negative {na}.

What sets these two preformatives apart is that they are rare and that their functions are not very clear. Precisely because their meanings are still obscure, {ši} and non-negative {na} are simply glossed as PFM ('preformative') in the examples. We will start with prefix {ši}, which is the rarest of the two (§26.2). Non-negative {na} concludes the chapter (§26.3).

26.2. The preformative {ši}

The preformative {ši} is found in perfective as well as in imperfective forms (Edzard 1971b: 222), but for either type of form its function remains unclear.[1] All that can be said with any certainty is that {ši} does not have a negative meaning. I will therefore leave it untranslated in the examples below.

As all other preformatives, {ši} precedes the prefix {nga} in the relative order of verbal prefixes:

(1) **ḫulu *ši-in-ga-àm-ta-an*-tùm**
ḫulu =Ø ši -nga-m(u) -ta -n -tùm -Ø
badness=ABS PFM-also-VENT-from-3SG.A-bring:IPFV-3N.S/DO
'She will also bring evil from there.' (Instr.Shur. 194; OB)

The form /ši/ of this Old Babylonian attestation is the outcome of a sound change. In the earliest known version of these 'Instructions of Shuruppak' (Alster 2005: 176-194), the preformative {ši} clearly has the basic form /še/: ***šè-mu-ra*-ḫulu** (AbSt 10'; Abu Salabikh; 26), ***šè-ba*-dab$_5$** (AbSt 12'), ***šè-mu*-sa$_4$** (AbSt 44'), and so on.

This earlier /še/ became /ši/ through the same sound change that affected a number of other prefixes with the vowel /e/, among them the dimensional prefix {ši} (< */še/). In connection with this change, the vowel of the preformative {ši} is subject to the Old Sumerian rule of vowel harmony (§3.9.3):

(2) **ḫabrud a *šè-ma*-si**
ḫabrud=e a =Ø ši -m(u) -ba -b -si-Ø
hole =DIR water=ABS PFM-VENT-MM-3N.OO-fill-3N.S/DO
'The hole was filled with water.' (?) (Ukg. 15 1:6; L; 24)

(3) **na-řú-*a* / mu-*bé* / lú-*a nu* mu-*bé ši*-e**
na.řú.a=ak mu =be=Ø lú =ak =Ø nu
stela =GEN name=its=ABS person=GEN=ABS NEG

[1] For recent discussions of possible meanings, see Civil (2000: 38-39) and Edzard (2003: 120).

mu =be=Ø ši -b -ʔe -e
name=its=ABS PFM-3N.OO-say:IPFV-3SG.A:IPFV
'The name of the stela is not that of a man. He proclaimed as its name: ("...").' (Ean. 1 rev. 10:23-25; L; 25)

Note that, under vowel harmony, the verb **e** 'say' consistently shows forms with /i/ instead of /e/ (Keetman 2005: 4 with note 17).

In an open syllable, the vowel of the preformative {ši} may assimilate to the vowel of the following syllable:

(4) **šu-du$_8$-*a* *na*-túm lú-*bé* *ša$_4$*-*ba*-dab$_5$**
šu.du$_8$.a=Ø na -e -tùm -Ø
surety =ABS NEG.MOD-2SG.A-bring:IPFV-3N.S/DO

lú =be =e ši -ba -e -dab$_5$-e
man=this=ERG PFM-MM-2SG.DO-take -3SG.A:IPFV
'Do not guarantee (for someone)! This man will get a hold over you.' (Instr.Shur., Adab Segm 2.2'; A; 24)

(5) ***nam*-ti níĝ du$_{10}$-*ga* kiri$_3$ šu *ša-ra-ni*-ĝál**
nam.ti.l níĝ du$_{10}$.g=ʔa kiri$_3$=e šu =Ø ši -ra -ni-n -ĝál -Ø
life thing sweet =LOC nose =DIR hand=ABS PFM-2SG.IO-in-3SG.A-be.there-3N.S/DO
'He prays to you in a sweet life.' (BE 31:4 1:14 (Shulgi H); N; 21, OB copy)

Similar changes affect the preformatives {ʔu} (§24.2.1), {nu} (§25.2), {ḫa} (§25.4.1), and {ga} (§25.6).

At some point in time, the form /ša/ also came to be used before the form /mu/ of the ventive prefix. The earliest attestations known to me are from an Old Babylonian copy of a Neo-Sumerian royal hymn:

(6) **kur gal ^{d}en-líl-*ra* ul *ša-mu-na*-gùr-*ù***
kur gal en.líl=ra ul =Ø ši -mu -nna -gùr -e
mountain big Enlil =DAT charm=ABS PFM-VENT-3SG.IO-carry-3SG.A:IPFV
'You carry charm for the Great Mountain Enlil.' (BE 31:4 1:6 (Shulgi H); N; 21, OB copy)

(7) **^{d}nin-líl ^{d}en-líl-*da* šà *ša-mu-dì-ni-íb*-kúš-kúš-*ù***
nin.líl en.líl=da šà.g =Ø ši -mu -n -da -ni-b -kúš -kúš -en
Ninlil Enlil =COM heart=ABS PFM-VENT-3SG-with-in-3N.DO-soothe-soothe-2SG.A:IPFV
'Ninlil, you take counsel with Enlil again and again.' (BE 31:4 1:10 (Shulgi H); N; 21, OB copy)

(8) **[ba]ra$_2$ é-kur-*ra-ka* dúr *ša-mu-da-a*-ĝar**
bara$_2$ é.kur=ak =ʔa dúr =Ø ši -mu -n -da -e -ĝar -Ø
dais Ekur =GEN=LOC buttocks=ABS PFM-VENT-3SG-with-2SG.A-place-3N.S/DO
'you sit down with him on the dais of the Ekur' (BE 31:4 1:9 (Shulgi H); N; 21, OB copy)

This /ša/ before /mu/ has no phonological explanation and must be due to an analogical extension of the use of /ša/ to this particular environment. This could have happened on the model of the preformative {ḫa} (§25.4.1), which not only has a form /ḫa/ before /ba/ and /ra/ but also before /mu/ (cf. Falkenstein 1944: 70-71).

The most comprehensive study of the preformative {ši} remains Falkenstein (1944), who discusses all attestations known at the time. He sees in {ši} a modal prefix expressing emphatic

assertions ("betonte Affirmative") (Falkenstein 1944: 72). The main evidence for such a function comes from late bilingual lists that equate the preformative {ši} with the Akkadian particle *lū* 'verily'. However, the evidence from these late lists does not carry much weight, because in actual bilingual texts the preformative {ši} is never rendered as *lū* and is, in fact, always left without any translation at all. The equation of {ši} with Akkadian *lū* may therefore be nothing more than an attempt at explanation on the part of an Akkadian scholar, many centuries after Sumerian became obsolete.

26.3. Non-negative {na}

The non-negative preformative {na} is attested a few dozen times in our corpus, but its use is restricted to narrative texts: it only occurs in some royal inscriptions and literary texts.[2] Its function remains obscure. The conventional view is that it expresses an emphatic assertion (e.g., Falkenstein 1959: 49), but that does not fit the bilingual evidence: the Akkadian scribes never render a verbal form with {na} as an emphatic assertion, even though non-negative {na} occurs quite often in bilingual texts. In fact, in the same way as with the preformative {ši} (§26.2), they do not seem to translate non-negative {na} at all. One aspect of its meaning is beyond doubt, though: it is non-negative.[3]

As all other preformatives, non-negative {na} precedes the prefix {nga} in the relative order of verbal prefixes:

(9) **é-an-*na*-túm-*me* / gal *na-ga-mu*-zu**
é.an.na.túm=e gal =Ø na -nga-mu -n -zu -Ø
Eannatum =ERG greatness=ABS PFM-also-VENT-3SG.A-know-3N.S/DO
'Eannatum also understood it greatly.' (Ean. 1 obv 21:12-13; L; 25)

Its form is always /na/ and does not undergo any changes. With this immunity to change, {na} stands in sharp contrast with the preformatives {ḫa} (§25.4.1) and {ga} {§25.6), whose vowels undergo various changes in environments where the /a/ of {na} remains intact. This difference in susceptibility to change is probably due to a difference in vowel length and suggests that the /a/ of {na} is long and the /a/ of {ga} and {ḫa} is short.

In addition to non-negative {na}, there are two other prefixes which can have a form /na/ and which may therefore be confused with it: the two negative preformatives {nu} (§25.2) and {na(n)} (§25.5) (Attinger 1993: 289-290).

There is only minor overlap in form with the negative preformative {nu}. In an open syllable, the /u/ of {nu} assimilates to the vowel of the following syllable. The spelling ***na*** can therefore represent the negative preformative {nu}, if it is in an open syllable and the following syllable contains the vowel /a/ (§25.2). However, the use of ***na*** for {nu} is rare and when it occurs, the two preformatives are easily kept apart because of their quite distinct meanings – negative as opposed to non-negative.

The formal overlap between negative {na(n)} and non-negative {na} is far more pervasive. In most environments they show exactly the same spellings. Yet, this overlap is not complete, because in certain environments their forms do actually differ. For, while non-negative {na} is

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[2] I owe the designation 'non-negative {na}' (< '{na} nicht-negativ') to Ecklin (2004/2005), an unpublished paper which the author most kindly put at my disposal and from which I have greatly profited in writing this section.

[3] For recent discussions of possible meanings, see Civil (2000: 37-38) and Edzard (2003: 119-120), either of whom brings forward his own quite different hypothesis.

always /na/, negative {na(n)} is realized as /na/ or /nan/ (§25.5). But where the spelling is indeed ambiguous, the quite distinct meanings of the two prefixes help to keep them apart. In addition, a crucial clue is provided by the verbal form itself, for negative {na(n)} is almost completely restricted to imperfective forms (§25.5), while non-negative {na} occurs almost exclusively in perfective forms. E.g.:

(10) **iri-*me-a* níĝ du$_7$ pa *nam*-è**
iri =mē=ʔa níĝ du$_7$.ř =e pa =Ø na -m(u) -ʔè -Ø
city=our=LOC thing perfect=DIR branch=ABS PFM-VENT-go.out-3N.S/DO
'In our city something perfect appeared.' (Cyl A 1:4-5; L; 22)

(11) **é-*a* sá 4 *nam-mi*-sì**
é =ʔa sá 4=Ø na -m(u)-bi -n -sì.g-Ø
house=LOC square 4 =ABS PFM-VENT-3N:on-3SG.A-put -3N.S/DO
'He put square four on the temple.' (Cyl A 21:5; L; 22)

(12) **lugal [é-*a-n*]*é-ta nam-ta*-ĝen**
lugal =Ø é =ane=ta na -m(u)-ta -ĝen-Ø
master=ABS house=his =ABL PFM-VENT-from-go -3SG.S/DO
'The owner came out of his house.' (Cyl B 5:8; L; 22)

(13) **má-gur$_8$-*ra-na* ĝiri$_3$ *nam-mi*-gub**
má.gur$_8$=ane=ʔa ĝiri$_3$ =Ø na -m(u) -bi -n -gub -Ø
boat =his =LOC footh=ABS PFM-VENT-3N:on-3SG.A-stand-3N.S/DO
'He stepped (lit. "had (his) footh stand") on his boat.' (Cyl A 2:4; L; 22)

Although it happens only rarely, non-negative {na} is also used in imperfective forms (Attinger 1993: 291). Our corpus contains an example which is absolutely certain, as verbal forms introducing direct speech are always imperfective (§15.4.3):

(14) **dumu-*né-ra* / na *na-mu*-re-re**
dumu=ane=ra na=Ø na -mu -n -re.g:RDP -e
son =his =DAT ? =ABS PFM-VENT-3SG.OO-pick.up:IPFV-3SG.A:IPFV
'He instructed his son: ("...").' (Instr.Shur., Adab Segm 2.8-9; A; 24)

A few frozen verbal forms seem to contain non-negative {na}. One of them is ***na-nam***, usually translated as 'it/he/she surely was/is'. E.g.:

(15) **u$_4$-*ré-a* u$_4$-*ré-šè* / *na-nam***
u$_4$.d=re =ʔa u$_4$.d=re =še na.nam
day =yonder=LOC day=yonder=TERM it.truly.was
'It truly was in those days, to those days.' (MBI 1 1:1-2; N; 24)

(16) ***nu*-zuḫ [p]iriĝ *na-nám ù*-dab$_5$ geme$_2$ *na-nám***
nu.zuḫ=Ø piriĝ=Ø na.nam ʔu -dab$_5$-Ø geme$_2$ =Ø na.nam
thief =ABS lion =ABS he.truly.is REL.PAST-seize-3SG.S/DO slave.woman=ABS he.truly.is
'The thief is indeed a lion; when caught he is indeed a slave woman!' (Instr.Shur., Adab Segm 2.11; A; 24)

The form ***na-nam*** defies analysis as a regular verbal form but may be explained as a form of the copula ***me*** 'be' containing non-negative {na} twice (cf. Edzard 2003: 120):

(17) ***na-nam***

na -na -m(e)-Ø
PFM-PFM-be -3N.S/3SG.S
'it/he/she surely is/was'

A similarly irregular frozen verbal form occurs three times in the Gudea texts (§25.6). It involves not only a doubling up in the preformatives but also of the verb itself. E.g.:

(18) **ses-*ĝu*$_{10}$ ^{d}nin-*ĝír-su ga-nam-me-àm***
ses =ĝu nin.ĝír.su.k=Ø ga -na -me-Ø =ʔam
brother=my Ningirsu =ABS MOD-PFM-be -3SG.S=be:3SG.S
'He surely was my brother Ningirsu!' (Cyl A 5:17; L; 22)

Both ***na-nam*** and ***ga-nam-me-àm*** have an emphatic function, but to what extent that is due to the presence of non-negative {na} remains unclear.

Some putative attestations of non-negative {na} may in fact not contain this prefix at all, especially so when {na} seems to occur in a subordinate clause. A clear case in point is the frequent form ***na-ab-bé-a*** which regularly features in lists of attestations (e.g., Falkenstein 1942: 186-187; Civil 2000: 38). Without doubt this form is to be analysed as a fusion of ***a-na*** and ***ab-bé-a***, with loss of the initial vowel (see §8.5).

27. THE COMPLEX SENTENCE

27.1. Introduction

A sentence is either simple or complex. A simple sentence consists of a single clause and a complex sentence of two or more clauses. Clauses can be linked together to form a complex sentence either through coordination or through subordination.

Coordination links clauses of equal syntactic status. Clauses linked in this way are called coordinate clauses. They are the topic of §27.2.

Subordination links clauses of unequal syntactic status. One clause, called the subordinate clause, is grammatically dependent upon another clause, the superordinate or main clause. Subordinate clauses are treated in §27.3-§27.6, first according to their formal properties (§27.3) and then according to their functions: subordinate clauses are either relative clauses (§27.4), complement clauses (§27.5), or adverbial clauses (§27.6).

27.2. Coordinate clauses

English coordinate clauses are linked by conjunctions such as *and*, *or*, or *but*. Sumerian coordinate clauses normally lack such conjunctions and are joined together by simple juxta-position. This is clearly brought out by those instances where the coordinate clauses are parts of a larger grammatical unit:

(1) **mu *ba*-gaz é ḫulu-*a* *ì*-me-*a*-*šè***
mu Ø -ba -gaz-Ø é =Ø ḫulu -Ø -ʔa ʔi -me-Ø -ʔa =ak =še
name VP-MM-kill -3SG.S/DO house=ABS destroy-NFIN-NOM VP-be -3N.S-NOM=GEN=TERM
'because (lit. "for the name of that") he had been killed and the estate was destroyed' (MVN 2:2 case 3; L; 21)

(2) **mu lú inim-*ma*-*ke*$_4$-*ne* / inim-*bé* *ba*-kúr lú-IM-*ka* *ba*-*an*-ku$_4$'(ŠU.ŠE)-*ša*-[*šè*]**
mu lú inim =ak =enē=ak inim=be=Ø ba -kúr -Ø
name man word=GEN=PL =GEN word=its=ABS MM-spoil-3N.S/DO

lú.IM.k=ʔa ba -n(i)-ku$_4$.r-eš -ʔa =ak =še
liar =LOC MM-in -enter -3PL.S/DO-NOM=GEN=TERM
'because the witnesses' statement was refuted and they were exposed as liars' (NG 76 6-7; L; 21)

(3) **é kù šu-*na*-*ta*-*àm* *in*-sa$_{10}$-*a* / níĝ-ga du-du *la*-*ba*-*ši*-lá-*a* / *in*-*na*-sa$_6$-*ga* / *nam*-erim$_2$-*àm***
é =Ø kù.g šu =ane=ak =ta =ʔam ʔi -n -sa$_{10}$ -Ø -ʔa =e
house=ABS silver hand=his =GEN=ABL=be.3N.S VP-3SG.A-barter-3N.S/DO-NOM=DIR

níĝ.ga.r du.du=ak =Ø nu =Ø -ba -ši-lá -Ø -ʔa =e
property Dudu =GEN=ABS NEG=VP-MM-to-weigh-3N,S/DO-NOM=DIR

in.na.sa$_6$.ga=Ø nam.erim$_2$=Ø =ʔam
Innasaga =ABS oath =ABS=be.3SG.S
'As for that she had bought the house with her own money and that no property of Dudu had been given in payment for it, Innasaga was the oath-taker.' (NG 99 10-14; L; 21)

(4) **u$_4$ ^{d}inanna-*ra* / eb-gal *mu*-*na*-řú-*a* / é-an-*na* kur-kur-*ra* / *mu*-*na*-diri-*ga*-*a* / kù-sig$_{17}$ [kù]-bar$_6$-bar$_6$-*ra* / [šu] *mu*-*na*-*né*-tag-*ga*-*a***

u_4.d inanna=ra eb.gal=Ø Ø -mu -nna -n -řú -Ø -ʔa =ʔa
day Inanna =DAT Ebgal =ABS VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO-NOM=LOC

é.an.na.k=Ø kur -kur =ʔa
Eanna =ABS mountain-mountain=LOC

Ø -mu -nna -n -diri.g -Ø -ʔa =ʔa kù.sig$_{17}$ kù.bar$_6$.bar$_6$=ʔa
VP-VENT-3SG.IO-3SG.A-exceed-3N.S/DO-NOM=LOC gold silver =LOC

šu =Ø Ø -mu -nna -ni-n -tag -Ø -ʔa =ʔa
hand=ABS VP-VENT-3SG.IO-in-3SG.A-touch-3N.S/DO-NOM=LOC
'when he had built the (temple) Ebgal for the goddess Inanna and had caused the temple Eanna to rise above the mountains for her and had decorated it for her with gold and silver' (En. I 28 1:11-2:2; L; 25)

In these examples, several subordinate clauses of equal status are coordinated without any conjunction or linking feature other than that they are next to each other. That we are really dealing with coordinate clauses follows from the fact that such a sequence of subordinate clauses is necessarily part of a single sentence. As soon as we encounter a similar sequence of *main* clauses, the situation becomes less clear. Take, for instance, example (5) which is an obvious parallel of example (4):

(5) **^{d}inanna-*ra* / eb-gal *mu-na*-řú / é-an-*na* / kur-kur-*ra mu-na*-diri / kù-sig$_{17}$ kù-bar$_6$-bar$_6$-*ra* / šu *mu-na-né*-tag**
inanna=ra eb.gal=Ø Ø -mu -nna -n -řú -Ø
Inanna =DAT Ebgal =ABS VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO

é.an.na.k=Ø kur -kur =ʔa Ø -mu -nna -n -diri.g -Ø
Eanna =ABS mountain-mountain=LOC VP-VENT-3SG.IO-3SG.A-exceed-3N.S/DO

kù.sig$_{17}$ kù.bar$_6$.bar$_6$=ʔa šu =Ø Ø -mu -nna -ni-n -tag -Ø
gold silver =LOC hand=ABS VP-VENT-3SG.IO-in-3SG.A-touch-3N.S/DO
'For the goddess Inanna he built the (temple) Ebgal and caused the temple Eanna to rise above the mountains and decorated it with gold and silver.' (En. I 35 2:9-3:4; L; 25)

It is stylistically attractive to translate this sequence as a series of coordinate clauses, but grammatically the Sumerian shows just a sequence of main clauses, without any linking features other than person markers which refer to persons and things mentioned earlier. Accordingly, a more literal translation of example (5) is 'He built the Ebgal for Inanna. He caused the Eanna to rise above the mountains for her. He decorated it for her with gold and silver.'

Thus, Sumerian main clauses are, as a rule, never grammatically coordinated but simply put together as sequences of independent clauses. Exceptionally, though, the loanword ***ù*** 'and also' (a loan from Akkadian *u* 'and') is used as a conjunction. E.g.:

(6) **PN urdu$_2$ / du$_{11}$-*ga*-zi-*da-ke$_4$* / *ù* ur-^{d}šul-ge-*ke$_4$* / *in*-ba-*a-ne* / *ù* eger *ab-ba-ne-ne* / *ì*-ba-*a-ne***
PN urdu$_2$.d=Ø du$_{11}$.ga.zi.da.k=e ù ur.šul.ge.ra.k=e
PN slave =ABS Dugazida =ERG and Urshulgi =ERG

ʔi -n -ba -enē ù eger ab.ba=anēnē=ak =Ø
VP-3SG.DO-portion.out-3PL.A:IPFV and back father=their =GEN=ABS

ʔi -n -ba -enē

VP-3SG.DO-portion.out-3PL.A:IPFV
'Dugazida and Ur-Shulgi will share the slave PN and they will also share their father's estate.' (NG 7 16-21; L; 21)

In a bilingual inscription of the Old Akkadian king Sargon, the prefix {nga} is used as the Sumerian equivalent of Akkadian *u* 'and', coordinating clauses. This usage of {nga} is restricted to this one text, though, and may not represent actual Sumerian. See chapter 23 for details.

27.3. Subordinate clauses: formal categories

27.3.1. Introduction

A subordinate clause is either finite of non-finite, depending on whether it has a finite verbal form as its predicate or a non-finite one. The present chapter will only treat finite subordinate clauses, while chapter 28 will address the non-finite ones. However, since the two types have closely related uses, there will frequently be crossreferences between the two chapters.

Subordinate copular clauses have some irregular properties and deserve, therefore, their own separate discussion, for which the reader is referred to §29.6.

As to their formal make-up, the finite subordinate clauses of Sumerian can be divided into three main types:

Clauses with a finite verbal form with the relative-past prefix {ʔu} have already been treated in §24.2.

Clauses with subordinating conjunctions are relatively rare in Sumerian. They are discussed in the next section (§27.3.2).

Most subordinate clauses are nominalized clauses. A nominalized clause is a part of a clause or of a noun phrase. It can be used as a noun phrase in its own right, functioning as the subject or object of a clause, expressing a possessor, or having any other syntactic function which a noun phrase can have. Just like any other noun phrase, such a nominalized clause is in the case which is appropriate for the function it performs. Nearly all nominalized clauses include a finite form with the nominalizing suffix {ʔa} (§27.3.3-§27.3.4) but a few of them do not (§27.3.5), while those with the verb **ak** 'do, make' show irregular forms, at least in the spelling (§27.3.6).

27.3.2. Clauses with subordinating conjunctions

Most English subordinate clauses are introduced by conjunctions such as *when*, *that*, or *because*. This type of subordinate clause is quite rare in Sumerian. The texts of our corpus contain only the subordinating conjunctions **u$_4$-*da*** 'if', **tukum-*bé*** 'if', and ***en-na*** 'until'. E.g.:

(7) **tukum-*bé* / kù *nu*-lá *ab*-tab-*bé***
tukum.bé kù.g =Ø nu =ʔi -n -lá -Ø ʔa -b -tab -e
if silver=ABS NEG=VP-3SG.A-weigh-3N.S/DO VP-3N.DO-double-3SG.A:IPFV
'If he does not pay the silver, he will double it (viz. the amount to be paid, as a penalty).'
(NRVN 1:104 9-10; N; 21)

These three conjunctions differ from their English counterparts in word order. English conjunctions are always the first word of the subordinate clause, but although the Sumerian ones

also tend to be in first position, they do not have to be and are often preceded by one or more noun phrases.

Even though all three are without doubt conjunctions, their forms show them to be adverbial expressions in origin. See §27.6.4 for a more detailed discussion of ***en-na*** 'until' and §27.6.6 for **u$_4$-*da*** and **tukum-*bé*** 'if'.

27.3.3. Forms and spellings of the suffix {ʔa} in finite verbal forms

Most finite subordinate clauses have verbal forms with the nominalizing suffix {ʔa} as their predicates (§27.3.4). This suffix is always the last suffix of the finite form. It follows any person suffix but precedes any clitics. Its basic form is /ʔa/, with a final vowel, because the enclitic plural marker {enē) always has its postvocalic form /nē/ if it is attached to it. E.g.:

(8) **kišib lú *a-šà* NN-*šè* / *ba-a-re-eš-a-ne***
kišib lú a.šà.g NN=še ba -ʔer -eš -ʔa =enē=ak
seal man field NN=TERM MM-go:PLUR-3PL.S/DO-NOM=PL =GEN
'sealed documents of the men who went to the ... field' (AUCT 2:105 2-3; D; 21)

(9) **inim ama-*ne-ne* / *nu-ù-ub*-kúr-*ne-a***
inim ama =anēnē=ak =Ø nu =ʔi -b -kúr -enē -ʔa
word mother=their =GEN=ABS NEG=VP-3N.DO-change-3PL.A:IPFV-NOM
'that they would not change the command of their mother' (NG 99 44-45; L; 21)

(10) **še šuku-*řá* / lú amar-ki / ugula / *ba*-ug$_7$-*ge-a-kam***
še šuku.ř =ak lú amar.ki ugula =ak
barley subsistence=GEN man Amarki foreman=GEN

Ø -ba -ʔug$_7$ -eš -ʔa =ak =Ø =ʔam
VP-MM-die:PLUR-3PL.S/DO-NOM=GEN=ABS=be:3N.S
'This is the subsistence barley of Amarki the foreman's men who have died.' (VS 14:39 1:2-5; L; 24)

In example (10) the /š/ of the person suffix {eš} precedes the /ʔ/ of the suffix {ʔa} and is therefore a syllable-final consonant. Accordingly, the spelling ignores it, as it usually does with syllable-final consonants (§2.4). The same phenomenon occurs in the following example:

(11) **sipa ud$_5$-*da-ke$_4$-ne* / *mu*-ře$_6$-*a***
sipa.d ud$_5$ =ak =enē=e Ø -mu -n -ře$_6$ -eš -ʔa
shepherd goat=GEN=PL =ERG VP-VENT-3SG.A-bring-3PL-NOM
'which the goat shepherds brought' (DP 277 6:4-5:1; L; 24)

This basic form /ʔa/ of the nominalizing suffix undergoes certain changes, depending on which sound precedes it. Most importantly, the initial glottal stop of the suffix assimilates to a preceding consonant. Accordingly, the spelling usually represents the suffix after a consonant with a CV-sign for the preceding consonant followed by /a/. After a /b/, for instance, the nominalizing suffix has the form /ba/, written ***ba***. E.g.:

(12) **u$_4$ nibru^{ki} / *in*-dab$_5$-*ba-a***
u$_4$.d nibru =Ø ʔi -n -dab$_5$-Ø -ʔa =ʔa
day Nippur=ABS VP-3SG.A-take -3N.S/DO-NOM=LOC
'when he took Nippur' (MVN 3:1 5:9-10; I; 24)

Such CV-spellings are not used with every consonant to the same extent. They are the norm after most consonants, but after a few consonants they occur more rarely.

After the plain voiceless stops /b/, /d/, and /g/, the suffix {ʔa} is, as a rule, written ***ba***, ***da***, and ***ga*** respectively. E.g.: ***e-na-*****gub-*****ba-am$_6$*** (VS 25:56 1:4; L; 24), ***ba-ta-an-*****dab$_5$-*****ba-a*** (St B 3:11; L; 22), ***ù-ma-da-*****gíd-*****da*** (Cyl B 8:4; L; 22), ***in-*****pà-*****da*** (NG 131 22; L; 21), ***in-*****dú-*****da-a*** (MVN 18:99 3; D; 21), ***mu-na-*****diri-*****ga-a*** (En. I 28 1:14; L; 25), ***e-né-*****sè-*****ga-a*** (FAOS 5/2 Luzag. 1 1:45; N; 24), ***bí-in-*****du$_{11}$-*****ga*** (NG 16 6; L; 21), ***nu-un-*****su-*****ga-a*** (N; 21), ***ba-na-*****zi-*****ga-šè*** (PDT 1:435 4; D; 21).

After the voiceless aspirated stop /k/ both the spellings ***ka*** and ***a*** occur. E.g.: ***e-da-*****ak-*****ka-am$_6$*** (Ukg. 16 8:3; L; 24), ***mu-da-*****lu$_5$-*****ka-am$_6$*** (DP 338 1:4; L; 24) besides ***bé-*****ak-*****a-a*** (DP 251 2:5; L; 24), ***ba-*****ak-*****a-ta*** (UET 9:1370 1:15; Ur; 21).

After the plain voiceless affricate /z/ and the voiceless aspirated affricate /ř/, the spelling is either ***za*** or ***řá***, or it is simply ***a***. E.g.: ***im-*****gaz-*****za-ta*** (Lugal-e 276; OB copy), ***ì-*****ku$_x$-*****řá-a*** (RTC 48 4:4; L; 24), ***e-ta-*****ku$_5$-*****řá*** (Ean. 1 rev 1:28; L; 25) besides ***nu-un-*****gaz-*****a*** (NG 202 14; U; 21), ***al-*****ku$_5$-*****a*** (NATN 293 4; N; 21).

The fricatives present a mixed picture. After /š/ and /ḫ/, the spelling with ***a*** is the most common, but spellings with the CV-signs ***ša$_4$***, ***ša***, or ***ḫa*** are also attested. E.g.: ***ab-da-*****tuš-*****ša$_4$-a*** (VS 27:24 8:2; L; 24), ***ba-*****úš-*****ša$_4$-ta*** (DP 482 6:2; L; 24), ***an-na-*****daḫ-*****ḫa*** (En. I 30 2:6; L; 25), ***ba-an-la-ḫa*** (NG 138 14; U; 21) besides ***ba-*****úš-*****a*** (DP 218 5:7; L; 24), ***ì-*****zàḫ-*****a*** (NG 189 13; U; 21), ***ba-*****zuḫ-*****a-me*** (ITT 3:6225 8; L; 21). After /s/, the situation is exactly the reverse. There, the spelling with ***sa*** is found more frequently than the one with ***a***. E.g.: ***ab-*****ús-*****sa*** (Ukg. 4 11:34; L; 24), ***íb-*****ús-*****sa*** (AUCT 3:233 7; D; 21) besides ***ab-*****ús-*****a*** (NATN 518:8; N; 21).

After the nasals /m/, /n/, and /ĝ/, the spellings ***ma***, ***na***, ***ĝá*** are the norm, but instead of ***ĝá*** the writing ***a*** is also found. E.g.: ***e-na-*****šúm-*****ma-a*** (Ukg. 4 8:4; L; 24), ***ba-*****dím-*****ma*** (RTC 266 25; L; 21), ***in-*****šum-*****ma-šè*** (PDT 1:408 17; D; 21), ***ba-ab-*****túm-*****ma-ta*** (NG 190 59; L; 21), ***mu-da-*****ĝen-*****na-a*** (RTC 19 3:6; L; 24), ***mu-*****niĝin$_2$-*****na-a*** (PDT 2:1170 obv 11; D; 21), ***ba-ni-ge-*****na-šè*** (NG 14 19; L; 21) , ***an-na-*****áĝ-*****ĝá-né*** (En. I 2 3:4; L; 25), ***al-*****áĝ-*****ĝá-a*** (MAD 4:15 3; I; 23) besides ***al-*****áĝ-*****a*** (MVN 3:25 7; I; 23).

After /l/ and /r/, the spelling generally is ***la*** and ***ra***. E.g.: ***mu-*****ti-*****la-a*** (DP 165 2:4; L; 24), ***bí-*****ĝál-*****la-a*** (Cyl A 5:23; L; 22), ***ì-ma-ra-ba-al-la*** (NG 137 2; U; 21), ***ì-*****íl-*****la-ne*** (MVN 3:257 3; D; 21), ***e-me-*****ĝar-*****ra-a*** (DP 447 3:1; L; 24), ***mu-ši-*****bar-*****ra-a*** (St C 2:13; L; 22), ***ì-in-*****ku$_4$-*****ra-a*** (AUCT 3:42 3; D; 21), ***ì-*****tur-*****ra-šè*** (SNAT 325 3; U; 21), ***ba-ze-er-*****ra-šè*** (AUCT 1:321 12; D; 21).

After /ʔ/, the spelling is always ***a***, as the forms of the verbs **bala?** and **lá?** show. E.g.: ***an-da-*****bala-*****a*** (ECTJ 81 4; N; 24), ***ì-na-ta-*****bala-*****a*** (SRU 78a 4; I; 23), ***ba-ni-íb-*****lá-*****a*** (St B 1:16; L; 22), ***in-*****lá-*****a*** (NG 207 8; L; 21).

After a vowel, the nominalizing suffix has the form /ʔa/, which is always written ***a***. E.g.: ***e-*****taka$_4$-*****a-me*** (STH 1:19 10:3; L; 24), ***in-ši-*****sa$_{10}$-*****a*** (NG 45 6; L; 21), ***na-bé-a*** (BIN 8:155 2; I; 23), ***e-ta-*****è-*****a-am$_6$*** (Nik 1:170 3:3; L; 24), ***ì-me-a*** (NG 103 9; L; 21), ***mu-ni-*****gi$_4$-*****a*** (Ean. 69 2:2; L; 25), ***ì-mi-*****si-*****a*** (En. I 29 7:6; L; 25), ***la-ba-ab-*****ti-*****a*** (NG 209 23; N; 21), ***íb-*****gu$_7$-*****a-šè*** (ITT 5:6993 5; L; 21), ***in-da-*****nú-*****a*** (NG 205 22; L; 21), ***ba-an-*****tuku-*****a*** (BIN 9:438 24; I; 21), ***in-*****uru$_4$-*****a*** (NG 213 2; L; 21), ***nu-un-*****zu-*****a*** (SNAT 334 rev 10; U; 21).

Certain spellings suggest that the suffix {ʔa} and the vowel preceding it may undergo changes. Unfortunately, the preceding vowel usually remains hidden behind a word sign, so that its nature nearly always is unknown. Hence, the following remarks will have to remain somewhat sketchy, based as they are on the rare spellings with sound signs.

There are quite a few texts from the Old Babylonian period and later that are written in a non-standard orthography which often substitutes sound signs for word signs. Sadly enough,

these texts do not give us a coherent picture. Some show a general contraction of {ʔa} with the preceding vowel but others rather a general retention of the vowel before the suffix {ʔa}. A text belonging to the first group is MDP 57:1, from Susa, dating from the late Old Babylonian period. It contains the following verbal forms with the suffix {ʔa} (underlined in the reconstructed conventional spellings with word signs which have been added between brackets):

MDP 57:1 1:2, 3:1	***na-ap-pa-a***	(***na-ab-bé-a***)
MDP 57:1 1:3-4	***mu-un-ta-a***	(***mu-un-ř**ú-**a***)
MDP 57:1 3:2	***me-e-ga-na***	(***mu-e-**gi$_4$-**a-na***)
MDP 57:1 3:10	***mu-ši-iq-qa-an-gu***	(***mu-e-ši-**gi$_4$-**a-ĝu$_{10}$***)
MDP 57:1 3:17	***mu-un-da-a***	(***mu-un-**zu-**a***)

All these forms show a contraction of the suffix {ʔa} with the preceding vowel. To what extent such a contraction also took place in earlier periods is difficult to ascertain. I know only one form which seems to show it:

(13) **tukum-*bé* *nu*-su / *íb*-tab-*ba-a***
tukum.bé nu =ʔi -n -su.g -Ø ʔi -b -tab -e -ʔa
if NEG=VP-3SG.A-repay-3N.S/DO VP-3N.DO-double-3SG.A:IPFV-NOM
'that he would double it, if he did not repay it' (NATN 164 7-8; U; 21)

This verbal form is written elsewhere ***ì$^!$-tab-bé-a*** (AUCT 3:319 8; N; 21) and ***íb*-tab-*be$_6$-a*** (BE 3/1:13 tablet 10; N; 21). Since the spelling ***íb*-tab-*ba-a*** is absolutely unique, it does not have much value as evidence. It may be no more than a scribal mistake.

The other group of Old Babylonian texts written largely with sound signs show no contraction at all but rather a full retention of the vowel preceding the suffix {ʔa}. If the preceding vowel is an /e/ or /i/, however, there is a glide instead of a glottal stop. TIM 9:35, for instance, includes the following verbal forms with the suffix {ʔa}:

TIM 9:35 7	***ib-ši-<x>-ĝe$_6$-ia***	(***íb-ši-**áĝ-e-**a***)
TIM 9:35 9	***ib-te-re-ia***	(***íb-ze-re-**a***)
TIM 9:35 14	***im-sa$^!$-re-ia***	(***im*-sar-*re-**a***)
TIM 9:35 17	***ba-an-di-zi-ia***	(***ba-an*-zi-zi-*a***)

All these forms show a retention of the vowel preceding the suffix {ʔa}, with a glide instead of a glottal stop. In this case, too, it is difficult to determine how old such a pronunciation could be. Again, I know only one early form which seems to show it:

(14) **½ *ma-na* kù-babbar / *ì*-lá-*e-è***
½ ma.na kù.babbar=Ø ʔi -lá? -e -ʔa
½ pound silver =ABS VP-weigh-3SG.A:IPFV-NOM
'(U. took an oath) that he would pay silver' (NRVN 1:051 9-10; N; 21)

The spelling ***ì*-lá-*e-è*** represents a form /ʔilaʔeje/, with ***è*** standing for /je/ (§3.8). It not only has a glide instead of a glottal stop but also an assimilation of the /a/ of the suffix to the preceding vowel. This spelling ***ì*-lá-*e-è*** is completely unique and therefore not very decisive as evidence. Elsewhere, the same form is written ***ì*-lá-*e-a*** (AnOr 12 p. 104:6 rev 1 & YOS 4:7 12; U; 21).

While it remains uncertain how old the pronunciation with a glide instead of a glottal stop is, it is, for the rest, quite likely that the vowel preceding the suffix {ʔa} was still generally retained in the period of our text corpus. This follows from the few contemporary spellings with sound signs. E.g.:

(15) ***mu*-túm-*mu-a***
Ø -mu -n -túm -e -ʔa
VP-VENT-3SG.DO-bring-3SG.A:IPFV-NOM
'that he would bring him' (e.g., NG 190 69; L; 21)

(16) **inim *nu-un-ĝá-ĝá-ne-a***
inim =Ø nu =ʔi -n -ĝar:RDP -enē -ʔa
word=ABS NEG=VP-3SG.OO-place:IPFV-3PL.A:IPFV-NOM
'that they would not place a claim on him' (RA 71 p. 126 3:9; N; 21)

(17) **lú *íb-ze-re-a***
lú ʔi -b -ze.r -e -ʔa
man VP-3N.DO-break-3SG.A:IPFV-NOM
'the man who will destroy it' (St B 8:10; L; 22)

Note that this last verbal form is written ***ib-te-re-ia*** in the Old Babylonian text mentioned earlier (TIM 9:35 9; Tell Harmal; OB).

Thus, in the texts of our corpus, the vowel preceding the nominalizing suffix {ʔa} is generally retained. There is one exception, though. Under certain circumstances, the vowel of the person suffix {e} may be reduced before the nominalizing suffix {ʔa}. E.g.:

(18) ***nu-ub*-kúr-*a***
nu =ʔi -b -kúr -e -ʔa
NEG=VP-3N.DO-change-3SG.A:IPFV-NOM
'that he would not change it' (AUCT 1:580 6; ?; 21)

For more details about this phenomenon, see §14.10.

Between a vowel and the locative case marker {ʔa}, the nominalizing suffix {ʔa} contracts with either the preceding vowel or the case marker. Unfortunately, the available evidence does not make clear with which one of the two. The phenomenon is already attested in the Old Sumerian texts from Lagash. Compare, for instance, the following three forms occurring consecutively in the same text:

(19) **u_4 ... *mu-na*-řú-*a* ... *mu-na*-diri-*ga-a* ... [šu] *mu-na-né*-tag-*ga-a***
u_4.d Ø -mu -nna -n -řú -Ø -ʔa =ʔa
day VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO-NOM=LOC

Ø -mu -nna -n -diri.g -Ø -ʔa =ʔa
VP-VENT-3SG.IO-3SG.A-exceed-3N.S/DO-NOM=LOC

šu =Ø Ø -mu -nna -ni-n -tag -Ø -ʔa =ʔa
hand=ABS VP-VENT-3SG.IO-in-3SG.A-touch-3N.S/DO-NOM=LOC
'when he had built (the Ibgal) for (Inanna), when he had caused (the Eanna) to rise above (the mountains), when he had decorated it (with gold and silver)' (En. I 28 1:11-2:2; L; 25)

After a vowel (***mu-na*-řú-*a***) the spelling ***-a*** is found but after a consonant (***mu-na*-diri-*ga-a*** and ***mu-na-né*-tag-*ga-a***) the spelling *-Ca-a* (C being the consonant preceding the nominalizing suffix). This spelling rule has few exceptions. E.g.:

(20) **en-ig-gal / *nu*-$banda_3$ / íd súr-du_7-*řá* / al *ì-mi*-řú-*a-a***
en.ig.gal nu.$banda_3$=e íd súr.du_7.ř=ʔa al =Ø
Eniggal overseer =ERG river falcon =LOC hoe=ABS

ʔi -m(u) -bi -n -řú -Ø -ʔa =ʔa
VP-VENT-3N:on-3SG.A-erect-3N.S/DO-NOM=LOC
'when Eniggal the overseer had dug the Falcon Canal' (DP 480 1:3-2:2; L; 24)

Such full spellings with ***-a-a*** after a vowel are really exceptional, though. Spellings with a single ***-a*** are the norm, also after the Old Sumerian period. E.g.:

(21) **bara$_2$-*nam*-tar-*ra* / siki *e*-ba-*a***
bara$_2$.nam.tar.ra=e siki =Ø ʔi -n -ba -Ø -ʔa =ʔa
Baranamtarra =ERG wool=ABS VP-3SG.A-portion.out-3N.S/DO-NOM=LOC
'when Baragnamtara distributed the wool' (Nik 1:149 1: 2-3; L; 24)

(22) **eren$_2$-*e* ninda *ì*-gu$_7$-*a***
eren$_2$ =e ninda=Ø ʔi -b -gu$_7$-Ø -ʔa =ʔa
troops=ERG bread=ABS VP-3N.A-eat -3N.S/DO-NOM=LOC
'when the troops ate bread' (BIN 8:326 3; U; 23)

(23) **u$_4$ é ^{d}nin-*ĝír-su-ka* / *mu*-řú-*a***
u$_4$.d é nin.ĝír.su.k=ak =Ø Ø -mu -n -řú -Ø -ʔa =ʔa
day house Ningirsu =GEN=ABS VP-VENT-3SG.A-erect-3N.S/DO-NOM=LOC
'when he built Ningirsu's temple' (St B 5:21-22; L; 22)

(24) **u$_4$ lugal-*ra* kaš *in-na-ni*-dé-*a***
u$_4$.d lugal=ra kaš =Ø ʔi -nna -ni-n -dé -Ø -ʔa =ʔa
day king =DAT beer=ABS VP-3SG.IO-in-3SG.A-pour-3N.S/DO-NOM=LOC
'when he poured beer for the king' (PDT 1:476 3; D; 21)

Even though the details of what happens are still unknown, it is clear that in these forms an original sequence of three syllables (/Vʔaʔa/) has been reduced to one of two syllables.

In a sequence of coordinate nominalized clauses, the last finite form always contains the nominalizing suffix {ʔa}, but the preceding forms may lack it (Wilcke 1990a: 464-470). E.g.:

(25) **mu *ba*-gaz é ḫulu-*a* *ì*-me-*a-šè***
mu Ø -ba -gaz-Ø é =Ø ḫulu -Ø -ʔa ʔi -me-Ø -ʔa =ak =še
name VP-MM-kill -3SG.S/DO house=ABS destroy-NFIN-NOM VP-be -3N.S-NOM=GEN=TERM
'because he had been killed and the estate was destroyed' (MVN 2:2 case 3; L; 21)

(26) **mu PN$_1$ ses PN$_2$ gudu$_4$ *ba*-úš / ì-bí-la nu-ù-tuku-a-šè**
mu PN$_1$ ses PN$_2$ gudu$_4$.g=ak =Ø Ø -ba -ʔúš-Ø
name PN$_1$ brother PN$_2$ priest =GEN=ABS VP-MM-die -3SG.S/DO

ì.bí.la=Ø nu =ʔi -n -tuku-Ø -ʔa =ak =še
heir =ABS NEG=VP-3SG.A-have -3SG.S/DO-NOM=GEN=TERM
'because PN$_1$, the brother of PN$_2$, the priest, died and had no heir' (NG 80 13-14; L; 21)

(27) **mu ^{d}šul-pa-è-ses / igi-[*né*] *in-ne*-sì *bí-né-eš* / ^{d}šul-pa-è-ses ki-*ba* *nu-ù*-gub-*ba-šè***
mu šul.pa.è.ses=e igi =ane=Ø ʔi -nnē -n -sì.g-Ø
name Shulpaeses =ERG eye=his =ABS VP-3PL.IO-3SG.A-set -3N.S/DO

bi -n -ʔe -eš šul.pa.è.ses=Ø
3N.OO-3SG.A-say:PLUR-3PL Shulpaeses =ABS

ki =bé =ʔa nu =ʔi -b(i) -gub -Ø -ʔa =ak =še
place=this=LOC NEG=VP-3N:on-stand-3SG.S/DO-NOM=GEN=TERM

'because they said "Shulpaeses saw them", but Shulpaeses had not been present there' (NG 84 14-15; L; 21)

27.3.4. Nominalized clauses with the suffix {ʔa}

The overwhelming majority of finite subordinate clauses are nominalized clauses that have verbal forms with the nominalizing suffix {ʔa} as their predicates. They can be divided into two main types. One type consists of nominalized clauses with basically the same meanings as independent clauses, expressing actions or states with their participants and circumstances. Grammatically, they behave like nouns, taking the case markers that belong to the syntactic functions they perform. The nominalized clauses of this type will be called content clauses. They can often be translated with English *that*-clauses but not always, because Sumerian content clauses have a much wider range of uses than English *that*-clauses. E.g.:

(28) **ensi$_2$ / é-mí-*a* / *mu*-ti-*la-a* / é-mí-*šè* / *ba*-ře$_6$**
ensi$_2$.k=Ø é.mí=ʔa Ø -mu -n(i)-ti.l -Ø -ʔa =ʔa é.mí=še
ruler =ABS Emi =LOC VP-VENT-in -live-3SG.S/DO-NOM=LOC Emi =TERM

Ø -ba -ře$_6$ -Ø
VP-MM-bring-3N.S/DO
'When the ruler stayed in the Emi, this was brought to the Emi.' (DP 164 3:5-9; L; 24)

This complex sentence contains the nominalized clause **ensi$_2$ é-mí-*a* *mu*-ti-*la-a***, which is in the locative case and means literally something like 'in that the ruler lived in the Emi'. It functions as a time adjunct in the main clause. Content clauses can be used as complement clauses (§27.5) or as adverbial clauses (§27.6).

While content clauses express actions or states, other nominalized clauses refer to participants involved in an action or state. Such clauses make up the second main type of nominalized clauses. They behave grammatically like adjectives. They have the same function as English relative clauses. Accordingly, such nominalized clauses will be called relative clauses. The participant to which the relative clause refers is usually present in the form of a head noun which precedes the relative clause. E.g.:

(29) **udu *gáb*-ús-*e* *ba-an-la-ḫa***
udu gáb.ús =e Ø -ba -n -la.ḫ -Ø -ʔa
sheep assistant.shepherd=ERG VP-MM-3SG.A-bring:PLUR-3N.S/DO-NOM
'the sheep which the assistant shepherd drove off' (NG 138 14; U; 21)

Such relative clauses, with an explicit head noun, are the topic of section §27.4.1.

The use of an explicit head noun is not obligatory and a relative clause may also be used independently. Such a relative clause, which lacks an explicit head noun, will be called a headless relative clause. This type of relative clause can usually be translated into English as 'the one who ...', 'what ...', or the like. E.g.:

(30) **^{d}nin-*ĝír-sú-ke$_4$* iri-ka-ge-*na-da* *e-da*-du$_{11}$-*ga-a* šu *nu-dì-ni*-bala-*e***
nin.ĝír.su.k=e iri.ka.ge.na.k=da ʔi -n -da -n -du$_{11}$.g-Ø -ʔa =ʔa
Ningirsu =ERG Irikagena =COM VP-3SG-with-3SG.A-say -3N.S/DO-NOM=LOC

šu =Ø nu =ʔi -n -da -ni-b -balaʔ-e
hand=ABS NEG=VP-3SG-with-in -3N.DO-cross -3SG.A:IPFV

'*What Ningirsu has agreed with Irikagena* he will not change with him (lit. "he will not let the hand cross into").' (Ukg. 34 1; L; 24)

Section §27.4.2. deals with the headless relative clauses.

27.3.5. Nominalized clauses without the suffix {ʔa}

The nominalizing suffix {ʔa} is also used with numerals, adjectives, and non-finite verbal forms (see chapter 31). All of them have a productive contrast between forms with and without {ʔa}. Such a contrast is less clear for the finite verbal forms, although there is ample evidence showing that it once existed. That is to say, our corpus contains examples of nominalized clauses without the nominalizing suffix {ʔa}, but they are too rare to be more than frozen expressions. Nonetheless, exactly the same basic uses are attested as for nominalized clauses with the suffix {ʔa}: nominalized clauses without the suffix {ʔa} can be content clauses and (headless) relative clauses.

The number of content clauses is very small. I know just one construction, a kind of circumstantial clause, with the stative verb **zu** 'know'. It is attested two or three times in Lagash texts from the Ur III period:

(31) **mu du$_{11}$-*ga-né-*zi-*da* / *ab-ba-né* ama-*né nu-ù-zu-bé* / níĝ-^{d}*ba-ú ab-ba ḫa-la-*^{d}*ba-ú-ke$_4$* / mu lugal *ba-ni-*pà-*da-šè***
mu du$_{11}$.ga.né.zi.d=ak ab.ba=ane ama =ane=e
name Duganizi =GEN father=his mother=his =ERG

nu =ʔi -n -zu -eš =be=e níĝ.ba.ú ab.ba ḫa.la.ba.ú=ak =e
NEG=VP-3SG.A-know-3PL=its=DIR Nig.Bau father Hala.Bau =GEN=ERG

mu lugal=ak =Ø Ø -ba -nni -n -pà.d-Ø -ʔa =ak =še
name king =GEN=ABS VP-MM-3SG.OO-3SG.A-find -3N.S/DO-NOM=GEN=TERM
'because (lit. "for the name of that") Nig-Bau, the father of Hala-Bau, had let him (= Duganizi) take an oath for him (=Nig-Bau) by the king's name while Duganizi's father and mother did not know about this' (NG 15 13; L; 21)

(32) **ur-^{d}lama$_3$ dam-*e nu-ù-*zu-*bé* / lú-kúr *in-da-*nú-*a***
ur.lama$_3$ dam =e nu =ʔi -n -zu -Ø =be=e
Urlama husband=ERG NEG=VP-3SG.A-know-3N.S/DO=its =DIR

lú.kúr =Ø ʔi -n -da -nú-Ø -ʔa
stranger=ABS VP-3SG-with-lie -3SG.S/DO-NOM
'that a stranger had slept with her without Ur-Lama, (her) husband, knowing it' (NG 205 21-22; L; 21)

A possible third attestation of the form ***nu-ù-*zu-*bé*** is unfortunately in a broken context (NG 162 3:2'; L; 21). The enclitic pronoun ***-bé*** in this construction refers back to the pronominal direct object of the verb **zu** 'know' but also refers forward to the specification of that direct object by the following clause.

The Old Sumerian texts from Lagash provide us with a unique example of a relative clause:

(33) **an-*ta-*sur-*ra* / é *me-lám-bé* kur-kur-*ra a*-dul$_5$**
an.ta.sur.ra é me.lám =be=Ø kur -kur =ʔa ʔa-b(i) -dul$_5$ -Ø
Antasurra house radiance=its=ABS mountains-mountains=LOC VP-3N:on-cover-3N.S/DO

'the Antasurra, the temple whose radiance covers the mountain lands' (Ent. 8 6:1-2 = Ent. 23 39-40; L; 25)

Headless relative clauses as such do not seem to occur, but there are quite a few nouns that are headless relative clauses in origin. Take, for instance, the noun ***ma-an-*sim** 'sieve' (e.g., TROM 2:388 2-4; U; 21), which has the following etymology:

(34) ^{ge}***ma-an-*sim**
Ø -ma -n(i)-sim -Ø
VP-1SG.IO-in -sieve-3N.S/DO
'one in which it is sieved for me'

A further example is the noun ***ba-*úš** 'dead one', which occurs frequently in the Ur III texts. E.g.:

(35) **ti-*la* *ba-*úš-*šè* (…) *nu-ù-ši-*gíd-*da***
ti.l -Ø -ʔa =Ø ba.úš =še nu =ʔi -b -ši-n -gíd -Ø -ʔa
live-NFIN-NOM=ABS dead.one=TERM NEG=VP-3N-to-3SG.A-register-3N.S/DO-NOM
'that he had not registered a living person as a dead one' (BM 22859 4:10; L; 21)

Its etymology is likewise a headless relative clause:

(36) ***ba-*úš**
Ø -ba -ʔúš-Ø
VP-MM-die -3SG/3N.S/DO
'one who has died'

See §6.6.2 for many other such nouns.

27.3.6. Nominalized clauses with the verb ak 'do, make'

If a nominalized clause has a finite form of the verb **ak** 'do, make' as its predicate, that form generally lacks the nominalizing suffix {ʔa}, not only before the locative case marker but also in other forms. E.g.:

(37) **gurum$_2$ áb *mu-*ak-*a***
gurum$_2$ áb =ak =Ø Ø -mu -n -ʔak -Ø -ʔa =ʔa
inventory cow=GEN=ABS VP-VENT-3SG.A-make-3N.S/DO-NOM=LOC
'when he made the inventory of the cows' (VS 14:89 6:3; L; 24)

(38) **mu ur-mes-*e* sa-gaz *in-na-*ak-*šè***
mu ur.mes=e sa.gaz =Ø ʔi -nna -n -ʔak -Ø -ʔa =ak =še
name Urmes =ERG robbery=ABS VP-3SG.IO-3SG.A-make-3N.S/DO-NOM=GEN=TERM
'because Urmes had robbed him' (NG 42 5; L; 21)

The following clause contains one of the very few exceptions where the suffix {ʔa} is present:

(39) **eger$_5$ níĝ-ka$_9$ é lugal-má-gur$_8$-*re* *ba-*ak-*a-ta***
eger$_5$ níĝ.ka$_9$ é lugal.má.gur$_8$.re=ak =ak =Ø
back account house Lugalmagurre =GEN=GEN=ABS

Ø -ba -ʔak -Ø -ʔa =ak =ta
VP-MM-make-3N.S/DO-NOM=GEN=ABL

'after the account about Lugalmagurre's estate had been made' (UET 9:1370 1:15; Ur; 21)

This almost general absence of the suffix {ʔa} from finite forms is only found with the verb **ak** 'make'. The reason for the irregular behaviour of only this one verb is as yet unclear, but note that its non-finite forms show the same irregularity (§28.7).

27.4. Finite relative clauses

27.4.1. Relative clauses with an explicit head noun

If a nominalized clause is used as a relative clause, it always follows its head noun if such a noun is present. (Constructions without an explicit head noun are treated in the next section.) There are no relative pronouns. As a rule, the same person markers that always express a given grammatical function in a clause are also used to indicate the function of the head noun in the relative clause. Because a relative clause is a part of a noun phrase, the case marker and any other phrase-final clitics belonging to the head noun follow the relative clause (§5.2). E.g.:

(40) **alan lú é ^{d}*ba-ú mu*-řú-*a-kam***
alan lú é ba.ú=ak =Ø Ø -mu -n -řú -Ø -ʔa =ak =Ø =ʔam
statue man house Bau=GEN=ABS VP-VENT-3SG.A-erect-3N.S/DO-NOM=GEN=ABS=be:3N.S
'This is the statue of the man who built the temple of Bau.' (St E 9:6-8; L; 22)

This copular clause contains the noun phrase **lú é ^{d}*ba-ú mu*-řú-*a-k*** 'of the man who built the temple of Bau'. This phrase consists of the head noun **lú** 'man' in the genitive case and the nominalized clause **é ^{d}*ba-ú mu*-řú-*a*** 'he built the temple of Bau'. The final person-prefix {n} in that clause refers back to the head noun **lú**, thus indicating the grammatical function of the head noun in the relative clause.

The head noun can perform a large variety of grammatical functions in the relative clause. Which function it performs is indicated by a person marker which is coreferential with the head noun. This person marker is always the initial person-prefix prefix, final person-prefix, person suffix, or enclitic pronoun which is always used to express the grammatical function in question. The head noun can, for instance, function as the transitive subject of the relative clause:

(41) **lú še-ba e-taka$_4$-a**
lú še.ba =Ø ʔi -b -taka$_4$-Ø -ʔa
man barley.ration=ABS VP-3N.A-leave -3N.S/DO-NOM
'persons who left barley rations behind' (STH 1:19 9:1; L; 24)

(42) **ensi$_2$ inim *bí-íb*-gi$_4$-gi$_4$-*a***
ensi$_2$.k inim =Ø Ø -bi -b -gi$_4$:RDP -e -ʔa
ruler word=ABS VP-3N:on-3N.DO-turn:IPFV-3SG.A:IPFV-NOM
'the ruler who revokes the command on this' (St B 1:13-14; L; 22)

(43) **lú é ^{d}nanna *in*-řú-*a***
lú é nanna=ak =Ø ʔi -n -řú -Ø -ʔa
man house Nanna=GEN=ABS VP-3SG.A-erect-3N.S/DO-NOM
'the man who built the temple of Nanna' (FAOS 9/2 Urnammu 1 3-4; Ur; 21)

The head noun can also be the intransitive subject of the relative clause:

(44) **ĝiš tir abbar^{ki}-*ka* / *ì*-gub-*ba***
ĝiš tir abbar=ak =ʔa ʔi -n(i)-gub -Ø -ʔa
wood forest Abbar=GEN=LOC VP-in -stand-3N.S/DO-NOM
'trees which stood in the forest of Abbar' (VS 14:178 3:2-3; L; 24)

(45) **u$_4$ ki-šár-*ra ma-ra-ta*-è-*a***
u$_4$.d ki.šár =ʔa Ø -mu -ra -ta -e -ʔè -Ø -ʔa
day horizon=LOC VP-VENT-2SG.IO-from-on-go.out-3N.S/DO-NOM
'the light that came forth for you on the horizon' (Cyl A 5:19; L; 22)

(46) **mu *ab*-ús-*sa***
mu ʔa-b -ʔús -Ø -ʔa
year VP-3N.OO-be.next.to-3N.S/DO-NOM
'the year that follows it' (NATN 109 15; N; 21)

The head noun can be the direct object of the relative clause:

(47) **é lú-IGI.LAGAB / sagi-*ne* *ì*-řú-*a-a***
lú.IGI.LAGAB sagi =enē=e ʔi -n -řú -eš -ʔa =ʔa
notable cupbearer=PL =ERG VP-3SG.A-erect-3PL-NOM=LOC
'in the room which the notables and cupbearers built' (Nik.1:286 3:5-4:1; L; 24)

(48) **inim ^{d}nanše-*e* *mu-na*-du$_{11}$-*ga-aš***
inim nanše =e Ø -mu -nna -n -du$_{11}$.g-Ø -ʔa =š(e)
word Nanshe=ERG VP-VENT-3SG.IO-3SG.A-do -3N.S/DO-NOM=TERM
'to the words which Nanshe had spoken to him' (Cyl A 7:11; L; 22)

The head noun can be the indirect object of the relative clause:

(49) **šu-*né-al*-dugud / gal-kinda$_2$ / *nam-nu*-banda$_3$ é-šà-*ga* / *an-na*-daḫ-*ḫa***
šu.né.al.dugud gal.kinda$_2$ nam.nu.banda$_3$ é.šà.g =ak =Ø
Shune'aldugud chief.barber overseership Inner.Room=GEN=ABS

ʔa -nna -daḫ-Ø -ʔa
VP-3SG.IO-add -3N.S/DO-NOM
'Shune-aldugud, the chief barber, who also holds the position of overseer over the Inner Room (lit. "for whom the position … is added")' (En. I 30 2:3-6; L; 25)

The head noun can also perform various adverbial functions in the relative clause:

(50) **gur$_4$-gur$_4$ kù luḫ-*ḫa* ì iti-*da* ^{d}nin-ĝír-sú-*ke$_4$* *ab-ta*-gu$_7$-*a***
gur$_4$.gur$_4$ kù.g luḫ -Ø -ʔa =ak ì iti.d =ak =Ø
vessel silver purify-NFIN-NOM=GEN oil month=GEN=ABS

nin.ĝír.sú.k=e ʔa -b -ta -gu$_7$-e -ʔa
Ningirsu =ERG VP-3N-from-eat -3SG.A:IPFV-NOM
'the vessel of purified silver from which Ningirsu consumes the monthly fat' (Ent. 34 15; L; 25)

(51) **kiri$_6$ ^{d}*ba-ú* / ur-^{d}nin-ĝír-su / dumu é-ku$_4$ / *ab-da*-tuš-*a***
kiri$_6$ ba.ú=ak ur.nin.ĝír.su.k dumu é.ku$_4$=ak =Ø
orchard Bau=GEN Urningirsu son Eku =GEN=ABS

ʔa -b -da -tuš-Ø -ʔa =ʔa
VP-3N-with-sit -3SG.S/DO-NOM=LOC
'In the orchard of Bau in (lit. "with"') which Urningirsu the son of Eku is on duty, Enigal the overseer counted them.' (DP 419 8:2-5; L; 24)

(52) **ki ME-silim-*e* / na *bí*-řú-*a***
ki ME.silim=e na =Ø Ø -bi -n -řú -Ø -ʔa
place Mesilim =ERG stone=ABS VP-3N:on-3SG.A-erect-3N.S/DO-NOM
'the place where Mesilim had set up stelas' (Ean. 6 4:16-17; L; 25)

The head noun can also function as a possessor in the relative clause:

(53) **zi-*da* gabu$_2$-*na* piriĝ *ì*-nú-nú-*a***
zi.d -Ø -ʔa gabu$_2$=ane=ʔa piriĝ=Ø ʔi -b(i) -nú-nú-Ø -ʔa
be.right-NFIN-NOM left =his =LOC lion =ABS VP-3N:on-lie -lie -3N.S/DO-NOM
'on whose right and left lions were laying' (Cyl A 5:16; L; 22)

(54) **lú 3 šuku-*bé ì*-lá-*a***
lú 3 šuku.ř =be=Ø ʔi -lá -Ø -ʔa =e
man 3 prebend=its =ABS VP-be.short-3N.S/DO-NOM=ERG
'the three men whose prebends fall short' (ergative) (NG 215 5; U; 21)

Thus, a relative clause, as a rule, contains a normal person marker that is coreferential with the head noun and that makes clear which grammatical function the head noun has in the relative clause. Some relative clauses, however, contain an interrogative pronoun instead of such a person marker. The interrogative pronoun ***a-na*** 'what' has then the meaning 'whatever' and ***a-ba*** 'who' 'whoever':

(55) **á-áĝ-*ĝá a-šà-ga* / *a-na bí*-du$_{11}$-*ga***
á.áĝ.ĝá a.šà.g=ak a.na =Ø Ø -bi -ʔ -du$_{11}$.g-Ø -ʔa
order field =GEN what=ABS VP-3N.OO-1SG.A-say -3N.S/DO-NOM
'the orders about the field, whichever I gave' (TCS 1:109 14-15; ?; 21)

For more examples and details, see §8.5.

Certain clauses with ***en-na*** 'until' are related in meaning to such relative clauses with ***a-na*** 'whatever' (cf. Attinger 1993: 305). Although ***en-na*** 'until' is normally used as a temporal subordinator (§27.6.4), it is also found in relative clauses with a meaning 'as much as, as many as' (lit. 'up to what …'):

(56) **še-numun ur-^{d}kuš$_7$-^{d}*ba-ú-ke$_4$* / *en-na* gù *ba*-dé-*a***
še.numun ur.kuš$_7$.ba.ú.k=e en.na gù =Ø ba -dé -e -ʔa
seed.barley Ur.Kush.Bau =ERG until voice=ABS 3N.IO-pour-3SG.A:IPFV-NOM
'seed barley, as much as Ur-Kush-Bau calls for' (AuOr 17-18,218 1 4-5; L; 21)

(57) **eren$_2$ (…) še *nu*-tuku / ur-^{d}ĝá-tùm-du$_{10}$-*ke$_4$* / *en-na íb-bé-a***
eren$_2$ še =Ø nu =tuku-Ø ur.ĝá.tùm.du$_{10}$.k=e
labourer barley=ABS NEG=have -NFIN Ur.Gatumdu =ERG

en.na ʔi -b -ʔe -e -ʔa
until VP-3N.OO-say:IPFV-3SG.A:IPFV-NOM
'the labourers having no barley, as many as Ur-Gatumdu says (there are)' (TCS 1:141 3-5; L; 21)

See §28.3.5 for a non-finite example of this construction.

Nearly all attested relative clauses are restrictive, limiting the reference of their head nouns.[1] Consider for the difference between restrictive and non-restrictive relative clauses the following two English sentences:

(a) *The farmers who protested against the new law were arrested*

(b) *The farmers, who protested against the new law, were arrested*

Sentence (a) illustrates the use of a restrictive relative clause. It states that only some of the farmers were arrested, viz. those who protested. Sentence (b) contains a non-restrictive relative clause, which does not restrict the reference of its head noun but only gives more information about it. Sentence (b) states that all farmers were arrested.

Thus, most relative clauses are restrictive. Yet, the few non-restrictive relative clauses that do occur show that either usage, restrictive and non-restrictive, is possible. There are, for example, relative clauses after proper nouns. A name always refers to a unique person or thing, so that its reference cannot be restricted. Accordingly, a relative clause with a proper noun as its head noun is, as a rule, non-restrictive. E.g.:

(58) **^{d}suen-bur-šu$_4$ / gukkal-*šè* *im-ši*-ĝen-*na***
suen.bur.šu$_4$ gukkal =še ʔi -m(u) -ši-ĝen-Ø -ʔa
Suen.bursh fat.tailed.sheep=TERM VP-VENT-to-go -3SG.S/DO-NOM
'Suen-bursh, who came for fat-tailed sheep' (RTC 378 4-5; L; 21)

(59) **^{d}šul-gi-zi-*ĝ*[*u$_{10}$*] / túg-*šè* *im-ši*-ĝen-*na***
šul.gi.zi.ĝu$_{10}$ túg =še ʔi -m(u) -ši-ĝen-Ø -ʔa
Shulgizimu cloth=TERM VP-VENT-to -go -3SG.S/DO-NOM
'Shulgizimu, who came for cloth' (MVN 16:857 obv 2-3; U; 21)

While relative clauses as such can be either restrictive or non-restrictive, there is a special appositive construction that is explicitly non-restrictive. It is attested in strings of appositions. E.g.:

(60) **diĝir gù-dé-*a* / ensi$_2$ / lagas^{ki} / lú é-an-*na* / *in*-řú-*a-kam***
diĝir gù.dé.a ensi$_2$.k lagas =ak
god Gudea ruler Lagash=GEN

lú é.an.na=Ø ʔi -n -řú -Ø -ʔa =ak =Ø =ʔam
man Eanna =ABS VP-3SG.A-erect-3N.S/DO-NOM=GEN=ABS=be:3SG.S
'He is the god of Gudea, the ruler of Lagash, (the man) who built the Eanna.' (St C 1:2-6; L; 22)

(61) **šu-ga-lam ki ḫuš ki di-ku$_5$-*ne* / ki ^{d}nin-ĝír-su-*ke$_4$* kur-kur-*ra* igi *mi-ni*-ĝál-*la-šè***
šu.ga.lam ki ḫuš ki di.ku$_5$.ř=enē=ak ki nin.ĝír.su.k=e
Shugalam place fierce place judge =PL =GEN place Ningirsu =ERG

kur -kur =ʔa igi =Ø Ø -mu -ni-n -ĝál -Ø -ʔa =še
mountains-mountains=LOC eye=ABS VP-VENT-in-3SG.A-be.there-3N.S/DO-NOM=TERM
'towards the Shugalam, the fierce place, the place of the judges, the place where Ningirsu keeps an eye on the mountain lands' (Cyl A 8:6-7; L; 22)

[1] Huber (2000: 102-109) is the ground-breaking study of Sumerian restrictive and non-restrictive relative clauses.

Such appositions functioning as non-restrictive relative clauses consist of restrictive relative clauses with head nouns that have a rather general meaning, such as **lú** 'man', **ki** 'place', and **é** 'house'.

A phrase-final clitic that belongs to the head noun follows the relative clause. This is not only true of case markers but equally applies to enclitic pronouns. Thus, a possessive pronoun attached to a nominalized verbal form expresses the possessor of the head noun:

(62) **dim an-*né mu*-řú-*a-bé***
dim an=e Ø -mu -n -řú -Ø -ʔa =be
pole An=ERG VP-VENT-3SG.A-erect-3N.S/DO-NOM=its
'its pole (viz. of the temple) which An erected' (Cyl frgm. 2 2':3'; L; 22)

(63) **udu é-du$_6$-*la ba-ab-la-ḫa-na***
udu é.du$_6$.la=e Ø -ba -b -laḫ$_5$ -Ø -ʔa =ane=ak
sheep estate =ERG VP-MM-3N.A-bring:PLUR-3N.S/DO-NOM=his =GEN
'of his sheep that the estate carried off' (SET 63 78; D; 21)

Often such a possessive pronoun is coreferential with a participant occurring in the relative clause, usually with the subject:

(64) **šul zi lú igi *mu*-bar-*ra-zu***
šul zi.d lú igi =Ø Ø -mu -e -bar -Ø -ʔa =zu =r(a)
young.man right man eye=ABS VP-VENT-2SG.A-direct-3N.S/DO-NOM=your=DAT
'for the righteous young man at whom you look' (Cyl A 3:5; L; 22)

(65) ***a-šà in*-dab$_5$-*ba-na***
a.šà.g ʔi -n -dab$_5$-Ø -ʔa =ane=ʔa
field VP-3SG.A-seize -3N.S/DO-NOM=his =LOC
'on to the field which he has seized' (TCS 1:229 7; L; 21)

(66) ***su-su* lugal-é-maḫ-*e in-ni-ĝá-ra-ĝu$_{10}$***
su.g:RDP-ed -Ø lugal.é.maḫ.e=r(a) ʔi -nni -ʔ -ĝar -Ø -ʔa =ĝu
repay:IPFV-IPFV-NFIN Lugalemahe =DAT VP-3SG.OO-1SG.A-place-3N.S/DO-NOM=my
'the ones to be paid back to me which I placed (as an obligation) upon Lugalmahe' (TCS 1:72 8; U; 21)

(67) **é ur-^{d}*ba-ú-ke$_4$* / ^{ĝiš}kiri$_6$-*šè ba-an*-gub-*ba-né***
é ur.ba.ú.k=e kiri$_6$ =še Ø -ba -n -gub -Ø -ʔa =ane
house Ur.Bau =ERG orchard=TERM VP-MM-3SG.A-stand-3N.S/DO-NOM=his
'the house-plot of Ur-Bau that he had planted for himself as an orchard' (NG 108 19-20; L; 21)

The possessive pronoun can also be coreferential with another participant than the subject of the relative clause, though:

(68) ^{ĝiš}**dúr-ĝar lú *mu-na*-ře$_6$-*a-né***
dúr.ĝar lú =e Ø -mu -nna -n -ře$_6$ -Ø -ʔa =ane
throne man=ERG VP-VENT-3SG.IO-3SG.A-bring-3N.S/DO-NOM=his
'his throne which one had brought to him' (St B 9:10; L; 22)

(69) **níĝ maš ĝi$_6$-*ke$_4$* *ma-ab*-ře$_6$-*a-ĝá***
níĝ maš ĝi$_6$ =ak =e Ø -ma -b -ře$_6$ -Ø -ʔa =ĝu =ak
thing omen night=GEN=ERG VP-1SG.IO-3N.A-bring-3N.S/DO-NOM=my=GEN

'of the thing that the omen of the night brought me' (Cyl A 1:27; L; 22)

For non-finite relative clauses see §28.2.3, §28.3.3, and §28.4.3.

27.4.2. Headless relative clauses

A nominalized clause used as a relative clause may lack a head noun. Such a headless relative clause differs in its external syntax from a relative clause with a head noun. A headed relative clause is grammatically dependent on its head noun and, therefore, a part of a noun phrase. A headless relative clause, though, makes up a noun phrase in its own right. Accordingly, it is in the case which is appropriate for the syntactic function it performs.

A headless relative clause has exactly the same internal structure as a headed relative clause. It only lacks an explicit head noun. Nevertheless, a headless relative clause, too, refers to a participant playing a role in the action or state expressed by that clause. This participant will be called the implied head of the headless relative clause. It is only identified by a person marker in the relative clause itself. Thus, as to its function, the headless relative clause is the Sumerian equivalent of a relative clause with a pronoun as its head.

The implied head of a headless relative clause can perform a variety of grammatical functions in that clause. It can, for instance, be the transitive subject:

(70) **é-*ĝu$_{10}$* *ma*-řú-*na***
é =ĝu =Ø Ø -ma -řú -en -ʔa
house=my=ABS VP-1SG.IO-erect-2SG.S/A:IPFV-NOM
'you, who will build my temple for me' (Cyl A 9:8; L; 22)

The implied head can be the intransitive subject of the headless relative clause:

(71) **PN / gurušta-*da* / *mu-da*-lu$_5$-*ka-am$_6$***
PN gurušta=da Ø -mu -n -da -lu$_5$.k-Ø -ʔa =Ø =ʔam
PN fattener =COM VP-VENT-3SG-with-live -3N.S/DO-NOM=ABS=be:3N.S
'It is (the) one that lives with PN, the fattener.' (DP 338 1:2-4; L; 24)

(72) **é du$_6$ me-kul-ab$_4^{ki}$-*ta-ka-ta* / *i*-ku$_x$(DU)-*a-am$_6$***
é du$_6$ me.kul.ab$_4$.ta=ak =ak =ta ʔi-n(i)-ku$_4$.ř-Ø -ʔa =Ø =ʔam
house hill Mekulabata =GEN=GEN=ABL VP-in -enter-3N.S/DO-NOM=ABS=be:3N.S
'These (beams) are what went in from the House of Mekulabata's Hill.' (DP 438 2:2-3; L; 24)

The implied head can also be the direct object of the clause:

(73) **2-*kam-ma-ka* / *nu*-kiri$_6$-*ke$_4$-ne* / šu-*a* *bí*-gi$_4$-*a-am$_6$***
2-kamma=ak =ʔa nu.kiri$_6$.k=enē=e šu =ʔa
2-ORD =GEN=LOC gardener =PL =ERG hand=LOC

Ø -bi -n -gi$_4$ -eš -ʔa =Ø =ʔam
VP-3N:on-3SG.A-turn-3PL-NOM=ABS=be:3N.S
'This is what the gardeners turned over in the second transfer (lit. "turned on the hands in that of the second one").' (VS 14:113 2:2-4; L; 24)

(74) **amar-^{d}šul-gi-*ra* saĝĝa *mi-ni*-ku$_4$-*ra***
amar.šul.gi.ra.k saĝĝa =e Ø -mu -ni-n -ku$_4$.r-Ø -ʔa =ak
Amarshulgi administrator=ERG VP-VENT-in-3SG.A-enter -3N.S/DO-NOM=GEN

'of those which Amarshulgi, the administrator, had brought in' (PDT 1:463 4; D; 21)

Other functions than these three are not found, but that may be a coincidence, being only due to the small number of attested headless relative clauses.

The interrogative pronouns ***a-na*** 'what?' and ***a-ba*** 'who?' can also be used in headless relative clauses and then have the meanings 'whatever' and 'whoever'. See §8.5.

For non-finite headless relative clauses see §28.2.3, §28.3.3, and §28.4.3.

27.5. Finite complement clauses

27.5.1. Introduction

Certain verbs can have a clause as their subject or object. Such a clause is called a complement clause. Cross-linguistically complement clauses are commonly found with verbs like 'see', 'hear', 'know', 'believe', 'like' and often also 'tell' and 'want' (Dixon and Aikhenvald 2006: 1). In our corpus they are found with the verbs **du$_{11}$.g** and **e** 'say', **ge.n** 'be/make firm, prove', and **zu** 'know, learn'. But other such verbs may turn up as new texts come available.

As to their form, complement clauses are content clauses with the nominalizing suffix {ʔa} and the case marker that expresses their syntactic function. The few complement clauses attested with verbs all are in the absolutive case.

Certain nouns can be construed with a clause in the genitive case. Such a clause will also be called a complement clause. In our corpus they are found with nouns and noun phrases such as **á-áĝ-*ĝá*** 'news', **dub** 'document', **inim** 'word' , **lú inim-*ma*** 'witness (lit. "man of the word")', **mu lugal** '(oath by the) king's name', ***nam*-erim$_2$** 'oath'. Clearly, the complement clauses construed with nouns are both formally and functionally closely related to those construed with verbs.

Complement clauses can be finite or non-finite. The former are treated in §27.5.2 (those with verbs) and §27.5.3 (those with nouns). The non-finite complement clauses are discussed in §28.3.4 and §28.4.4).

As stated above, certain verbs can be construed with a complement clause. The same verbs are also found with other constructions that perform similar functions to those of a complement clause, that is with structures that belong to what Deutscher (2000: 13) calls the *Functional Domain of Complementation* and what Dixon calls *complementation strategies* (Dixon and Aikhenvald 2006: 1). Such complementation strategies are not restricted to verbs that can also be construed with a complement clause. They also occur with other types of verbs, which in other languages can have a complement clause.

One such strategy involves parataxis rather than subordination and was identified and documented by Deutscher (2000: 154). E.g.:

(75) **[...] / é-gal-*šè* / šu *im-mi-nu*-[ús] / lugal-*ĝu$_{10}$* / ĝeštu$_2$-*ga-né* / *ḫé*-zu**
é.gal =še šu =e ʔi -m(u)-bi -n -ʔús -Ø
palace=TERM hand=DIR VP-VENT-3N.OO-3SG.A-follow-3N.S/DO

lugal=ĝu =e ĝeštu$_2$.g=ane=Ø ḫa =ʔi -n -zu -Ø
king =my=ERG ear =his =ABS MOD=VP-3SG.A-know-3N.S/DO
'He sent it to the palace. May my king hear it (lit. "let his ear know it")!' (FAOS 19 Gir 12 rev.; L; 23)

(76) **é *ba-zi-zi-ka* / 1 ^{ĝiš}gigir$_2$ é-UMBINxLU 2 / *al*-ĝál / lú-*ĝu$_{10}$* igi *im-mi*-du$_8$-*àm***

é ba.zi.zi=ak =ʔa 1 gigir$_2$ é.UMBINxLU 2=Ø ʔa -ĝál -Ø
house Bazizi =GEN=LOC 1 chariot ?? 2=ABS VP-be.there-3N.S/DO

lú =ĝu=e igi =Ø ʔi -m(u)-bi -n -du$_8$ -Ø =ʔam
man=my=ERG eye=ABS VP-VENT-3N.OO-3SG.A-spread-3N.S/DO=be:3N.S
'In Bazizi's house there is one chariot with two ... It is so that my man saw it.' (FAOS 19 Ad 8 9-12; A; 23)

A further complementation strategy involves a finite or non-finite subordinate clause in the terminative case, with the meaning 'as to, as for'. It regularly occurs with the verb **ge.n** 'be/make firm' but sometimes also with other verbs (§27.6.8 and §28.3.3).

A very common complementation strategy is a construction with a purpose clause (§28.4.4). Much rarer is one with a non-finite clause in the locative case (§28.4.4).

See also Attinger (1993: 305-308) for an overview that includes data from Sumerian literary texts from the Old Babylonian period.

27.5.2. Finite complement clauses with verbs

All complement clauses are content clauses, but the opposite is not true. Many content clauses are adverbial instead of complement clauses (see §27.6). There are two kinds of complement clauses: those used as the subject or object of certain verbs and those used with certain nouns. The present section treats the former and the next section the latter.

As yet, our corpus seems to contain only four verbs construed with finite complement clauses, among them **zu** '(come to) know' and **ge.n** 'be/make firm':

(77) **mu sar-*ra-bé* / *ab-ta*-"UL4"-*a* / ĝeštu$_2$-*né* / *al*-zu-zu-*a***
mu sar -Ø -ʔa =be=Ø ʔa-b -ta -"UL4"-Ø -ʔa =Ø
name write-NFIN-NOM=its=ABS VP-3N-from-efface -3N.S/DO-NOM=ABS

ĝeštu$_2$.g=ane=e ʔa -zu:RDP -e -ʔa
ear =his=ERG VP-know:IPFV-3N.A:IPFV-NOM
'he whose ear will learn that this inscription was effaced from it (=a mortar)' (Ean. 62 Face A 4:4'-7'; L; 25)

(78) ***ba-ba* nagar-*e* / igi di-<ku$_5$>-*ne-šè* / mu lugal *in*-pà-*da* / ka-*ga-na ba-ni-ge-en$_6$***
ba.ba nagar =e igi di.ku$_5$.ř=enē=ak =še mu lugal=ak =Ø
Baba carpenter=ERG eye judge =PL =GEN=TERM name king =GEN=ABS

ʔi -n -pà.d-Ø -ʔa =Ø ka.g =ane=ʔa ba -ni-n -ge.n -Ø
VP-3SG.A-find -3N.S/DO-NOM=ABS mouth=his =LOC MM-in -3SG.A-be.firm-3N.S/DO
'That Baba, the carpenter, had taken an oath by the king's name before the judges, he himself confirmed with his own mouth.' (NG 131 20-23; L; 21)

The verbs **du$_{11}$.g** and **e** 'say' can also be construed with a finite complement clause, but that does not happen very often:

(79) **ki-áĝ dumu *ab-ba*-sa$_6$-*ga* a-zu-*ke$_4$* / péš-tur-tur / dumu ur-^{d}suen / urdu$_2$-*ĝu$_{10}$* *in*-sa$_{10}$-*a* / *bí-in*-du$_{11}$**
ki.áĝ dumu ab.ba.sa$_6$.ga a.zu =ak =e péš.tur.tur dumu ur.suen=ak =Ø
Kiag son Abbasaga physician=GEN=ERG Peshturtur daughter Ursuen =GEN=ABS

urdu$_2$.ĝu$_{10}$=e ʔi -n -sa$_{10}$ -Ø -ʔa =Ø bi -n -du$_{11}$.g-Ø
Urdugu =ERG VP-3SG.A-barter-3SG.S/DO-NOM=ABS 3N.OO-3SG.A-say -3N.S/DO
'Kiag, the son of Abbasaga the physician said that Urdugu had bought Peshturtur, the daughter of Ur-Suen.' (ZA 55 p. 79 1-4; U; 21)

(80) ***ì-za-ḫa*$^{!}$ *in-na-an*-du$_{11}$**
ʔi -zàḫ -Ø -ʔa =Ø ʔi -nna -n -du$_{11}$.g-Ø
VP-run.off-3SG.S/DO-NOM=ABS VP-3SG.IO-3SG.A-say -3N.S/DO
'He said to him that she had run off.' (SNAT 519 4; U; 21)

(81) **^{ĝiš}kiri$_6$-*a* ki-maḫ / gala-maḫ iri-*ka ì-me-a bí-in-*[*e*]*š-a***
kiri$_6$ =ʔa ki.maḫ gala.maḫ iri =ak =ak =Ø
orchard=LOC grave chief.lamentation.priest town=GEN=GEN=ABS

ʔi -me-Ø -ʔa =Ø Ø -bi -n -ʔe -eš -ʔa
VP-be -3N.S/DO-NOM=ABS VP-3N.OO-3SG.A-say:PLUR-3PL-NOM
'that they said that the grave of the town's chief lamentation priest was in the orchard' (NG 101 13-14; L; 21)

Normally the verb **du$_{11}$.g** and other verbs of speaking are used with direct speech and not with indirect speech as in the preceding two examples. In direct speech the exact words spoken are quoted. Such a quotation consists of one or more sentences and can be construed as the object of the verb of speaking, occurring in the same position as a nominal object would have:

(82) **lú *gu-la-bé* / *ga-šè*-sa$_{10}$ / *ù-na*-du$_{11}$**
lú gu.l -Ø -ʔa =be =e ga -e -ši -b -sa$_{10}$
man be.big-NFIN-NOM=this=ERG MOD:1SG.A/S-2SG-to-3N.DO-barter

ʔu -nna -n -du$_{11}$.g-Ø
REL.PAST-3SG.IO-3SG.A-say -3N.S/DO
'when this important man says to him: "I want to buy it from you!"' (Ukg. 4 11:35-37; L; 24)

(83) ***tu-ra-am-ì-lí* udu-*ĝu$_{10}$-um ṣú-la-lum-ra in-na*-šúm *bí-in*-du$_{11}$**
tu.ra.am.ì.lí=e udu =ĝu =Ø =(ʔa)m ṣú.la.lum=ra
Tūramilī =ERG sheep=my=ABS=be:3N.S Ṣulālum =DAT

ʔi -nna -ʔ -šúm-Ø bi -n -du$_{11}$.g-Ø
VP-3SG.IO-1SG.A-give-3N.S/DO 3N.OO-3SG.A-say -3N.S/DO
'Tūram-ilī said: "They are my sheep and I gave them to Ṣulālum".' (NG 138 22; U; 21)

(84) ***ma-an*-šúm-*na-a* geme$_2$-*ĝu$_{10}$ nu-ra*-šúm *bí-in*-du$_{11}$**
ma.an.šúm.na=e geme$_2$ =ĝu=Ø nu =Ø -ra -ʔ -šúm-Ø
Manshumna =ERG slave.woman=my=ABS NEG=VP-2SG.IO-1SG.A-give-3SG.S/DO

bi -n -du$_{11}$.g-Ø
3N.OO-3SG.A-say -3N.S/DO
'Manshumna said: "I did not give my slave woman to you".' (NG 195 6; L; 21)

(85) **u$_4$-*da* še *nu*-tuku *íb-bé***
u$_4$.da še =Ø nu =ʔi -ʔ -tuku-Ø ʔi -b -ʔe -e
if barley=ABS NEG=VP-1SG.A-have-3N.S/DO VP-3N.OO-say:IPFV-3SG.A:IPFV
'if he says "I have no barley."' (TCS 1:157 7; L; 21)

The direct speech may also be construed as a series of independent sentences following the verb of speaking, which then always shows a form of the imperfective (§15.4.3):

(86) **ensi$_2$-*ra* ama-*né* ^{d}nanše *mu-na-ni-íb*-gi$_4$-gi$_4$ / sipa-*ĝu$_{10}$ ma-mu-zu ĝe$_{26}$ ga-mu-ra*-búr-búr / (…)**
ensi$_2$.k=ra ama =ane nanše =e Ø -mu -nna -ni-b -gi$_4$:RDP-e
ruler =DAT mother=his Nanshe=ERG VP-VENT-3SG.IO-in-3N.DO-turn:IPFV-3SG.A:IPFV

sipa.d =ĝu =Ø ma.mu.d=zu =Ø ĝe=e ga -mu -ra -búr -búr
shepherd=my=ABS dream =your=ABS I =ERG MOD:1SG.A/S-VENT-2SG.IO-reveal-reveal
'His mother Nanshe answered the ruler: "My shepherd, I will explain your dreams for you! (...)"' (Cyl A 5:11-12; L; 22)

(87) **gù-dé-*a* / alan-*e* / inim *im-ma*-šúm-*mu* / alan lugal-*ĝu$_{10}$* / *ù-na*-du$_{11}$ / (…)**
gù.dé.a=e alan =e inim=Ø ʔi -m(u) -ba -šúm-e
Gudea =ERG statue=DIR word=ABS VP-VENT-3N.IO-give-3SG.A:IPFV

alan lugal=ĝu=r(a) ʔu -nna -e -du$_{11}$.g-Ø
statue king =my=DAT REL.PAST-3SG.IO-2SG.A-say -3N.S/DO
'Gudea gave a message to the statue: "Statue, say to my lord: (…)".' (St B 7:21-25; L; 22)

When direct speech is converted to indirect speech, some grammatical changes take place. Compare the following two examples:

(88a) **2 *ma-na* kù-babbar-*à*[*m*] / *ga*-lá *ì-na*-du$_{11}$**
2 ma.na kù.babbar=Ø =ʔam ga -lá ʔi-nna -n -du$_{11}$.g-Ø
2 pound silver =ABS=be:3N.S MOD:1SG.A/S-weigh VP-3SG.IO-3SG.A-say -3N.S/DO
'"It is two pounds of silver that I will pay", he said to him.' (NATN 571 12-13; N; 21)

(b) **10 giĝ$_4$ kù-babbar / (…) / lugal-*ḫé*-ĝál / *i*$^{!}$(IN)-lá-*e-a* / *bí-in*-du$_{11}$**
10 giĝ$_4$ kù.babbar=Ø lugal.ḫé.ĝál=e ʔi -lá? -e -ʔa =Ø
10 shekel silver =ABS Lugalhegal =ERG VP-weigh-3SG.A:IPFV-NOM=ABS

bi -n -du$_{11}$.g-Ø
3N.OO-3SG.A-say -3N.S/DO
'Lugalhegal said that he would pay ten shekels of silver.' (AAS 78 1-6; U; 21)

Thus, the main clause in the direct speech of (88a) is turned into a subordinate clause in the indirect speech of (88b). Also, the first person marker referring to the speaker is changed to a third person marker. And the modal form of (88a) becomes a declarative in (88b). But there is no 'back-shifting' as in English. Whereas the present tense of the English direct speech is back-shifted to a past tense in the indirect speech, no such change occurs in Sumerian.

27.5.3. Finite complement clauses with nouns

Some nouns have a meaning that allows them to refer to an actual speech event. The content of that speech event can be expressed with a complement clause. This clause is in the genitive case and can follow the noun in the same way as most genitives do:

(89) **mu lugal *nu-ub*-kúr-*a in*-pà**
mu lugal=ak nu =ʔi -b -kúr -e -ʔa =ak =Ø
name king =GEN NEG=VP-3N.DO-change-3SG.A:IPFV-NOM=GEN=ABS

ʔi -n -pà.d-Ø
VP-3SG.A-find -3N.S/DO
'He took an oath by the king's name that he would not change it.' (AUCT 1:580 6; ?; 21)

(90) **lú inim-*ma* ^{ĝiš}kiri$_6$ / ur-^{d}nanše *ba-na*-gíd-*da-me***
lú inim=ak kiri$_6$ =Ø ur.nanše=r(a)
man word=GEN orchard=ABS Urnanshe=DAT

Ø -ba -nna -gíd -Ø -ʔa =ak =Ø =me-eš
VP-MM-3SG.IO-be.long-3N.S/DO-NOM=GEN=ABS=be -3PL.S
'They are the witnesses that the orchard was plotted for Ur-Nanshe.' (NG 11 13-14; L; 11)

Although the spelling does not show the genitive case marker explicitly, its presence is certain because of parallel constructions such as the following:

(91) **lú inim-*ma-bé-me***
lú inim=ak =be=Ø =me-eš
man word=GEN =its=ABS=be -3PL.S
'They are its witnesses.' (NG 36 13; L; 21)

(92) **lú inim-*ma* inim til-*a-kam***
lú inim=ak inim=Ø til -Ø -ʔa =ak =Ø =ʔam
man word=GEN word=ABS end-NFIN-NOM=GEN=ABS=be:3N.S
'He is the witness that the matter was completed.' (BIN 8:172 16; I; 23)

Most complement clauses are construed as anticipatory genitives. The clause in the genitive case is then found at the beginning of the sentence, while the head noun shows the possessive pronoun {be} which refers back to the preceding genitive. E.g.:

(93) ***ḫu-ru* ama-*ar*-gi$_4$-*me in*-ĝar-*ra* / lú inim-*ma-bé***
ḫu.ru=e ama.ar.gi$_4$=me=Ø ʔi -n -ĝar -Ø -ʔa =ak lú inim=ak =be
Huru =ERG freedom =our=ABS VP-3SG.A-place-3N.S/DO-NOM=GEN man word=GEN =its
'a witness that Huru established our freedom' (NG 169 10-11; L; 21)

(94) **tukum-*bé* / (…) / ^{ĝiš}kiri$_6$ *du-du in-ši*-sa$_{10}$-*a* / dub-*bé nu-mu*-ře$_6$**
tukum.bé kiri$_6$ du.du=ak =Ø ʔi -n -ši -ʔ -sa$_{10}$ -Ø -ʔa =ak
if orchard Dudu =GEN=ABS VP-3SG-to-1SG.A-barter-3N.S/DO-NOM=GEN

dub =be=Ø nu =Ø -mu -ʔ -ře$_6$ -Ø
tablet=its=ABS NEG=VP-VENT-1SG.A-bring-3N.S/DO
'if I do not bring the document about that I bought Dudu's orchard from him' (NG 109 8-11; L; 21)

In one instance, the genitive case is made explicit for us thanks to the presence of the copula:

(95) ***ba-da*-z[àḫ]-*a-kam* / (...) / *nam*-erim$_2$-*bé in*-ku$_5$**
ba -n -da -zàḫ -Ø -ʔa =ak =ʔam
MM-3SG-with-run.off-3SG.S/DO-NOM=GEN=be:3N.S

nam.erim$_2$=be=Ø ʔi -n -ku$_5$.ř-Ø
oath =its=ABS VP-3SG.A-cut -3N.S/DO
'He took an oath about that she had run away from him.' (NG 123 6-8; L; 21)

Rare plene spellings testify to the long vowel /ā/ resulting from the contracted vowels of the nominalizing suffix {ʔa} and the genitive case marker {ak}:

(96) **igi-*ne-ne-šè* / *nu*-zàḫ-*e-da-a* / mu lugal-*bé in*-pà**
igi =anēnē=še nu =ʔi -zàḫ -ed -Ø -ʔa =ak
eye=their =TERM NEG=VP-run.off-IPFV-3SG.S-NOM=GEN

mu lugal=ak ʔi -n -pà.d-Ø
nam king =GEN VP-3SG.A-find -3N.S/DO
'Before them, she took an oath by the king's name that she would not run away.' (TCL 2:5481 20-22; D; 21)

(97) **túg-*bé* lugal-dúr-du$_{10}$-*e* / *nu-ù-na-an*-šúm-*ma-a* / (...) / *nam*-erim$_2$-*bé in*-ku$_5$**
túg =be =Ø PN=e nu =ʔi -nna -n -šúm-Ø -ʔa =ak
cloth=this=ABS PN=ERG NEG=VP-3SG.IO-3SG.A-give-3N.S/DO-NOM=GEN

nam.erim$_2$=be=Ø ʔi -n -ku$_5$.ř-Ø
oath =its=ABS VP-3SG.A-cut -3N.S/DO
'About that L. had not given this cloth to her, he took an oath.' (NG 126 8-11; L; 21)

So far we have documented complement clauses with the nouns and noun phrases **mu lugal** '(oath by) the king's name', **lú inim-*ma*** 'witness (lit. "person of the word")', ***nam*-erim$_2$** 'oath', and **dub** 'tablet, document'. These are not the only ones to occur with a complement clause expressing indirect speech. The noun **inim** 'word' may also be so used:

(98) ***nu*-siki *nu-ma*-kuš / lú á tuku / *nu-na-ĝá-ĝá-a* / ^{d}nin-ĝír-su-*da* / iri-ka-*ge-na-ke$_4$* / inim-*bé* ka *e-da*-keše$_2$**
nu.siki nu.ma.kuš=Ø lú á =Ø tuku-Ø =r(a)
orphan widow =ABS man power=ABS have-NFIN=DAT

nu =ʔi -nna -ĝar:RDP -e -ʔa =ak nin.ĝír.su.k=da
NEG=VP-3SG.IO-place:IPFV-3SG.A:IPFV-NOM=GEN Ningirsu =COM

iri.ka.ge.na.k=e inim =be =e ka =Ø ʔi -n -da -n -keše$_2$.ř-Ø
Irikagena =ERG word=this=DIR mouth=ABS VP-3SG-with-3SG.A-bind -3N.S/DO
'Irikagena made an agreement with Ningirsu about that he would not surrender orphan or widow to the powerful.' (Ukg. 4 12:23-28; L 24)

Another example is the noun **èn**, with unknown meaning, as a part of the phrasal verb **èn—tar** 'ask, investigate':

(99) **maš dam-gara$_3$ *ba-a*-ĝar-*ra* / èn-*bé* tar-*re-dam***
maš dam.gara$_3$=ak =Ø Ø -ba -e -ĝar -Ø -ʔa =ak
interest merchant =GEN=ABS VP-MM-on-place-3N.S/DO-NOM=GEN

èn=be=Ø tar-ed -Ø =ʔam
? =its=ABS cut-IPFV-NFIN=be:3N.S
'It is to be asked whether the merchant's interest was placed on it.' (MVN 11:162 8-9; U; 21)

(100) ***a-gù-a-na nu-ub*-ĝál-*la* / èn-*bé* tar-*re-dam***
a.gù=ane=ʔa nu =ʔi -b(i) -ĝál -Ø -ʔa =ak
top =his =LOC NEG=VP-3N:on-be.there-3N.S/DO-NOM=GEN

èn=be=Ø tar-ed -Ø =ʔam
? =its=ABS cut-IPFV-NFIN=be:3N.S
'It is to be investigated whether this is absent from his account.' (AUCT 2:8 14-15; D; 21)

Finally, the noun **maškim** 'commissioner' may be construed with a complement clause expressing an activity:

(101) **bar udu bar$_6$-*ka* / bar sila$_4$ gaba-*ka-ka* / kù *a-ĝá-ĝá-da* / maškim-*bé* / *e-ta*-ru**
bar udu bar$_6$ =ak =ʔa bar sila$_4$ gaba =ak =ak =ʔa kù.g =Ø
fleece ram white=GEN=LOC fleece lamb breast=GEN=GEN=LOC silver=ABS

ʔa -b(i) -ĝar:RDP-ed -Ø -ʔa =ak maškim =be=Ø
VP-3N:on-place:IPFV-IPFV-3N.S-NOM=GEN commissioner=its=ABS

ʔi -b -ta -n -ru -Ø
VP-3N-from-3SG.A-throw-3SG.S/DO
'He threw out the commissioner in charge of paying a silver tax on the fleece of a white ram and on the fleece of a suckling lamb.' (Ukg. 4 8:28-9:1; L; 24)

27.6. Finite adverbial clauses

27.6.1. Overview

There are several different ways in which the adverbial clauses can be organized into subcategories. One approach is to split them up according to their meanings. Another would be to classify them on the basis of some formal property, for instance, the type of construction or the case marker used. All approaches have their advantages and shortcomings. None is entirely satisfactory. A purely functional approach highlights the semantic relationships, among them how one construction replaces the other across time. A purely formal approach calls far more attention to the range of uses of a given type of construction.

The make-up of section 27.6 is a bit of a compromise. It follows a largely functional approach, but where that led to awkard results, formal considerations received priority. The purpose of the present section is to make it somewhat easier for the reader to find the information needed.

Adverbial clauses can have various kinds of meanings. The main types of temporal clauses are discussed in §27.6.2-§27.6.4. A few temporal clauses presenting difficulties appear in §27.6.8. They seem to have meanings like 'as long as', 'as soon as', and 'while'. A nominalized clause in the equative case may also have a temporal meaning (§27.6.7).

Reason clauses feature primarily in §27.6.5 but a clause in the equative case may also have a causal meaning (§27.6.7). The conditional clauses are treated in §27.6.6 and comparative clauses in §27.6.7.

Adverbial clauses show a wide range of constructions. Many are content clauses in an adverbial case, the locative, ablative, terminative, comitative, or equative case. Some are content clauses in the genitive case which are dependent upon a particular noun. Finally, there are a few clauses with subordinating conjunctions. See §27.3 above for their more general formal properties.

Constructions in the locative case are treated in §27.6.2, §27.6.5, and §27.6.8. Those in the ablative case are to be found in §27.6.3 and those in the terminative case in §27.6.4, §27.6.5, and §27.6.8. Constructions in the comitative case are discussed in §27.6.5 and §27.6.8. Those

in the equative case are the topic of §27.6.7, while those in the genitive case occur in §27.6.3, §27.6.5, and §27.6.8.

Most finite adverbial clauses have a non-finite counterpart, showing the same construction but with a non-finite instead of a finite predicate. The constructions with both a finite and a non-finite variety feature in two chapters, here in §27.6 as well as in the following chapter (§28.3.4 and §28.4.4). Some constructions, however, have only one variety. Thus, conditional clauses are always finite, whereas purpose clauses are always non-finite.

27.6.2. Temporal clauses meaning 'when'

In the Old Sumerian administrative texts, the most common temporal clause is a content clause in the locative case (also non-finite, see §28.3.4). E.g.:

(102) **sa_6-sa_6 / iri kù-*ga* / *ì*-ku_x(DU)-*řá-a* / ĝiš *bé*-tag**
sa_6.sa_6.g=Ø iri kù.g=ʔa ʔi -n(i)-ku_4.ř-Ø -ʔa =ʔa
Sasag =ABS city pure=LOC VP-in -enter -3SG.S/DO-NOM=LOC

ĝiš =Ø Ø-bi -n -tag -Ø
wood=ABS VP-3N.OO-3SG.A-touch-3N.S/DO
'When Sasag entered the Holy City, she sacrificed this (lamb).' (VS 14:5 1:3-5; L; 24)

(103) **munus-*e* dumu *ì*-dú-*da-a* / é-gal-*la* / *ba*-ku_x(DU)**
munus=e dumu=Ø ʔi-n -dú.d -Ø -ʔa =ʔa
woman=ERG child =ABS VP-3SG.A-give.birth.to-3SG.S/DO-NOM=LOC
'When Madam gave birth to a child, this was brought into the palace.' (TSA 45 5:3-4:2; L; 24)

(104) **$ensi_2$ / é-mí-*šè* / *e*-ĝen-*na-a* / é-muḫaldim-*ma* / *ba*-sa_6**
$ensi_2$.k=Ø é.mí =še ʔi -m(u) -ĝen-Ø -ʔa =ʔa
ruler =ABS women's.quarters=TERM VP-VENT-go -3SG.S/DO-NOM=LOC

é.muḫaldim=ʔa ba -n(i)-sa_6.g -Ø
kitchen =LOC MM-in -be.good-3N.S/DO
'When the ruler came to the women's quarters, it (= a ram) was prepared in the kitchen.' (DP 218 1:7-2:1; L; 24)

The same construction is attested in later texts, too:

(105) **lugal ki-en-*ge-šè* / *ì-im*-ĝen-*na-a***
lugal=Ø ki.en.ge.r=še ʔi -m(u) -ĝen-Ø -ʔa =ʔa
king =ABS Sumer =TERM VP-VENT-go -3SG.S/DO-NOM=LOC
'when the king came to Sumer' (MCS 9:247 29-20; U; 23)

(106) **nin_9-tur-tur-*e* dumu *in*-dú-*da-a***
nin_9.tur.tur=e dumu=Ø ʔi-n -dú.d -Ø -ʔa =ʔa
Ninturtur =ERG child =ABS VP-3SG.A-give.birth.to-3SG.S/DO-NOM=LOC
'when Ninturtur gave birth to a child' (MVN 2:317 9; U; 21)

The last example is exceptional, though, because by the Ur III period this type of temporal clause is all but replaced by a different construction, which was already in use during the Old Sumerian period, which involves the use of the time word **u_4.d** 'day, time', and which we will address now.

Nominalized clauses can have time words such as **mu** 'year', **iti.d** 'month', and **u$_4$.d** 'day, time' as their head nouns. E.g.:

(107) **mu lugal akšak^{ki}-*ka* / *ì*-zi-*ga-a***
mu lugal akšak =ak =Ø ʔi -zi.g-Ø -ʔa =ʔa
year king Akshak=GEN=ABS VP-rise-3SG.S/DO-NOM=LOC
'in the year when the king of Akshak rose up' (Ean. 2 4:25-26; L; 25)

(108) **iti ^{d}nin-dar é gibil-*na* *ì*-ku$_x$(DU)-*řá-a***
iti nin.dar=Ø é gibil=ane=ʔa ʔi -n(i)-ku$_4$.ř-Ø -ʔa =ʔa
month Nindar =ABS house new =his =LOC VP-in -enter -3SG.S/DO-NOM=LOC
'in the month when Nindar entered his new temple' (VS 14:78 4:4; L; 24)

(109) **u$_4$ *na-wa-ar*^{ki}-*ta* / *ì-im-e-re-éš-ša-a***
u$_4$.d nawar=ta ʔi -m(u) -ʔer -eš -ʔa =ʔa
day Nawar=ABL VP-VENT-come:PLUR-3PL.S/DO-NOM=LOC
'on the day when they came from Nawar' (TSDU 38:9-10; D; 21)

Such clauses with time words as head nouns are translated into English with relative clauses introduced by *when*. Yet, the Sumerian clauses are no relative clauses. In contrast with relative clauses, they never contain an element that is coreferential with the head noun. As the following example shows, the Sumerian construction involves an appositive structure:

(110) **u$_4$ ^{d}nanše / *nam*-lugal / lagas^{ki}-*sa* / *mu-na*-šúm-*ma-a* / ^{d}nin-ĝír-sú-*ke$_4$* / mu *e-né*-pà-*da-a***
u$_4$.d nanše =e nam.lugal lagas =ak =Ø
day Nanshe=ERG kingship Lagash=GEN=ABS

Ø -mu -nna -n -šúm-Ø -ʔa =ʔa
VP-VENT-3SG.IO-3SG.A-give-3N.S/DO-NOM=LOC

nin.ĝír.sú.k=e mu =Ø ʔi -nni -n -pà.d-Ø -ʔa =ʔa
Ningirsu =ERG name=ABS VP-3SG.OO-3SG.A-call -3N.S/DO-NOM=LOC
'on the day when Nanshe had given him the kingship over Lagash and Ningirsu had nominated him' (Ent. 26 13-18; L; 25)

The presence of a locative case marker after each nominalized clause proves that these nominalized clauses make up a series of appositions with the noun **u$_4$.d**, because such repetition of case markers is typical for appositions (§5.3).

Thus, a nominalized clause with a time word as head noun is an appositive content clause that is either in the absolutive case or copies the case of its head noun (cf. §5.3). The most frequently occurring type is the one with **u$_4$.d** 'day, time' as its head noun. Because of the rather general meaning of its head noun ('time') it is a very common type of temporal clause in Sumerian and becomes more common over the centuries.

In the Old Sumerian texts from Lagash, clauses with **u$_4$.d** as their head noun are the most common type of temporal clause in the royal inscriptions, while in the administrative texts content clauses in the locative case are the norm. This distribution suggests a stylistic difference between these two types of temporal clauses. Clearly, in this early period, temporal clauses introduced by **u$_4$.d** belong to a more elevated style.

A few centuries later, in the Ur III period, clauses with **u$_4$.d** as their head noun have become the norm in administrative texts, too. Thus, while examples such as (102) and (105) are typical for the early period, the following are so for the Ur III period:

(111) **u$_4$ *nam*-gala-*šè ì-in*-ku$_4$-*ra-a***
u$_4$.d nam.gala =še ʔi -n(i)-ku$_4$.r-Ø -ʔa =ʔa
day status.of.lamentation.priest=TERM VP-in -enter -3SG.S/DO-NOM=LOC
'when he entered the position of lamentation priest' (MVN 8:122 10; D; 21)

(112) **u$_4$ *ur-kiš^{ki}-ta* / *ì-im*-ĝen-*na-a***
u$_4$.d ur.kiš =ta ʔi -m(u) -ĝen-Ø -ʔa =ʔa
day Urkish=ABL VP-VENT-go -3SG.S/DO-NOM=LOC
'when he came from Urkish' (TCL 2:5565 3-4; D; 21)

Clearly, such temporal clauses introduced by **u$_4$** have been extended in usage at the expense of the simple content clauses in the locative case.

The use of the perfective and the imperfective in temporal clauses generally follows the same rules as that in main clauses (§15.4). Temporal clauses expressing past events show perfective forms and those expressing future events imperfective forms. Since the former type is amply documented by the examples given above, we can limit ourselves here to illustrating those with imperfective forms:

(113) **u$_4$ *nu-šè*-sa$_{10}$-sa$_{10}$-*a-a* / ugula libiš-*bé* / *na-na*-tag-*ge***
u$_4$.d nu =ʔi -n -ši-sa$_{10}$:RDP -e -ʔa =ʔa
day NEG=VP-3SG-to-barter:IPFV-3SG.A:IPFV-NOM=LOC

ugula =e libiš =be=Ø na -nna -tag -e
foreman=ERG anger=its=ABS NEG.MOD-3SG.IO-touch-3SG.A:IPFV
'When he does not buy it from him, the foreman should not let (his) anger about this touch him!' (Ukg. 5 10:30-32; L; 24)

(114) **u$_4$ temen-*ĝu$_{10}$* *ma*-si-*gi$_4$-na***
u$_4$.d temen =ĝu =Ø Ø -ma -si.g -en -ʔa =ʔa
day foundation=my=ABS VP-1SG.IO-put.in-2SG.A/S:IPFV-NOM=LOC
'when you drive in my foundation pegs for me' (Cyl A 11:18; L; 22)

(115) **u$_4$ geme$_2$-^{d}lama$_3$ *ba*-ug$_7$-*e-da-a* / (...) / *in*-ba-*a-ne***
u$_4$.d geme$_2$.lama$_3$=Ø ba -ug$_7$ -ed -Ø -ʔa =ʔa
day Geme.Lama =ABS MM-die:IPFV-IPFV-3SG.S:IPFV-NOM=LOC

ʔi -n -ba -enē
VP-3SG.DO-portion.out-3PL.A:IPFV
'When Geme-Lama dies, they will share him (viz. a slave).' (NG 7 15-19; L; 21)

(116) **u$_4$ igi *ì-íb*-du$_8$-*a mu*-túm-*mu-a***
u$_4$.d igi=Ø ʔi -b(i) -du$_8$ -e -ʔa =ʔa
day eye=ABS VP-3N:on-spread-3SG.A:IPFV-NOM=LOC

Ø -mu -n -túm -e -ʔa
VP-VENT-3SG.DO-bring-3SG.A:IPFV-NOM
'that he would bring him when he saw him' (NG 190 25; L; 21)

As most of the preceding examples show, the imperfective is also used when the event of the temporal clause is anterior to that of the superordinate clause. In this, temporal clauses differ from all conditional clauses except those with **u$_4$-*da*** 'if' (§27.6.6). There are exceptions, though. The following example contains a temporal clause expressing a future event anterior to

the event expressed by the main clause. It shows a perfective form as in most conditional clauses, and not an imperfective one as in most temporal clauses:

(117) **u$_4$ *nu-un*-su-*ga-a* / máš 5 giĝ$_4$ 1 giĝ$_4$-*ta ĝá-ĝá-dam***
u$_4$.d nu =ʔi-n -su.g -Ø -ʔa =ʔa
day NEG=VP-3SG.A-repay-3N.S/DO-NOM=LOC

máš 5 giĝ$_4$ 1 giĝ$_4$ =ta =Ø ĝar:RDP -ed -Ø =ʔam
interest 5 shekel 1 shekel=ABL=ABS place:IPFV-IPFV-NFIN=be:3N.S
'When he does not repay this, interest, five shekels with one shekel (i.e. twenty percent), is to be placed on it.' (BBVO 11 p. 280:6 NT 417 obv 9'-rev 1; N; 21)

27.6.3. Temporal clauses meaning 'after' or 'since'

Our corpus contains three different constructions in the ablative case that can be translated with English temporal clauses introduced by 'after' or 'since'. The most frequent construction is with a content clause in the ablative case (also non-finite, see §28.3.4):

(118) ***a-ga-dè*^{ki} / *nam*-lugal / šu *ba-ab*-ti-*a-ta***
a.ga.dè=e nam.lugal=Ø šu =e Ø -ba -b -ti -Ø -ʔa =ta
Akkad =ERG kinghsip =ABS hand=DIR VP-3N.IO-3N.A-approach-3N.S/DO-NOM=ABL
'after Akkad had received the kingship' (DC 2 p. 57 4':9'-11'; L; 23)

(119) **mu 3-*àm* / dumu AN.LUḪ / ur-si$_4$-si$_4$ šu-i / á *ì*-è-*éš-a-ta***
mu 3=Ø =ʔam dumu AN.LUḪ=ak =Ø ur.si$_4$.si$_4$ šu.i =e
year 3=ABS=be:3N.S son AN.LUḪ=GEN=ABS Ursisi barber=ERG

á =Ø ʔi -n -ʔè -eš -ʔa =ta
strength=ABS VP-3SG.A-go.out-3PL.S/DO-NOM=ABL
'after Ursisi, the barber, had raised AN.LUḪ's sons for three years' (BIN 8:293 3:2-5; N; 23)

(120) **ba-gara$_2$ é íd-*dè* lá-*a-e im-<ma>*-ti-*a-ta* / ninda ĝiš *bí*-tag**
ba.gara$_2$ é íd =e lá -Ø -ʔa =e
Bagara house river=DIR hang-NFIN-NOM=DIR

ʔi -m(u) -ba -ti -Ø -ʔa =ta
VP-VENT-3N.IO-approach-3SG.S/DO-NOM=ABL

ninda=e ĝiš =Ø Ø-bi -n -tag -Ø
bread=DIR wood=ABS VP-3N.OO-3SG.A-touch-3N.S/DO
'After he had reached the Bagara, the temple hanging over the river, he sacrificed bread.' (Cyl A 2:7; L; 22)

(121) ***ì-na*-šúm-*ma-ta* / máš *ì-na-a-ĝá-ĝá***
ʔi -nna -n -šúm-Ø -ʔa =ta
VP-3SG.IO-3SG.A-give-3N.S/DO-NOM=ABL

máš =Ø ʔi-nna -e -ĝar:RDP -e
interest=ABS VP-3SG.IO-on-place:IPFV-3SG.A:IPFV
'From when he gave it (viz. an amount of silver) to him, interest will be placed on it for him.' (NRVN 1:2 12-13; N; 21)

(122) **iti RI-*ta* u$_4$ 10-*àm* / *ba-ra*-zal-*la-ta***
iti.d RI=ta u$_4$.d 10=Ø =ʔam Ø -ba -ta -zal -Ø -ʔa =ta
month RI =ABL day 10=ABS=be:3N.S VP-MM-from-pass-3N.S/DO-NOM=ABL
'from when out of month V ten days had passed' (TENS 49 3-4; U; 21)

The second construction involves a nominalized clause with **u$_4$.d** 'day, time' in the ablative case as its head noun:

(123) **u$_4$ é-gal-*e* *ba-ab*-túm-*ma-ta* / igi *nu-ni*-du$_8$-*a***
u$_4$.d é.gal =e Ø -ba -b -túm -Ø -ʔa =ta
day palace=ERG VP-MM-3N.A-bring-3SG.S/DO-NOM=ABL

igi =Ø nu =ʔi -nni -n -du$_8$ -Ø -ʔa
eye=ABS NEG=VP-3SG.OO-3SG.A-spread-3N.S/DO-NOM
'that he had not seen him since (lit. "from the day that") the palace had taken him away' (NG 190 23-24; L; 21)

(124) **u$_4$ lugal-*ĝu$_{10}$* *ba*-ĝen-*na-ta***
u$_4$.d lugal=ĝu=e Ø -ba -ĝen-Ø -ʔa =ta
day king =my=ERG VP-MM-go -3SG.S/DO-NOM=ABL
'after my king went away' (BPOA 1:563 8; U; 21)

The third construction involves the body part noun **eger$_4$** 'back'. This noun is often used in temporal expressions such as the following:

(125) **eger$_4$ gurum$_2$-*ma-ta***
eger$_4$ gurum$_2$ =ak =ta
back inventory=GEN=ABL
'after stock-taking (lit. "from the back of the inventory")' (Nik 1:199 3:1; L; 24)

This expression is also found with a nominalized clause instead of a noun in the genitive case:

(126) **eger$_4$ kèš^{ki}-*ta* / *ba*-úš-*ša$_4$-ta* / PN / *nu*-banda$_3$ / é zà iri-*ka-ka* / igi *e-me*-saĝ$_5$**
eger$_4$ kèš.ta =Ø Ø -ba -ʔúš -Ø -ʔa =ak =ta PN nu.banda$_3$=e
back Keshta=ABS VP-3N.IO-die:SING-3SG.S/DO-NOM=GEN=ABL PN overseer =ERG

é zà.g iri =ak =ak =ʔa igi =Ø ʔi -m(u) -bi -n -saĝ$_5$-Ø
house border town=GEN=GEN=LOC eye=ABS VP-VENT-3N:on-3SG.A-? -3N.S/DO
'After Keshta had died, PN, the overseer, sorted this out in the House of the City Border.' (DP 482 6:1-6; L; 24)

(127) **PN dam urdu$_2$-*ke$_4$* eger$_5$ *ba*-gur-*ra-ta* / ka-*ga-na ba-ni-ge-en$_6$***
PN dam urdu$_2$=ak =e eger$_5$ Ø -ba -gur -Ø -ʔa =ak =ta
PN wife Urdu =GEN=ERG back VP-MM-go.back-3SG.S/DO-NOM=GEN=ABL

ka.g =ane=ʔa Ø -ba -ni-n -ge.n -Ø
mouth=her=LOC VP-MM-in-3SG.A-be.firm-3N.S/DO
'PN, Urdu's wife, confirmed it with her own mouth after she had reversed herself.' (NG 44 9; L; 22)

(128) **eger$_5$ *in*-taka$_4$-*a-ta***
eger$_5$ ʔi -n -taka$_4$-Ø -ʔa =ak =ta
back VP-3SG.A-leave -3SG.S/DO-NOM=GEN=ABL
'after he had divorced her' (NG 23 5; L; 21)

This construction with **eger$_4$** 'back' also occurs with a non-finite clause in the genitive case (§28.3.4).

All examples in this section show a perfective form in the temporal clause, but that is probably due to the accidents of textual transmission. A few cases with imperfective forms are attested in later texts.

27.6.4. Temporal clauses meaning 'until' or 'before'

Mostly the word ***en-na*** is used to express 'until'. Its etymology is still uncertain, but an origin as some adverbial expression for time seems likely. Perhaps the first part /en/ is cognate with the /en/ of the interrogative ***en-šè*** or ***èn-šè*** 'until when' (Krecher 1966: 101). The second part of ***en-na*** may then come from the locative case marker {ʔa}. Note that ***en-na*** is also found in relative clauses with a meaning 'as much as, as many as' (§27.4.1).

Temporal clauses introduced by the subordinating conjunction ***en-na*** 'until' can contain a verbal form in the perfective and be followed by a main clause that also contains a perfective form:

(129) ***en-na*** **inim-*bé* *ì*-til / lú inim-*ma-bé* *ì-im*-[*t*]*a-e* / PN dumu ur-^{d}*ba-ú* *ì*-dab$_5$**
en.na inim=be=Ø ʔi -til -Ø lú inim=ak =be=Ø
until word=its=ABS VP-end-3N.S/DO man word=GEN=its=ABS

ʔi -m(u) -ta -è -Ø PN dumu ur.ba.ú.k=e ʔi -n -dab$_5$-Ø
VP-VENT-from-go.out-3SG.S/DO PN son Urbau =ERG VP-3SG.A-take -3N.S/DO
'Until this matter is settled and a witness for it comes forward, PN, the son of Ur-Bau, has taken it.' (Studies Veenhof p. 324 5-7; L; 21)

More often, though, such temporal clauses contain forms in the imperfective and are followed by main clauses with a modal form:

(130) ***en-na àm*-du / igi-*ĝu$_{10}$*-*šè* inim-*bé* *a*-bala-*e* / *na-ba-an*-řú**
en.na ʔa-m(u) -du -Ø igi=ĝu =še inim =be=Ø
until VP-VENT-go:IPFV-3SG.S:IPFV eye=my=TERM word=its=ABS

ʔa -balaʔ-e nan -ba -n -řú -e
VP-cross -3SG.A:IPFV NEG.MOD-MM-3SG.OO-hold-3SG.A:IPFV
'Until he comes and discusses this matter before me, he must not detain him for himself!' (TCS 1:125 8-10; N; 21)

(131) ***en-na*** **ensi$_2$-*ra* / *ì-na-ab-bé* / kišib-*ba-né* / *ḫé-ma-an*-tùm**
en.na ensi$_2$.k=ra ʔi -nna -b -ʔe -e
until ruler =DAT VP-3SG.IO-3N.OO-say:IPFV-3SG.A:IPFV

kišib=ane=Ø ḫa =Ø -ma -n -tùm -Ø
seal =his =ABS MOD=VP-1SG.IO-3SG.A-bring:IPFV-3N.S/DO
'Until he speaks to the governor, he should bring me his sealed document!' (TCS 1:112 6-9; L; 21)

It is highly unlikely that these two patterns exhaust the actual range of possiblities, but our corpus contains too few attestations to allow a more subtle description than this.

The same word ***en-na*** also occurs in a completely different construction, with a content clause in the terminative case:

(132) **[en]si$_2$ *en-na ì*-ĝen-*na-aš* / 2-*a-bé en-nun-ĝá ḫé*-ti**
ensi$_2$.k=Ø en.na ʔi-m(u) -ĝen-Ø -ʔa =še
ruler =ABS until VP-VENT-go -3SG.S/DO-NOM=TERM

2-ʔa =be=Ø en.nuĝ=ʔa ḫa =ʔi-ti.l -Ø
2-NOM=its=ABS guard =LOC MOD=VP-live-3N.S/DO
'Until the governor comes, the two of them should remain in prison.' (TJAMC IOS 40 4-5; L; 21)

(133) **a-kal-*la ù* lú-iri-saĝ-*ra* / *en-na* igi-ĝu$_{10}$-*šè* / di *in-da-an*-du$_{11}$-*ga-aš* / *na-ba*-řú**
a.kal.la ʔù lú.iri.saĝ=ra en.na igi =ĝu =še di.d =Ø
Akalla and Lu'irisag =DAT until eye=my=TERM judgement=ABS

ʔi -n -da -n -du$_{11}$.g-Ø -ʔa =še nan -ba -n -řú -e
VP-3SG-with-3SG.A-say -3N.S/DO-NOM=TERM NEG.MOD-MM-3SG.OO-hold-3SG.A:IPFV
'He must not detain Akalla and Lu'irisag, until he has litigated about them before me!' (TCS 1:113 3-6; L; 21)

In this construction the meaning 'until' is expressed by both the terminative case and ***en-na***, which is probably used as an adverbial expression here, rather than as a subordinating conjunction.

A content clause in the terminative case can also be used as a temporal clause when it does not contain ***en-na***. All examples known to me contain negative verbal forms and have a very specific meaning: they are to be translated as positive clauses introduced by 'before'. Thus, they are close functional parallels of Akkadian clauses with *adi lā* 'until not, before' (von Soden 1995: §173h). E.g.:

(134) **[x lú *si-ma*]-*núm*^{ki} [dumu-dumu d]ab$_5$-*ba* kù-*ta* sa$_{10}$-[*a* k]i-*ba nu-ù-da-a*-ĝar-*aš* / *ba*-re-re-*ge-eš-a***
? lú si.ma.núm=ak =Ø dumu-dumu dab$_5$-Ø -ʔa kù.g =ta
n man Simānum =GEN=ABS son -son take -NFIN-NOM silver=ABS

sa$_{10}$ -Ø -ʔa =ak ki =be=ʔa nu =ʔi -b -da -e -ĝar -Ø -ʔa =še
barter-NFIN-NOM=GEN place=its=LOC NEG=VP-3N-with-on-place-3N.S/DO-NOM=TERM

ba -re.g -re.g -eš -ʔa
MM-pick.up-pick.up-3PL.S/DO-NOM
'that *n* men from Simānum had died before they could replace seized persons bought with silver' (NG 190 2-3; L; 21)

(135) **6 ^{ĝiš}ḫašḫur gur / kù-*bé* 5 giĝ$_4$ / káb *nu-ub-da-ab*-du$_{11}$-*ga-aš* / da-lu$_5$ *ù* ur-^{d}*ab-ú-ke$_4$* / ur-^{d}šara$_2$ *dam*-[*ga*]*ra$_3$ in-na*-šúm**
6 ḫašḫur gur kù.g =be 5 giĝ$_4$
6 apple *gur* silver=its 5 shekel

káb=Ø nu =ʔi -b -da -b -du$_{11}$.g-Ø -ʔa =še da.lu$_5$ ʔù
? =ABS NEG=VP-3N-with-3N.A-do -3N.S/DO-NOM=TERM Dalu and

ur.ab.ú.k=e ur.šara$_2$ dam.gara$_3$=r(a) ʔi -nna -b -šúm-Ø
Urab'u =ERG Urshara merchant =DAT VP-3SG.IO-3N.A-give-3N.S/DO
'Six *gur*s of apples, worth five shekels of silver: Dalu and Ur-Ab'u gave this to Ur-Shara, the merchant, before one could estimate it.' (BM 105356 7-11; U; 21)

In this construction the content clause in the terminative case may be preceded by the time word **u$_4$** ‘day, time’:

(136) ***ì-lí*-MU u$_4$ inim lugal *nu-ù-da-an*-šub-*ba-aš* / dam-*e* *in*-tuku-*a***
ì.lí.MU=Ø u$_4$.d inim lugal=ak =Ø nu =ʔi -n -da -n(i)-šub-Ø -ʔa =še
Ilija =ABS day word king =GEN=ABS NEG=VP-3SG-with-in -fall-3N.S/DO-NOM=TERM

dam =e ʔi -n -tuku-Ø -ʔa
husband=ERG VP-3SG.A-have -3SG.S/DO-NOM
‘that (her) husband had been married to Ilija before the word of the king had fallen with her (?)’ (NG 97 16'-17'; L; 21)

For non-finite temporal clauses in the terminative case, see §28.3.4.

27.6.5. Reason clauses

There are five types of reason clauses, but not all five of them are found together at the same time in the same place. As a result of linguistic change, two older types of reason clause are replaced by two more recent ones.

One of the two older constructions involves the noun **bar** ‘outside’. This noun often occurs in an idiomatic expression stating a reason. E.g.:

(137) **bar še-*ba-ka***
bar še =be =ak =ʔa
outside barley=this=GEN=LOC
‘because of this barley’ (Ukg. 6 4':1'; L; 24)

Thus, the Sumerian expression ‘on the outside of’ came to mean ‘because of’, a semantic shift similar to that of English *about* ‘in connection with’, which comes from Old English *ābūtan* ‘on the outside’.

This construction is also found with a nominalized clause instead of a noun in the genitive case:

(138) **bar še-*bé nu-da-sù-sù-da-ka***
bar še =be =Ø nu =ʔi -n -da -su.g:RDP-ed -Ø -ʔa =ak =ʔa
outside barley=this=ABS NEG=VP-3SG-with-repay:IPFV-IPFV-3N.S-NOM=GEN=LOC
‘because this barley could not be repaid by him’ (Ent. 28 2:27; L; 25)

It also occurs with non-finite clauses in the genitive case (§28.3.4).

This construction with **bar** ‘outside’ in the locative case is regularly found in texts from the Old Sumerian and Old Akkadian periods, but by the Ur III period it has been replaced by a construction with the noun **mu** ‘name’ in the terminative case. It, too, is found with either a noun or a nominalized clause in the genitive case. E.g.:

(139) **mu še-*na-šè***
mu še =ane=ak =še
name barley=his =GEN=TERM
‘because of his barley’ (MVN 3:279 6; A; 21)

(140) **mu *nu-da*-su-su-*da-šè***
mu nu =ʔi -n -da -su.g:RDP-ed -Ø -ʔa =ak =še
name NEG=VP-3SG-with-repay:IPFV-IPFV-3N.S-NOM=GEN=TERM

'because it cannot be repaid by him' (PIOL 19:344 3; U; 21)

(141) **mu *ì*-tur-*ra-šè* / á *en-te-na-ka-né* *ì*-zi**
mu ʔi -tur -Ø -ʔa =ak =še
name VP-be.small-3SG.S/DO-NOM=GEN=TERM

á en.te.n=ak =ane=Ø ʔi -zi.g-Ø
strength winter =GEN=his =ABS VP-rise-3N.S/DO
'Because he was (too) young (to work), his winter labour is registered as expended.' (SNAT 325 obv 3-4; U; 21)

(142) **mu munus*áš-gàr* niga *la-ba-na-ab*-du$_{11}$-*ga* *in*-šum-*ma-šè* / ur-sa$_6$-*ga-ĝu$_{10}$* *in*-su$^{!}$**
mu áš.gàr niga nu =Ø -ba -nna -b -du$_{11}$.g-Ø -ʔa =Ø
name she.kid barley.fed NEG=VP-MM-3SG.IO-3N.OO-say -3N.S/DO-NOM=ABS

ʔi -n -šum -Ø -ʔa =ak =še
VP-3SG.A-slaughter-3N.S/DO-NOM=GEN=TERM

ur.sa$_6$.ga.ĝu$_{10}$=e ʔi -n -su.g -Ø
Ursagagu =ERG VP-3SG.A-repay-3N.S/DO
'Because he had slaughtered a barley-fed she-kid, which he had not been ordered to, Ursagagu replaced it.' (PDT 1:408 17-18; D; 21)

(143) **eger-*ba* mu ^{d}*ba-ú-ì*-zu *in*-taka$_4$-<*a*>-*šè* / 1 *ma-na* kù-babbar / ^{d}*ba-ú-ì*-zu / *in-na*-lá-*e***
eger=be=ʔa mu ba.ú.ì.zu=Ø ʔi -n -taka$_4$-Ø -ʔa =ak =še
back=its=LOC name Bau.izu =ABS VP-3SG.A-leave-3SG.S/DO-NOM=GEN=TERM

1 ma.na kù.babbar=Ø ba.ú.ì.zu=r(a) ʔi -nna -láʔ -e
1 pound silver =ABS Bau.izu =DAT VP-3SG.IO-weigh-3SG.A:IPFV
'Because he later left Bau-izu, he shall pay one pound of silver to Bau-izu.' (NG 205 63-66; L; 21)

This expression with the noun **mu** 'name' literally means 'for the name of' and thus is the exact equivalent of Akkadian *aššum* 'because (of)', which comes from *ana šum* 'for the name of' (von Soden 1995: 207).

The second of the two older constructions is one with suffixed /akanam/, the structure of which is not yet entirely clear (but see the glosses and discussion below):

(144) **ku$_6$ pisaĝ ĝar-*ra-šè* *nu-mu*-ře$_6$-*a-ka* *nam***
ku$_6$ pisaĝ ĝar -Ø -ʔa =še nu =Ø -mu -n -ře$_6$ -eš -ʔa =ak =ʔa nam
fish basket place-NFIN-NOM=TERM NEG=VP-VENT-3SG.A-bring-3PL-NOM=GEN=LOC status
'because they did not bring in fish in accordance with the baskets supplied' (VS 14:20 2:3; L; 24)

This /akanam/ is also found in a personal name:

(145) ***ĝá-ka-nam-ḫé*-ti**
ĝe$_{26}$=ak =ʔa nam ḫa =ʔi -ti.l -Ø
I =GEN=LOC status MOD=VP-live-3SG.S/DO
'May she live because of me!' (Nik 1:16 8:5; L; 24)

Poebel (1923: 123) explained the initial part of /akanam/ as the genitive case marker {ak}. In the glosses I tentatively analysed the rest as the locative case marker {ʔa} and the noun ***nam*** 'status'. Such an analysis, however, assumes an irregular word order, since in contemporary

Sumerian the head noun always precedes its dependents and case marker. Whether in prehistoric Sumerian the head noun could follow its dependents is largely unknown, but there is some evidence for a change in word order with the adjectives (see §10.4.1).

The construction with /akanam/ is only attested in Old Sumerian. By the time of Gudea at the latest, it had been replaced by one with suffixed /akeš/ (Krecher 1993c: 193). This replacement is most obvious in the personal name of example (145) above, which appears as follows in texts from the Ur III period:

(146) ***ĝá-ke$_4$-éš-ḫé*-ti**
ĝe$_{26}$=ak =eš ḫa =ʔi -ti.l -Ø
I =GEN=ADV MOD=VP-live-3SG.S/DO
'May she live because of me!' (e.g., MVN 11:163 13; U; 21)

This /akeš/ is to be analysed as the genitive case marker {ak} followed by adverbiative {eš} (Attinger 1993: 309). Originally it may have meant something like 'in the manner of that of', but its attested meanings are 'concerning' and 'because (of)'. It, too, occurs with nouns or nominalized clauses (and with non-finite clauses, see §28.3.4):

(147) ***a-šà-ga-ke$_4$-éš* lú-^{d}nanna-*ra* / *in-na*-du$_{11}$**
a.šà.g=ak =eš lú.nanna.k=ra ʔi-nna -ʔ -du$_{11}$.g-Ø
field =GEN=ADV Lu.Nanna =DAT VP-3SG.IO-1SG.A-say -3N.S/DO
'I spoke to Lu-Nanna about the field.' (MVN 11:168 11-12; U; 21)

(148) **ur-saĝ ug$_5$-*ga* *ì-me-ša-ke$_4$-éš***
ur.saĝ ug$_5$ -Ø -ʔa =Ø ʔi -me-eš -ʔa =ak =eš
warrior die:PLUR-NFIN-NOM=ABS VP-be -3PL.S-NOM=GEN=ADV
'because they were killed heroes' (Cyl A 26:15; L; 22)

(149) **kišib ur-ès-kù-*ga* / *nu-ù*-ĝál-*la-ke$_4$-eš* / [ĝi]ri$_3$-*né* šu *ba-an-ši*-ti**
kišib ur.ès.kù.ga=Ø nu =ʔi -ĝál -Ø -ʔa =ak =eš
seal Ureskuga =ABS NEG=VP-be.there-3N.S/DO-NOM=GEN=ADV

ĝiri$_3$.né=e šu =e ba -n -ši-n -ti -Ø
Girini =ERG hand=DIR 3N.IO-3SG-to-3SG.A-approach-3N.S/DO
'Because Ur-Eskuga's sealed document was not there, Girine received it from him.' (JCS 54 p. 2:4 rev 1-3; N; 21)

There is one attestation of a reason clause that blends together two constructions, the one with **mu** and the one with /akeš/:

(150) **mu lú-IM-*ka* *ba-an-ku-re-eš-ša-ke$_4$-eš***
mu lú.IM.k=ʔa ba -n(i)-ku$_4$.r-eš -ʔa =ak =eš
name liar =LOC MM-in -enter -3PL.S-NOM=GEN=ADV
'because they were turned into liars' (Pettinato L'uomo p. 101:45 rev 4; ?; 21)

The existence of a fifth type of reason clause is not entirely certain. The basic meaning of the comitative case is 'together with', but sometimes it has a sense 'because of', expressing a reason (§7.11.2). That particular usage also seems to apply to a few nominalized clauses in the comitative case. It is especially clear in the first of the following three attestations, which make up all instances known to me:

(151) **é-an-*na*-túm / ensi$_2$ / lagas[^{ki}]-*ra* / ^{d}inanna-*ke$_4$* / ki *an-na*-áĝ-*ĝá-da* / *nam*-ensi$_2$ / lagas^{ki}-*ta* / *nam*-lugal kiš^{ki} / *mu-na-ta*-šúm**

é.an.na.túm ensi$_2$.k lagas =ak =ra inanna.k=e ki =Ø
Eannatum ruler Lagash=GEN=DAT Inanna =ERG place=ABS

ʔa -nna -n -ʔáĝ -Ø -ʔa =da nam.ensi$_2$ lagas =ak =ta
VP-3SG.IO-3SG.A-measure-3N.S/DO-NOM=COM rulership Lagash=GEN=ABL

nam.lugal kiš =ak =Ø Ø -mu -nna -ta -n -šúm-Ø
kingship Kish=GEN=ABS VP-VENT-3SG.IO-with-3SG.A-give-3N.S/DO
'Because Inanna loves (lit. "has measured out a place for") Eannatum, the ruler of Lagash, she gave him the kingship of Kish together with the rulership over Lagash.' (Ean. 2 5:23-6:5; L; 25)

(152) **ú-a / *nu*-zuḫ-*a*-*da* / ú-a / ^{d}íd-*da* / *an*-e$_{11}$**
ú.a =e nu =ʔi -n -zuḫ-Ø -ʔa =da
U'a=ERG NEG=VP-3SG.A-steal-3N.S/DO-NOM=COM

ú.a =Ø íd =ʔa ʔa-n(i)-e$_{11}$.d -Ø
U'a=ABS river=LOC VP-in -go.down-3SG.S/DO
'Because U'a had not stolen it, U'a went down into the divine river (for an ordeal).' (SRU 99 9:4-8; N; 23)

(153) **kišib ba-ba-ti / ur-mes-*e* *ì*-ře$_6$-*a*-*da***
kišib ba.ba.ti=ak =Ø ur.mes=e ʔi -n -ře$_6$ -Ø -ʔa =da
seal Babati =GEN=ABS Urmes =ERG VP-3SG.A-bring-3N.S/DO-NOM=COM
'because Urmes brought the sealed document of Babati' (RA 84 [1990] p. 169:2 3-4; L; 21)

There may be a sixth type of reason clause, viz. a nominalized clause with the equative case marker {gen}. See §27.6.7 below for a discussion.

27.6.6. Conditional clauses

English conditional clauses are introduced by the conjunction *if* and are commonly divided into *real* and *unreal* conditional clauses. The latter express a condition that is impossible or very unlikely to be met (*if I were rich*), while real conditional clauses have no such implication (*if I am rich*). Both real and unreal conditional clauses can refer to past, present, and future situations, which are partly associated with further formal distinctions in English. E.g.:

	Real	***Unreal***
Past	*if you were there yesterday*	*if you had been there yesterday*
Present	*if it is now raining outside*	*if it were now raining outside*
Future	*if he arrives tomorrow*	*if he arrived tomorrow*

Of course there is much more to be said about English conditional clauses, but this will suffice as background to their Sumerian counterparts. The texts of our corpus contain close to two hundred conditional clauses. Yet, large as the sample may be, its spread is rather uneven, since most attestations come from the Ur III period and from legal documents. As a result our data on Sumerian conditional clauses show some important gaps. To begin with, unreal conditional clauses are completely lacking, so that we do not know how they were expressed in Old

or Neo-Sumerian.[2] In addition, nearly all attested clauses refer to future situations, thus further limiting our scope.

Before we can address the conditional clauses themselves, two related constructions need to be pointed out. Clauses containing a finite form with the vocalic prefix {ʔu} are subordinate clauses expressing anterior actions. Such clauses can have a meaning that comes close to that of a conditional clause and, indeed, there is one conditional clause in our corpus which actually contains a form with the prefix {ʔu}. Clauses with an {ʔu}-form are temporal clauses, though, and not conditional clauses. See §24.2.2 for details.

Similarly, a verbal form with the modal proclitic {ḫa} can have a conditional meaning, in much the same way as, for instance, English *should* in a clause such as *Should he arrive*. Our corpus includes also examples of conditional clauses containing a finite form with {ḫa} (see §25.4.2).

Our corpus shows three different constructions functioning as conditional clauses. All three of them are attested during the Ur III period, but only one occurs already in Old Sumerian, viz. conditional clauses with the conjunction **u$_4$-*da*** 'if'. As it happens, this type of clause is only attested in Lagash texts and may therefore be a dialectal form, but there are too few attestations (less than a dozen) to be sure of that. Conditional clauses with **u$_4$-*da*** 'if' contain, as a rule, a verbal form in the imperfective and are followed by a main clause with an imperfective or modal form. E.g.:

(154) **u$_4$-*da* *mu*-bala-*e* / sa-šu$_4$-gal / ^{d}utu / (…) / umma^{ki}-*a* / an-*ta* *ḫé*-šu$_4$**
u$_4$.da Ø -mu -n(i)-bala -en sa.šu$_4$.gal utu =ak =Ø umma=ʔa
if VP-VENT-in -cross-1SG.S/DO battle.net Utu=GEN=ABS Umma=LOC

an =ta ḫa =ʔi -b(i) -šu$_4$ -Ø
heaven=ABL MOD=VP-3N:on-cover-3N.S/DO
'If I cross it, may (then) Utu's great battle-net cover Umma from above!' (Ean. 1 rev 1:24-30; L; 25)

(155) **u$_4$-*da* *nu*-*šè*-sa$_{10}$-sa$_{10}$ / ugula libiš-*bé* / *na*-*na*-tag-*ge***
u$_4$.da nu =ʔi -n -ši-sa$_{10}$:RDP -e
if NEG=VP-3SG-to-barter:IPFV-3SG.A:IPFV

ugula =e libiš =be=Ø na -nna -tag -e
foreman=ERG anger=its=ABS NEG.MOD-3SG.IO-touch-3SG.A:IPFV
'If he does not buy it from him, the foreman should not let (his) anger about this touch him!' (Ukg. 4 11:29-31; L; 24)

Although **u$_4$-*da*** usually is the first word of the subordinate clause, it does not have to be in initial position:

(156) **ur-^{d}ištaran / *nu*-banda$_3$ / u$_4$-*da* šà-*ĝá* *ḫé*-dab$_5$ *íb*-*bé* / *ḫé*-dab$_5$ / u$_4$-*da* še *nu*-tuku *íb*-*bé* / eren$_2$ ur-^{d}ištaran / *ḫé*-*ma*-zi-zi**
ur.ištaran nu.banda$_3$=e u$_4$.da šà.g =ĝu=ak =Ø
Ur.Ishtaran overseer =ERG if heart=my=GEN=ABS

ḫa =ʔi -ʔ -dab$_5$-Ø ʔi -b -ʔe -e
MOD=VP-1SG.A-take -3N.S/DO VP-3N.OO-say:IPFV-3SG.A:IPFV

[2] Black (1995) treats a few possible examples from later texts.

ḫa =ʔi -n -dab$_5$-Ø u$_4$.da še =Ø nu =ʔi -ʔ -tuku-Ø
MOD=VP-3SG.A-take -3N.S/DO if barley=ABS NEG=VP-1SG.A-have -3N.S/DO

ʔi -b -ʔe -e eren$_2$ ur.ištaran =ak =Ø
VP-3N.OO-say:IPFV-3SG.A:IPFV troops Ur.Ishtaran=GEN=ABS

ḫa =ʔi -m(u) -ba -zi.g:RDP-e
MOD=VP-VENT-3N.IO-rise:IPFV -3SG.A:IPFV
'(Say to PN:) If Ur-Ishtaran, the overseer, says "May I keep what I want (lit. 'that of my heart')", he should keep it! (But) if he says "I have no barley", he should raise Ur-Ishtaran's men for himself!' (TCS 1:157; L; 21)

The following conditional clause with **u$_4$-*da*** 'if' contains a verbal form in the perfective instead of the imperfective, because it expresses a state instead of an action (§15.4.2). However, the fact that it refers to a past situation may also play a role, but that can only be decided when more perfective examples come available:

(157) **u$_4$-*da* udu *e*-bar$_6$ / (…) / kù giĝ$_4$ 5-*am*$_6$ / *e-ĝá-ĝá-ne***
u$_4$.da udu =Ø ʔi -bar$_6$ -Ø kù.g giĝ$_4$ 5=ʔam ʔi -ĝar:RDP -enē
if sheep=ABS VP-be.white-3N.S/DO silver shekel 5=be:3N.S VP-place:IPFV-3PL.A:IPFV
'If the sheep were white, they used to pay five shekels of silver.' (Ukg. 6 1:18'-21'; L; 24)

The conjunction **u$_4$-*da*** is written once ***ù-da*** (Ukg. 5 10:26; L; 24). It is a homonym of **u$_4$-*da*** 'today', which may have a different etymology, though (§31.4). The conjunction **u$_4$-*da*** is in origin an adverbial expression meaning 'in the time (that)' (< **u$_4$.d** 'day' with the locative case marker {ʔa}). It has a similar structure as the Akkadian temporal conjunction *inūmī* 'when' (< *in ūmī* 'in the days that'). Although Sumerian **u$_4$-*da*** 'if' is only a conditional conjunction, the development from temporal 'when' to conditional 'if' is cross-linguistically a common one (cf., e.g., German *wenn* 'if, when'). Note, that the use of the imperfective with **u$_4$-*da*** is as in temporal clauses (§27.6.2) and not as in the other types of conditional clauses (see below).

The most common type of conditional clause is the one with the conjunction **tukum-*bé*** 'if'. It is usually written **ŠU.NÍG.TUR.LÁ-*bé***, but shorter spellings are also found: **ŠU.NÍG.TUR-*bé*** and **ŠU.TUR-*bé*** (Wilcke 1990a: 489). The conjunction **tukum-*bé*** is attested all across the country but only from the time of Gudea onwards. It may therefore be a recent innovation in the language. The earliest attestation as yet is the following:

(158) **tukum(ŠU.TUR)-*bé* / mu-*bé* šu ùr-*dè* / ĝeštu$_2$ *ḫé-em-ši*-gub**
tukum.be mu =be =e šu =Ø ʔùr -ed -Ø =e ĝeštu$_2$.g=Ø
if name=this=DIR hand=ABS sweep-IPFV-NFIN=DIR ear =ABS

ḫa =ʔi -m(u) -ši-gub -Ø
MOD=VP-VENT-to-stand-3N.S/DO
'if (his) mind is fixed on erasing this inscription (lit. "if the ear should stand to sweeping the hand over this name")' (St B 9:12-14; L; 22)

Conditional clauses with **tukum-*bé*** 'if' contain, as a rule, a verbal form in the perfective (and not the imperfective, as with **u$_4$-*da***) and are followed by a main clause with an imperfective or modal form. E.g.:

(159) **tukum-*bé* / *nu-na-an*-šúm / é-*a-né-ta* / *íb*-su-su**

tukum.be nu =ʔi -nna -n -šúm-Ø
if NEG=VP-3SG.IO-3SG.A-give -3N.S/DO

é.j =ane=ta ʔi -b -su.g:RDP-e
house=his =ABL VP-3N.DO-repay:IPFV-3SG.A:IPFV
'If he does not give it to him, he will replace it from his estate.' (TCS 1:177 8-11; L; 21)

(160) **tukum-*bé* *la-ba*-šúm tab-*dam***
tukum.be nu =Ø -ba -šúm-Ø tab -ed -Ø =ʔam
if NEG=VP-MM-give-3N.S/DO double-IPFV-NFIN=be:3N.S
'If this (silver) is not given, it is to be doubled.' (NRVN 1:116 8; N; 21)

(161) **tukum-*bé* / inim *nu-ge-en*$_6$ / ^{ĝiš}ĝišnimbar-*ĝu*$_{10}$ / inim-*ba ga-ra*-šúm**
tukum.be inim=Ø nu =ʔi -ʔ -ge.n -Ø
if word=ABS NEG=VP-1SG.A-be.firm-3N.S/DO

ĝišnimbar=ĝu =Ø inim =be =ʔa ga -ra -b -šúm
date.palm =my=ABS word=this=LOC MOD:1SG.A/S-2SG.IO-3N.DO-give
'If I do not make the transaction firm, I will give my date palms to you in this transaction.' (FAOS 17 125 tablet 7-10; ?; 21)

Nearly all attested conditional clauses with **tukum-*bé*** express real conditions in the future, but there are a few expressing real conditions in the past. They, too, contain perfective forms:

(162) **tukum-*bé* eger$_5$ *ab-ba-na-ta-àm* / *lú-ša-lim-e* saĝ šuku-*ra ba-ra-an*-kid$_7$ / *lú-ša-lim šer$_7$-da-àm***
tukum.be eger$_5$ ab.ba =ane=ak =ta =ʔam lú.ša.lim=e
if back father=his =GEN=ABL=be:3N.S Lū.šalim=ERG

saĝ šuku.r =ak =Ø ba -ta -n -kid$_7$ -Ø
head subsistence=GEN=ABS MM-from-3SG.A-pinch-3N.S/DO

lú.ša.lim=Ø šer$_7$.da=Ø =ʔam
Lū.šalim =ABS offence=ABS=be:3SG.S
'If, after his father's death, Lū-šalim pinched off the best part of the subsistence field, Lū-šalim is at fault.' (NG 215 11-13; U; 21)

(163) ***nu*-zu mu lugal tukum-*bé* é-*ĝá* *mu*-ku$_4$-ku$_4$ / *ga-ra-an*-túm**
nu =ʔi -ʔ -zu -Ø mu lugal=ak
NEG=VP-1SG.A-know-3N.S/DO name king =GEN

tukum.bé é =ĝu =ʔa mu -n(i)-ku$_4$.r-ku$_4$.r-Ø
if house=my=LOC VENT-in -enter -enter-3SG.S/DO

ga -ra -n -túm
MOD:1SG.A/S-2SG.IO-3SG.DO-bring
'I don't know. By the king's name, if he (a slave) ever entered my house, I will bring him to you!' (SNAT 360 obv. 13-14; U; 21)

Although **tukum-*bé*** usually is the first word of the subordinate clause, it does not have to be in initial position:

(164) **geme$_2$-^{d}dumu-zi-*da* / tukum-*bé* / geme$_2$ *ba-la-la-kam***

geme$_2$.dumu.zi.da.k=Ø tukum.be geme$_2$ ba.la.la=ak =Ø =ʔam
Geme.Dumuzida =ABS if slave.woman Balala =GEN=ABS=be:3SG.S
'if Geme-Dumuzida is the slave woman of Balala' (AuOr 17/18 p. 228:40 5-7; L; 21)

(165) **iti zíz-*a* u$_4$ 30 *ba*-zal-*la* / ur-du$_6$-kù-*ke$_4$* ^{d}en-líl-*al*-sa$_6$-*ra* / tukum-*bé* šà nibru^{ki} *nu*-*na*-ře$_6$**
iti.d zíz.a u$_4$.d 30=Ø ba -zal -Ø -ʔa =ʔa ur.du$_6$.kù.k=e
month NN day 30=ABS MM-pass-3N.S/DO-NOM=LOC Urduku =ERG

en.líl.al.sa$_6$.g=ra tukum.be šà.g nibru =ak =ʔa
Enlil.alsa =DAT if heart Nippur=GEN=LOC

nu =ʔi -nna -n -ře$_6$ -Ø
NEG=VP-3SG.IO-3SG.A-bring-3N.S/DO
'if Urduku has not brought it to Enlil-alsa in Nippur when month XI day 30 has passed' (NATN 621 1-3; N; 21)

The word **tukum-*bé*** comes from the word **tukun**, which Akkadian lexical texts usually translate with *surru*, *surri* 'immediately'. The form /tukumbe/ itself is an adverbial expression (§4.5.3) and is perhaps to be analysed as /tukun=be=e/, with the non-human possessive pronoun {be} 'its' followed by the directive case marker {e}.

The third construction functioning as a conditional clause involves a sequence of two finite perfective forms of one and the same verb, the first positive and the second negative. Following Falkenstein (1956: II 224), I analyse the construction as a sequence of two conditional clauses, with the omission of the main clause belonging to the first of the two. E.g.:

(166) **su-su-*dam* / *in*-su$^{!}$ *nu*-su$^{!}$ / *íb*-tab-*bé***
su.g:RDP -ed -Ø =ʔam ʔi -n -su.g -Ø
repay:IPFV-IPFV-NFIN=be:3N.S VP-3SG.A-repay-3N.S/DO

nu =ʔi -n -su.g -Ø ʔi -b -tab -e
NEG=VP-3SG.A-repay-3N.S/DO VP-3N.DO-double-3SG.A:IPFV
'It is to be repaid. If he repays it, <all is well>. But if he does not repay it, he will double it (viz. the amount to be repaid).' (UET 3:37 6-8; Ur; 21)

(167) ***ì*-lá *nu*-lá / 3 gi$\hat{g}_4$ kù-babbar lá-*da***
ʔi -n -lá -Ø nu =ʔi -n -lá -Ø
VP-3SG.A-weigh-3N.S/DO NEG=VP-3SG.A-weigh-3N.S/DO

3 gi$\hat{g}_4$ kù.babbar=Ø lá -ed -Ø =ak
3 shekel silver =ABS weigh-IPFV-NFIN=GEN
'that if he pays, <all is well>, but if he does not pay, three shekels of silver is to be paid (as a fine)' (NRVN 1:115 8; N; 21)

(168) ***ba-an*-šúm *la-ba-an*-šúm tab$^{!}$-*da*$^{!}$**
Ø -ba -n -šúm-Ø nu =Ø -ba -n -šúm-Ø tab -ed -Ø =ak
VP-3N.IO-3SG.A-give -3N.S/DO NEG=VP-3N.IO-3SG.A-give -3N.S/DO double-IPFV-NFIN=GEN
'that if he gives it, <all is well>, but if he does not give it, it is to be doubled' (AUCT 3:406 11; ?; 21)

(169) **ur-dub-šen-*ke$_4$* / (...) / lú-*la-ga* udu zuḫ-*a* lú-^{d}nanna-*ka* / *mu*-túm *nu*-*mu*-túm / lú-*la-ga-bé* *ì*-*me*-*a***

ur.dub.šen,k=e lú.la.ga udu zuḫ -Ø -ʔa lú.nanna.k=ak =Ø
Urdubshen =ERG robber sheep steal-NFIN-NOM Lu.Nanna =GEN=ABS

Ø -mu -n -túm -Ø nu =Ø -mu -n -túm -Ø
VP-VENT-3SG.A-bring-3SG.S/DO NEG=VP-VENT-3SG.A-bring-3SG.S/DO

lú.la.ga=be=Ø ʔi -me-Ø -ʔa
robber =its=ABS VP-be -3SG.S-NOM
'that if Urdubshen brings the robber of Lu-Nanna's stolen sheep, <all is well>, but that if he does not bring him, he himself will be considered their robber' (SNAT 210 tablet 1-5; L; 21)

That indeed both finite forms are part of a conditional clause is clearly shown by those instances where the conditional conjunction **tukum-*bé*** is also present:

(170) **tukum-*bé* / u_4 3-*kam-ka* / ^{ĝiš}*gu-za* mu-$ře_6$ nu-mu-$ře_6$ (...)**
tukum.bé u_4.d 3-kamma=ak =ʔa gu.za=Ø Ø -mu -n -$ře_6$ -Ø
if day 3-ORD =GEN=LOC chair =ABS VP-VENT-3SG.A-bring-3N.S/DO

nu =Ø -mu -n -$ře_6$ -Ø
NEG=VP-VENT-3SG.A-bring-3N.S/DO
'If I bring the chair on the third day, <all is well>. But if I do not bring it, (I will pay a fine of one-third of a pound of silver to him.)' (NG 131 9-15; L; 21)

(171) **tukum-*bé* / *mu*-$ře_6$ *nu-mu*-$ře_6$ (...)**
tukum.be Ø -mu -n -$ře_6$ -Ø nu =Ø -mu -n -$ře_6$ -Ø
if VP-VENT-3SG.A-bring-3N.S/DO NEG=VP-VENT-3SG.A-bring-3N.S/DO
'if he brings it, <all is well>, but if he does not bring it (...)' (MVN 12:439 case rev. 1-2; L; 21)

27.6.7. Comparative clauses

Our corpus contains several subordinate clauses with the equative case marker {gen} (§7.12). In later texts, such clauses can have comparative, temporal, or causal meanings (Römer 1980: 92-94). Since the basic meaning of {gen} is 'like, as', the comparative meaning is without doubt the original one. E.g.:

(172) **níĝ é-ninnu / ... / *mu-na*-řú-*a-gen*$_7$ / u_4 ^{d}*ba-ú* / … / nin-*a-ni* / é-sila-sír-sír / … / *mu-na*-řú-*a* / iri *mu*-kù**
níĝ é.ninnu=Ø Ø -mu -nna -n -řú -Ø -ʔa =gen
thing Eninnu =ABS VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO-NOM=EQU

u_4.d ba.ú nin =ane=r(a) é.sila.sír.sír=Ø
day Bau lady=his =DAT Esilasirsir =ABS

Ø -mu -nna -n -řú -Ø -ʔa =ʔa
VP-VENT-3SG.IO-3SG.A-erect-3N.S/DO-NOM=LOC

iri =Ø Ø -mu -n -kù.g -Ø
city=ABS VP-VENT-3SG.A-be.pure-3N.S/DO
'Just as (when) he built the Eninnu for him (= Ningirsu), he purified the city when he built the Esilasirsir for his lady Bau.' (St E 2:13; L; 22)

(173) **lá-NI 330 še gur / ur-mes-*e* é-kišib-*ba-ka* *in*-tuku-*a-gen$_7$-na-àm***
lá.NI 330 še gur=Ø ur.mes=e é.kišib.ba.k=ʔa
shortage 330 barley *gur*=ABS Urmes =ERG storeroom =LOC

ʔi -n -tuku-Ø -ʔa =gen =ʔam
VP-3SG.A-have-3N.S/DO-NOM=EQU=be:3N.S
'It was as if Urmes had a shortage in the storeroom of 330 *gur*s of barley.' (NG 205 49-50; L; 21)

Cross-linguistically it is quite common for comparative subordinators to acquire temporal and other senses, as, for instance, happened with English *as*, German *als*, and Akkadian *kīma* (Deutscher 2000: 37-41). In the same way, Sumerian {gen} has acquired a temporal ('when') and a causal ('because') meaning, although it is not always easy to decide which of the two applies in a given clause. The following, however, seem to be fairly clear cases of a temporal use of {gen}:

(174) **u$_4$ alan ^{d}šul-ge-*e* / *in*-gub-*ba-gen$_7$-àm* tùm-*dam***
u$_4$.d alan =Ø šul.ge.r=e ʔi -n -gub -Ø -ʔa =gen =ʔam
day statue=ABS Shulgi =ERG VP-3SG.A-stand-3N.S/DO-NOM=EQU=be:3N.S

tùm -ed -Ø =ʔam
bring:IPFV-IPFV-NFIN=be:3N.S
'This is to be brought when Shulgi sets up the statue (lit. "It is like the day when .... (that) this is to be brought").' (YOS 4:56 20-21; ?; 21)

(175) **li an-*né* *im-ma*-íl an *mu*-sikil-*la-gen$_7$***
li =Ø an =e ʔi-m(u) -ba -n -íl -Ø
juniper=ABS heaven=DIR VP-VENT-3N.IO-3SG.A-lift-3N.S/DO

an =Ø Ø -mu -n -sikil -Ø -ʔa =gen
heaven=ABS VP-VENT-3SG.A-be.clean-3N.S/DO-NOM=EQU
'as he lifts the juniper to heaven and purifies heaven' (PBS 13:35 5'; N; 21)

The texts from our corpus do not seem to offer a clear example of a causal use, but the following one comes close (also non-finite, see §28.3.4):

(176) ***nu-bar-re nam-nu-bar-ra-na ba-ni-*ře$_6$*-*a-gen$_7$***
nu.bar=e nam.nu.bar=ane=ʔa Ø -ba -ni-n -ře$_6$ -Ø -ʔa =gen
nubar =ERG *nubar*.status=her =LOC VP-MM-in-3SG.A-bring-3N.S/DO-NOM=EQU
'as the *nubar*-priestess brings him (viz. the *Samana*-demon) along in her position of *nubar*-priestess' (Studies Borger p. 73 15; ?; 21)

The content of this clause is repeated later in the same text with a reason clause:

(177) ***nu-bar-re nam-nu-bar-ra-na ba-ni-*ře$_6$*-a ì-me-a-ke$_4$-eš***
nu.bar=e nam.nu.bar=ane=ʔa Ø -ba -ni-n -ře$_6$ -Ø -ʔa =Ø
nubar =ERG *nubar*.status=her =LOC VP-MM-in-3SG.A-bring-3N.S/DO-NOM=ABS

ʔi -me-Ø -ʔa =ak =eš
VP-be -3N.S-NOM=GEN=ADV
'because he (viz. the *Samana*-demon) is one whom the *nubar*-priestess brings along in her position of *nubar*-priestess' (Studies Borger p. 73 29; ?; 21)

27.6.8. Residual types

Our corpus contains a variety of adverbial clauses which have not yet been discussed, either because their functions are still unclear, or because they do not fit any of the categories treated in the preceding sections. To the latter belongs a complementation strategy documented by the following two examples:

(178) ***nam*-erim$_2$-*ta im-ma-ra-a*-gur-*ša-aš* / igi ur-mes dumu lú-niĝin$_6^{ki}$ nar-gal-*ka-šè* / *ba-ge-né-eš***
nam.erim$_2$=ta ʔi -m(u)-ba -ta -e -gur -eš -ʔa =š(e)
oath =ABL VP-VENT-MM-from-on-go.back-3PL.S/DO-NOM=TERM

igi ur.mes dumu lú.niĝin$_6$ nar.gal =ak =ak =še ba -ge.n -eš
eye Urmes son Lu.Nigin chief.musician=GEN=GEN=TERM MM-be.firm-3PL.S/DO
'Before Urmes, the son of Lu-Nigin, the chief musician, they were confirmed to have backed away from an oath (lit. "they were made firm as to (the fact) that they came back from an oath on it").' (NG 113 53-55; L; 21)

(179) **eger-*ra* dam ur-lugal-*ke$_4$* / 10 giĝ$_4$ kù *in-da-an*-tuku-*aš* / *in-ge-en$_8$***
eger=ʔa dam ur.lugal=ak =e 10 giĝ$_4$ kù.g =Ø
back=LOC wife Urlugal =GEN=ERG 10 shekel silver=ABS

ʔi -n -da -n -tuku-Ø -ʔa =š(e) ʔi-n -ge.n -Ø
VP-3SG-with-3SG.A-have-3N.S/DO-NOM=TERM VP-3SG.A-be.firm-3N.S/DO
'Afterwards Urlugal's wife confirmed that she owed her (= Geme-Suena) ten shekels of silver (lit. "made it firm as to that she had ten shekels of silver with her") .' (Studies Sigrist p. 174 8-10; U; 21)

The content of what is confirmed is here expressed with a nominalized clause in the terminative case. This construction is quite common with the verb **ge.n** 'be/make firm' but usually involves a non-finite clause (§28.3.3 at the end). The construction is not restricted to this verb alone:

(180) **nin-íd-<maḫ>-*e* / mu lugal *in-pa* / iri-*né-šè* niĝir-*ra* / *la-ba*-gi$_4$-gi$_4$-*da-šè***
nin.íd.maḫ=e mu lugal=ak =Ø ʔi -n -pà.d-Ø
Nin.Idmah =ERG name king =GEN=ABS VP-3SG.A-find -3N.S/DO

iri.né.šè niĝir =ra nu =Ø -ba -n -gi$_4$:RDP-ed -Ø -ʔa =še
Irineshe herald=DAT NEG=VP-MM-3SG.OO-turn:IPFV-IPFV-3SG.S:IPFV-NOM=TERM
'Nin-Idmah took an oath by the king's name – as to that she would not go back on Irini-she, the herald.' (SRU 84 13-16; I; 23) (Similarly: SRU 85 1-6; I; 23)

This leaves us several types of finite adverbial clauses that are poorly documented. To the extent that their functions are understood at all, they seem to have more or less temporal meanings. One construction involves a nominalized clause in the comitative case that means something like 'as long as'. Unfortunately, both examples present problems: the first because the context is obscure and the second because it contains scribal mistakes:

(181) ***na-an-gaba*-ti-*la-da***
a.na ʔa-nga-ba -ti.l -Ø -ʔa =da
what VP-also-MM-live-3SG.S/DO-NOM=COM

'as long as he lives (lit. "together with whatever [time] he lives")' (NRVN 1:236 5; N; 21)

(182) **du-du *a-<na> ba*-ti-*la-da*** (written: ***-da-la***) **/ *é-bé* ur-é-ninnu dumu du-du-*ke$_4$* *in*-gíd**
du.du=Ø a.na Ø -ba -ti.l-Ø -ʔa =da é =be =Ø ur.é.ninnu
Dudu=ABS what VP-MM-live-3SG.S/DO-NOM=COM house=this=ABS Ur.Eninnu

dumu du.du=ak =e ʔi -n -gíd -Ø
son Dudu =GEN=ERG VP-3SG.A-be.long-3N.S/DO
'As long as Dudu lived, Ur-Eninnu, Dudu's son, ... this house plot.' (NG 99 6-7; L; 21)

A further type of temporal clause is a content clause with two case markers, genitive {ak} and locative {ʔa}. As to its construction, it is a headless genitive (§7.2.4) in the locative case. Literally it means something like 'in that of ...'. In one instance, the subordinate clause contains a perfective form expressing a past state. The clause then means 'while ...' or the like:

(183) **geme$_2$-šul-*e* ur-^{d}lama$_3$ *in*-tuku-*a-ka* dumu *nu*-dú-*da***
geme$_2$.šul=e ur.lama$_3$=Ø ʔi -n -tuku-Ø -ʔa =ak =ʔa
Gemeshul=ERG Ur.Lama =ABS VP-3SG.A-have-3SG.S/DO-NOM=GEN=LOC

dumu=Ø nu =ʔi -n -dú.d -Ø -ʔa
son =ABS NEG=VP-3SG.A-give.birth.to-3SG.S/DO-NOM
'that while Gemeshul was married to Ur-Lama, she did not give birth to any children' (NG 26 16; L; 21)

Elsewhere the subordinate clause contains an imperfective form with the modal proclitic {ḫa} (§25.4). The precise meaning of such a clause has remains uncertain. Poebel (1923: 167) considered it to be concessive ('although'), but that does not fit more recently identified attestations. Nowadays, it is generally taken as a kind of temporal clause (Attinger 1993: 309), but its precise translation varies ('when', 'after', 'while'). I tentatively propose the meaning 'as soon as'. The construction often occurs in a fixed expression in Sumerian literary texts from the Old Babylonian period:

(184) ***ur$_5$-gen$_7$ ḫu-mu-na-ab-bé-a-ka***
ur$_5$=gen ḫa =Ø-mu -nna -b -ʔe -e -ʔa =ak =ʔa
that=EQU MOD=VP-VENT-3SG.IO-3N.OO-say:IPFV-3SG.A:IPFV-NOM=GEN=LOC
'as soon as he had thus spoken to him' (e.g., ELA 347; OB)

This type of clause occurs twice in our corpus, in a single sentence:

(185) **bar še-ba-*ka* / lú *ḫé-ši*-gi$_4$-gi$_4$-*a-ka* / še-*ĝu$_{10}$* *ḫa-mu*-tùm / *ḫé-na-bé-a-ka* / ur-lum-*ma-ke$_4$* / šu-ur$_6$ *e-ma-da*-du$_{11}$**
bar še =be =ak =ʔa lú =Ø
because.of barley=this=GEN=LOC man=ABS

ḫa =ʔi -n -ši -n -gi$_4$:RDP-e -ʔa =ak =ʔa
MOD=VP-3.SG-to-3SG.DO-turn:IPFV -3SG.A:IPFV-NOM=GEN=LOC

še =ĝu=Ø ḫa =Ø -mu -e -tùm -Ø
barley=my=ABS MOD=VP-VENT-2SG.A-bring:IPFV-3N.S/DO

ḫa =ʔi -nna -b -ʔe -ʔa =ak =ʔa
MOD=VP-3SG.IO-3N.OO-say:IPFV-NOM=GEN=LOC

ur.lum.ma.k=e šúr =Ø ʔi -m(u)-ba -n -da -n -du$_{11}$.g-Ø
Ur.Lumma =ERG angry=ABS VP-VENT-MM-3SG-with-3SG.A-say -3N.S/DO
'As soon as he sent him a messenger concerning that barley and as soon as he said to him: "You should bring my barley!", Ur-Lumma spoke angrily (?) with him.' (Ukg. 6 4:1'-6'; L; 24)

A further type of finite adverbial clause has already been treated in §27.3.5, so that a detailed discussion here is superfluous. It is a kind of circumstantial clause ('while'), with the stative verb **zu** 'know', and involves a nominalized clause without the nominalizing suffix {ʔa}.

28. NON-FINITE VERBAL FORMS

28.1. Introduction

Sumerian has four non-finite verbal forms, two of the perfective and two of the imperfective. They were already identified by Poebel (1923: 279):

i. Poebel's LAL-form consists of a perfective verbal stem, without any affix (e.g. **ĝar**). Such a form will be called a present participle. Generally speaking, it expresses a non-specific action or state, usually a present one. See §28.2.

ii. Poebel's LAL-a consists of a perfective verbal stem followed by the nominalizing suffix {ʔa} (e.g. **ĝar-*ra***). Such a form will be called a past participle. It normally expresses a specific action or state, usually a past one. See §28.3.

iii. Poebel's LAL-ed consists of an imperfective verbal stem with the suffix {ed} (e.g. **dím-*me.d***). Such a form will be called an imperfective participle. It is the normal non-finite form of the imperfective. See §28.4.

iv. Poebel's LAL-ed-a consists of an imperfective participle followed by the nominalizing suffix {ʔa} (e.g. **bala-*e-da***). Such a form will be called an imperfective participle with the nominalizing suffix {ʔa}. It is quite rare and only occurs in the so-called "pronominal conjugation" and is there the imperfective counterpart of the past participle. See §28.5.

Formally, the non-finite forms differ radically from their finite counterparts. A non-finite verbal form may include the nominalizing suffix {ʔa} (viz. in ii. and iv. above) and can be negated with the proclitic {nu} (§25.2). But for the rest they lack all other pre- and suffixes that can be part of a finite verbal form, among them the person markers, the dimensional prefixes, and the modal prefixes (§11.2.2). The absence of all such morphemes is expressed in the examples with a zero morpheme (-Ø), glossed as NFIN.

Only in their stem forms, non-finite and finite verbal forms are quite similar. Both may express verbal number through stem alternation or reduplication (§12.4). And both distinguish between perfective and imperfective stems (viz. perfective in i. and ii. as opposed to imperfective in iii. and iv. above). Finite and non-finite stem forms only differ in the role that the suffix {ed} plays in the imperfective (§15.3). In finite forms, its use is basically restricted to intransitive forms, but in non-finite forms its use is obligatory throughout, regardless of whether the form is transitive or intransitive. Only the irregular verb **du** 'go, come' consistently lacks it.

The verb **su.g** 'repay' may serve to illustrate the past, imperfective, and present participles, all from one and the same text:

(1) **1 gu$_4$ su-*ga***
1 gu$_4$.r su.g -Ø -ʔa
1 ox repay-NFIN-NOM
'one repaid ox' (CT 5 plate 29 BM 19024 9:15; L; 21)

(2) **1 dùr su-su *nu*-su im-*ma***
1 dùr su.g:RDP-ed -Ø nu =su.g -Ø im =ak
1 stallion repay:IPFV-IPFV-NFIN NEG=repay-NFIN last.year=GEN
'one donkey stallion to be repaid, not yet repaid, of last year' (CT 5 plate 29 BM 19024 9:1; L; 21)

The Sumerian non-finite forms differ crucially from their counterparts in most Indo-European or Semitic languages. Most importantly, Sumerian lacks separate forms for verbal adjectives and verbal nouns. German, for instance, has three non-finite forms: one verbal noun (the infinitive, e.g. *laufen* 'walk') and two verbal adjectives (the present and past participles, e.g. *laufend* 'walking' and *gelaufen* 'walked'). Each of these German forms belongs to a specific part of speech: a German non-finite form is a verbal *noun* (infinitive) or it is a verbal *adjective* (participle) but never both. The Sumerian non-finite forms, however, are not restricted in this way and can be used both as verbal adjectives and as verbal nouns.

This property they share with an English non-finite form like *walking*, which can also be used like an adjective as well as like a noun. Because of this difference in function, traditional English grammars distinguish between a gerund *walking* for the noun-like uses (*walking takes time*) and a present participle *walking* for the adjective-like uses (*the man walking on the bridge*.) Modern grammars, however, do not make this distinction any more, because gerund and present participle are always identical in form. To give just two examples: *A comprehensive grammar of the English language* (1985) takes the two together as the '*-ing* participle', while *The Cambridge grammar of the English language* (2002) unites them as the 'gerund-participle'.

A similar splitting up of one and the same form according to function has happened in Sumerian grammars. Falkenstein, for instance, distinguishes between an infinitive **řú-*a*** 'build' (Falkenstein 1978: 138) and a participle **řú-*a*** 'built' (Falkenstein 1978: 142). From a strictly formal point of view, however, we are dealing with a single non-finite form **řú-*a***, which can be used both as a verbal noun and as a verbal adjective, just like English *walking*. This functional flexibility is typical for the Sumerian non-finite verbal forms. The only exception is the imperfective participle with the nominalizing suffix {ʔa} (number iv. above), which can only be used as a verbal noun.

Calling such multifunctional forms 'participles' is a bit arbitrary. There are well-established and straightforward labels for many kinds of non-finite verbal forms: verbal adjectives are called 'participles', verbal nouns can, for instance, be referred to as 'infinitives', 'gerunds', or 'masdars', and the term 'converbs' has been coined for verbal adverbs. But the only clear name for a multifunctional form is the rather cumbersome 'non-finite verbal form'. In many situations that expression is simply too unwieldy to use and for this reason I prefer to call the Sumerian non-finite verbal forms simply 'participles', even when they are used as verbal nouns. But this is only a label of convenience.

But it is not only in their part-of-speech properties that the Sumerian participles are more flexible than their German and English counterparts. A further crucial difference has to do with what Haspelmath (1994: 152-154) calls *orientation*. Used as verbal adjectives, the Sumerian participles state something about a participant involved in the action or state expressed by the verb. In this they are similar to the German and English participles. They differ, however, crucially in that the German and English participles are inherently oriented toward the same participant, while the Sumerian forms are inherently *un*oriented and can, in principle, be oriented toward any participant.

Let me explain this difference in orientation in some more detail: An attributive participle says something about a noun, its head noun. Now, this head noun plays a role in the action or state expressed by the attributive participle. For German and English participles, which are inherently oriented, the role of the head noun is given and always the same. In the case of transitive verbs, for instance, the head noun of a German or English past participle has always the same role as the subject of a comparable passive clause (*der gehasste Feind = the hated enemy // der Feind wird gehasst = the enemy is hated*). German or English present participles

are also inherently oriented, their head nouns being understood as subjects of comparable active clauses (*schreibende Schüler* = *writing pupils*). By contrast, Sumerian participles are inherently unoriented. The role which the head noun has in the action or state expressed by the attributive form is not known beforehand. Only the context can make clear whether a Sumerian participle says something about its subject or about some other participant. It can refer to any participant. Thus, the Sumerian past participle **řú-*a*** can have the same meaning as the English and German past participles *built* and *gebaut*, but it can also have the meanings 'who built', 'for whom was built', and so on.

There is yet another difference between the Sumerian non-finite forms and their English counterparts and it is closely related to their difference in orientation: the Sumerian forms are neither inherently active nor passive but can be used either way. Whether a given non-finite form is active or passive must be determined from the context. And this is true regardless of whether this form is used as a verbal adjective or as a verbal noun. Thus, used as a verbal adjective, the Sumerian past participle **šúm-*ma*** can, for instance, mean active 'who gave' or passive 'which was given' and, used as a verbal noun, active 'that (...) gave (...)' or passive 'that (...) was given'.

Although the Sumerian participles are used as verbal adjectives or nouns, they retain many of their verbal properties and can be construed with subjects, objects, and adjuncts. Thus, they are the predicates of non-finite clauses, a major type of subordinate clause in Sumerian (§27.3.1). Non-finite clauses are particularly similar to the main category of finite subordinate clauses in Sumerian, the nominalized clauses. Most of what has been said about the latter in §27.3.4 equally applies to non-finite clauses, so that the following discussion can remain brief.

The non-finite clauses, too, can be divided into two main types. One type consists of clauses which refer to actions or states. They will be called non-finite content clauses. Grammatically, a non-finite content clause behaves like a noun. It has two possible uses. Firstly, it can be used as a non-finite complement clause. The predicate of such a clause is either a past participle (§28.3.4) or an imperfective participle (§28.4.4). E.g.:

(3) **lú inim-*ma* má ḫuĝ-*ĝá-me***
lú inim=ak má =Ø ḫuĝ-Ø -ʔa =ak =Ø =me-eš
man word=GEN boat=ABS hire -NFIN-NOM=GEN=ABS=be -3PL.S
'They are the witnesses (of the fact) that the boat had been rented.' (NG 62 7; U; 21)

Secondly, a non-finite content clause can be used as a non-finite adverbial clause. The predicate of such a clause is either a past participle (§28.3.4 and §28.6), an imperfective participle (§28.4.4), or an imperfective participle with the nominalizing suffix {ʔa} (§28.6). E.g.:

(4) **é ^{d}nin-*ĝír-su-ka* řú-*dè***
é nin.ĝír.su.k=ak =Ø řú -ed -Ø =e
house Ningirsu =GEN=ABS erect-IPFV-NFIN=DIR
'in order to build Ningirsu's temple' (Cyl A 15:9; L; 22)

The second type of non-finite clause consists of clauses which refer to participants involved in an action or state. They behave grammatically like adjectives and will be called non-finite relative clauses. E.g.:

(5) **elam *sa-bu-um*^{ki}-*ta* ĝen-*na***
elam sa.bu.um=ta ĝen-Ø -ʔa
Elamite Sabum =ABL go -NFIN-NOM
'an Elamite who came from Sabum' (MVN 15:191 5; U; 21)

The predicate of a non-finite relative clause is either a present participle (§28.2.2), a past participle (§28.3.3), or an imperfective participle (§28.4.3).

Finite and non-finite subordinate clauses are often used in similar situations and constructions, so that many constructions treated in chapter 27 recur in the present chapter. If so, a crossreference will be provided. But a few kinds of adverbial clauses are only finite or only non-finite (§27.6.1). Thus, all purpose clauses are non-finite (§28.4.4).

The following sections will deal in more detail with the forms, spellings, meanings, and constructions of the present participle (§28.2), the past participle (§28.3), the imperfective participle (§28.4), and the imperfective participle with the nominalizing suffix {ʔa} (§28.5). Subsequently, we will treat an archaic construction, a kind of temporal clause which has as its predicate either a past participle or an imperfective participle with the nominalizing suffix {ʔa} (§28.6). Finally, we will discuss the participles of the verb **ʔak** 'make, do', which show some irregularities (§28.7).

28.2. The present participle

28.2.1. Form and meaning

Sumerian has two non-finite verbal forms of the perfective. One is the past participle, which consists of a perfective verbal stem with the suffix {ʔa} and which will be treated in the following section (§28.3). The second is the present participle, which is the topic of the present section.

Present participles are identical in form to past participles, except that they lack the suffix {ʔa}. A present participle consists merely of a perfective verbal stem. This stem is usually the simple, unmodified, verbal root, as in **ús** (UTAMI 3:2106 1; U; 21), present participle of **ús** 'be next to, follow'. However, a present participle may also contain a reduplicated stem expressing verbal number (§12.4.3), as in **kar-kar** (Ent. 28 4:22; L; 25), present participle of **kar** 'take away'. A present participle lacks all the proclitics, prefixes, and suffixes which may occur in finite verbal forms (§11.2.2), with one exception. It may be preceded by the negative proclitic {nu}, e.g. ***nu*-su** (SAT 1:224 1; L; 21), present participle of **su.g** 'repay'.

Taken together, the two perfective participles show the same range of meanings as finite perfective forms (§15.4.2), but they divide these meanings between them. However, the division of labour between the present and past participles is not the same for all verbs. The present participles of the two stative verbs **zu** 'know' and **tuku** 'have' have a much wider range of uses than the present participles of other verbs. These two atypical verbs will therefore be discussed separately in §28.2.4 below.

Disregarding the present participles of **zu** 'know' and **tuku** 'have', we can say that a present participle expresses a timeless truth (cf. Selz 2002: 145). It refers to a generic action or state, never to a specific action which occurred at a certain time in a certain location, and never to a specific state which exists or existed at a certain time in a certain location. Thus, in the following example, the present participle ***nu*-ur$_4$** 'unshorn' describes a property of six lambs which are brought in:

(6) **6 sila$_4$ *nu*-ur$_4$**
6 sila$_4$ nu =ur$_4$ -Ø
6 lamb NEG=pluck-NFIN
'six unshorn lambs' (OIP 14:172 5; A; 23)

But the next example is from a document which reports the wool yield of a flock of sheep. Here the past participle ***nu*-ur$_4$-*ra*** 'not shorn' does not describe a property of some lambs but conveys that when the flock was shorn, a part of it was passed over:

(7) **šà-*ba* 66+[x] sila$_4$ *nu*-ur$_4$-*ra* *ì*-[ĝál]**
šà.g =be=ʔa 66+x sila$_4$ nu =ur$_4$ -Ø -ʔa =Ø ʔi -n(i)-ĝál -Ø
heart=its=LOC 66+x lamb NEG=pluck-NFIN-NOM=ABS VP-in -be.there-3N.S/DO
'Among them (i.e., in the flock) were 66+[x] (number partly unreadable) lambs which were not shorn.' (Bridges Mesag NBC 6983 lower edge; L; 23)

Their generic meanings make present participles highly suitable for expressing word-like meanings. Thus, they can be used on their own as agent or object nouns (§28.2.2), and as action nouns (§28.2.3), but they also occur in a wide variety of noun-participle compounds (§6.5.4).

Most present participles have an active meaning but not inherently so. They can also be used with a passive meaning without any change in form. Passivisation only involves deletion of the transitive subject (cf. §11.5.3). E.g.:

(8) **en-mete-*na* ^{d}en-líl-*le* ki áĝ**
en.mete.na.k en.líl=e ki =Ø áĝ -Ø
Enmetena Enlil =ERG place=ABS measure.out-NFIN
'Enmetena, whom Enlil loves (lit. "for whom Enlil has measured out a place")' (active) (Ent. 1 3:11; L; 25)

(9) **^{d}en-líl lugal ki áĝ-*né***
en.líl lugal ki =Ø áĝ -Ø =ane=r(a)
Enlil king place=ABS measure.out-NFIN=his =DAT
'to Enlil, his beloved king (lit. "for whom a place is measured out")' (passive) (FAOS 5/2 Lukin. 2 17; N; 24)

The following three sections will discuss the uses of the present participle in more detail, §28.2.2 those as a verbal adjective and §28.2.3 those as a verbal noun. Finally, §28.2.4 will deal with its wider-ranging uses with the two stative verbs **zu** 'know' and **tuku** 'have'.

28.2.2. Use as a verbal adjective

A present participle used as a verbal adjective refers to a participant who has a role in the action or state expressed by the verb. It may then be used as the predicate of a non-finite relative clause. Such a clause expresses a generic action or state, the performance of which is an enduring property of the head noun of the relative clause. E.g.:

(10) **íl / ensi$_2$ / umma^{ki}-*a* / $^{a\text{-}šà}$ašag kar-kar / níĝ-erim$_2$ du$_{11}$-du$_{11}$-*ge***
íl ensi$_2$ umma^{ki}=ak ašag=Ø kar -kar -Ø
Il ruler Umma =GEN field=ABS take.away-take.away-NFIN

níĝ.erim$_2$=Ø du$_{11}$.g-du$_{11}$.g-Ø =e
evil.thing=ABS say -say -NFIN=ERG
'Il, the ruler of Umma, who takes away fields, who says vicious things' (Ent. 28 4:19-23; L; 24)

(11) **^{ĝiš}šár-ùr mè-*a* kur šu-*šè* ĝar-ĝar**

šár.ùr mè =ʔa kur =Ø šu =še ĝar -ĝar -Ø
Sharur battle=LOC mountains=ABS hand=TERM place-place-NFIN
'the Sharur-weapon, which subjugates the foreign lands in battle' (Cyl B 7:19; L; 22)

(12) **14 gu_4 / 1 gu_4 *ĝiš* řú**
14 gu_4.r 1 gu_4.r ĝìš =Ø řú -Ø
14 bull 1 bull penis=ABS erect-NFIN
'fourteen bulls, one breeding bull (lit. "bull which erects the penis")' (BIN 3:153 1-2; D; 21)

Usually the head noun plays the role of transitive subject in the relative clause, as in the three preceding examples, or the role of an intransitive subject, as in the following two examples:

(13) **3-*kam-ma* ús**
3-kamma ús -Ø
3-ORD be.next.to-NFIN
'third quality (lit. "the third which follows")' (DP 382 1:3; L; 24)

(14) **íd idigna a *ù-ba* ^{ĝá}ĝar-*àm***
íd idigna a u_5 -Ø =be=ʔa ĝar -Ø -ʔa =Ø =ʔam
river Tigris water ride-NFIN=its=LOC place-NFIN-NOM=ABS=be:3N.S
'It was (like) the Tigris river in flood (lit. "placed in its water which rides").' (Cyl B 5:13; L; 22)

But because the Sumerian participles are inherently unoriented (§28.1), the role which the head noun plays is not necessarily that of subject and must be determined from the context. The head noun may, for instance, also play the role of an indirect object:

(15) **en-mete-*na* ^{d}en-líl-*le* ki áĝ**
en.mete.na.k en.líl=e ki =Ø áĝ -Ø
Enmetena Enlil =ERG place=ABS measure.out-NFIN
'Enmetena, whom Enlil loves (lit. "for whom Enlil has measured out a place")' (Ent. 1 3:11; L; 25)

(16) **dam ki áĝ / ^{d}inanna-*ka-ke$_4$***
dam ki =Ø áĝ -Ø inanna.k=ak =e
husband place=ABS measure.out-NFIN Inanna =GEN=ERG
'Inanna's beloved husband' (Ean. 1 rev 6:8-9; L; 25)

The preceding examples contain an explicit head noun, but the head noun can also be lacking and be left implicit. Such an implicit head noun must be translated with English phrases like 'the one who'. E.g.:

(17) **iri-*ta nu*-è**
iri =ta nu =ʔè -Ø
town=ABL NEG=go.out-NFIN
'ones who have not left the city (i.e., labourers who did not show up for work)' (TCTI 2:3540 30; L; 21)

(18) **ús-*bé***
ús -Ø =be
be.next.to-NFIN=its
'second quality (lit. "its following ones")' (VS 14:165 2:1; L; 24)

(19) **kur gú ĝar-ĝar / ^{d}nin-*ĝír-sú-ka-ke$_4$***
kur =Ø gú =š(e) ĝar -ĝar -Ø nin.ĝír.sú.k=ak =e
mountains=ABS neck=TERM place-place-NFIN Ningirsu =GEN=ERG
'the one who subdues the foreign lands for Ningirsu (lit. "the mountain-lands to the neck placing one of Ningirsu")' (Ean. 6 4:11-12; L; 25)

Since there is no explicit head noun, such headless non-finite relative clauses in effect are noun phrases in their own right.

The same thing may occur with individual present participles. Expressing a generic, non-specific action, a present participle may be used as an agent noun, a noun referring to a person who performs an action on a regular basis, as his occupation. E.g.:

(20) **mu kas$_4$-*e-ne-šè***
mu kas$_4$-Ø =enē=ak =še
name run -NFIN=PL =GEN=TERM
'because of the runners' (TENS 280 2; D; 21)

Such a present participle is, in fact, also a headless non-finite relative clause. That is to say, **kas$_4$** 'runner' is actually 'one who runs'. Present participles used as agent nouns are widely used in occupational names, for example in the compound **dub-sar** 'scribe' (lit. 'tablet writer'), which includes the present participle of **sar** 'write'. Such and other noun-participle compounds with present participles have been treated in §6.5.4.

A present participle may similarly be used as an object noun. The present participle of the verb **naĝ** 'drink' can, for instance, be used in this way to refer to a liquid for drinking. E.g.:

(21) **2 gur$_4$-gur$_4$ kurun$_2$ / 2 gur$_4$-gur$_4$ naĝ ensi$_2$-*ka***
2 gur$_4$.gur$_4$ kurun$_2$ / 2 gur$_4$.gur$_4$ naĝ -Ø ensi$_2$.k=ak
2 container a.beer 2 container drink-NFIN ruler =GEN
'two containers with *kurun*-beer, two containers with the ruler's drink' (DP 131 4:1-2; L; 24)

Here, the present participle of **naĝ** means 'what is drunk, drink'.

Negative present participles occur frequently, because the non-performance of a certain action is far more likely to be timeless that its performance. Thus, a debt can be **su-*ga*** 'repaid' (past participle of **su.g** 'repay') or ***nu*-su** 'unpaid' (negative present participle of the same verb). Whereas the actual payment occurs at a specific time and thus represents a specific action, the non-payment can be viewed as an enduring property of the debt. E.g.:

(22) **1 dùr su-su *nu*-su im-*ma***
1 dùr su.g:RDP-ed -Ø nu =su.g -Ø im =ak
1 stallion repay:IPFV-IPFV-NFIN NEG=repay-NFIN last.year=GEN
'one unpaid repayable donkey stallion, of last year' (CT 5 plate 29 BM 19024 9:1; L; 21)

Other such negative present participles are:

(23) **10 sila$_4$ *ba*-ur$_4$ / 25 sila$_4$ *nu*-ur$_4$**
10 sila$_4$ Ø -ba -ur$_4$ -Ø 25 sila$_4$ nu =ur$_4$ -Ø
10 lamb VP-MM-pluck-3N.S/DO 25 lamb NEG=pluck-NFIN
'ten shorn lambs, twenty-five unshorn lambs' (MVN 6:517 obv 4-5; L; 21)

(24) **zi-*ga* *nu*-zi**

zi.g-Ø -ʔa nu =zi.g-Ø
rise-NFIN-NOM NEG=rise-NFIN
'unexpended expenditures (lit. "unraised raised ones")' (PDT 2:1359 rev 13; D; 21)

28.2.3. Use as a verbal noun

Used as a verbal noun, a present participle does not refer to a participant involved in an action or state but refers to an action or state as such. E.g.:

(25) **nir ĝál níĝ tuku-tuku gaba ĝál me *nam*-nun-*kam*$_4$**
nir =Ø ĝál -Ø níĝ =Ø tuku-tuku-Ø
trust=ABS be.there-NFIN thing=ABS have-have -NFIN

gaba =Ø ĝál -Ø me nam.nun=ak =Ø =ʔam
breast=ABS be.there-NFIN being lordship =GEN=ABS=be:3N.S
'Having authority, having property, being steadfast (lit. "letting there be trust, having many things, letting there be one's breast") is the essence of lordship.' (Instr.Shur. AbSt 133'; Abu Salabikh; 26)

In such usage, a present participle behaves grammatically as a noun. It may function as the subject or object of a verb, or have an adverbial function. Such a present participle is, like a noun, in the case which belongs to the syntactic function it performs. It may, for instance, be used in the genitive case:

(26) **é lú éš gíd-*ka*-*ka***
é lú éš =Ø gíd -Ø =ak =ak =ʔa
house man rope=ABS pull-NFIN=GEN=GEN=LOC
'in the house of the surveyor (lit. "of the man of pulling the measuring line")' (Nik 1:260 2:5; L; 24)

(27) **mu lú kas$_4$-*ke*$_4$-*ne*-*šè***
mu lú kas$_4$-Ø =ak =enē=ak =še
name man run -NFIN=GEN=PL =GEN=TERM
'because of the couriers (lit. "the men of running")' (MVN 13:547 11; D; 21)

Either phrase contains an occupational name which includes a present participle designating a generic, non-specific action. Instead of the phrase **lú kas$_4$.k** 'man of running, courier', a headless genitive may occur. E.g.:

(28) **mu kas$_4$-*ke*$_4$-*ne*-*šè***
mu kas$_4$-Ø =ak =enē=ak =še
name run -NFIN=GEN=PL =GEN=TERM
'because of the couriers (lit. "the ones of running")' (BIN 3:550 2; D; 21)

There is even one further alternative. As we saw in the previous section, the present participle **kas$_4$** may also be used on its own as an agent noun, with the meaning 'one who runs, runner' (see example 20).

A present participle in the genitive case also occurs in the following construction, which is attested four times in the corpus. E.g.:

(29) ***nam*-gal ḫúl-*da***

nam-gal ḫúl -Ø =ak =da
greatness be.happy-NFIN=GEN=COM
'with great happiness (lit. "with greatness of being happy")' (Ean. 1 obv 5:14; L; 25)

Note that the same expression occurs elsewhere with the genitive case marker explicitly written: ***nam*-gal ḫúl-*la*-*da*** (FAOS 5/2 Lukin. 2 16; N; 24). The same construction also occurs with the phrasal verb **ki—áĝ** 'love' (lit. 'measure out a place for'):

(30) ***nam*-gal ki áĝ / ^{d}suen-*na*-*da***
nam-gal ki áĝ -Ø =ak suen=ak =da
greatness place measure.out-NFIN=GEN Suen=GEN=COM
'with great love for Suen (lit. "with greatness of loving of Suen")' (FAOS 9/2 Ibbīsuen 1-2 1:6-7; Ur; 21)

Similarly: ***nam*-gal ki áĝ-*da*** 'with great love' (Cyl A 10:1; L; 22).

Of course, present participles may also occur in other cases than the genitive. E.g.:

(31) **3 ba-*am*$_6$**
3 ba -Ø =Ø =ʔam
3 portion.out-NFIN=ABS=be:3N.S
'This is the third distribution (lit. "This is portioning out (number) three").' (TSA 12 18:2; L; 24)

(32) **6 ĝar-*am*$_6$**
6 ĝar -Ø =Ø =ʔam
6 place-NFIN=ABS=be:3N.S
'This is the sixth furnishment (lit. "This is placing (number) six").' (BIN 8:372 7:6; L; 24)

The verbs **ak** 'do, make' and **du$_{11}$.g** 'do' may be construed with a noun to express a denominal verbal meaning (§12.2). Such constructions also occur with present participles used as verbal nouns (cf. Attinger 1993: 180), for example in the phrasal verbs **sá—du$_{11}$.g** 'reach', which includes the present participle of **sá** 'be equal to', and **bala—ak** 'make a crossing', which includes the present participle of **bala** 'cross':

(33) **(...) / kisal ^{d}lugal-urub^{ki}-*ka*-*ke*$_4$ / sá *ì*-*mi*-du$_{11}$-du$_{11}$**
kisal lugal.urub.k=ak =e sá -Ø =Ø
courtyard Lugalurub =GEN=DIR be.equal-NFIN=ABS

ʔi -m(u) -bi -n -du$_{11}$.g-du$_{11}$.g-Ø
VP-VENT-3N.OO-3SG.A-do -do -3N.S/DO
'He let (silver, lapis lazuli, twenty bulls, and twenty rams) reach the courtyard of the god Lugalurub.' (Ent. 26 26-30; L; 25)

(34) **má bala ak**
má =Ø bala -Ø =Ø ak -Ø
boat=ABS cross-NFIN=ABS make-NFIN
'who brought the boat across' (UTAMI 3:1643 5; U; 21)

The same construction also occurs frequently with noun compounds which are derived from a phrasal verb and which include a present participle, for instance, with **šu-tag** 'decoration' (from **šu—tag** 'decorate') and **šu-bala** 'change' (from **šu—bala** 'change') (§6.5.4):

(35) **temen-*bé* / ì ir-nun-*ka* / šu-tag *ba*-*ni*-du$_{11}$**

temen =be=e ì ir.nun =ak =ʔa šu.tag =Ø
foundation=its=DIR oil perfume=GEN=LOC decoration=ABS

Ø -ba -ni-n -du$_{11}$.g-Ø
VP-3N.IO-in-3SG.A-do -3N.S/DO
'He decorated its foundation with aromatic oil.' (St C 3:8-10; L; 22)

(36) **e pa$_5$-*bé* / šu-bala *ba-ra*-ak-*ke$_4$***
e.g pa$_5$.r=be=e šu.balaʔ=Ø bara -b -ʔak -en
dike ditch=its=DIR change =ABS CAT.NEG-3N.OO-make-1SG.S/A:IPFV
'I will certainly not change its dike or ditch!' (Ean. 1 rev 5:2-3; L; 25)

Present participles are not only used in noun compounds like **šu-tag** 'decoration' and **šu-bala** 'change', which are derived from phrasal verbs, but also in compounds like **še-gu$_7$** 'Barley-Eating' and **munu$_4$-gu$_7$** 'Malt-Eating', which are the names of festivals and months in Lagash (§6.5.4). In all such compounds, the participle functions as an action noun referring to a generic action.

A present participle in the terminative case may be included in the compound **sa-šú-*uš*-gal** 'battle net' (Lugal-e 13; OB copy), which is written without the syllable-final consonant in our corpus:

(37) **sa-šu$_4$-gal**
sa šu$_4$ -Ø =š(e) gal
net cover-NFIN=TERM big
'battle net (lit. "large net for covering")' (Ean. 1 obv 21:5; L; 25)

Finally, there are two unique constructions which seem to involve present participles. My translation and grammatical analysis are to be taken as tentative in either case:

(38) **dab$_5$-*bé-šè* ĝen-*na-né***
dab$_5$-Ø =še ĝen-Ø -ʔa =ane=e
take -NFIN=TERM go -NFIN-NOM=his =DIR
'as he came for its taking' (SNAT 535 obv 10; U; 21)

(39) **PN-*ra* / (...) / mu 1-*a* / (...) / 6 sila$_3$ ì-ĝiš / lú-^{d}*ba-ú-ke$_4$* / šúm-*mu-uš ba*-ku$_4$**
PN=ra mu 1=ʔa 6 sila$_3$ ì.ĝiš=Ø lú.ba.ú.k=e šúm-Ø =eš
PN=DAT year 1=LOC 6 litre oil =ABS Lubau =ERG give -NFIN=ADV

Ø -ba -ku$_4$.r-Ø
VP-MM-enter -3SG.S/DO
'In the manner of Lu-Bau giving per year (barley, wool, and) six litres of oil to PN (as long as she lives), he (viz. the slave Lu-Bau) was brought in.' (NG 7 3-10; L; 21)

28.2.4. Uses with the stative verbs zu 'know' and tuku 'have'

The present participles of the stative verbs **zu** 'know' and **tuku** 'have' can be used in the same way as the present participles of other verbs. Example 25 above, for instance, contains a present participle of **tuku** used as a verbal noun to refer to a generic state: **níĝ tuku-tuku** 'having things'. Their present participles are also widely used as the predicate of a non-finite relative clause describing an enduring property of the head noun of that clause. E.g.:

(40) **ašag lugal *nu*-tuku**

ašag lugal =Ø nu =tuku-Ø
field master=ABS NEG=have-NFIN
'a field which has no owner' (Ent. 29 2:19; L; 25)

(41) **en gaba-ri *nu*-tuku**
en gaba.ri=Ø nu =tuku-Ø
lord copy =ABS NEG=have-NFIN
'the lord who has no rival' (Cyl A 23:21; L; 22)

(42) ***áš-gàr ĝiš nu*-zu**
áš.gàr ĝìš =Ø nu =zu -Ø
young.she.goat penis=ABS NEG=know-NFIN
'a virgin female kid (lit. "female kid which does not know a penis")' (Cyl A 8:9; L; 22)

(43) **ĝiš-gù-*di* mu tuku**
ĝiš.gù.di.d mu =Ø tuku-Ø
lute name=ABS have-NFIN
'famous lute (lit. "lute which has a name")' (Cyl A 7:25; L; 22)

Such a non-finite relative clause may also lack an explicit head noun:

(44) **ama *nu*-tuku-*me***
ama =Ø nu =tuku-Ø =Ø =me-en
mother=ABS NEG=have-NFIN=ABS=be -1SG.S
'I am one who has no mother' (Cyl A 3:6; L; 22)

And the head noun may also perform other functions in the relative clause than that of transitive subject (as in the preceding examples):

(45) **saĝ ^{d}en-líl-*le* zu**
saĝ en.lil=e zu -Ø
head Enlil =ERG know-NFIN
'person whom Enlil knows' (Shulgi G 42=CT 36 plate 27 11; OB manuscript)

The same construction, with the head noun functioning as direct object, is also found in our corpus, in two proper nouns: **saĝ-lugal-*e*-zu** 'person whom the king knows' (DAS 51 5:15; L; 21) and **saĝ-nin-*e*-zu** 'person whom the queen knows' (SNAT 416 rev 6; U; 21).

However, what distinguishes the present participles of **zu** and **tuku** from those of other verbs is that they have a much wider range of use in non-finite relative clauses. In contexts where other verbs show a past participle, **zu** and **tuku** basically always have the present participle. In fact, the past participles of the verbs **zu** and **tuku** are hardly ever used (see §28.3.5), whereas for all other verbs the exact opposite is true: their present participles are rare and greatly outnumbered in use by their past participles. The reason for the aberrant behaviour of **zu** and **tuku** remains obscure, though. That the two verbs have a stative meaning clearly plays a role: a state is far more easily viewed as an enduring property than an action. But there must be more to it than that, because other stative verbs behave just like the other verbs. The stative verb **ĝál** 'be there', for instance, sides with the other verbs and not with **zu** and **tuku**.

Thus, the present participles of **zu** and **tuku** are not only used to express a generic, non-specific state, but also a non-generic, specific one. Let me give a few examples of the verb **tuku**. The first has to do with millstones: accounts of millstones always note whether the stones are accompanied by upper stones or not. In the first case we have a past participle but in the second, with **tuku**, a present participle. E.g.:

(46) **18 na$_4$-ur$_5$ šu sì-*ga* / 7 na$_4$-ur$_5$ šu *nu*-tuku**
18 na$_4$.ur$_5$ šu =Ø sì.g-Ø -ʔa 7 na$_4$.ur$_5$ šu =Ø nu =tuku-Ø
18 millstone hand=ABS put -NFIN-NOM 7 millstone hand=ABS NEG=have -NFIN
'18 millstones provided with upper stones ("hands"), 7 millstones which have no upper stones' (ITT 3:6184 1-2; L; 21)

Similarly, in Old Sumerian accounts of yields of rented land, the yield is noted with a present participle, even though the yield in a single year clearly is a rather accidental property of a plot of land. E.g.:

(47) **šu-niĝin$_2$ 2.1.¼ gana$_2$ 7 tuku**
šu.niĝin$_2$ 2.1.¼ gana$_2$ 7=Ø tuku -Ø
total 42¼.iku land 7=ABS have-NFIN
'In total: 42 ¼ *iku* of land which has (a rent of) seven (*gur*)' (DP 591 10: 1; L; 24)

The expression **kišib (*nu*-)tuku** '(not) having a sealed document' also occurs frequently, and always with a present participle, even though the presence of official receipts, too, is an accidental property. E.g.:

(48) **5.1.0 kišib tuku / 1.4.0 kišib *nu*-tuku**
5.1.0 kišib=Ø tuku-Ø 1.4.0 kišib=Ø nu =tuku-Ø
1560 seal =ABS have-NFIN 540 seal =ABS NEG=have-NFIN
'1560 litres (of barley) with receipts, 540 litres without receipts' (CT 3 plate 15-18 BM 18343 2:29-30; L; 21)

Finally, the following item occurs in a list of cattle. Here, too, 'having no governor' is a very accidental property:

(49) **3 áb mu 1 mu bala ensi$_2$ *nu*-tuku-*šè***
3 áb mu 1 mu bala ensi$_2$.k=Ø nu =tuku-Ø =ak =še
3 cow year 1 name turn ruler =ABS NEG=have -NFIN=GEN=TERM
'three one-year-old cows because of a turn-of-duty which has no governor' (MVN 10:172 obv 8; D; 21)

28.3. The past participle

28.3.1. Form and meaning

In addition to the present participle (§28.2), Sumerian has a second non-finite form of the perfective. This is the past participle, which consists of a perfective verbal stem followed by the nominalizing suffix {ʔa}. Its stem is usually the simple, unmodified, verbal root, as in **řú-*a*** (MVN 14:301 2; U; 21), the past participle of **řú** 'erect'. However, a past participle may also contain a reduplicated stem for expressing verbal number (§12.4.3), as in **řú-řú-*a*** (Nik 1:35 1:1; L; 24). Like the other non-finite forms, a past participle lacks all the proclitics, prefixes, and suffixes which may occur in a finite verbal form (§11.2.2), with one exception: it may be preceded by the negative proclitic {nu}, e.g. ***nu*-řú-*a*** (Nik 1:35 1:2; L; 24).

The past and present participles divide the meanings of the finite perfective forms between them, but the division in functional load is not even. Finite perfective forms have several different uses (§15.4.2), but in non-finite constructions nearly all of them are performed by past participles. Present participles are only used to express timeless truths, that is, generic actions or states (§28.2.1). Past participles are used to express specific past actions, that is,

actions which occurred at a particular time. And they are used to express specific states, that is, states which existed or exist at a particular time.

Thus, a past participle can be used to express a past action. E.g.:

(50) **u_4 ul-*lí-a-ta* / numun è-*a-ta***
u_4.d ul =Ø è -Ø -ʔa =ta numun=Ø è -Ø -ʔa =ta
day bud=ABS go.out-NFIN-NOM=ABL seed =ABS go.out-NFIN-NOM=ABL
'from time immemorial (lit. "from the day when the bud came out and the seed sprouted")' (Ukg. 4 3:2-3; L; 24)

(51) **dumu an kù-*ge* dú-*da***
dumu an kù.g=e dú.d -Ø -ʔa
son An pure=ERG give.birth.to-NFIN-NOM
'child fathered by holy An' (Cyl A 2:28; L; 22)

A past participle can also be used to express a past state. The following clause, for example, describes ten ploughshares which two ploughmen took with them to a field:

(52) **^{ĝiš}eme é kišib-*ka* / ĝál-*la-am$_6$***
eme é kišib=ak =ʔa ĝál -Ø -ʔa =Ø =ʔam
tongue house seal =GEN=LOC be.there-NFIN-NOM=ABS=be:3N.S
'These are ploughshares which were in the storehouse (lit. "house of the seal")' (DP 501 2:3-3:1; L; 24)

Finally, a past participle may express a present state. E.g.:

(53) **guru$_7$ é ^{d}*ba-ú-ke$_4$* ús-*sa-ta***
guru$_7$ é ba.ú=ak =e ús -Ø -ʔa =ta
granary house Bau =GEN=DIR be.next.to-NFIN-NOM=ABL
'from the granary beside (lit. "which is next to") the Bau temple' (DP 150 9:2; L; 24)

(54) **udu ti-*la***
udu ti.l -Ø -ʔa
ram live-NFIN-NOM
'sheep that are alive' (AAICAB I/2 pl. 119 Ashm. 1967-1485 8; D; 21)

(55) **lá-NI sila-*a* ĝál-*la***
lá.NI sila =ʔa ĝál -Ø -ʔa
deficit street=LOC be.there-NFIN-NOM
'deficits which are in the street (i.e., which remain to be compensated)' (BCT 2:84 rev 2'; U; 21)

Past participles are not inherently active or passive but can be used either way without any change in form. Passivisation only involves a deletion of the transitive subject (cf. §11.5.3). E.g.:

(56) **máš engar-*re* sa_{10}-*a***
máš engar =e sa_{10} -Ø -ʔa
he.goat ploughman=ERG barter-NFIN-NOM
'he-goats which the ploughmen bought' (active) (CT 10 pl.44 BM 18962 obv 19; L; 21)

(57) **udu še-*ta* sa_{10}-*a***

udu še =ta sa_{10} -Ø -ʔa
ram barley=ABL barter-NFIN-NOM
'rams which were bought with barley' (passive) (SAT 1:210 4; L; 21)

Past participles are either used as verbal adjectives or as verbal nouns. Used as a verbal adjective, a past participle refers to a participant involved in the action or state expressed by the verb. The past participle of the verb **šúm** 'give', **šúm-*ma***, then expresses such notions as 'given', 'which was given', 'who gave', 'to whom was given', and so on. Section 28.3.3 below deals with such uses.

Used as a verbal noun, a past participle refers to an action or state as such. The form **šúm-*ma*** then has meanings like 'that it had been given'. Such uses are treated in §28.3.4 below.

Section 28.2.4 dealt with the wider-ranging uses of the present participle with the two stative verbs **zu** 'know' and **tuku** 'have'. Section 28.3.5 is devoted to their past participles.

But before addressing the various uses of the past participle, we first need to look more closely at the actual form of the past participle (§28.3.2).

28.3.2. Form and spellings of the suffix {ʔa}

Every past participle contains the nominalizing suffix {ʔa} (chapter 31). Its basic form is /ʔa/. To begin with, it is certain that the suffix has a final vowel, because the enclitic plural marker {enē) always has its postvocalic form /nē/ if it is attached to a past participle. E.g.:

(58) **še-ba lú šuku dab_5-*ba-ne***
še.ba lú šuku.ř =Ø dab_5-Ø -ʔa =enē=ak
barley.ration man prebend=ABS take-NFIN-NOM=PL =GEN
'barley rations of the men who hold prebendal land' (DP 151 1:2; L; 24)

Similar forms are, e.g., **gíd-*da-ne*** 'who (plural) towed' (MVN 10:142 obv 19; D; 21), **ku_4-*ra-ne*** 'who (plural) entered' (BIN 3:245 4; D; 21)), ***er-ra-ne*** 'who (plural) came' (TRU 334 4; D; 21). Also, there are quite a few past participles with the terminative case marker {še} in the form /š/ which only occurs after vowels. E.g.:

(59) ***ṣú-la-lum* udu šúm-*ma-aš ba-ge-en_6***
ṣú.la.lum=Ø udu =Ø šúm-Ø -ʔa =še Ø -ba -ge.n -Ø
Ṣulālum =ABS sheep=ABS give-NFIN-NOM=TERM VP-MM-be.firm-3SG.S/DO
'It was established that Ṣulālum had given the sheep (lit. "Ṣulālum was made firm as one who gave the sheep").' (NG 138 23; U; 21)

All spellings of the suffix {ʔa} involve sound signs for the vowel /a/, so that the presence of an /a/ in the suffix is beyond doubt. Less certain, however, is the quantity of this /a/. There are a few plene spellings which suggest that the /a/ of {ʔa} may be long, but their number is too small to make this certain. E.g.:

(60) **mu ús-*sa-a-bé***
mu ús -Ø -ʔa =be
year be.next.to-NFIN-NOM=its
'its following year' (passim, e.g., PIOL 19:99 17; D; 21)

(61) **túg úr-*ra* si-*ga-a-aš***
túg =Ø úr =ʔa si.g -Ø -ʔa =še
garment=ABS lap=LOC put.into-NFIN-NOM=TERM

'as having put the garment into the lap' (NG 103 4; L; 4)

(62) **má še gú-eden-*na-ta* / gíd-*da-a***
má še =ak =Ø gú.eden.na.k=ta gíd-Ø -ʔa
boat barley=GEN=ABS Guedena =ABL tow-NFIN-NOM
'who towed barley ships from the Guedena' (TENS 155 4-5; U; 21)

Similarly: **tu-*ra-a*** 'ill' (of the verb **tu.r** 'be ill') (PDT 1:528 22; D; 21).

The Old Sumerian texts show clearly that the suffix {ʔa} has an initial glottal stop. In these texts, the sign A has not yet acquired its later value as a sound sign for the simple vowel /a/ but is only used as a sound sign for the sequence /ʔa/ (§2.5). Old Sumerian spellings such as the following prove, therefore, that the suffix {ʔa} has an initial glottal stop: **dé-*a*** 'poured' (RTC 64 1:1; L; 24), **řú-*a*** 'who built' (Ent. 34 6; L; 25), **ús-*a*** '(being) next to' (CTNMC 1 4:2; L; 24), **tuš-*a*** 'who sit' (DP 652 6:5; L; 24). Note that Sumerian does not allow a sequence of two vowels (§3.10).

However, the glottal stop was not a stable sound in Sumerian. It was progressively lost in more and more environments during the second half of the third millennium BCE (§3.2.4). Already during the Old Sumerian period, the glottal stop assimilated to most preceding consonants. The result of this assimilation is not entirely certain, but the few available spellings with sound signs suggest that it led to a doubling of the preceding consonant. E.g.: ***su-ub-ba*** 'rubbed in' (of **sub$_6$** 'rub in', e.g., TPTS 1:238 1; U; 21), ***si-il-la*** 'split off' (SACT 2:270 4; U; 21), ***ti-il-la*** 'who lives' (UTAMI 3:1793 4; U; 21), ***il-la*** for **íl-*la*** (of **íl** 'lift', MVN 16:1037 obv 1; U; 21), and ***er-ra*** 'who came' (e.g., TRU 334 4; D; 21). In addition, the spellings ***gan-ĝá*** 'who carried' (of **ga$_6$.ĝ** 'carry', TENS 166 8; U; 21) and ***ga-an-ĝá*** 'who carried' (UTAMI 3:2260 6; U; 21) may reflect a form /gaĝ̰a/, coming from an earlier */gaĝʔa/. Unfortunately, such explicit spellings with double consonants are rare. Mostly the verbal stem is written with a word sign. Even spellings with sound signs often ignore the double consonant. E.g., ***su-ba*** 'rubbed in' (e.g., SACT 2:199 1; U; 21) and ***e-ra*** 'who came' (e.g., TRU 305 3; D; 21).

The spelling of the suffix {ʔa} varies according to the preceding sound and shows three different patterns. After one group of sounds (all the vowels as well as the consonants /ʔ/ and /h/), the suffix is always written with the sound sign ***a***, a spelling which reflects the initial glottal stop. After a second group of sounds (the consonants /s/, /š/, /ḫ/, and /ř/), the suffix is either written with the sign ***a*** or with a CV-sign containing the preceding consonant. After the third group (all other consonants), the suffix is consistently written with a CV-sign. The following paragraphs will document these three groups in more detail.

If the verbal stem has a final vowel, the full form /ʔa/ of the suffix is retained, which is always written ***a***. E.g.: ***nu*-ra-*a*** 'not impressed' (**ra** 'impress (a seal)') (MVN 13:170 3; U; 21), **sa$_{10}$-*a*** 'bought' (STH 1:24 7:9; L; 24), **è-*a*** 'which came out' (Nik 1:186 1:5; L; 24), **ře$_6$-*a*** 'brought' (Nik 1:71 1:3; L; 24), **gi$_4$-*a*** 'returned' (Cyl A 30:13; L; 22) **šu ti-*a*** 'received' (VS 14:162 3:3; L; 24), **gu$_7$-*a*** 'eaten' (RTC 47 10:3; L; 24), **nú-*a*** 'who lies' (Cyl A 9:5; L; 22), **uru$_4$-*a*** 'ploughed' (CT 10 pl. 34-35 BM 15322 3:9; L; 21).

The form /ʔa/ and, accordingly, the spelling ***a*** is also consistently used after those verbal stems which have a final glottal stop /ʔ/, such as **ba** 'portion out' (§3.2.4) or a final glottal fricative /h/, such as **lá** 'be short' (§3.4.4). E.g.: **ba-*a*** 'portioned out' (VS 14:72 7:4; L; 24), **lá-*a*** 'what is short' (BIN 8:358 1:1; L; 24), **si sá-*a*** 'that it is ready' (**si—sá** 'be in order', Cyl A 6:6; L; 22). That the verbal stem **sá** has a final consonant is clear from such forms as **si *im*-sá-sá-*e*** (Cyl A 1:14; L; 22), which shows a fully retained third person suffix {e}, which contracts with a preceding vowel. The nature of the final consonant in **sá** remains unknown.

The glottal stop of {ʔa} assimilates to a preceding voiceless stop. The spelling writes the suffix {ʔa} consistently with one of the sound signs ***ba***, ***da***, or ***ga***, in agreement with the final consonant of the stem. E.g.: **dab$_5$-*ba*** 'taken' (AAS 51 23; U; 21), **dub-*ba*** 'heaped up' (BIN 8:362 7:3; L; 24), **gub-*ba*** 'who stood' (AAS 18 4; U; 21), **sub$_6$-*ba*** 'rubbed in' (Nik 1:283 2:3; L; 24), **gíd-*da*** 'who towed' (PIOL 19:111 4; U; 21), **pà-*da*** 'called' (Ean. 3 5:6; L; 25), **šid-*da*** 'counted' (VS 14:192 1:2; L; 24), **sì-*ga*** 'provided with' (BIN 8:388 2:3; L; 24), **ĝiš tag-*ga*** 'sacrificed' (**ĝiš—tag** lit. 'let the wood touch' = 'sacrifice', VS 14:120 3:4; L; 24), **zi-*ga*** 'raised' (MVN 13:116 19; D; 21).

The glottal stop of {ʔa} also assimilates to a preceding nasal. The spelling writes the suffix {ʔa} consistently with one of the sound signs ***ma***, ***na***, or ***ĝá***, in agreement with the final consonant of the stem. E.g.: **dím-*ma*** 'who fashioned' (TENS 381 3; U; 21), **šúm-*ma*** 'given' (Ean. 69 1:7; L; 25), **túm-*ma*** 'who is fit for' (Ukg. 50 1; L; 2), **ĝen-*na*** 'who came' (MVN 15:191 5; U; 21), **niĝin$_2$-*na*** 'which goes around' (Nik 1:150 1:1; L; 24), **áĝ-*ĝá*** 'measured out' (NFT AO 4348 8:2; L; 24), **ga$_6$-*ĝá*** 'who carried' (MVN 10:106 4; U; 21).

The glottal stop of {ʔa} also assimilates to a preceding /l/ or /r/. The spelling writes the suffix {ʔa} consistently with one of the sound signs ***la*** or ***ra***, in agreement with the final consonant of the stem. E.g.: **ĝál-*la*** 'which is there' (VS 14:177 1:5; L; 24), **íl-*la*** 'who carried' (MVN 16:705 rev 2; U; 21), **til-*la*** 'completed' (NG 8 1; L; 21), **ĝar-*ra*** 'placed' (MVN 7:116 rev 7; L; 21), **sar-*ra*** 'written' (DP 562 3:1; L; 24), **ur$_4$-*ra*** 'plucked' (VS 25:64 1:3; L; 24).

After other consonants, the suffix {ʔa} is not spelled uniformly. The glottal stop assimilates, as spellings with CV-signs show, but these spellings with CV-signs alternate with simple ***a*** spellings. Such alternating spellings are common after stems with a final /z/, /ř/, /ḫ/, /s/, and /š/. The CV-signs used are ***za***, ***řá***, ***ḫa***, ***sa***, and ***ša$_4$*** (only Old Sumerian) or ***ša***. E.g.: **gaz-*za*** 'broken' (Nik 1:264 1:5; L; 24), but also **gaz-*a*-*gen$_7$*** 'like (one) killed' (STVC 52 2:11 = Shulgi B 68; N; 21, OB copy); **keše$_2$-*řá*** 'who bound (reed into a raft)' (SACT 2:86 4; U; 21), but also **keše$_2$-*a*** (MVN 13:299 13; SNAT 322 obv 4; etc.; U; 21); **ku$_5$-*řá*** 'who cut' (SACT 2:60 2; U; 21), but also **ku$_5$-*a*** (Nik 2:133 2; U; 21); **dah-*ḫa*** 'added' (Nik 1:54 2:2; L; 24); **duḫ-*ḫa*** 'bought free' (MVN 2:176 12:25'; L; 21), often written **duḫ-*a*** (TuT 73 1:6; L; 21); **zuḫ-*a*** 'stolen' (MTBM 50 2; L; 21). In the Old Sumerian texts from Lagash, the two spellings of the past participle of **tuš** 'sit' occur about equally often: **tuš-*ša$_4$*** 'who sit' (e.g., Nik 1:8 5:3; L; 24) and **tuš-*a*** (e.g., DP 634 4:3; L; 24). In the Ur III texts from Lagash, however, the spelling **tuš-*a*** (e.g., MVN 6:206 tablet obv 2; L; 21) is found far more often than **tuš-*ša*** (e.g., NG 89 21; L; 21). The past participle of the verb **ús** 'be next to' is usually written **ús-*sa*** (DP 150 9:2; L; 24), but rarely the spelling **ús-*a*** is found (e.g., CTNMC 1 4:2; L; 24).

Between a vowel and the locative case marker {ʔa}, the nominalizing suffix {ʔa} contracts with the preceding vowel or the case marker (cf. Balke 2006: 36 with note 174), in the same way as in finite verbal forms (§27.3.3). E.g.:

(63) **iti guru$_7$ im du$_8$-*a***
iti.d guru$_7$ =e im =Ø du$_8$ -ʔa =ʔa
month granary=DIR clay=ABS coat-NOM=LOC
'in the month Having Coated the Granary with Clay' (e.g., DP 296 3:1; L; 24)

This phrase occurs at least four times written with a single ***-a*** and twice with the full spelling **du$_8$-*a*-*a*** (DP 307 1:3 = VS 14:183 6:5; L; 24). The same applies to a similar phrase:

(64) **iti gu$_4$-*řá* izi mú-*a***
iti.d gu$_4$.ř=ʔa izi =Ø mú -ʔa =ʔa
month bull =LOC fire=ABS light-NOM=LOC

'in the month Having Lighted Fires on the Bulls' (e.g., DP 240 2:3; L; 24)

This temporal expression occurs about thirty times written with a single ***-a*** and only once with the full spelling **mú-*a-a*** (DP 193 7:5; L; 24). And as a final example:

(65) **é é bar ^{d}bìl-aga$_3$-mes-*šè* řú-*a***
é é bar =ak bìl.aga$_3$.mes=ak =še řú -ʔa =ʔa
house house outside=GEN Gilgamesh =GEN=TERM erect-NOM=LOC
'in the room built against the outer room of Gilgamesh' (e.g., VS 14:18 2:1; L; 24)

Here we find one full spelling **řú-*a-a*** (DP 383 5:2; L; 24) as opposed to ten with just a single ***-a***.

The forms and spellings of the nominalizing suffix {ʔa} (§31.2) are the same as those of the locative case marker {ʔa} (§7.7.1).

28.3.3. Use as a verbal adjective

Used as a verbal adjective, a past participle refers to a participant who plays a role in the action or state expressed by the verb. Such a past participle shares several grammatical properties with the adjectives. Just like an adjective it can be employed attributively, modifying a noun, or it can be used predicatively, as the predicate of a copular clause. Here, however, we will restrict ourselves to its attributive use. Its predicative use will be treated in the chapter on the copular clause (see §29.4.7).

Used as an attributive verbal adjective, a past participle on its own follows its head noun and precedes all other parts of the noun phrase, in the same way as an attributive adjective (§10.4.1). E.g.:

(66) **gana$_2$ uru$_4$-*a***
gana$_2$ uru$_4$ -Ø -ʔa
land plough-NFIN-NOM
'ploughed land' (MVN 17:116 2; L; 21)

(67) **mu ús-*sa-bé***
mu ús -Ø -ʔa =be
year be.next.to-NFIN-NOM=its
'its following year' (MVN 21:393 rev 5; U; 21)

(68) **dusu gub-*ba* / šu-ku$_6$ ab-*ba-ke$_4$-ne-kam***
dusu gub -Ø -ʔa šu.ku$_6$.ř ab =ak =enē=ak =Ø =ʔam
quota stand-NFIN-NOM fisherman sea=GEN=PL =GEN=ABS=be:3N.S
'These are the imposed quota of the sea fishermen.' (DP 294 3:2-3; L; 24)

(69) **kiri$_6$ gub-*ba* im-*ma-kam***
kiri$_6$ gub -Ø -ʔa im =ak =Ø =ʔam
orchard stand-NFIN-NOM last.year=GEN=ABS=be:3N.S
'This is (the part of) the orchard planted last year (lit. "the standing orchard of last year").' (DP 610 1:4; L; 24)

Thus, past participles have much in common with adjectives. As Sumerian has only a small number of true adjectives, it uses past participles to express many concepts for which English employs adjectives (§10.1). And, conversely, most adjectival stems can also be used as verbal stems. See §10.5.3 for details on the past participles of such de-adjectival verbs.

In spite of all these links between past participles and adjectives, the two are clearly discrete categories. As a *verbal* adjective, a past participle also has *verbal* grammatical properties: it is actually the predicate of a non-finite relative clause and can be construed with noun phrases expressing its subject, an object, or adjuncts. E.g.:

(70) **5 gu$_4$ ur-*re* dab$_5$-*ba***
5 gu$_4$.ř ur =e dab$_5$-Ø -ʔa
5 bull lion=ERG seize-NFIN-NOM
'five bulls caught by lions' (Nik 2:440 1; U; 21)

(71) **dub-sar lugal *a-šà* gíd-*da-a***
dub.sar lugal=ak a.šà.g=Ø gíd -Ø -ʔa =e
scribe king =GEN field =ABS survey-NFIN-NOM=ERG
'the royal scribes who surveyed the fields' (TROM 2:407 4-5; U; 21)

(72) **5 ur-gi$_7$ é-gal-*ta* *er-ra***
5 ur.gi$_7$.r é.gal =ta er -Ø -ʔa
5 dog palace=ABL go:PLUR-NFIN-NOM
'five dogs which went out of the palace' (Nik 2:440 1; U; 21)

Non-finite relative clauses are very similar to the finite relative clauses, so that most of what has been said in §27.4 about the latter equally applies to the former. The main difference is the kind of predicate, which is a participle in the former and a finite verbal form in the latter. Another difference is that a non-finite relative clause can be followed by a noun phrase in the genitive case (see below and some of the examples above), something which is impossible for finite relative clauses.

Just like a finite relative clause, a non-finite relative clause follows its head noun if such a noun is present. (See below for constructions without an explicit head noun.) This head noun refers to a participant which plays a role in the action expressed by the participle. The nature of that role, however, can only be ascertained from the context, because Sumerian participles are inherently unoriented (§28.1). Often, the head noun functions as the intransitive subject of the non-finite relative clause:

(73) **ig ^{ĝiš}eren-*na* é-*a* šu$_4$-*ga-bé***
ig eren =ak é =ʔa šu$_4$.g -Ø -ʔa =be=Ø
door cedar=GEN house=LOC stand:PLUR-NFIN-NOM=its=ABS
'its (viz. the Eninnu's) cedar doors which stand in the temple' (Cyl A 26:20; L; 22)

(74) **lú ki-*ba* gub-*ba-me***
lú ki =be =ʔa gub -Ø -ʔa =Ø =me-eš
man place=its=LOC stand-NFIN-NOM=ABS=be -3PL.S
'These are the persons who were present (lit. "stood on its place").' (NG 62 19; U; 21)

(75) **ì sila-*a* ĝál-*la***
ì sila =ʔa ĝál -Ø -ʔa
fat street=LOC be.there-NFIN-NOM
'fat which is in the street' (BIN 8:340 8; U; 23)

(76) **ur-saĝ bara$_2$ kù-*ga* tuš-*a-ra***
ur.saĝ bara$_2$.g kù.g=ʔa tuš-Ø -ʔa =ra
warrior dais pure=LOC sit -NFIN-NOM=DAT
'for the warrior sitting on the holy dais' (Cyl B 9:1; L; 22)

(77) **udu ur$_4$-*ra***
udu ur$_4$ -Ø -ʔa
sheep pluck-NFIN-NOM
'shorn sheep' (VS 25:36 10:1; L; 24)

(78) **di til-*la***
di.d til -Ø -ʔa
trial end-NFIN-NOM
'completed trial' (NG 126 1; L; 21)

(79) **2-*kam-ma* / é-gal-*šè* / ře$_6$-*a-am*$_6$**
2 -kam.ma é.gal =še ře6 -Ø -ʔa =Ø =ʔam
two-ORD palace=TERM bring-NFIN-NOM=ABS=be:3N.S
'This is the second (shipment) brought to the palace.' (VS 14:48 2:4-6; L; 24)

The head noun can function as the transitive subject of the non-finite relative clause:

(80) **mu aga$_3$-ús *ga-eš*^{ki}-*ta* má lugal gíd-*da-ne-šè***
mu aga$_3$.ús ga.eš =ta má lugal=ak =Ø gíd-Ø -ʔa =enē=ak =še
name soldier Gaesh=ABL boat king =GEN=ABS pull-NFIN-NOM=PL =GEN=TERM
'because (lit. "for the name") of the soldiers who towed the royal boat from Gaesh' (CT 32 pl.16-18:BM 103399 3:20; D; 21)

(81) **á lú ḫuĝ-*ĝá* / *a-šà-ga-na* ge zé-*a***
á lú ḫuĝ-Ø -ʔa a.šà.g=ane=ʔa ge =Ø zé -Ø -ʔa =ak
wages man hire-NFIN-NOM field =his =LOC reed=ABS cut-NFIN-NOM=GEN
'wages of the hirelings (lit. "hired men") who cut reed in his field' (OrSP 47/49:197 16-17; U; 21)

The head noun can function as the direct object:

(82) **lú ^{d}*ba-ú* kur-*ré* laḫ$_5$-*ḫa-me***
lú ba.ú=ak kur =e laḫ$_5$ -Ø -ʔa =Ø =me-eš
man Bau =GEN mountains=ERG carry:PLUR-NFIN-NOM=ABS=be -3PL.S
'They are men of Bau who were carried off by the "mountain land".' (DP 141 6:2; L; 24)

(83) **gana$_2$-gu$_4$ apin-lá-*e* uru$_4$-*a-ta ba-ra*-zi**
gana$_2$.gu$_4$ apin.lá?=e uru$_4$ -Ø -ʔa =ta Ø -ba -ta -zi.g-Ø
demesne rentee =ERG plough-NFIN-NOM=ABL VP-MM-from-rise-3N.S/DO
'This (barley) was raised from the demesne which the rentees ploughed.' (Civil FI 201: A 2542 19; U; 21)

(84) **ĝiš-ge izi gu$_7$-*a***
ĝiš.ge izi =e gu$_7$-Ø -ʔa
reed fire=ERG eat -NFIN-NOM
'reed consumed by fire' (TENS 465 2; U; 21)

The head noun can also have the role of possessor in the non-finite relative clause. The precise role of the head noun is then explicitly indicated by a possessive pronoun which refers to the same person or thing as the head noun. E.g.:

(85) **é *me-lám-bé* an-*né* ús-*sa***

é me.lám=be=Ø an =e ús -Ø -ʔa
house awe =its=ABS heaven=DIR be.next.to-NFIN-NOM
'the house whose awesomeness touches heaven' (Cyl A 17:18; L; 22)

(86) **en du_{11}-*ga-né* saĝ-*biš* è-*a***
en du_{11}.g-Ø -ʔa =ane=Ø saĝ =be=še è -Ø -ʔa
lord say -NFIN-NOM=his =ABS head=its=TERM go.out-NFIN-NOM
'lord whose statement takes precedence (lit. "goes out to its head")' (Cyl B 2:18; L; 22)

The head noun can have still other functions in the non-finite relative clause, but they do not occur as frequently as the preceding ones. It can, for instance, function as the oblique object, as **níĝ** does in the following example. (The phrasal verb **ĝiš—tag** 'sacrifice (lit. "let the wood touch")' is construed with an oblique object, §18.3.3):

(87) **níĝ ĝiš tag-*ga* ezem kisal-*ka***
níĝ ĝiš =Ø tag -Ø -ʔa ezem kisal =ak =ak
thing wood=ABS touch-NFIN-NOM festival courtyard=GEN=GEN
'offerings (lit. "sacrificed things") of the Festival of the Courtyard' (DP 25 2:3; L; 24)

Or the head noun can function as a place adjunct:

(88) **ki-ĝál ĝiš *nu*-gub-*ba-am_6***
ki.ĝál ĝiš =Ø nu =gub -Ø -ʔa =Ø =ʔam
fallow.land tree=ABS NEG=stand-NFIN-NOM=ABS=be:3N.S
'This is fallow land where no trees stand.' (DP 610 2:2; L; 24)

(89) **má-gur_8 é-úr u_5-*a-am_6***
má.gur_8 é.úr=Ø u_5 -Ø -ʔa =Ø =ʔam
ship E'ur=ABS ride-NFIN-NOM=ABS=be:3N.S
'This is the ship on which E'ur sails.' (VS 25:7 2:3; L; 24)

(90) **ki mú-*a-ba***
ki mú -Ø -ʔa =be=ʔa
place grow-NFIN-NOM=its=LOC
'where it had grown (lit. "on its growing place")' (DP 470 4:1; L; 24)

Or the head noun can function as a time adjunct:

(91) **še $eren_2$ bala tuš-*a-ka***
še $eren_2$ bala tuš-Ø -ʔa =ak =ak
barley labourer turn sit -NFIN-NOM=GEN=GEN
'barley of the labourers of the turn when staying' (MVN 12:95 tablet 3; L; 21)

(92) **$eren_2$ bala gub-*ba-me***
$eren_2$ bala gub -Ø -ʔa =ak =Ø =me-eš
labourer turn stand-NFIN-NOM=GEN=ABS=be -3PL.S
'These are labourers of the turn when being on duty ("standing").' (MVN 6:362 26; L; 21)

(93) ***mu*-ku_x** (=DU) **u_4 nú-*a-ka-né***
mu.ku_x.r u_4.d nú-Ø -ʔa =ak =ane
delivery day lie-NFIN-NOM=GEN=her

'her deliveries for the day the moon disappears (lit. "of the day when lying down")' (AUCT 2:170 7; D; 21)

Most non-finite relative clauses are restrictive, limiting the reference of their head nouns (cf. §27.4.1), but they can also be non-restrictive:

(94) **du$_{10}$-*ga* dabin-*šè* ĝen-*na***
du$_{10}$.ga dabin=še ĝen-Ø -ʔa
Duga flour =TERM go -NFIN-NOM
'Duga, who went for flour' (MVN 19:37 8; L; 21)

(95) **ur-^{d}en-líl-*lá* ḫu-ḫu-*nu-re*^{ki}-*ta* ĝen-*na***
ur.en.líl.lá ḫu.ḫu.nu.re=ta ĝen-Ø -ʔa
Ue.Enlila Huhunure =ABL go -NFIN-NOM
'Ur-Enlila, who came from Huhunure' (TCTI 2:3505 3; L; 21)

As we saw in §27.4.1, finite relative clauses occur in a special kind of apposition which functions like a non-restrictive relative clause. Such an apposition consists of a restrictive relative clause with a head noun that has a rather general meaning, such as **lú** 'man', **ki** 'place', and **é** 'house'. The same construction is also found with non-finite relative clauses. E.g.:

(96) **en-mete-*na* / lú é ^{ĝiš}gigir$_2$ řú-*a***
en.mete.na lú é gigir$_2$ =ak =Ø řú -Ø -ʔa
Enmetena man house chariot=GEN=ABS erect-NFIN-NOM
'Enmetena, the man who built the chariot house' (Ent. 22 8-9; L; 25)

(97) **ba-gara$_2$ é íd-*dè* lá-*a-e***
ba.gara$_2$ é íd =e lá -Ø -ʔa =e
Bagara house river=DIR hang-NFIN-NOM=DIR
'the Bagara, the temple hanging over the river' (Cyl A 2:7; L; 22)

All the preceding examples included an explicit head noun. The head noun may also be only implicit. Such an implicit head noun is rendered in English by '(the) one (who/which)', 'what', or the like. A past participle with an implicit head noun will be called a headless past participle. Grammatically, a headless past participle behaves like a noun, having a case marker which expresses its syntactic function. E.g.:

(98) **gu$_7$-*a-bé* / *e-ta*-zi**
gu$_7$-Ø -ʔa =be=Ø ʔi -b -ta -zi.g -Ø
eat -NFIN-NOM=its=ABS VP-3N-from-rise-3N.S/DO
'What was used up of this was raised from it.' (DP 437 8:9-10; L; 24)

(99) **ti-*la* *ba*-úš-*šè* buluĝ-*ĝá* tur-*ra-šè* *nu-ù-ši*-gíd-*da***
ti.l -Ø -ʔa =Ø ba.úš =še buluĝ -Ø -ʔa =Ø
live-NFIN-NOM=ABS dead.one=TERM grow.up-NFIN-NOM=ABS

tur -Ø -ʔa =še nu =ʔi -b -ši-n -gíd -Ø -ʔa
be.small-NFIN-NOM=TERM NEG=VP-3N-to-3SG.A-register-3N.S/DO-NOM
'that he had not registered a living person as a dead one or a grown-up as a young one' (BM 22859 4:10; L; 21)

(100) **ki-*a* taka$_4$-*a-bé***

ki =ʔa taka$_4$-Ø -ʔa =be
place=LOC leave-NFIN-NOM=its
'what of this (viz. an amount of beams) was left behind (lit. "its left ones on the place")' (VS 27:16 1:5; L; 24)

Some headless past participles have become common nouns, e.g., **du$_{11}$-*ga*** 'statement (lit. "what was said")' (ex. 86 above), **lá-*a*** 'deficit (lit. "what is short")', **sar-*ra*** 'document (lit. "written one")', **zi-*ga*** 'levy (lit. "raised ones")'. E.g.:

(101) **lá-*a-ne-ne nu-ta*-zi**
lá -Ø -ʔa =anēnē=Ø nu =ʔi -b -ta -zi.g-Ø
be.short-NFIN-NOM=their =ABS NEG=VP-3N-from-rise-3N.S/DO
'Their deficits have not been raised from this.' (Nik 1:271 4:1; L; 24)

(102) **sar-*ra-bé* pisaĝ-*a e*-bala**
sar -Ø -ʔa =be=Ø pisaĝ =ʔa ʔi -n(i)-balaʔ-Ø
write-NFIN-NOM=its=ABS basket=LOC VP-in -cross -3N.S/DO
'The documents about this have been transferred into the basket.' (Nik 1:230 7:1; L; 24)

(103) **u$_4$-*ba* ensi$_2$-*ke$_4$* kalam-*ma-na* zi-*ga ba-ni*-ĝar**
u$_4$.d=be =ʔa ensi$_2$.k=e kalam =ane=ʔa zi.g-Ø -ʔa =Ø
day =this=LOC ruler =ERG country=his =LOC rise -NFIN-NOM=ABS

Ø -ba -ni-n -ĝar -Ø
VP-MM-in -3SG.A-place-3N.S/DO
'Then the ruler organized a levy in his country.' (Cyl A 14:7; L; 22)

A genitive dependent on a headless past participle may function like other genitives. E.g.:

(104) **30 udu niga / šu-*a ge-na* u$_4$ 30-*kam***
30 udu niga šu =ʔa ge.n -Ø -ʔa u$_4$.d 30=ak =Ø =ʔam
30 ram barley.fed hand=LOC be.firm-NFIN-NOM day 30=GEN=ABS=be:3N.S
'Thirty barley-fed rams; these are the regular supplies of thirty days (lit. "this is what is firm on the hand, of thirty days").' (AUCT 1:443 1-2; D; 21)

(105) ***a-gù-a* ĝá-*ra* im-*ma***
a.gù=ʔa ĝar -Ø -ʔa im =ak
top =LOC place-NFIN-NOM last.year=GEN
'what was placed on the account last year (lit. in German "*auf die Rechnung Gesetztes des vorigen Jahres*")' (CT 1 pl. 4-5 BM 17744 1:14=3:5; L; 21)

But mostly it expresses the agent of the action expressed by the participle. E.g.:

(106) **šà kù-*ge* pà-*da* / ^{d}nanše / nin uru$_{16}$-*na-ke$_4$***
šà.g kù.g=e pà.d-Ø -ʔa nanše nin uru$_{16}$.n=ak =e
heart pure=DIR call -NFIN-NOM Nanshe lady august =GEN=ERG
'the one (ergative) called into her pure heart by Nanshe, the august lady (lit. "the one whom Nanshe, ..., let (her) pure heart call")' (Ean. 60 1:6-8; L; 25)

(107) **mu du$_{10}$ sa$_4$-*a* / ^{d}nanše-*ke$_4$***
mu du$_{10}$.g=Ø sa$_4$ -Ø -ʔa nanše =ak =e
name good =ABS name-NFIN-NOM Nanshe=GEN=ERG
'the one (ergative) given a good name by Nanshe' (Ean. 6 4:9-10; L; 25)

(108) **gù zi dé-*a* / ^{d}inanna-*ka***
gù zi.d =Ø dé -Ø -ʔa inanna.k=ak
voice right=ABS pour-NFIN-NOM Inanna =GEN
'the one spoken to truly by Inanna' (En. I 29 2:3-4; L; 25)

(109) **ga zi gu$_7$-*a* / ^{d}nin-ḫur-saĝ-*ka***
ga zi.d =Ø gu$_7$-Ø -ʔa nin.ḫur.saĝ.ak=ak
milk right=ABS eat -NFIN-NOM Ninhursag =GEN
'the one fed the right milk by Ninhursag' (Ent. 32 1:7'-8'; L; 25)

(110) **á šúm-*ma* / ^{d}nin-dar-*a-ke$_4$***
á =Ø šúm-Ø -ʔa nin.dar.a=ak =e
strength=ABS give -NFIN-NOM Nindara =GEN=ERG
'the one given strength by Nindara' (St B 2:12-13; L; 22)

Using such a genitive dependent upon the participle is the normal method to refer to the agent in the action expressed by a headless past participle. If the past participle has an explicit head noun, the agent is commonly expressed by an ergative or by the head noun itself (see ex. 80 and following above).

In §27.6.8 we described a complementation strategy (§27.5.1) involving a nominalized clause in the terminative case. This construction actually occurs more often with non-finite clauses and is particularly frequent with the verb **ge.n** 'be/make firm' in the meaning 'prove'. E.g.:

(111) **a-tu má šúm-*ma-aš ba-ge-en$_6$***
a.tu=Ø má =Ø šúm-Ø -ʔa =še Ø-ba -ge.n -Ø
Atu=ABS boat=ABS give-NFIN-NOM=TERM VP-MM-be.firm-3SG.S/DO
'Atu was proven to have given the boat (lit. "Atu was made firm as one who gave the boat").' (NG 62 11; U; 21). Note that **a-tu** is the subject of ***ba-ge-en$_6$*** and not of **šúm-*ma***: in the latter case the form would have been **a-tu-*e***, with an explicit ergative case marker, as in the lines 2 and 9 of the same text.

(112) **saĝ ki min-*a* sa$_{10}$-*aš ba-ge-en$_6$***
saĝ =Ø ki min=ʔa sa$_{10}$-Ø -ʔa =še Ø -ba -ge.n -Ø
head=ABS place two=LOC buy -NFIN-NOM=TERM VP-MM-be.firm-3N.S/DO
'The slave was proven to have been sold twice (lit. "The slave was made firm as one sold in two places").' (NG 69 11; U; 21)

(113) **ur-^{d}li$_9$-si$_4$-*na-ke$_4$* dab$_5$-*ba-aš ba-ge-en$_6$***
ur.li$_9$.si$_4$.na.k=e dab$_5$-Ø -ʔa =še Ø -ba -ge.n -Ø
Urlisi =ERG take-NFIN-NOM=TERM VP-MM-be.firm-3N.S/DO
'It (viz. a bull) was proven to have been taken by Ur-Lisi (lit. "It was made firm as one taken by Ur-Lisi").' (SNAT 420 3:7; U; 21)

The same construction is also found with other verbs. E.g.:

(114) ***na-gáb-tum-ma* ku$_4$-*ra-aš ba-ne*-zi**
na.gáb.tum =ʔa ku$_4$.r-Ø -ʔa =še Ø -ba -nnē -zi.g-Ø
an.institution=LOC enter -NFIN-NOM=TERM VP-MM-3PL.IO-rise-3N.S/DO
'This (barley) was registered for them as brought into the *nagabtum*.' (TLB 3:101 8; D; 21)

28.3.4. Use as a verbal noun

Used as a verbal noun, a past participle does not refer to a participant in an action or state but to an action or state itself. Like a noun, a past participle may then function as the subject or object of a verb, or have an adverbial function. Like a noun, such a past participle is in the case which marks its syntactic function. At least one past participle has even become a common noun: **gíd-*da*** 'length' (see for this noun §10.2, at the end).

But as a *verbal* noun, a past participle also displays verbal properties. It can be the predicate of a non-finite clause and be preceded by noun phrases functioning as its subject, object, or adjunct. E.g.:

(115) **níĝ-dab$_5$ en ^{d}nanna kar-zi-*da* ḫuĝ-*ĝá***
níĝ.dab$_5$ en nanna kar.zi.da=ak =Ø ḫuĝ -Ø -ʔa =ak
transfer highpriest Nanna Karzida =GEN=ABS install-NFIN-NOM=GEN
'transfer for that the highpriest of Nanna Karzida was installed' (PDT 2:767 2:17; D; 21). For the presence of a genitive case marker here, compare ex. 209.

(116) **máš da ře$_6$-*a* lugal-*e* aga$_3$ šu ti-*a***
máš da ře$_6$-a lugal=e aga$_3$ =Ø šu =e ti -Ø -ʔa =ak
ceremonial.gift king =ERG crown=ABS hand=DIR approach-NFIN-NOM=GEN
'the ceremonial gifts for the king having received the crown (lit. "of the king having let the crown approach the hand")' (AAICAB I/4 pl. 260 Bod. S 365 7; U; 21)

The verb-like and noun-like properties of the past participle can be combined to a large extent. The past participle **è-*a*** 'having gone out' can, for instance, be construed with a subject and a genitive at the same time. E.g.:

(117) **ga-gu$_7$ è-*a* abul 4-*ba***
ga.gu$_7$ =Ø è -Ø -ʔa abul 4=be =ak
milk.sucker=ABS go.out-NFIN-NOM gate 4=this=GEN
'the milk-suckers (i.e., young animals) having gone out of the four gates' (ITT 5:6925 2; L; 21)

Non-finite clauses with a past participle as their predicate occur in a wide variety of constructions. At the beginning of this section we encountered already a few such clauses in the genitive case. A different construction with such a non-finite clause in the genitive case occurs with the noun **lú** 'man, person'. E.g.:

(118) **gù-dé-*a* lú é řú-*a-ke$_4$***
gù.dé.a lú é =Ø řú -Ø -ʔa =ak =e
Gudea man house=ABS erect-NFIN-NOM=GEN=ERG
'Gudea, the man who built the temple (lit. "the man of that the house was erected")' (ergative) (Cyl A 20:24; L; 22)

(119) **nin-me-kal-*la* lú saĝ sa$_{10}$-*a-ke$_4$***
nin.me.kal.la lú saĝ =Ø sa$_{10}$ -Ø -ʔa =ak =e
Ninmekalla man head=ABS barter-NFIN-NOM=GEN=ERG
'Ninmekalla, the person who bought the slave' (ergative) (NG 58 12'; L; 21)

(120) ***ḫa-la-*^{d}*ba-ú* lú é sa$_{10}$-*a-ke$_4$***
ḫa.la.ba.ú lú é =Ø sa$_{10}$ -Ø -ʔa =ak =e
Hala.Bau man house=ABS barter-NFIN-NOM=GEN=ERG

'Hala-Bau, the person who bought the house' (ergative) (NG 106 12; L; 21)

A non-finite clause in the genitive case can be used as a non-finite complement clause with nouns that refer to a speech event. It is a construction which also occurs with finite complement clauses (see §27.5.3). It is attested with the nouns and noun phrases **lú inim-*ma*** 'witness (lit. "person of the word")', **á-aĝ-*ĝá*** 'message', **níĝ-mul-an-*na*** 'message' (Sallaberger 2003), **dub** 'tablet, document', and **zà-mí** 'praise, hymn':

(121) **lú inim-*ma* inim til-*a-kam***
lú inim=ak inim=Ø til -Ø -ʔa =ak =Ø =ʔam
man word=GEN word=ABS end-NFIN-NOM=GEN=ABS=be:3N.S
'He is the witness for (lit. "of") that the matter was completed.' (BIN 8:172 16; I; 23)

(122) **lú inim-*ma* saĝ sa_{10}-*a-šè***
lú inim =ak saĝ =Ø sa_{10}-Ø -ʔa =ak =še
man word=GEN head=ABS buy -NFIN-NOM=GEN=TERM
'as witness for that the slave had been bought' (NG 51 15; U; 21)

(123) **á-áĝ-*ĝá* ugnim silim$^{si\text{-}lim}$-*ma***
á.áĝ.ĝá ugnim=Ø silim -Ø -ʔa =ak
message army =ABS be.safe-NFIN-NOM=GEN
'the message that the army was safe' (ITT 3:5271 14; L; 21)

(124) **á-áĝ-*ĝá* SIG_5 *si-ma-núm*^{ki} ḫulu-*a***
á.áĝ.ĝá sa_6.g -Ø -ʔa si.ma.núm=Ø ḫulu -Ø -ʔa =ak
message be.good-NFIN-NOM Simanum =ABS be.bad-NFIN-NOM=GEN
'the good message that Simanum had been defeated' (MVN 16:960 obv 16; U; 21)

(125) **níĝ-mul-an-*na* / lagas^{ki} ḫulu-*a***
níĝ.mul.an.na lagas =Ø ḫulu -Ø -ʔa =ak
message Lagash=ABS be.bad-NFIN-NOM=GEN
'the message that Lagash had been defeated' (MVN 10:124 rev 10-11; ?; 23)

(126) **dub é sa_{10}-*a-bé***
dub é sa_{10} -Ø -ʔa =ak =be
tablet house barter-NFIN-NOM=GEN=its
'its (viz. of a specific transaction) document that a house had been bought' (NG 99 9; L; 21)

Such a non-finite complement clause may also be construed as an anticipatory genitive (§7.2.4). The non-finite clause in the genitive case is then found at the beginning of the sentence, while the head noun shows the possessive pronoun {be} which refers back to the preceding genitive:

(127) **^{ĝiš}kiri$_6$ šúm-*ma* / lú inim-*ma-bé-šè***
kiri$_6$ =Ø šúm-Ø -ʔa =ak lú inim =ak =be=še
orchard=ABS give-NFIN-NOM=GEN man word=GEN=its=TERM
'as witness for that the orchard had been given' (Pettinato L'uomo p. 101:45 obv 6-7; ?; 21)

Sometimes the head noun of the anticipatory genitive lacks the possessive pronoun referring back:

(128) **é-ninnu ki-*bé* gi$_4$-*a*-*ba* / ^{d}nin-*ĝír*-*su* zà-mí**
é.ninnu=ak ki =be=e gi$_4$ -Ø -ʔa =be =ak nin.ĝír.su.k zà.mí
Eninnu =GEN place=its=DIR turn-NFIN-NOM=its=GEN Ningirsu praise
'For the restoration of the Eninnu (lit. "Of the Eninnu, of its having been returned to its place") praise be Ningirsu!' (Cyl A 30:13; L; 22)

(129) **é ^{d}nin-*ĝír*-*su*-*ka* řú-*a* / zà-mí *mu*-*ru*-*bé*-*em***
é nin.ĝír.su.k=ak =Ø řú -Ø -ʔa =ak zà.mí =ak
house Ningirsu =GEN=ABS erect-NFIN-NOM=GEN praise=GEN

mu.ru.b=be=Ø =(ʔa)m
middle =its=ABS=be:3N.S
'This is the middle (part) of the hymn of that Ningirsu's temple was built.' (Cyl A 30:15-16; L; 22)

A non-finite complement clause with a past participle as its predicate can also be construed as the direct object of a verb. Such a construction occurs with finite complement clauses (§27.5.2) and one attestation suggests that it is also possible with a past participle:

(130) **mu šúm-sikil zé-*a* *nu*-*ù*-zu-*a*-*šè***
mu šúm.sikil=Ø zé -Ø -ʔa =Ø
name onion =ABS cut-NFIN-NOM=ABS

nu =ʔi -n -zu -Ø -ʔa =ak =še
NEG=VP-3SG.A-know-3N.S/DO-NOM=GEN=TERM
'because he did not know that the onions had been cut' (ASJ 9 p. 329 1:3; L; 21)

Note, however, that imperfective participles show the locative case marker {ʔa} in constructions like this (§28.4.4).

Past participles used as verbal nouns also occur in non-finite adverbial clauses. Many types of finite temporal clauses, for instance, have a non-finite counterpart, the most common one being a temporal clause in the locative (cf. §27.6.2). E.g.:

(131) **ur-^{d}nin-ĝiš-zi-*da* ti-*la*-*a***
ur.nin.ĝiš.zi.da.k=Ø ti.l -Ø -ʔa =ʔa
Urningishzida =ABS live-NFIN-NOM=LOC
'when Ur-Ningishzida was still alive' (NG 18 5; L; 21)

(132) **iti 12 zal-*la*-*a***
iti.d 12=Ø zal -Ø -ʔa =ʔa
month 12=ABS pass-NFIN-NOM=LOC
'when the twelfth month (lit. "month twelve") had passed' (VS 14:1 2:4; L; 24)

(133) **iti še-íl-*la*-*ta* u$_4$ 10 zal-*la*-*a***
iti.d še.íl.la =ta u$_4$.d 10=Ø zal -Ø -ʔa =ʔa
month Sheilla=ABL day 10=ABS pass-NFIN-NOM=LOC
'when out of the month She'illa the tenth day (lit. "day ten") had passed' (SNAT 193 tablet 4; L; 21)

Sometimes the participle shows a possessive pronoun which is coreferential with its subject:

(134) **iti ezem ^{d}lugal-urub^{ki}-*ka* til-*la*-*ba***

iti.d ezem lugal.urub.ak=ak =Ø til -Ø -ʔa =be=ʔa
month festival Lugalurub =GEN=ABS end-NFIN-NOM=its=LOC
'in the month when the Festival of Lugalurub ended' (DP 85 2:4; L; 24)

(135) **35 mu / zal-*la-ba***
35 mu =Ø zal -Ø -ʔa =be=ʔa
35 year=ABS pass-NFIN-NOM=its=LOC
'when thirty-five years had passed' (FAOS 7 Gutium 3 6-7; U; 23)

Non-finite clauses in the locative case may also have a non-temporal meaning:

(136) **gù ra-*a-ba ì-im-er-re-eš***
gù =Ø ra-Ø -ʔa =be =ʔa ʔi -m(u)-ʔer -eš
voice=ABS hit-NFIN-NOM=this=LOC VP-VENT-go:PLUR-3PL.S/DO
'They came upon this shouting.' (NG 120b 10; U; 21)

Non-finite temporal clauses in the ablative or in the terminative case are found as well. (For their finite counterparts, see §27.6.3 and §27.6.4 respectively.) E.g.:

(137) **iti RI-*ta* u_4 10 lá 1 zal-*la-ta***
iti.d RI=ta u_4.d 9=Ø zal -Ø -ʔa =ta
month RI=ABL day 9=ABS pass-NFIN-NOM=ABL
'since out of the month RI the ninth day had passed' (SNAT 484 obv 3; U; 21)

(138) **u_4 30 zal-*la-aš***
u_4.d 30=Ø zal -Ø -ʔa =š(e)
day 30=ABS pass-NFIN-NOM=TERM
'until the thirtieth day has passed' (CTMMA I 22 case 5; D; 21)

One type of non-finite temporal clause involving past participles will be treated not here but below in §28.6. It is an archaic construction called the pronominal conjugation.

Just like certain finite subordinate clauses, past participles in the genitive case can occur in a temporal expression involving the noun **$eger_4$** 'back' (cf. §27.6.3). E.g.:

(139) **$eger_4$ udu ur_4-*ra-ta***
$eger_4$ udu =Ø ur_4 -Ø -ʔa =ak =ta
back sheep=ABS pluck-NFIN-NOM=GEN=ABL
'after (lit. "from the back of") the sheep had been shorn' (VS 14:111 1:4; L; 24)

(140) **$eger_5$ še *a-šà-<ga>* ĝar-*ra-ta***
$eger_5$ še=Ø a.šà.g=ʔa ĝar-Ø-ʔa=ak =ta
back barley=ABS field=LOC place-NFIN-NOM=GEN=ABL
'after the barley had been placed on the field' (SAT 1:344 9; L; 21)

(141) **$eger_5$ kišib ra-*a-ta***
$eger_5$ kišib=Ø ra -Ø -ʔa =ak =ta
back seal =ABS hit-NFIN-NOM=GEN=ABL
'after a seal had been impressed' (UTAMI 3:1848 14; U; 21).

Several kinds of finite reason clauses also have a non-finite counterpart with a past participle as predicate. One is an older construction with the noun **bar** 'outside' followed by a clause in the genitive case (§27.6.5). The non-finite attestations have been put together by Wilcke (2007: 117-118 note 385). E.g.:

(142) **bar še lugal-TUKUL / zuḫ-*a-ka***
bar še lugal.TUKUL=ak =Ø zuḫ -Ø -ʔa =ak =ʔa
outside barley Lugaltukul =GEN=ABS steal-NFIN-NOM=GEN=LOC
'because of having stolen Lugaltukul's barley' (RTC 96 5:10-11; L; 23).

(143) **bar é lú-bàn-*da* dub-sar / ri-ri-*ga-ka***
bar é lú.bàn.da dub.sar=ak =Ø ri.g -ri.g -Ø -ʔa =ak =ʔa
outside house Lubanda scribe =GEN=ABS pick.up-pick.up-NFIN-NOM=GEN=LOC
'because of having plundered the house of Lubanda, the scribe' (RTC 92 2:5'-6'; L; 23).

In texts from after the Old Akkadian period, this construction with **bar** 'outside' is not attested anymore. With finite clauses it was replaced by a construction with the noun **mu** 'name' in the terminative case (§27.6.5), but with non-finite clauses it seems to have been replaced by a kind of non-finite reason clause, which is attested in texts from the Ur III period. It involves a construction with suffixed /akeš/ which also occurs with finite clauses (§27.6.5). E.g.:

(144) **gala *a-šà-ta* e_{11}-*da-ke$_4$-eš***
gala =Ø a.šà.g=ta e_{11}.d -Ø -ʔa =ak =eš
lamentation.priest=ABS field =ABL go.up-NFIN-NOM=GEN=ADV
'because the lamentation priest was deprived of the field (lit. "went up from the field")' (NG 215 47 U; 21)

(145) **anše zuḫ-*a-ke$_4$-éš***
anše =Ø zuḫ -Ø -ʔa =ak =eš
donkey=ABS steal-NFIN-NOM=GEN=ADV
'because of having stolen a donkey' (NG 202 3; U; 21)

Especially the second example suggests that it was this construction which replaced the non-finite one with **bar** (compare example 142).

A non-finite clause in the terminative case may also be used to express a reason:

(146) **$anzu_2^{mušen}$-*gen$_7$ šeg$_{12}$* gi_4-*a-bé-šè* / an *im-ši*-dúb-dúb**
$anzu_2$.d=gen $šeg_{12}$ =Ø gi_4 -Ø -ʔa =be=še an =Ø
Anzu =EQU shriek=ABS turn-NFIN-NOM=its=TERM heaven=ABS

ʔi -m(u) -ši-dúb -dúb -Ø
VP-VENT-to-tremble-tremble-3N.S/DO
'Due to its roaring like the Anzu-bird, heaven trembles.' (Cyl A 9:14-15; L; 22)

A finite clause in the equative case can have a causal meaning (§27.6.7). The same applies to non-finite clauses. E.g.:

(147) **ĝuruš gú-<*na*> šú-*ba-gen$_7$***
ĝuruš =ak gú =ane=ʔa šub-Ø -ʔa =gen
young.man=GEN neck=his =LOC fall -NFIN-NOM=EQU
'because of having fallen on the neck of the young man' (Studies Borger p. 100 15; N; 23/21). For the restoration, compare **[ĝu]ruš gú-*na* šú-*ba*** (ibidem line 9).

The Gudea texts provide many instances of past participles in the comitative case. E.g.:

(148) **íd-*dè* a zal-*le* si-*a-da***
íd =e a zal -ed -Ø =Ø si -Ø -ʔa =da
river=DIR water flow-IPFV-NFIN=ABS fill-NFIN-NOM=COM

'with that flowing water fills the river' (Cyl B 15:1; L; 22)

(149) ***nam*-ti-*la-na* / u$_4$-*bé* sù-*a-da***
nam.ti.l=ane=ak u$_4$.d=be=Ø sù.ř -Ø -ʔa =da
life =his=GEN day =its=ABS be.distant-NFIN-NOM=COM
'with the duration of his life made longer' (St E 8:9-10; L; 22)

(150) **^{ĝiš}dúr-ĝar lagas^{ki}-*ka* / suḫuš-*bé ge-na-da***
dúr.ĝar lagas =ak =ak suḫuš=be=Ø ge.n -Ø -ʔa =da
throne Lagash=GEN=GEN basis =its=ABS be.firm-NFIN-NOM=COM
'with that the foundation of Lagash' throne is firm' (St E 8:2-3; L; 22)

28.3.5. Uses with the stative verbs zu 'know' and tuku 'have'

As we saw above in §28.2.4, the present participles of the verbs **zu** 'know' and **tuku** 'have' have a much wider range of uses than those of other verbs. In fact, while their present participles are quite numerous, their past participles are hardly attested. The following seem to be all the attestations in our corpus:

(151) **níĝ ensi$_2$-*ke$_4$* / *en-na* tuku-*a* / ^{d}nin-*ĝír-su* / [l]ugal-*bé***
níĝ ensi$_2$.k=e en.na tuku-Ø -ʔa =ak
thing ruler =ERG until have-NFIN-NOM=GEN

nin.ĝír.su.k=Ø lugal=be=Ø =(ʔa)m
Ningirsu =ABS lord =its=ABS=be:3SG.S
'Of the property, as much as the ruler had, Ningirsu is (now) the owner.' (Ukg. 1 5:2"-5"; L; 24). See §27.4.1 for this use of ***en-na***.

(152) **zíz-ba lú su-*a* ensi$_2$-*ka-ke$_4$-ne***
zíz.ba lú zu-Ø-ʔa ensi$_2$.k=ak=enē=ak
distribution.wheat man know-NFIN-NOM ruler=GEN=PL=GEN
'distribution wheat of the ruler's acquaintances (lit. "persons known")' (DP 161 1:3; L; 24). For **su-*a***, compare later **zu-*a*** 'acquaintance' (Akkadian *mudû*) (Bauer 1972: 344).

(153) **^{d}nin-*ĝír-su-ka nam*-nir-ĝál-*né* / kur-kur-*re* zu-*a***
nin.ĝír.su.k=ak nam.nir.ĝál=ane=Ø kur -kur =e
Ningirsu =GEN authority =his =ABS mountains-mountains=ERG

zu -Ø -ʔa =ak
know-NFIN-NOM=GEN
'of that the foreign lands know Ningirsu's authority' (Cyl B 24:12-13; L; 22)

The first two attestations involve a use as verbal adjective and the third a use as verbal noun. It is not clear to me why exactly here the past participles are used and elsewhere the present participles.

28.4. The imperfective participle

28.4.1. Form and meaning

An imperfective participle is formed by adding the imperfective suffix {ed} to the verbal stem:

(154) **šà-gal *ḫé*-dab$_5$ àr-*re-dè***
šà.gal ḫé.dab$_5$=ak =Ø àr -ed -Ø =e
fodder captive =GEN=ABS grind-IPFV-NFIN=DIR
'for grinding the food of the captives' (ITT 5:6885 3; L; 21)

Similar forms are attested for many other verbs, e.g., **daḫ-*ḫe-dè*** 'for adding' (TCL 5:6040 2:13'; U; 21), **sar-*re-dè*** 'for writing' (UET 3:666 2; Ur; 21). If a verb has a special imperfective stem (§12.3), its imperfective participle is formed by adding the suffix {ed} to this imperfective stem, e.g., ***ĝá-ĝá-dè*** 'for placing' (MVN 3:234 19; D; 21), **su-su-*dè*** 'for repaying' (NRVN 1:124 7; N; 21), **gi$_4$-gi$_4$-*dè*** 'for returning' (NRVN 1:113 6; N; 21). The suffix {ed} undergoes certain phonological changes and also displays some variation in spelling. The following section will deal with these phenomena in detail (§28.4.2).

Three verbs have imperfective participles with irregular forms. The imperfective participle of the first verb, **du** 'go, come', always lacks the suffix {ed}. E.g.:

(155) **íd niĝin$_6^{ki}$ du-*a***
íd niĝin$_6$=š(e) du -Ø =ʔa
river Nigin =TERM go:IPFV-NFIN=LOC
'on the Canal-Going-to-Nigin' (Ukg. 1 3:6'; L; 24)

(156) **kíĝ-gi$_4$-*a* kur-*šè* du-*úr***
kíĝ.gi$_4$.a kur =še du -Ø =r(a)
envoy mountains=TERM go:IPFV-NFIN=DAT
'for the messenger going to the mountain land' (ELA 156; OB manuscript)

The second irregular verb, **du$_{11}$.g** 'do, say', has a specialized form **di.d** as its imperfective participle, which, in view of the final /d/, probably includes a form of the suffix {ed}. E.g.:

(157) **a-šà-*e* a *di-dè***
a.šà.g=e a =Ø di.d -Ø =e
field =DIR water=ABS do:IPFV:NFIN-NFIN=DIR
'for irrigating (lit. "for doing water to") the field' (TENS 257 8; U; 21)

For the imperfective participle of the third irregular verb, **ak** 'do, make', see §28.7 below.

An imperfective participle may contain a reduplicated stem expressing verbal number (§12.4.3). E.g.:

(158) **lú-zàḫ dab$_5$-dab$_5$-*dè* ĝen-*na***
lú.zàḫ =Ø dab$_5$-dab$_5$-ed -Ø =e ĝen-Ø -ʔa
fugitive=ABS take -take -IPFV-NFIN=DIR go -NFIN-NOM
'who went to arrest fugitives' (RTC 355 10; L; 21)

(159) **^{uruda}šen sumun kalag-kalag-*ge-dè***
šen sumun=Ø kalag -kalag -ed -Ø =e
kettle old =ABS be.strong-be.strong-IPFV-NFIN=DIR
'(copper) for strengthening old kettles' (UET 3:486 2; Ur; 21)

An imperfective participle lacks all the proclitics, prefixes, and suffixes which may occur in a finite verbal form (§11.2.2), except that it may be preceded by the negative proclitic {nu}. E.g.:

(160) **lá-NI *nu*-su-su-*dam***

lá.NI nu =su.g:RDP-ed -Ø =Ø =ʔam
arrears NEG=repay:IPFV-IPFV-NFIN=ABS=be:3N.S
'These are arrears which will not be paid back.' (RIAA 80 7'; U; 23)

The imperfective participle shows the same range of meanings as the finite forms of the imperfective (§15.4.3). It usually expresses a future action, as many of the preceding examples illustrate. It is common across languages for future forms to have modal meanings as well. The Sumerian imperfective participle is no exception. It may, for instance, express a notion of necessity or obligation:

(161) ***a-ba*-pà / *ze-re-dam***
ʔu -ba -pà.d-Ø ze.r -ed -Ø =ʔam
REL.PAST-MM-find -3N.S/DO destroy-IPFV-NFIN=be:3N.S
'When it (viz. a sealed document gone missing) is found, it is to be destroyed.' (NRVN 1:244 6-7; N; 21)

An imperfective participle with the negative proclitic {nu} may express a notion of impossibility or inability. E.g.:

(162) **lugal á dugud-*da-né* kur-*e nu*-íl-*e***
lugal á dugud=ane=Ø kur =e nu =ʔíl -ed -Ø
king arm heavy=his =ABS mountains=ERG NEG=lift-IPFV-NFIN
'the king whose heavy arm no foreign land can bear' (St D 5:2-3; L; 22)

An imperfective participle may also express a present action, an action described as ongoing at the time of the speech event (see example 155). And it may express a past progressive, describing a past action as ongoing at the time talked about. E.g.:

(163) **^{d}nin-urta dumu ^{d}en-líl-*lá-ke$_4$* nam tar-*re-da-né***
nin.urta dumu en.líl=ak =e nam =Ø tar-ed -Ø =ane=e
Ninurta son Enlil =GEN=ERG status=ABS cut-IPFV-NFIN=his =DIR
'when Ninurta, son of Enlil, was deciding fates' (Lugal-e 21; N; OB)

(164) **u$_4$ a[n k]i-*a nam* tar-[*re-d*]*a***
u$_4$.d an ki =ʔa nam =Ø tar-ed -Ø =ʔa
day heaven earth=LOC status=ABS cut-IPFV-NFIN=LOC
'when in heaven and on earth fates were being decided' (Cyl A 1:1; L; 22). For the restoration of the form, compare the previous example.

(165) **munus zi é-*a-né-šè* šu *ĝá-ĝá-dam***
munus zi.d é =ane=še šu =Ø ĝar:RDP-ed -Ø =Ø =ʔam
woman right house=her =TERM hand=ABS place:IPFV-IPFV-NFIN=ABS=be:3SG.S
'She was a true woman taking her house in hand.' (Cyl B 5:11; L; 22)

(166) ***ḫu-rí-in* am-*šè* igi ÍL.ÍL-*dam***
ḫu.rí.in am =še igi =Ø íl -ed -Ø =Ø =ʔam
eagle wild.bull=TERM eye=ABS lift-IPFV-NFIN=ABS=be:3SG.S
'He was (like) an eagle focussing its attention on (lit. "lifting the eyes towards") a wild bull.' (Cyl B 5:3; L; 22)

Just like all other forms of the imperfective, the imperfective participle can only be used to express an *action*. A state is always expressed by a perfective form, in this case by a past or present participle. Compare, for instance, the following clauses, which occur in Old Babylo-

nian manuscripts of a literary text. The first two, which describe present actions, show imperfective participles, while the second two, describing present states, display past participles:

(167) **ki-bala gul-gul-*lu-za ḫé*-zu-*àm***
ki.bala =Ø gul -gul -ed -Ø =zu =ʔa ḫa =ʔi -zu -Ø =ʔam
rebel.land=ABS destroy-destroy-IPFV-NFIN=your=LOC MOD=VP-know-3N.S/DO=be:3N.S
'About that you destroy the rebel lands – let it be known!' (Inanna B 125)

(168) **ur-*gen*$_7$ adda gu$_7$-*ù-za ḫé*-zu-*àm***
ur =gen adda =Ø gu$_7$-ed -Ø =zu =ʔa
dog=EQU corpse=ABS eat -IPFV-NFIN=your= LOC
'About that you devour a corpse like a dog – let it be known!' (Inanna B 127)

(169) **an-*gen*$_7$ maḫ-*a-za ḫé*-zu-*àm***
an =gen maḫ -Ø -ʔa =zu =ʔa
heaven=EQU be.great-NFIN-NOM=your= LOC
'About that you are great as heaven – let it be known!' (Inanna B 123)

(170) **ki-*gen*$_7$ daĝal-*la-za ḫé*-zu-*àm***
ki =gen daĝal -Ø -ʔa =zu =ʔa
earth=EQU be.wide-NFIN-NOM=your= LOC
'About that you are wide as the earth – let it be known!' (Inanna B 124)

A parallel contrast between an imperfective participle expressing a present action and a past participle designating a present state occurs in the following clause:

(171) **ge zi sig$_7$-*e-da* gub-*ba***
ge zi.d=Ø sig$_7$-ed -Ø =ʔa gub -Ø -ʔa
reed true=ABS cut -IPFV -NFIN=LOC stand-NFIN-NOM
'(labourers) who (from a certain day onwards) are on duty (lit. "stand") in cutting fresh reed' (ASJ 14 p. 101:3 rev 12; U; 21)

Because an imperfective participle always expresses an action, the imperfective participle of a stative verb always has a non-stative, dynamic, meaning. E.g.:

(172) **é ge-*né-da* é du$_{10}$-*ge-da***
é =Ø ge.n -ed -Ø =da é =Ø du$_{10}$.g -ed -Ø =da
house=ABS be.firm-IPFV-NFIN=COM house=ABS be.good-IPFV-NFIN=COM
'with making the temple firm, with making it good' (Cyl B 6:13; L; 22)

An imperfective participle is not inherently active or passive but can be used either way without any change in form. Passivisation only involves the simple deletion of the transitive subject (cf. §11.5.3). E.g.:

(173) **še gu$_4$-*ře*$_6$ gu$_7$**
še gu$_4$.ř=e gu$_7$-ed -Ø
barley ox =ERG eat -IPFV-NFIN
'barley which the oxen will eat' (active) (DP 535 1:1; L; 24)

(174) **e ak-*dam***
e.g ak -ed -Ø =Ø =ʔam
dike make-IPFV-NFIN=ABS=be:3N.S
'This is (a stretch of) dike which will be made.' (passive) (VS 14:130 4:1; L; 24)

Imperfective participles are either used as verbal adjectives or as verbal nouns. Used as a verbal adjective, an imperfective participle refers to a participant involved in the action expressed by the verb. The imperfective participle of the verb **šúm** 'give', **šúm-*mu.d***, then means '(which is) to be given', 'who will give', and so on (see §28.4.3 below). Used as a verbal noun, an imperfective participle refers to the action itself. The imperfective participle **šúm-*mu*.d** then means 'give', 'giving', and the like (see §28.4.4 below).

28.4.2. Forms and spellings of the suffix {ed}

The imperfective suffix {ed} occurs in both finite and non-finite verbal forms. Its formal properties seem to be the same in either case but I have kept their description apart just to be cautious. The forms and spellings of {ed} in finite forms have already been treated in §15.3.2. Here we will adress its behaviour in non-finite forms.

The basic form of {ed} is /ed/ and has been amply documented in the preceding section, so that a single example will suffice here:

(175) **udu *la-ḫe-dè***
udu laḫ$_5$ -ed -Ø =e
ram bring:PLUR-IPFV-NFIN=DIR
'in order to bring sheep' (CUSAS 3:260 2; G; 21)

The /e/ of /ed/ undergoes changes under the influence of preceding sounds (Krecher 1995: 152-158). To begin with, it becomes /u/ after certain verbal stems with the stem vowel /u/. This assimilation, which causes /ed/ to become /ud/, occurs after all verbal stems with a final labial consonant. E.g.:

(176) **pisaĝ im sar-*ra-ke$_4$ su-bu-dè***
pisaĝ im sar -Ø -ʔa =ak =e su.b -ed -Ø =e
basket clay write-NFIN-NOM=GEN=DIR smear-IPFV -NFIN=DIR
'(bitumen) for tarring a basket for written documents' (ITT 5:6940 2; L; 21)

(177) **ur-^{d}ig-alim-*ka-ke$_4$* / ^{d}lama$_3$-iri-*na-ra* / šúm-*mu-dam***
ur.ig.alim.ak.ak=e lama$_3$.iri.na.k=ra šúm-ed -Ø =ʔam
Urigalim =ERG Lamairina =DAT give -IPFV-NFIN=be:3N.S
'This (barley) is to be given by Ur-Igalim to Lama'irina.' (TCTI 2:3914 4-6; L; 21)

Similarly: **gub-*bu-dè*** (**gub** 'stand', e.g., UET 3:437 8; Ur; 21), **šub-*bu-dè*** (**šub** 'fall', e.g., UET 3:406 3; Ur; 21), **šúm-*mu-dè*** (**šúm** 'give', e.g., MVN 5:245 19; L; 21), **túm-*mu-dè*** (**túm** 'bring', e.g., TCS 1:55 8; ?; 21).

The assimilation of /ed/ to /ud/ is also attested for some verbs with stem-final /ur/:

(178) **kišib-*bé gú-ru-dam***
kišib=be=Ø gur -ed -Ø =ʔam
seal =its=ABS go.back-IPFV-NFIN=be:3N.S
'The sealed documents about this are to be brought back.' (MVN 15:377 14; ?; 21)

(179) ***nam*-erim$_2$-*bé* ku$_5$-*ru-dè***
nam.erim$_2$=be=Ø ku$_5$.r-ed -Ø =e
oath =its=ABS cut -IPFV-NFIN=DIR
'to take an oath about this' (NG 209 8-9; L; 21)

Also: ***nu*-kúr-*ru-dè*** ‘not to change’ (NRVN 1:237 rev 4; N; 21). By contrast, {ed} remains /ed/ after other verbs with stem-final /ur/. E.g.:

(180) **kišib urdu$_2$-*ĝu$_{10}$-ta* / tur-*re-dam***
kišib urdu$_2$.ĝu$_{10}$=ak =ta tur -ed -Ø =ʔam
seal Urdugu =GEN=ABL be.small-IPFV-NFIN=be:3N.S
‘This is to be deducted from Urdugu’s sealed document.’ (Bedale STU 28 4-5; U; 21)

Although the texts in the corpus lack evidence for this, later texts show that /ed/ becomes /ud/ also after certain verbal stems with final /ul/. E.g.: ***gu-ul-lu-dè*** ‘in order to enlarge’ (**gu.ul** ‘be big’, UET 1:134 1:14’; Ur; OB), and **gul-gul-*lu-dè*** ‘in order to destroy’ (**gul** ‘destroy’, Curse of Agade 108).

The assimilation of /ed/ to /ud/ does not occur after those verbal stems with a stem vowel /u/, which have a final consonant other than /m/, /b/, /r/, or /l/. E.g.: **úš-*e-dè*** ‘for blocking’ (BM 21867a rev 7; L; 21) and **ŋuĝ-*e-dè*** ‘for inaugurating (the highpriest of Eridu)’ (MVN 10:230 1:14; U; 21).

The second change which affects the /e/ of {ed} is that it becomes /i/ after certain verbal stems which contain the vowel /i/. This is shown by the numerous attestations of **si-*gi$_4$-dè*** (e.g. BCT 2:91 4; U; 21) and **si-*gi$_4$-dam*** (e.g., NATN 480 9; N; 21), which include the imperfective participle of **si.g** ‘put into’. The sound sign for /ge/ is GI, whereas GI$_4$ is used for /gi/. Accordingly, the difference in spelling between, for instance, **kalag-kalag-*ge-dè*** with ***ge*** (ex. 159) and **si-*gi$_4$-dè*** proves that /ed/ has become /id/ in the latter.

Finally, the /e/ of {ed} contracts with a preceding vowel. Thus, if the verbal stem has a final vowel instead of a final consonant, the /e/ of {ed} contracts with the final stem vowel. Unfortunately, the outcome of this contraction can only rarely be established with certainty, as verbal stems are nearly always written with word signs. However, certain spellings make it virtually certain that the contraction of the /e/ of /ed/ with a preceding /u/ results in a long /ū/. From the Ur III period onwards, the scribes sometimes use explicit plene spellings in order to express this long /ū/. E.g.: **du$_8$-*ù-dam*** ‘they (viz. some bricks) are to be made’ (**du$_8$** ‘make (bricks)’, YOS 4:57 6; U; 21), **ř**ú-*ù-dè*** (**ř**ú** ‘erect’, UET 3:451 2; Ur; 21). Old Babylonian manuscripts of literary texts provide additional examples. E.g.: **gu$_7$-*ù-dè*** (**gu$_7$** ‘eat’, Curse of Agade 14; OB), **nú-*ù-dè*** ‘in order to lay’ (LSU 110; OB), **šú-šú-*ù-dè*** ‘in order to cover’ (**šú** ‘cover’, LSU 51 manuscript BB; OB).

The contraction of the /e/ of {ed} with a preceding /i/ seems to result in a long vowel /ī/. This is suggested by the plene spelling **zi-zi-*i***, which frequently occurs in Old Babylonian manuscripts of Sumerian literary texts. E.g.:

(181) **buru$_4$-dugud^{mušen} numun-saĝ-*šè* zi-zi-*i-gen$_7$***
buru$_4$.dugud numun.saĝ=še zi.g:RDP-ed -Ø =gen
flock.of.crows seedling =TERM rise:IPFV -IPFV-NFIN=EQU
‘like a flock of crows rising towards the seedlings’ (Lugalbanda I 32, cf. PSD B 204a)

While there is no evidence for a contraction of /e/ with a preceding /e/, a contraction with a preceding /a/ seems to result in /a/ (with no evidence as to whether this /a/ is long or short). E.g.:

(182) **a-ĝar-*ka ĝá-ĝá-dè***
a.GAR.ak =ʔa ĝar:RDP-ed -Ø =e
depilation.fluid=LOC place:IPFV-IPFV-NFIN=DIR

'for depilating them (viz. hides) (lit. "for placing them in depilation fluid")' (Nik 1:237 1:2; L; 24)

These changes, which the /e/ of {ed} undergoes, are largely the same as those of the /e/ of the person suffixes (§14.10). This suggests that the /e/ of both {ed} and those suffixes were identical in quality as well as quantity.

The verb **ba** 'portion out' shows a special development. The stem of this verb had in origin a final glottal stop (§3.2.4), so that the imperfective participle originally will have had the form /baʔed/. The glottal stop, however, was lost between vowels (§3.2.4) and certain Ur III spellings show a form /bēd/ for the imperfective participle of **ba**. E.g.:

(183) **iti-*da* *be$_6$*-*dam***
iti.d =ʔa ba ʔ -ed -Ø =ʔam
month=LOC portion.out-IPFV-NFIN=be:3N.S
'This is to be portioned out monthly (lit. "in a month").' (SAT 1:421 27; L; 21)

The contraction of /aʔe/ to /ē/ is hidden where the scribes have used a word sign to write the stem: e.g., **iti-*da* ba-*dam*** 'this is to be portioned out monthly' (MVN 6:419 rev 9; L; 21), **ba-*e*-*dè*** '(in order) to portion out' (MVN 7:69 rev 1; L; 21).

The suffix {ed} of the imperfective participle does not only undergo certain changes but is also subject to abbreviated spellings. In those forms where the /d/ of {ed} is explicitly written, the scribes often ignore the /e/ of {ed}, probably as an economy measure, because the intended verbal form can be identified without problem from the presence of the /d/, making an explicitly written /e/ somewhat superfluous. Take, for instance, the following expression, which occurs frequently in Ur III legal texts:

(184) ***nam*-erim$_2$-*bé* ku$_5$-*dam***
nam.erim$_2$=be=Ø ku$_5$.r-ed -Ø =ʔam
oath =its=ABS cut -IPFV-NFIN=be:3N.S
'This is to be taken an oath about.' (frequently in NG and SNAT, e.g., SNAT 541 obv 14; U; 21)

Only a single text shows the full spelling of this expression, ***nam*-erim$_2$-*bé* ku$_5$-*ru*-*dam*** (NG 209 38-39, 46-47, 54-55; L; 21). A similar variation in spelling is attested for other forms: e.g., **tab-*dam*** 'it is to be doubled' (NRVN 1:116 8, 117 8; N; 21) and **tab-*bé*-*dam*** (PIOL 19:370 case 8; N; 21); **dím-*dè*** 'for making' (MVN 14:323 obv 2; U; 21), (STTIAM 10 3; L; 23) and **dím-*me*-*dè*** (UET 3:1498 6:38; Ur; 21) or **dím-*e*-*dè*** (SNAT 535 obv 3; U; 21), (MTBM 55 2; L; 21).

The /d/ of {ed} is never written in syllable-final position. Compare, for instance, the following four attestations of the expression **še gu$_4$-*ře$_6$* gu$_7$.d** 'barley which the oxen will eat', 'barley to be eaten by the oxen':

(185) **še gu$_4$-<*ře$_6$*> gu$_7$-*dam***
še gu$_4$.ř=e gu$_7$-ed -Ø =ʔam
barley ox =ERG eat -IPFV-NFIN=be:3N.S
'This is barley to be eaten by the oxen.' (DP 542 1:2; L; 24)

(186) **še gu$_4$-*ře$_6$* gu$_7$-*dè***
še gu$_4$.ř=e gu$_7$-ed -Ø =e
barley ox =ERG eat -IPFV-NFIN=DIR
'as barley to be eaten by the oxen' (VS 14:11 1:2; L; 24)

(187) **3.0.0 še gu$_4$-*ře$_6$* gu$_7$ gur-saĝ-ĝál**
3 še gu$_4$.ř=e gu$_7$-ed -Ø gur.saĝ.ĝál
3 barley ox =ERG eat -IPFV-NFIN heaped.gur
'three heaped gurs of barley to be eaten by the oxen' (VS 25:92 1:1; L; 24)

(188) **še-numun še gu$_4$-*ře$_6$* gu$_7$-*bé***
še.numun še gu$_4$.ř=e gu$_7$-ed -Ø =be
seed.barley barley ox =ERG eat -IPFV-NFIN=its
'its (viz. of a plot of land) barley seed and barley to be eaten by the oxen' (DP 546 1:2; L; 24)

The same phenomenon is also clearly brought out by the spellings of the first and the second imperfective participle in the following example from a text listing consecutive sections of a dike:

(189) (KU.KU=) **durun$_x$ íd maḫ-*ta* 20 *níĝ-řá* e *nu*-ak-*dam* / e *nu*-ak-*ta* 40 ½**
durun$_x$ íd maḫ =ak =ta 20 níĝ.řá.n
dam river great=GEN=ABL 20 nindan

e.g nu =ʔak -ed -Ø =Ø =ʔam e.g nu =ʔak -ed -Ø =ta 40½
dike NEG=make-IPFV-NFIN=ABS=be:3N.S dike NEG=make-IPFV-NFIN=ABL 40½
'From the dam of the Great Canal: 20 *nindan*. This is (a stretch of) dike not to be done. From the (stretch of) dike not be done: 45 (*nindan*).' (VS 14:130 1:1-2; L; 24)

Why is the /d/ of {ed} never written in syllable-final position? One possible answer is to blame the writing system, which generally ignores syllable-final consonants, especially in earlier periods (§2.4). However, most syllable-final consonants come to be written eventually, by the end of the third millennium or by the early Old Babylonian period at the latest. This never happens with the /d/ of the suffix {ed}. An explanation from the script does therefore not convince, so that a different answer is called for. Now, in the Old Sumerian period, syllable-final /d/ was pronounced as a consonant, but there is evidence that word-final /d/ was lost after that period (§3.2.3). Accordingly, it may be suggested that the /d/ of {ed} was lost in syllable-final position after the Old Sumerian period. Thus, in the Old Sumerian period, when the syllable-final /d/ of {ed} was still pronounced, the script could not express it, while later, when the script could perhaps have expressed the syllable-final /d/, it was not pronounced anymore.

28.4.3. Use as a verbal adjective

An imperfective participle used as a verbal adjective refers to a participant who plays a role in the action expressed by the verb. Just like an adjective, it can be employed attributively, modifying a noun (like English *to be paid* in *bills to be paid*), or it can be used predicatively, as the predicate in a copular clause (as in *The bills are to be paid*). Here, however, we will restrict ourselves to its attributive use. (See §29.4.8 for its predicative use).

An attributive imperfective participle on its own behaves very much like an adjective. It follows its head noun and precedes all other parts of the noun phrase, in the same way as an attributive adjective (§10.4.1). E.g.:

(190) **eren$_2$ zi-zi / šabra ès didli / urim$_5^{ki}$-*ke$_4$-ne***
eren$_2$ zi.g:RDP-ed -Ø šabra ès didli
soldier rise:IPFV -IPFV-NFIN administrator shrine individual

urim$_5$=ak =ak =enē=ak
Ur =GEN=GEN=PL =GEN
'conscriptable troops of the administrators of individual shrines in Ur' (UET 3:56 2-4; Ur; 21)

(191) **še ur$_5$-*ra* su-su**
še ur$_5$ =ak su.g:RDP-ed -Ø
barley loan=GEN repay:IPFV-IPFV-NFIN
'a barley loan which is to be repaid' (ITT 3:5938 3; L; 21)

(192) **níĝ en-*na* gur$_x$-gur$_x$** (=ŠE.KIN-ŠE.KIN)
níĝ en =ak gur$_x$:RDP -ed -Ø
thing lord=GEN harvest:IPFV-IPFV-NFIN
'demesne to be harvested' (Nik 1:43 1:2; L; 24)

(193) **lá-NI saĝ apin-*na* / ensi$_2$-*ka-ke$_4$-ne* / È.È-*dam***
lá.NI saĝ apin =ak ensi$_2$.k=ak =enē=ak
shortage head plough=GEN ruler =GEN=PL =GEN

è:RDP -ed -Ø =Ø =ʔam
go.out:IPFV-IPFV-NFIN=ABS=be:3N.S
'These are arrears of the governor's chief ploughmen which are to be collected (lit. "to be brought out").' (USP 55 4:3-5; U; 23)

But being a *verbal* adjective, an imperfective participle can be construed with a subject, objects, and adjuncts. It thus functions as the predicate of a non-finite relative clause (§28.3.3). Just like a finite relative clause (§27.4), a non-finite relative clause follows its head noun if such a noun is present. (See below for constructions without an explicit head noun.) This head noun refers to a participant which plays a role in the action expressed by the participle. Which role it plays must be determined from the context, because Sumerian participles are inherently unoriented and can refer to any participant (§28.1).

The head noun can, for instance, function as the intransitive subject of the non-finite relative clause, as in the preceding and following examples:

(194) **šà ab-*gen$_7$* zi-zi-*zu***
šà.g ab =gen zi.g:RDP-ed -Ø =zu
heart sea=EQU rise:IPFV -IPFV-NFIN=your
'your heart, which rises as the sea' (Cyl A 8:23; L; 22)

(195) **13 gu$_4$ niga áb 2-*ta* ki-*ba ĝá-ĝá***
13 gu$_4$.ř niga áb 2=ta ki =be=ʔa ĝar:RDP-ed -Ø
13 bull barley.fed cow 2=ABL place=its=LOC place:IPFV-IPFV-NFIN
'thirteen barley-fed bulls, each one to replace two cows (lit. "... bulls, with two cows each to be placed in their (the cows') place")' (PDT 1:533 1; D; 21)

Or the head noun may function as the transitive subject of the non-finite relative clause. E.g.:

(196) **lú tur gibil-*bé* é řú-*gen$_7$***[1]

[1] This expression also occurs in line 10 of the Curse of Agade, a literary text known from several Old Babylonian manuscripts. There the participle form is written **řú-*ù-gen$_7$***, with a variant **[řú]-*ù-dè*** in one manuscript, so that the form is without doubt a imperfective participle.

lú tur gibil =be=e é =Ø řú -ed -Ø =gen
man small newness=its=DIR house=ABS erect-IPFV-NFIN=EQU
'like a young man who is building a house from scratch (lit. "in the manner of its newness")' (Cyl A 19:22; L; 22).

(197) **níĝ lugal-*bé-da* šà kúš-kúš-*dam***
níĝ lugal =be=da šà.g =Ø kúš -kúš -ed -Ø =Ø =ʔam
thing master=its=COM heart=ABS trouble-trouble-IPFV-NFIN=ABS=be:3N.S
'They are things which are on intimate terms (lit. "trouble (their) hearts") with their master.' (Cyl A 29:2; L; 22)

(198) **šà-gal gudu$_4$ ^{d}*ba-ú* / ninda kaš dé-*a* du$_8$-*da-šè***
šà.gal gudu$_4$.g ba.ú=ak ninda kaš =Ø dé -Ø -ʔa =ak =Ø
fodder priest Bau =GEN bread beer=ABS pour-NFIN-NOM=GEN=ABS

du$_8$ -ed -Ø =ak =še
coat-IPFV-NFIN=GEN=TERM
'as food of the priests of the goddes Bau who will bake the bread for the banquet (lit. "of the beer pouring")' (TCTI 2:2704 3-4; L; 21)

The head noun may also function as the direct object of the non-finite relative clause:

(199) **še-numun še gu$_4$-*ře$_6$* gu$_7$**
še.numun še gu$_4$.ř=e gu$_7$-ed -Ø
seed.barley barley ox =ERG eat -IPFV-NFIN
'barley for sowing and barley which the oxen will eat' (DP 535 1:1; L; 24)

The head noun can function as a place adjunct:

(200) **kur ^{ĝiš}eren-*na* lú *nu*-ku$_4$-ku$_4$-*da***
kur eren =ak lú =Ø nu =ku$_4$.r:RDP-ed -Ø =ʔa
mounatin cedar=GEN man=ABS NEG=enter:IPFV -IPFV-NFIN=LOC
'into the cedar mountains, where no one can enter' (Cyl A 15:19; L; 22)

(201) **ki-^{d}utu-è / ki nam tar-*re-da***
ki.utu.è ki nam =Ø tar-ed -Ø =ʔa
place.of.sunrise place status=ABS cut-IPFV-NFIN=LOC
'on the place of sunrise, the place where the fate is to be determined' (RIM E2.11.6.2 7-8; U; 23)

The head noun can also have the role of possessor in the non-finite relative clause. The precise role of the head noun is then explicitly indicated by a possessive pronoun which refers to the same person or thing as the head noun. E.g.:

(202) **^{d}suen mu-*né* lú *nu*-duḫ-*dè***
suen mu =ane=Ø lú =e nu =duḫ -ed -Ø =e
Suen name=his =ABS man=ERG NEG=release-IPFV-NFIN=ERG
'Suen, whose name no one can "release"' (St B 8:48; L; 22)

All the preceding examples displayed an explicit head noun. It is also possible for the head noun to be only implicit. Such an implicit head noun is rendered in English by '(the) one (who/which)', 'what', or the like. An imperfective participle with an implicit head noun will be

called a headless imperfective participle. Grammatically, it behaves like a noun, having a case marker which expresses its syntactic function.E.g.:

(203) **mu gú-*bé* tùm-*da nu-mu*-ĝál-*la*-*šè***
mu gú.n=be=Ø tùm -ed -Ø =ʔa
name load=its=ABS bring:IPFV-IPFV-NFIN=LOC

nu =Ø -mu -n(i)-ĝál -Ø -ʔa =ak =še
NEG=VP-VENT-in -be.there-3N.S/DO-NOM=GEN=TERM
'because (lit. "for the name of that") its load is not among what is to be brought' (Courtesy Sigrist, BM 21395 3; L; 21)

(204) **zi-zi lú níĝ en-*na* gur$_x$-gur$_x$-*da-kam*** (**gur$_x$** = ŠE.KIN)
zi.g:RDP-ed -Ø lú níĝ en =ak =Ø gur$_x$:RDP -ed -Ø =ak =Ø =ʔam
rise:IPFV -IPFV-NFIN man thing lord=GEN=ABS harvest:IPFV-IPFV-NFIN=GEN=ABS=be:3N.S
'These are the ones to be raised of the men who are to harvest the demesne.' (DP 602 7:1; L; 24)

28.4.4. Use as a verbal noun

Used as a verbal noun, an imperfective participle does not refer to a participant in an action but to an action itself. Like a noun, an imperfective participle may then function as the subject or object of a verb, or have an adverbial function. Like a noun, such an imperfective participle is in the case which marks its syntactic function. E.g.:

(205) **níĝ-lul níĝ-*ge-na nu-me-a* sar-*re-bé a-na-gen$_7$-nam***
níĝ.lul níĝ.ge.na=Ø nu =ʔi -me-Ø -ʔa =ak sar -ed -Ø =be=Ø
lie truth =ABS NEG=VP-be -3SG.S-NOM=GEN write-IPFV-NFIN=its=ABS

a.na =gen=ʔam
what?=EQU=be:3N.S
'What is the use of writing lies without truth? (lit. "of a lie which is not truth – its writing is like what?")' (Courtesy Geerd Haayer, Shulgi B 327; ?; 21, OB copy)

Here the participle **sar-*re*** is in the absolutive case, being the subject of a copular clause. In addition, it is construed with an anticipatory genitive as well. All of this is typical behaviour for nouns.

Being a verbal form, however, an imperfective participle retains its verbal properties and can, accordingly, be preceded by noun phrases functioning as subject, object, or adjunct. An imperfective participle is thus the predicate of a non-finite content clause. E.g.:

(206) **ezem amar a-*a* si-*ge-da-ka***
ezem amar=Ø a =ʔa si.g -ed -Ø =ak =ʔa
festival calf =ABS father=LOC put.in-IPFV-NFIN=GEN=LOC
'in the festival of putting the young animals among the older ones' (DP 69 3:5; L; 24)

(207) **še ĝiš ùr-*da-kam***
še ĝiš =Ø ùr -ed -Ø =ak =Ø =ʔam
barley wood=ABS rub-IPFV-NFIN=GEN=ABS=be:3N.S
'This is barley for harrowing (lit. "of letting the wood rub").' (VS 25:94 1:2; L; 24)

(208) **šà gù *di* é řú-*da-ka-na***

šà.g gù =Ø di.d -Ø é =Ø řú -ed -Ø =ak =ane=ʔa
heart voice=ABS do:IPFV:NFIN-NFIN house=ABS erect-IPFV-NFIN=GEN=his =LOC
'in his heart which cries out (because) of building the temple' (Cyl A 20:2; L; 22)

(209) **níĝ-dab$_5$ en ^{d}nanna kar-zi-*da* ḫuĝ-*e*-*da***
níĝ.dab$_5$ en nanna kar.zi.da=ak =Ø ḫuĝ -ed -Ø =ak
transfer highpriest Nanna Karzida =GEN=ABS install-IPFV-NFIN=GEN
'transfer for installing the highpriest of Nanna Karzida' (PDT 2:767 2:17; D; 21)

Many instances of imperfective participles in the comitative case occur in those passages of Cylinder B which describe the typical duties of Ningirsu's staff. E.g.:

(210) **^{d}nin-*ĝír*-*su*-*ra* é-ninnu-*a* inim-*bé* ku$_4$-ku$_4$-*da***
nin.ĝír.su.k=ra é.ninnu=ʔa inim=be =Ø ku$_4$.r:RDP-ed -Ø =da
Ningirsu =DAT Eninnu =LOC word=this=ABS enter:IPFV -IPFV-NFIN=COM
'with bringing these messages into the Eninnu to Ningirsu' (Cyl B 9:2; L; 22)

(211) **ĝidri u$_4$ sù-*řá* šu-*a* ĝá-ĝá-*da***
ĝidri u$_4$.d sù.ř=ak =Ø šu =ʔa ĝar:RDP -ed -Ø =da
sceptre day far =GEN=ABS hand=LOC place:IPFV-IPFV-NFIN=COM
'with placing a long-term sceptre (lit. "a sceptre of a far day") in the hand' (Cyl B 6:16; L; 22)

Mostly, a non-finite clause with an imperfective participle as its predicate is either a non-finite complement clause or a purpose clause. The first type of clause occurs in basically the same constructions as finite complement clauses (§27.5). A non-finite complement clause can, for instance, be used as the subject or object of a verb:

(212) **u$_4$-*bé*-*ta* inim im-*ma* gub-*bu* *nu*-*ub*-*ta*-ĝál-*la***
u$_4$.d=be =ta inim =Ø im =ʔa gub -ed -Ø =Ø
day =this=ABL word=ABS clay=LOC stand-IPFV-NFIN=ABS

nu =ʔi -b -ta -ĝál -Ø -ʔa =ʔa
NEG=VP-3N-from-be.there-3N.S/DO-NOM=LOC
'as putting (lit. "making stand") words on clay (i.e. writing) did not exist of old' (ELA 504; OB)

This sentence contains the non-finite complement clause **inim im-*ma* gub-*bu*** 'putting words on clay' which functions as the intransitive subject of the verb **ĝál** 'be there, exist'. The following are further instances of non-finite complement clauses functioning as intransitive subjects:

(213) **ki sur-*ra* / ^{d}nin-*ĝír*-*su*-*ka*-*ta* / a ab-*šè* / maškim *di* / *e*-ĝál-*lam***
ki sur.ra nin.ĝír.su.k=ak =ta a ab =ak =še
border Ningirsu =GEN=ABL water opening=GEN=TERM

maškim =Ø di.d -Ø =Ø ʔi -ĝál -Ø =ʔam
commissioner=ABS do:IPFV:NFIN-NFIN=ABS VP-be.there-3N.S/DO=be:3N.S
'From Ningirsu's border to the sea, there was commissioning! (lit. "doing commissioner")' (Ukg. 4 7:12-16; L; 24)

(214) **ì sila-*ta* È.È-*bé* gú ur-^{d}lama$_3$-*ka* / *ì*-*íb*-ĝál**
ì =ak sila =ta è:RDP -ed -Ø =be=Ø ur.lama$_3$.k=ʔa
fat=GEN street=ABL go.out:IPFV-IPFV-NFIN=its=ABS Urlama =LOC

ʔi -b(i) -ĝál -Ø
VP-3N:on-be.there-3N.S/DO
'Bringing the fat from the street is Ur-Lama's responsibility (lit. "Of the fat, its causing to come out of the street is on the neck of Urlama").' (MVN 3:125 8-9; U; 21)

A non-finite complement clause may also be construed as the indirect object of the verb **šúm** 'give':

(215) **60 ku$_6$ šeĝ$_6$ gur / a-da-ga su-su-*dè* / ensi$_2$-*ke$_4$* *ba-an*-šúm**
60 ku$_6$ šeĝ$_6$-Ø gur a.da.ga=e su.g:RDP -ed -Ø =e
60 fish cook-NFIN *gur* Adaga =ERG repay:IPFV-IPFV-NFIN=DIR

ensi$_2$.k=e Ø -ba -n -šúm-Ø
ruler =ERG VP-3N.IO-3SG.A-give-3N.S/DO
'The governor imposed on Adaga to replace sixty *gur* of smoked fish. (lit. "The governor gave sixty *gur* of smoked fish to replacing by Adaga.")' (NG 189 8-10; U; 21)

The verbs **zu** '(come to) know' and **du$_{11}$.g** 'say' occur with finite complement clauses in the absolutive case, construing them as their direct object (§27.5.2). This construction does not occur with non-finite complement clauses. Instead, a complementation strategy (§27.5.1) is used with the imperfective participle in the locative case:

(216) **é-*a-né* řú-*da* *ma-an*-du$_{11}$**
é =ane=Ø řú -ed -Ø =ʔa Ø -ma -n -du$_{11}$.g-Ø
house=his =ABS erect-IPFV-NFIN=LOC VP-1SG.IO-3SG.A-say -3N.S/DO
'He spoke to me about ("on") building his temple.' (Cyl A 4:20; L; 22)

(217) **ès é-ninnu-*na* řú-*ba* *za-ra* *ma-ra-an*-du$_{11}$**
ès é.ninnu=ane=ak řú -ed -Ø =be=ʔa za =ra
shrine Eninnu =his =GEN erect-IPFV-NFIN=its=LOC you=DAT

Ø -mu -ra -n -du$_{11}$.g-Ø
VP-VENT-2SG.IO-3SG.A-say -3N.S/DO
'He spoke to you about building his shrine Eninnu.' (Cyl A 5:18; L; 22)

(218) **é-iri-ki-*bé* / é é-*šè* ĝá-ĝá-ba nu-ù-zu-*a***
é.iri.ki.bé=e é =Ø é =še ĝar:RDP -ed -Ø =be=ʔa
E'irikibe =ERG house=ABS house=TERM place:IPFV-IPFV-NFIN=its=LOC

nu =ʔi -n -zu -Ø -ʔa
NEG=VP-3SG.A-know-3N.S/DO-NOM
'that E'irikibe had no knowledge about substituting (lit. "did not know it on/about its placing") a house for a house' (NG 177 10-11; L; 21)

Non-finite complement clauses can also be in the genitive case and be dependent upon a noun referring to a speech event. This, too, is a construction attested for finite complement clauses as well (§27.5.3). E.g.:

(219) **mu lugal iti nesaĝ-*šè* / áĝ-*da* *ì-in*-pà**
mu lugal=ak iti.d nesaĝ=ak =še áĝ -ed -Ø =ak =Ø
name king =GEN month Nesaĝ=GEN=TERM measure.out-IPFV-NFIN=GEN=ABS

ʔi -n -pà.d-Ø
VP-3SG.A-call -3N.S/DO

'He took an oath by the king's name to measure out this (barley) until the month of Nesag.' (AUCT 1:98 7-8; U; 21)

Most such complement clauses are construed as anticipatory genitives (§7.2.4). The non-finite clause in the genitive case is then found at the beginning of the sentence, while the head noun shows the possessive pronoun {be} which refers back to the preceding genitive. E.g.:

(220) **é-*ĝu*$_{10}$ řú-*da* ĝiskim-*bé ga-ra-ab*-šúm**
é =ĝu=Ø řú -ed -Ø =ak ĝiskim=be=Ø ga -ra -b -šúm
house=my=ABS erect-IPFV-NFIN=GEN sign =its=ABS MOD:1SG.A/S-2SG.IO-3N.DO-give
'I will give you the sign for building my temple (lit. "of erecting my house, I will give you its sign")!' (Cyl A 9:9; L; 22)

(221) **iti šeg$_{12}$-*ga-ka* su-su-*da* / mu lugal-*bé in*-pà**
iti.d šeg$_{12}$=ak =ʔa su.g:RDP-ed -Ø =ak mu lugal=ak =be=Ø
month brick=GEN=LOC repay:IPFV-IPFV-NFIN=GEN name king =GEN=its=ABS

ʔi -n -pà.d-Ø
VP-3SG.A-call -3N.S/DO
'He took an oath by the king's name to repay it (viz. a barley loan) in month III (lit. "of repaying in the Month of the Brick, he called a king's name about it").' (TMHC NF 1/2:73 case 5-6; N; 21)

(222) (ŠU.LAL.TUR=) **tukum-<*bé*> *nu-na*-áĝ / gaz-*da* / mu lugal-*bé in*-pà**
tukum.be nu =ʔi -nna -n -ʔáĝ -Ø gaz-ed -Ø =ak
if NEG=VP-3SG.IO-3SG.A-measure.out-3N.S/DO kill -IPFV-NFIN=GEN

mu lugal=ak =be=Ø ʔi -n -pà.d-Ø
name king =GEN=its=ABS VP-3SG.A-call -3N.S/DO
'He took an oath by the king's name that he would be killed if he did not pay it (viz. barley) to him (lit. "Of going to be killed if ..., he called a king's name of it").' (Studies Finkelstein p. 159 8-10; N; 21)

The normal method in Sumerian to make a purpose clause is to use an imperfective participle in the directive case. Such imperfective participles expressing a purpose occur frequently. E.g.:

(223) **gu$_4$ íd-*dè* bala-*e-dè* ĝen-*na***
gu$_4$.r=Ø íd =e balaʔ-ed -Ø =e ĝen-Ø -ʔa
ox =ABS river=DIR cross -IPFV-NFIN=DIR go -NFIN-NOM
'who went to bring oxen across the river' (TCTI 1:641 23; L; 21)

(224) **lú-zàḫ dab$_5$-*dè* ĝen-*na***
lú.zàḫ =Ø dab$_5$-ed -Ø =e ĝen-Ø -ʔa
fugitive=ABS take -IPFV-NFIN=DIR go -NFIN-NOM
'who went to arrest a fugitive' (DTCR 152 2; L; 21)

(225) **PN / *nu*-banda$_3$ / sar-*ra ĝá-ĝá-dè* / diĝir-a-*ĝu*$_{10}$ / *e-na*-šúm**
PN nu.banda$_3$=e sar =ʔa ĝar:RDP -ed -Ø =e diĝir.a.ĝu$_{10}$=r(a)
PN overseer =ERG garden=LOC place:IPFV-IPFV-NFIN=DIR Dingiragu =DAT

ʔi -nna -n -šúm-Ø
VP-3SG.IO-3SG.A-give-3N.S/DO

'PN, the overseer, gave them (viz. onions) to Dingiragu for them to be planted (lit. "for placing") in the garden.' (BIN 8:369 5:1-5; L; 24)

(226) **PN / *nu*-banda$_3$ / sur-*dè* / *e-ne*-šúm**
PN nu.banda$_3$=e sur -ed -Ø =e ʔi-nnē -n -šúm-Ø
PN overseer =ERG press-IPFV-NFIN=DIR VP-3PL.IO-3SG.A-give-3N.S/DO
'PN, the overseer, gave it (viz. an amount of onions) to them (viz. two gardeners) for pressing (into the ground).' (DP 399 2:4-3:2; L; 24)

(227) **1 *ma-na* kù luḫ-*ḫa* / igi-*nu*-du$_8$-*a* sa$_{10}$-sa$_{10}$-*dè* / PN / *dam-gara$_3$* é-mí-*ke$_4$* / *ba*-ře$_6$**
1 ma.na kù.g luḫ -Ø -ʔa =Ø igi.nu.du$_8$=ʔa sa$_{10}$:RDP -ed -Ø =e
1 pound silver purify-NFIN-NOM=ABS slave =LOC barter:IPFV-IPFV-NFIN=DIR

PN dam.gara$_3$ é.mí=ak =e Ø -ba -n -ře$_6$ -Ø
PN merchant Emi =GEN=ERG VP-MM-3SG.A-bring-3N.S/DO
'PN, the merchant of the Emi, took one pound of purified silver for buying slaves (lit. "for bartering into slaves").' (Nik 1:293 1:1-5; L; 24)

(228) **ĝuruš 10-*àm* / má dug *ba-al-e-dè* / lú-^{d}šara$_2$-*ra* / *ḫé-na*-šúm-*mu***
ĝuruš 10=Ø =ʔam má dug=ak =Ø ba.al-ed -Ø =e
labourer 10=ABS=be:3N.S boat pot =GEN=ABS dig -IPFV-NFIN=DIR

lú.šara$_2$.k=ra ḫa =ʔi -nna -šúm-e
Lushara =DAT MOD=VP-3SG.IO-give -3SG.A:IPFV
'He must give ten labourers to Lu-Shara for unloading a boat with pots!' (TCS 1:216 3-6; U; 21)

Imperfective participles in the directive case are often found in administrative texts, where they are frequently used to indicate the purpose of an item. E.g.:

(229) **1620 sa ge / a è-*a* / íd *ĝír-su^{ki}-ka ù-še-dè***
1620 sa ge =ak a è -Ø -ʔa íd ĝír.su=ak =ak =Ø
1620 bundle reed=GEN water go.out-NFIN-NOM river Girsu =GEN=GEN=ABS

úš -ed -Ø =e
block-IPFV-NFIN=DIR
'1620 bundles of reed, for damming up the dike breach (lit. "water which goes out") of the Girsu Canal' (UDU 54 1-3; U; 21)

(230) **4 ^{kuš}*a-ĝá-lá* / mun-gazi si-*gi$_4$-dè***
4 a.ĝá.lá mun.gazi=Ø si.g-ed -Ø =e
4 bag spices =ABS put-IPFV-NFIN=DIR
'four bags for putting in spices' (TPTS 1:135 1-2; U; 21)

(231) **0.4.0 dabin esir$_2$-*ra* sa$_{10}$-sa$_{10}$-*dè***
0.4.0 dabin esir$_2$ =ʔa sa$_{10}$:RDP-ed -Ø =e
0.4.0 barley.flour bitumen=LOC barter:IPFV-IPFV-NFIN=DIR
'240 litres of barley flour for buying bitumen' (MVN 16:1257 obv 1; U; 21)

(232) **2 ĝuruš *ad*-KID / ^{ge}kaskal ninda dím-*dè***
2 ĝuruš ad.KID kaskal ninda=ak =Ø dím -ed -Ø =e
2 labourer reed.worker travel.basket bread=GEN=ABS create-IPFV-NFIN=DIR

'two labourers, reed workers, for making bread travel baskets for bread' (MVN 14:323 obv 1-2; U; 21)

A common complementation strategy (§27.5.1) is to use a purpose clause instead of a non-finite complement clause. Consider the following two examples. The first contains a non-finite complement clause construed as an anticipatory genitive (see above for this kind of construction), while the second has a purpose clause. The two examples clearly are all but synonymous:

(233) **iti šeg$_{12}$-*ga-ka* / gi$_4$- gi$_4$-*da* / mu lugal-*bé in*-pà**
iti.d šeg$_{12}$=ak =ʔa gi$_4$:RDP -ed -Ø =ak mu lugal=ak =be=Ø
month brick=GEN=LOC turn:IPFV-IPFV-NFIN=GEN name king =GEN=its=ABS

ʔi -n -pà.d-Ø
VP-3SG.A-call -3N.S/DO
'He took an oath by the king's name to return it (viz. a silver loan) in month III (lit. "of returning in the Month of the Brick, he called a king's name about it").' (NRVN 1:104 6-8; N; 21)

(234) **iti šeg$_{12}$-*ga-ka* / gi$_4$-gi$_4$-*dè* / mu lugal-*bé ì*-pà**
iti.d šeg$_{12}$=ak =ʔa gi$_4$:RDP -ed -Ø =e mu lugal=ak =be=Ø
month brick=GEN=LOC repay:IPFV-IPFV-NFIN=DIR name king =GEN=its=ABS

ʔi -n -pà.d-Ø
VP-3SG.A-call -3N.S/DO
'He took an oath by the king's name to return it (viz. a silver loan) in month III (lit. "for returning in the Month of the Brick, he called a king's name about it").' (NRVN 1:104 6-8; N; 21)

The use of the directive case for expressing a purpose is restricted to imperfective participles. With other nouns, the terminative case is used to express a purpose or destination (§7.8.2). Thus, in this particular usage, the directive and terminative cases are closely related. Indeed, although the verbal prefix {ši} is usually coreferential with a noun phrase in the terminative case, it may also be coreferential with an imperfective participle in the directive case (§19.4.2). E.g.:

(235a) **gukkal-*šè im-ši*-ĝen-*na***
gukkal =še ʔi -m(u) -ši-ĝen-Ø -ʔa
fat.tailed.sheep=TERM VP-VENT-to-go -3SG.S/DO-NOM
'who came for fat-tailed sheep' (RTC 378 5; L; 21)

(b) **kaš ninda *ù* lulim / sa gi$_4$-gi$_4$-*dè* / *ì-im-ši*-ĝen-*na***
kaš ninda ù lulim=Ø sa=e gi$_4$:RDP -ed -Ø =e
beer bread and deer =ABS ? =DIR turn:IPFV-IPFV-NFIN=DIR

ʔi -m(u) -ši-ĝen-Ø -ʔa
VP-VENT-to-go -3SG.S/DO-NOM
'who came to prepare beer, bread, and deer' (UET 3:898 8-10; Ur; 21). The phrasal verb **sa—gi$_4$** means 'prepare'.

(236) **é řú-*dè* igi-*zu ù* du$_{10}$-*ga nu-ši*-ku$_4$-ku$_4$**
é =Ø řú -ed -Ø =e igi=zu =e ù du$_{10}$.g -Ø -ʔa =Ø
house=ABS erect-IPFV-NFIN=DIR eye=your=ERG sleep be.good-NFIN-NOM=ABS

nu =ʔi -b -ši-ku:RDP-e
NEG=VP-3N-to -ʔ:IPFV -3N.A:IPFV
'Because of building the temple, you(r eyes) will not sleep well.' (Cyl A 6:11; L; 22)

Note that not every imperfective participle with a directive case marker represents a purpose clause. An imperfective participle used as a verbal adjective may also be followed by a directive case marker belonging to the participle's head noun. The following contrastive examples illustrate such attributive imperfective participles:

(237a) **1 gu_4 / PN / lú $bappir_3$-*ke_4* / níĝ gu_7-*dè* / *ba*-$ře_6$**
1 gu_4.ř=Ø PN lú $bappir_3$ =ak =e níĝ gu_7-ed -Ø =e
1 bull =ABS PN man beer.bread=GEN=ERG thing eat -IPFV-NFIN=DIR

Ø -ba -n -$ře_6$ -Ø
VP-MM-3SG.A-bring-3N.S/DO
'PN, the brewer, took one bull for food (lit. "for a thing to be eaten").' (RTC 48 1:1-5; L; 24)

(b) **zíd níĝ gu_7-*da***
zíd níĝ gu_7-ed -Ø =ak
flour thing eat -IPFV-NFIN=GEN
'flour for food (lit. "of a thing to be eaten")' (VS 14:5 2:2; L; 24)

(238a) **še-numun še gu_4-*$ře_6$* gu_7-*dè***
še.numun še gu_4.ř=e gu_7-ed -Ø =e
seed.barley barley ox =ERG eat -IPFV-NFIN=DIR
'as barley for sowing and barley which the oxen will eat' (VS 14:39 2:3; L; 24)

(b) **še-numun še gu_4-*$ře_6$* gu_7 / ašag DÙN.ÙḪ-*ka-šè***
še.numun še gu_4.ř=e gu_7-ed -Ø ašag DÙN.ÙḪ=ak =ak =še
seed.barley barley ox =ERG eat -IPFV-NFIN field DÙN.ÙḪ=GEN=GEN=TERM
'as barley for sowing and barley which the oxen will eat for (lit. "of") the field of DÙN.ÙḪ' (DP 542 2:4-5; L; 24)

28.5. The imperfective participle with the nominalizing suffix {ʔa}

Very rarely an imperfective participle contains the nominalizing suffix {ʔa} (§31.3.4). This suffix then always follows the suffix {ed}, which has a final /d/ to which the initial glottal stop of {ʔa} assimilates. Accordingly, the suffix {ʔa} is consistently written with the sound sign ***da*** in imperfective participles. E.g.:

(239) **$umma^{ki}$ / e-*bé* bala-*e-da-bé***
umma=Ø e.g =be =e balaʔ-ed -Ø -ʔa =be=e
Umma=ABS canal=this=DIR cross -IPFV-NFIN-NOM=its=DIR
'when Umma crosses this canal' (Ean. 1 rev 5:37-38; L; 25)

Imperfective participles with the nominalizing suffix {ʔa} occur in only a single construction, called the pronominal conjugation, because it always includes a possessive pronoun attached to the participle. This construction is a kind of non-finite temporal clause and will be treated in the following section (§28.6).

Outside the pronominal conjugation – and that covers the overwhelming majority of cases – imperfective participles with ***da*** do not contain the nominalizing suffix {ʔa} but are to be

analysed as simple imperfective participles with {ed} followed by the genitive case marker {ak}, the locative case marker {ʔa}, or the comitative case marker {da}. See the previous sections for examples.

But that is not all. An imperfective participle followed by the possessive pronoun {ane} or {anēnē} is ambiguous, too. It may include the nominalizing suffix {ʔa} before the pronoun and thus belong to the pronominal conjugation (§28.6) or it may not include the suffix {ʔa} and thus be part of an entirely different construction. The spelling is the same either way. An example without {ʔa} is the following:

(240) **ti šúr mè-*a* nim-*gen*$_7$ ĝír-*da-né***
ti šúr mè =ʔa nim =gen ĝír -ed -Ø =ane
arrow angry battle=LOC lightning=EQU flash-IPFV-NFIN=his
'his angry arrow which flashes in a battle like lightning' (Cyl B 14:5; L; 22)

Note that the verb **du** 'go', which has an imperfective participle without the suffix {ed} (§28.4.1), also lacks the suffix {ʔa} in the pronominal conjugation (§28.6).

28.6. The "pronominal conjugation" (a non-finite temporal clause)

Falkenstein (1949: 149, 1959: 43-44) introduced the term 'pronominal conjugation' for finite and non-finite verbal forms which express their subject by means of a possessive pronoun. Since 1949 the term's use has become more restricted and nowadays Sumerologists only use it to refer to a specific non-finite construction. It has long been recognized that the term is a misnomer (Jacobsen 1988b: 131; Krecher 1993d: 96), but tradition and the lack of a clear alternative justify its continued use.

The construction in question is a kind of non-finite temporal clause, which has as its predicate a past participle or an imperfective participle with the nominalizing suffix {ʔa}. An enclitic possessive pronoun expressing the subject is always attached to the participle. In addition, a form of the first or second person always shows the case marker {ne}, while a form of the third person always contains the directive case marker {e} (Krecher 1993d: 97-8). The following paradigm gives the pertinent forms of the verb **zi.g** 'rise', which has a reduplicated imperfective stem:

Person	*Perfective*	*Imperfective*
1 singular human	**zi-*ga-ĝu*$_{10}$-*ne***	**zi-zi-*da-ĝu*$_{10}$-*ne***
2 singular human	**zi-*ga-zu-ne***	**zi-zi-*da-zu-ne***
3 singular human	**zi-*ga-né***	**zi-zi-*da-né***
3 non-human	**zi-*ga-bé***	**zi-zi-*da-bé***
1 plural human	?	?
2 plural human	?	?
3 plural human	**zi-*ga-ne-ne***	**zi-zi-*da-ne-ne***

Forms of the first and second persons plural are as yet unattested.

The third person forms are in the directive case, but the directive case marker {e} contracts with the preceding vowel of the pronoun (§7.6.1). E.g.:

(241) ***káb-su^{ki}-a* é-ri-*a dú-ru-na-bé***
káb.su=ʔa é.ri.a =ʔa dú.ru.n-Ø -ʔa =be=e
Kabsu =LOC pasture=LOC sit:PLUR-NFIN-NOM=its=DIR
'(PN recovered sheep and goats) as they remained (lit. "at their sitting") in Kabsu in the pasture land' (NG 120a 3; U; 21)

(242) ***á* nú-*da-ka-na* ku$_4$-*ra-né***
é nú-ed -Ø =ak =ane=ʔa ku$_4$.r-Ø -ʔa =ane=e
house lie -IPFV-NFIN=GEN=her=LOC enter -NFIN-NOM=his =DIR
'as she enters (lit. "at her entering") her bedroom' (Cyl B 5:12; L; 22)

The possessive pronoun is obligatory in the pronominal conjugation, also when the subject is mentioned explicitly in the non-finite clause:

(243) **še-*bé* ki-su$_7$-*ka* ĝál-*la-bé***
še =be =Ø ki.su$_7$.ra.k =ʔa ĝál -Ø -ʔa =be=e
barley=this=ABS threshing.floor=LOC be.there-NFIN-NOM=its=DIR
'while this barley was on the threshing floor' (NG 214 23; U; 21)

(244) **ka$_5$-*a* / ti-*la-né* / šu *ba*-ti**
ka$_5$.a=Ø ti.l -Ø -ʔa =ane=e šu =e Ø -ba -n -ti -Ø
Ka'a =ABS live-NFIN-NOM=his =DIR hand=DIR VP-3N.IO-3SG.A-approach-3N.S/DO
'While Ka'a was alive, he received it (lit. "let it approach (his) hand").' (BIN 8:352 2:2-4; L; 24)

(245) **ur-saĝ é-*a-na* ku$_4$-ku$_4$-*da-né***
ur.saĝ=Ø é =ane=ʔa ku$_4$.r:RDP-ed -Ø -ʔa =ane=e
warrior=ABS house=his =LOC enter:IPFV -IPFV-NFIN-NOM=his =DIR
'as the warrior was entering his house' (Cyl B 5:4; L; 22)

The possessive pronoun not only refers to intransitive subjects (as in the preceding examples) but also to transitive subjects:

(246) **šeg$_{12}$-*e* é-*šè* saĝ íl-*la-bé***
šeg$_{12}$=e é =še saĝ =Ø íl -Ø -ʔa =be=e
brick=ERG house=TERM head=ABS lift-NFIN-NOM=its=DIR
'as the brick lifted its head toward the house' (Cyl A 19:17; L; 22)

(247) ***káb-su^{ki}-ta* ĝiri$_3$ dab$_5$-*ba-ne-ne***
káb.su=ta ĝiri$_3$=Ø dab$_5$-Ø -ʔa =anēnē=e
Kabsu =ABL footh=ABS take -NFIN-NOM=their =DIR
'as they were on the road from Nagsu' (NG 120b 9; U; 21)

(248) **še-*bé* buru$_{14}$ su-su-*da-bé***
še =be =Ø buru$_{14}$=e su.g:RDP-ed -Ø -ʔa =be=e
barley=this=ABS harvest=ERG repay:IPFV-IPFV-NFIN-NOM=its=DIR
'when the harvest replaces this barley' (AUCT 3:492 6; U; 21)

Thus, the subject marking with the possessive pronouns follows a non-ergative, "nominative" pattern (Michalowski 1980: 98-99). One and the same form is used to refer to a transitive or to an intransitive subject, while that form is never used to refer to a direct object. Note, however, that this only applies to how the possessive pronouns are used and not to the actual case marking within the non-finite clause itself, which follows the normal ergative pattern.

The forms of the first and second person forms show a different case marker {ne}, which is all but obsolete. It only occurs in the pronominal conjugation and a few fixed expressions. It is without doubt cognate with the local prefix {ni} 'in' (§20.2) (Krecher 1993d: 97). Because of the presence of this fossilized case marker {ne}, the construction of the first and second forms must be regarded as an archaism, even though the number of attestations from early texts is as yet quite small. Forms for which earlier sources are still lacking are therefore illustrated with examples from the Old Babylonian period. E.g.:

(249) ***ĝe$_{26}$-e* ĝen-*na*-*ĝu$_{10}$*-*ne***
ĝe$_{26}$=Ø ĝen-Ø -ʔa =ĝu=ne
I =ABS go -NFIN-NOM=my=LOC2
'when I come (lit. "I, in my coming")' (TCTI 1:1036 3:4; L; 21)

(250) **nú-*a*-*zu*-*ne***
nú -Ø -ʔa =zu =ne
lie -NFIN-NOM=your=LOC2
'when you lie down (lit. "in your lying down")' (Lugalbanda I 235 = HAV 4 9; OB)

(251) **ku$_4$-ku$_4$-*da*-*ĝu$_{10}$*-*ne***
ku$_4$.r:RDP-ed -Ø -ʔa =ĝu=ne
enter:IPFV -IPFV-NFIN-NOM=my=LOC2
'when I came in' (Letter A 1 23; OB)

(252) **zi-zi-*da*-*zu*-*ne***
zi.g:RDP-ed -Ø -ʔa =zu =ne
rise:IPFV -IPFV-NFIN-NOM=your=LOC2
'when you rise' (Lugalbanda I 236 = HAV 4 10; OB)

The verb **du** 'go' shows irregular forms (Edzard 1972: 18). As we saw above, it has an imperfective participle without the suffix {ed} (§28.4.1). In the pronominal conjugation, it also lacks the suffix {ʔa}. Only third person forms are attested. E.g.:

(253) **lugal urim$_5^{ki}$-*šè* du-*né***
lugal=Ø urim$_5$=še du -Ø =ane=e
king =ABS Ur =TERM go:IPFV-NFIN=his =DIR
'when the king was going to Ur' (SACT 1:109 7:5; D; 21)

(254) ***sa-bu-um^{ki}-ta* du-*ne*-*ne***
sa.bu.um=ta du -Ø =anēnē=e
Sabum =ABL go:IPFV-NFIN=their =DIR
'as they coming from Sabum' (TCTI 2:3952 22; L; 21)

28.7. The participles of the verb ak 'do, make'

The non-finite forms of the verb **ak** 'do, make' show irregularities (Attinger 2005: 50-51, 58-60, 62-63). Its imperfective participle may lose its initial /ʔa/, a phonological change which has already been discussed in §12.6. Usually a logographic spelling obscures the change, but where most texts spell **ak-*dè***, the Garshana texts, for instance, consistently have a phonographic spelling ***ke$_4$-dè***. Unfortunately there are not enough spellings with sound signs to judge whether the imperfective participle always is /ked/ or whether it has this reduced form only where the stem is followed by two or more syllables (cf. §3.9.4).

Whereas the irregularities in the imperfective participle of **ak** are just a matter of phonology, those in its perfective participles have to do with morphology. As a matter of fact, **ak** seems to have had just one perfective participle until the Ur III period. This participle is made up by the bare verbal stem, /ʔak/, and is therefore, by definition, a present participle. This present participle, however, is also used with meanings for which other verbs show a past participle. E.g.:

(255a) ***a-šà-ge*** **kíĝ ak**
a.šà.g=e kíĝ =Ø ak -Ø
field =DIR work=ABS make-NFIN
'(labourers) who worked the field' (SNAT 303 rev 6; U; 21)

(b) ***a-šà-ge*** **a** **du$_{11}$-*ga***
a.šà.g=e a =Ø du$_{11}$.g-Ø -ʔa
field =DIR water=ABS do -NFIN-NOM
'(labourers) who irrigated the field' (SACT 2:17 2; U; 21)

(256) **eger níĝ-ka$_9$** **ak-*ta***
eger níĝ.ka$_9$ =Ø ak -Ø =ak =ta
back account=ABS make-NFIN=GEN=ABL
'after the account had been settled' (NATN 103 3; N; 21)

The following example contains the perfective participle of **ak** written in a way which suggests that its form had a final /k/ in Old Sumerian:

(257) **lú e maḫ / ^{d}nin-*ĝír-sú-ka*** **/ ak-*ka*** **/ diĝir-*ra-né*** **/ ^{d}šul-utul$_{12}$-*am$_6$***
lú e.g maḫ nin.ĝír.sú.k=ak =Ø ak -Ø =ak diĝir=ane=Ø
man canal great Ningirsu =GEN=ABS make-NFIN=GEN god =his =ABS

šul-utul$_{12}$=Ø =ʔam
Shulutul =ABS=be:3SG.S
'Of the man who made Ningirsu's great canal – his god is Shulutul.' (Ent. 41 5:2-6; L; 25)

But there is also Old Sumerian evidence to the contrary. Whereas the form /ʔam/ of the enclitic copula is always written ***kam*** after the genitive case marker {ak}, it is always written ***am$_6$*** after the perfective participle of **ak**. E.g.:

(258) **e ak-*am$_6$***
e.g ak -Ø =Ø =ʔam
dike make-NFIN=ABS=be:3N.S
'This is (a stretch of) dike which was made.' (4x, e.g., DP 641 10:2; L; 24)

And after the Old Sumerian period, the form is written **ak-*àm***, never ***ak-*kam***.

There does not seem to be an obvious reason for this abnormal behaviour of the verb **ak**. Perhaps its high frequency plays a role, or its unusual phonemic make-up, with a final /k/ (§3.2.2). Note that from the Ur III period onwards, a regular past participle form **ak-*a*** occurs sometimes. E.g.:

(259) **má bala ak-*a***
má =e bala^{ʔ}-Ø =Ø ak -Ø -ʔa
boat=DIR cross-NFIN=ABS make-NFIN-NOM
'who transferred boats' (BIN 5:138 5; U; 21)

(260) **sa-gaz ak-*aš la-ba-ge-en*$_6$**
sa.gaz =Ø ak -Ø -ʔa =še nu =Ø -ba -ge.n -Ø
robbery=ABS make-NFIN-NOM=TERM NEG=VP-MM-be.firm-3SG.S/DO
'He was not proven to have robbed (lit. "He was not made firm as one who had committed robbery")' (NG 121 9; U; 21)

But such forms remain a tiny minority among the many attestations of a perfective participle of **ak**. And all such **ak-*a*** forms alternate with **ak** forms in other texts.

29. COPULAR CLAUSES

29.1. Introduction

A copular clause is a grammatical unit which consists of three obligatory parts, viz. a subject, a nominal or adjectival predicate, and a form of the copula ***me*** 'be'. The subject is always expressed by the form of the copula and need not be present as a full noun phrase. If it is, however, this noun phrase is in the absolutive case. The predicate is one of two types. Firstly, it can be a noun phrase. It is then usually in the absolutive case but sometimes in some other case. Such a predicate will be called a nominal predicate. Secondly, it can be an adjective or an adjective-like expression. Then it never has a case marker. Such a predicate will be called an adjectival predicate. The form of the copula follows all other parts of the copular clause and marks in this way the end of the copular clause. (The copula shares this demarcating function with all other finite verbal forms, cf. §11.4.6.) In addition to its three obligatory parts, a copular clause may include one or more adjuncts. E.g.:

(1) **u_4-*ba* en-mete-*na* / $ensi_2$ / $lagas^{ki}$-*kam***
u_4.d=be =ʔa en.mete.na.k=Ø $ensi_2$.k lagas =ak =Ø =ʔam
day =this=LOC Enmetena =ABS ruler Lagash=GEN=ABS=be:3SG.S
'At this time Enmetena was the ruler of Lagash.' (RTC 16 6:3-5; L; 25)

This copular clause consists of a time adjunct (**u_4-*ba***), a subject (**en-mete-*na***), a nominal predicate in the absolutive case (**$ensi_2$ $lagas^{ki}$-*k***), and a form of the copula (***am***).

The verb ***me*** 'be' is the only copula in Sumerian. It lacks any distinction as to tense and aspect. Only the context can make clear whether a given form of the copula refers to a past, present, or future situation. The verb ***me*** 'be' is only used as an copula. There is a separate verb ***ĝál*** 'be (somewhere)' which expresses the locational meaning of English 'be' (as in English *She is in the garden*.)

The following three sections deal with the three obligatory parts of copular clauses, viz. the copula (§29.2), the subject (§29.3), and the predicate (§29.4). Then follows a section on the optional parts of copular clauses (§29.5). Having thus treated the internal make up of the copular clause, we will discuss the subordinate copular clauses (§29.6). The chapter concludes with a section on various highlighting constructions involving the copula (§29.7).

29.2. The copula

29.2.1. Introduction

The forms of the copula can be divided into two sets. The forms of the first set are normal finite verbal forms, having prefixes that are also found in the inflected forms of other verbs. A form belonging to this first set will be called a form of the independent copula. The forms of the second set are clause-final clitics, which are attached to the last word of the clause. They never have prefixes. A form belonging to this second set will be called a form of the enclitic copula.

The independent and enclitic forms of the copula are in complementary distribution. In principle, all forms of the copula are independent, fully inflected, forms. However, the paradigm of the independent copula shows a systematic gap, which is filled by the enclitic forms. There are no independent forms of the copula which consist merely of the vocalic prefix {ʔa} or {ʔi}, the verbal stem, and a person suffix. All forms of the independent copula are more

complex than this, containing the nominalizing suffix {ʔa}, or a proclitic, or a prefix other than the vocalic prefixes {ʔa} and {ʔi} (§29.2.2), or some other morpheme. Instead of the missing forms, one finds the forms of the enclitic copula (§29.2.3).

The copula is inflected as an intransitive verb in the perfective (§15.2.1). Its paradigm shows the same set of person suffixes for expressing person and number of the subject as any other intransitive finite verb. Only the enclitic copula has an irregular form for the third person singular human and third person non-human. Ignoring the prefixes of the independent copula, the basic forms of the copula are as in the following table:

Subject	*Independent copula*	*Enclitic copula*
First person singular human	...-men	=men
Second person singular human	...-men	=men
Third person singular human	...-me	=ʔam
Third person non-human	...-me	=ʔam
First person plural human	(...-menden)	=menden
Second person plural human	...-menzen	=menzen
Third person plural human	...-meš	=meš

One form – between brackets – is unattested but its shape is beyond doubt, because of its enclitic counterpart and the parallel forms of other intransitive verbs.

29.2.2. The forms of the independent copula

Forms of the independent copula are rare. Enclitic forms occur far more frequently. As stated in the previous section, there are no independent forms which merely consist of the vocalic prefix {ʔi} or {ʔa}, the verbal stem, and a person suffix. Independent forms always are more complex than this, containing either the nominalizing suffix {ʔa}, or a proclitic, or a prefix other than the vocalic prefixes {ʔi} and {ʔa}. E.g.:

(2) **esir$_2$ eren$_2$-*na ì-me-a***
esir$_2$ eren$_2$ =ak =Ø ʔi -me-Ø -ʔa =ak
bitumen troops=GEN=ABS VP-be -3N.S-NOM=GEN
'that it was bitumen of the troops' (NG 214 58; U; 21)

(3) **mu dumu-*gi ì-me-a-šè***
mu dumu.gi$_7$=Ø ʔi -me-Ø -ʔa =ak =še
name citizen =ABS VP-be -3SG.S-NOM=GEN=TERM
'because he is a (free) citizen' (NG 184 10; L; 21)

(4) **ur-saĝ ug$_5$-*ga ì-me-ša-ke$_4$-éš***
ur.saĝ ug$_5$ -Ø -ʔa =Ø ʔi -me-eš -ʔa =ak =eš
warrior die:PLUR-NFIN-NOM=ABS VP-be -3PL.S-NOM=GEN=ADV
'as they are killed heros' (Cyl A 26:15; L; 22)

(5) **geme$_2$ *ì-bí-la* a-tu-*ke$_4$-ne ḫa-a-me-èn***
geme$_2$ ì.bí.la a.tu=ak =enē=ak =Ø ḫa =ʔa-me-en
slave.woman heir Atu =GEN=PL =GEN=ABS MOD=VP-be -1SG.S

'I must be the slave woman of Atu's heirs!' (AOAT 25 p. 441 BM 19356 9; L; 21)

(6) **urdu$_2$ ur-^{d}kuš$_7$-^{d}*ba-ú-ka nu-ù-me-èn***
urdu$_2$.d ur.kuš$_7$.ba.ú.k=ak =Ø nu =ʔi -me-en
slave Ur.Kush.Bau =GEN=ABS NEG=VP-be -1SG.S
'I am not Ur-Kush-Bau's slave.' (NG 32 3; L; 21)

Forms of the second person singular and plural are not attested in our corpus but can be documented from later texts:

(7) **lú *ḫu-nu in-ga-me-en***
lú ḫu.nu =Ø ʔi -nga-me-en
man helpless=ABS VP-also-be -2SG.S
'You are also a helpless person.' (ISET 2 pl. 67-70 Ni. 4572 7:11' = Emesh and Enten 267; OB)

(8) **diĝir *ḫé-me-en***
diĝir=Ø ḫa =ʔi -me-en
god =ABS MOD=VP-be -2SG.S
'should you be a god' (Lugalbanda II 106; OB)

(9) **diĝir *ḫé-me-en-zé-en***
diĝir=Ø ḫa =ʔi -me-enzen
god =ABS MOD=VP-be -2PL.S
'should you be gods' (Inanna's Descent 242; OB)

I have not been able to find a form of the independent copula with a subject of the first person plural.

Generally speaking, the inflection of the independent copula does not differ from that of other intransitive perfective forms. As with other verbs, the syllable-final consonant of the person suffixes (see chapter 14) is never written in Old Sumerian texts and only occasionally in later texts from before the Old Babylonian period. Compare, for instance, the full spellings of ex. (5) and (6) with the defective ones in the following two:

(10) **lú-*ba* ^{d}lama$_3$-*a-né ḫé-me***
lú =be =ak lama$_3$.r =ane=Ø ḫa =ʔi -me-en
man=this=GEN guardian=his =ABS MOD=VP-be -1SG.S
'Of this man, I will truly be his guardian!' (FAOS 9/2 Šulgi 26 4:25; ?; 21)

(11) **geme$_2$-*zu nu-me***
geme$_2$ =zu =Ø nu =ʔi -me-en
slave.woman=your=ABS NEG=VP-be -1SG.S
'I am not your slave woman.' (NG 35 9; L; 21)

The third person singular and non-human shows much formal variation. To begin with, its form may be completely regular with a stem /me/ followed by a zero person suffix (§14.4):

(12) **PN mí-ús-*sá-zu* mí-ús-*sá-ĝu$_{10}$ ba-ra-me***
PN mí.ús.sá =zu =Ø mí.ús.sá =ĝu =Ø bara -me-Ø
PN son.in.law=your=ABS son.in.law=my=ABS CAT.NEG-be -3SG.S
'PN, your son-in-law, should not be my son-in-law!' (NG 18 24; L; 21)

(13) **sipa engar *nam-me***

sipa.d =Ø engar=Ø nan -me-Ø
shepherd=ABS farmer=ABS MOD.NEG-be -3SG.S
'A shepherd must not be a farmer!' (Proverb Collection 1.97; OB)

But the forms with the modal proclitic {ḫa} (§25.4) and with negative {nu} (§25.2) show irregularities. In the third person singular and non-human forms with {ḫa}, the stem vowel /e/ of ***me*** 'be' is lost in word-final position:

(14) **na$_4$ mu-*bé ḫé-em***
na$_4$ =Ø mu =be=Ø ḫa =ʔi -m(e)-Ø
stone=ABS name=its=ABS MOD=VP-be -3N.S
'Let its name be "Stone"' (Lugal-e 328, OB)

The syllable-final /m/ of this form is only rarely written in texts from before the Old Babylonian period:

(15) **agrig *ḫé* / ugula *ḫé***
agrig =Ø ḫa =ʔi -m(e)-Ø ugula =Ø ḫa =ʔi -m(e)-Ø
steward=ABS MOD=VP-be -3SG.S foreman=ABS MOD=VP-be -3SG.S
'Be he a steward or be he a foreman.' (Ukg. 1 4:28-29; L; 24)

(16) **ensi$_2$-*bé* / *ku-li-ĝu$_{10}$ ḫé***
ensi$_2$.k=be =Ø ku.li =ĝu=Ø ḫa =ʔi -m(e)-Ø
ruler =this=ABS friend=my=ABS MOD=VP-be -3SG.S
'This ruler truly is my friend!' (En. I 35 5:2-3; L; 25)

Instead of ***ḫé-em***, a form ***ḫé-àm*** is also found, with no discernible difference in meaning:

(17) **lú-*bé ku-li-ĝu$_{10}$ ḫé-àm***
lú =be =Ø ku.li =ĝu =Ø ḫa =ʔa -m(e)-Ø
person=this=ABS friend=my=ABS MOD=VP-be -3SG.S
'May this man be my friend!' (St I 4:6=St P 4:7; L; 22)

In one text, the form ***ḫé-àm*** alternates with ***ḫa-àm***:

(18) **diĝir- *ĝu$_{10}$* á-daḫ-*ĝu$_{10}$ ḫa-àm***
diĝir=ĝu=Ø á.daḫ =ĝu =Ø ḫa =ʔa -m(e)-Ø
god =my=ABS helper=my=ABS MOD=VP-be -3SG.S
'May my (personal) deity be my helper!' (OrNS 54 [1985] p. 57 12; ?; 21)

This text has a second ***ḫa-àm*** in line 8, but ***ḫé-àm*** in line 11, again with no discernible difference in meaning. Either spelling seems to represent /ḫam/, a form with the vocalic prefix {ʔa}. This /ḫam/ is probably a dialectal variant of ***ḫé-em***, in the same way as forms with ***ḫa-ab-*** are variants of those with ***ḫé-eb-*** (§25.4.1).

But there are yet more third person forms. In the Ur III period, a spelling ***ḫé-e*** is attested once. It is perhaps a defective spelling of ***ḫé-em***:

(19) **dam-*ĝu$_{10}$* / *ḫé-e***
dam =ĝu =Ø ḫa =ʔi -m(e)-Ø
husband=my=ABS MOD=VP-be -3SG.S
'He truly is my husband.' (TMHC NF 1/2:27 8-9; N; 21)

Finally, there is a form ***ḫé-a***:

(20) **kù-*bé ḫé-a* / še-*bé ḫé-a***
kù.g =be =Ø ḫa =ʔa-me-Ø še =be =Ø ḫa =ʔa-(me)-Ø
silver=this=ABS MOD=VP-be -3N.S barley=this=ABS MOD=VP-be -3N.S
'Be it this silver or be it this barley.' (NG 208 26-27; L; 21)

(21) **1 má še má zíd-*da ḫé-a***
má še =ak 1 =Ø má zíd =ak =Ø ḫa =ʔa-(me)-Ø
boat barley=GEN one=ABS boat flour=GEN=ABS MOD=VP-be -3N.S
'One barley boat should be (usable as) a flour boat!' (BCT 2:157 3; U; 21)

This form ***ḫé-a*** is usually analysed as a reduced form of ***ḫé-àm***, with a loss of the final /m/, and I have glossed it accordingly. But such an analysis is not entirely satisfactory, since the loss of the final /m/ of /ʔam/ is without parallel in texts from before the Old Babylonian period (Attinger 1993: 312).

In the third person singular and non-human forms with {nu}, the stem vowel /e/ of ***me*** 'be' is also lost in word-final position, as in the forms with {ḫa}:

(22) **alan-*e* / *ù* kù *nu* za-gìn *nu-ga-àm***
alan =e =Ø ù kù.g =Ø nu za.gìn =Ø nu =ʔi -nga-m(e)-Ø
statue=this=ABS also silver=ABS NEG lapis.lazuli=ABS NEG=VP-also-be -3N.S
'This statue is neither silver nor is it lapis-lazuli.' (St B 7:49-50; L; 22)

Note, however, that ***nu-ga-àm*** is the only example. Where {ḫa} has simple forms like ***ḫé-em*** and so on, {nu} shows a special construction with a nominal clause, which is also documented by the previous example: **kù *nu*** 'it is not silver'. This construction is treated in §30.4.

In conclusion of this section, an unusual spelling needs to be pointed out. Two closely related documents seem to use the sign NI as a VC-sign for /en/:

(23) **urdu$_2$ *nu-me-en$_x$***(NI)
urdu$_2$.d=Ø nu =ʔi -me-en
slave =ABS NEG=VP-be -1SG.S
'I am not a slave.' (NG 34 11; L; 21)

The same spelling is found in (NG 33 7; L; 21).

29.2.3. The forms of the enclitic copula

The enclitic copula is a clause-final clitic and always follows any phrase-final clitic (§4.4.4). E.g.:

(24) **še dub-sar-*ne-kam***
še dub.sar=enē=ak =Ø =ʔam
barley scribe =PL =GEN=ABS=be:3N.S
'This is barley of the scribes.' (PPAC 1 A.624 5; A; 23)

Nearly all attested forms of the copula are enclitic. They replace certain forms which are missing from the paradigm of the independent copula. They are used precisely where one would expect a form with only a person suffix and the vocalic prefix {ʔi} or {ʔa}. A form such as ****ì-me-en*** 'I am', for example, does not occur in the corpus. Instead one finds the enclitic form /men/.

Thus the independent and enclitic forms of the copula supplement each other in such a way that they together make up a complete paradigm. This neat distribution of the two sets of forms

over a single paradigm is no coincidence. The forms of the enclitic copula come historically from exactly those independent forms which they replace synchronically. The forms of the enclitic copula have properties which clearly point to such a development.

Consider, for instance, the enclitic copula of the third person singular human and third person non-human. Its basic form is /ʔam/, which can be derived from an earlier form */ʔame/ (cf. Poebel 1923: 72):

(25) ***ʔame**
ʔa-me-Ø
VP-be -3SG/3N.S
'he/she/it is' (unattested reconstructed form)

This */ʔame/ became /ʔam/ through loss of the word-final /e/ (§29.2.2). At some point in time, it cliticized and was attached to the word preceding it.[1] Subsequently, /ʔam/ underwent further phonological changes (see below).

The other forms of the copula with only a person suffix and a vocalic prefix also cliticized but in a slightly different way. If they were attached to a word with a final consonant, they lost their vocalic prefix without a trace. However, if they were attached to a word with a final vowel, their vocalic prefix contracted with this vowel leaving a long vowel. This long vowel is reflected in plene spellings such as the following:

(26) ***zé-e-me***
ze =Ø =me-en
you=ABS=be -1SG.S
'you, yourself (lit. "you, who is you")' (TCS 1:128 6; L; 21)

Similarly: ***ĝe$_{26}$-e-me*** for **ĝe$_{26}$=me-en** 'I, myself (lit. "I, who is me")' (TCS 1:81 6; L; 21). (See §29.6.2 below for the syntax of these expressions.)

The inflection of the enclitic copula is largely parallel to that of the independent copula. In the enclitic forms too, the syllable-final consonant of the person suffixes (see chapter 14) is never written in Old Sumerian and only occasionally in more recent texts from before the Old Babylonian period. The /š/ of the person suffix for the third person plural {eš}, for instance, may be written explicitly in texts from the later third millennium:

(27) **nagar-*me-éš***
nagar =Ø =me-eš
carpenter=ABS=be -3PL.S
'They are carpenters.' (UET 3:1496 19; Ur; 21)

But exactly the same phrase occurs far more often written as **nagar-*me***, always so in Old Sumerian (e.g. DP 115 11:12; L; 24) and mostly so in the Ur III period (e.g. MVN 5:267 obv 2:8; L; 21). Or to give another example:

(28) **lú inim-*ma-bé-me-éš***

[1] Note, however, that a form */ʔame/ does not fit the grammatical rules of Sumerian as actually attested, because the vocalic prefix {ʔa} has the form /ʔal/ when it occurs immediately before the stem (§24.3.3). In fact, a dialectal variant ***al-me-a*** 'that it is' is indeed attested for ***ì-me-a*** (e.g. Let B 19 11; OB). Yet, as the origin of this special form /ʔal/ is still unclear, it is impossible to say how old the attested distribution of /ʔa/ and /ʔal/ actually is.

lú inim=ak =be=Ø =me-eš
person word=GEN=its=ABS=be -3PL.S
'They are its witnesses.' (MVN 3:219 18; N; 21)

In the same text on the case, this phrase is written **lú inim-*ma-bé-me*** (MVN 3:219A 22; N; 21). The latter spelling is the most common one by far in our corpus.

With few exceptions, the orthography leaves the final /n/ of the first and second persons also unexpressed:

(29) **urdu$_2$ kalag-*ga-né-me-en$_6$***
urdu$_2$.d kalag -Ø -ʔa =ane=Ø =me-en
slave be.strong-NFIN-NOM=his =ABS=be -1SG.S
'I am his strong servant.' (PPAC 1:A.636 16; A; 23)

(30) **ama *nu*-tuku-*me***
ama =Ø nu =tuku-Ø =Ø =me-en
mother=ABS NEG=have-NFIN=ABS=be -1SG.S
'I am one who has no mother.' (Cyl A 3:6; L; 22)

(31) **ama-*ĝu$_{10}$ zé-me***
ama =ĝu =Ø zé =Ø =me-en
mother=my=ABS you=ABS=be -2SG.S
'You are my mother.' (Cyl A 3:6; L; 22)

The enclitic forms of the first and second persons of the plural are not attested in our corpus but can be documented from later texts:

(32) **[ĝá]-*e ù* za-*e* ses-*me-en-dè-en***
ĝá.e ù za.e=Ø ses =Ø =me-enden
I and you=ABS brother=ABS=be -1PL.S
'You and I are brothers.' (Proverb Collection 8 Sec. D 2; OB)

(33) ***a-ba-àm* za-*e-me-en-zé-en***
a.ba=Ø =ʔam za.e=Ø =me-enzen
who=ABS=be:3N.S you =ABS=be -2PL.S
'Who are you guys?' (Inanna's Descent 240; OB)

The basic form of enclitic copula of the third person singular and non-human is /ʔam/, but it undergoes changes under the influence of the preceding vowel or consonant. The /ʔ/ of /ʔam/ may assimilate to the preceding consonant and the /ʔa/ of /ʔam/ may contract with the preceding vowel. Regrettably the exact details of these changes are much obscured by the spelling, which is almost uniformly ***am$_6$*** in Old Sumerian and ***àm*** from the Old Akkadian period onwards.

Let us begin with the behaviour of /ʔam/ after a vowel. After stems, it is then consistently written with the CVC-sign ***am$_6$*** (Old Sumerian) or ***àm*** (Old Akkadian and later), e.g. **šabra-*àm*** 'who is administrator' (MVN 18:325 3; U; 21), **^{d}utu-*àm*** 'who was (like) Utu' (Cyl B 16:16; L; 22), **kù-zu-*àm*** 'he was wise' (Cyl B 1:12; L; 22), **(...) si-*àm*** 'it is (...) filling (...)' (e.g. Cyl A 21:12; L; 22), ***e-ne-àm*** 'it is he' (TCS 1:54 6; L; 21).

After the nominalizing suffix {ʔa}, the Old Sumerian spellings clearly point to a form /ʔam/. E.g.:

(34) **PN / gurušta-*da* / *mu-da*-lu$_5$-*ka-am$_6$***

PN gurušta=da Ø -mu -n -da -lu$_5$.k-Ø -ʔa =Ø =ʔam
PN fattener =COM VP-VENT-3SG-with-live -3N.S/DO-NOM=ABS=be:3N.S
'This is one (lamb) that lives with PN, the fattener.' (DP 338 1:2-4; L; 24)

This spelling ***ka-am$_6$*** can only represent the sequence /kaʔam/, not /kam/, which would have been written ***kam***. Further instances of /aʔam/ spellings are the following:

(35) **2-*kam-ma* šu-*a* gi$_4$-*a-am$_6$***
2-kamma šu =ʔa gi$_4$ -Ø -ʔa =Ø =ʔam
2-ORD hand=LOC turn-NFIN-NOM=ABS=be:3N.S
'This is what was transferred the second time (lit. "These are the second ones which were turned on the hand").' (Nik 1:298 4:1; L; 24)

(36) **maš da ri-*a-am$_6$***
maš da ri.a =Ø =ʔam
ceremonial.gift=ABS=be:3N.S
'These are ceremonial gifts.' (DP 89 5:1; L; 24)

Such unambiguous /aʔam/ spellings from the Old Sumerian period can be multiplied easily: ***nu*-gíd-*da-am$_6$*** (VS 25:87 6:1; L; 24); **šid-*da-am$_6$*** (DP 470 4:1; L; 24); ***gu-la-am$_6$*** (DP 648 1:3; L; 24); **ĝál-*la-am$_6$*** (VS 25:3 2:4; L; 24); ***mu-šè*-ĝen-*na-am$_6$*** (En. I 29 10:2; L; 25). The sequences /dam/, /lam/, and /nam/ would have been written in Old Sumerian as ***dam***, ***lam***, and ***nam***.

After the Old Sumerian period, the glottal stop in /aʔam/ was lost and the resulting sequence of two vowels contracted. This development is shown by some spelling changes. First, from the Old Akkadian period onwards, the earlier spelling ***a-am$_6$*** for /ʔaʔam/ becomes, transliterated as ***àm***, the standard spelling for /ʔam/. Second, the Old Akkadian texts from Adab contain explicit spellings of contracted forms. Compare, for instance, ex. (35) and (36) with the following two:

(37) **šu-*a* gi$_4$-*àm***
šu =ʔa gi$_4$ -Ø -ʔa =Ø =(ʔa)m
hand=LOC turn-NFIN-NOM=ABS=be:3N.S
'This is what was transferred (lit. "what was turned on the hand").' (OIP 14:156 9; A; 23)

(38) **máš da ri-*àm***
máš da ri.a =Ø =(ʔa)m
ceremonial.gift=ABS=be:3N.S
'These are ceremonial gifts.' (e.g., OIP 14:99 3; A; 23)

These spellings from Adab are exceptional, though. Elsewhere, the orthography remained as in the Old Sumerian period, except that ***am$_6$*** is replaced by ***àm***. Thus after the nominalizing suffix {ʔa}, /ʔam/ continued to be written as if it were pronounced /ʔam/, in spite of the contraction of /aʔam/ to /am/ or /ām/ in the spoken language. E.g.:

(39) **lú níĝ-ul-*e* pa è-*a-àm***
lú níĝ.ul =e pa =Ø è -Ø -ʔa =Ø =ʔam
person everlasting.thing=DIR branch=ABS go.out-NFIN-NOM=ABS=be:3SG.S
'He is someone who let appear something everlasting.' (St B 8:35; L; 22). Note that the phrasal verb **pa—è** means '(cause to) appear'.

After clitics with a final vowel, /ʔam/ had already been reduced to /m/ in the Old Sumerian period. Being a syllable-final consonant, this /m/ is never written in the texts from that period and only rarely in those from the Old Akkadian period and later. E.g.:

(40) **udu-*ĝu$_{10}$-um***
udu =ĝu=Ø =(ʔa)m
sheep=my=ABS=be:3N.S
'They are my sheep.' (NG 120a 9; U; 21)

(41) **é-*ĝu$_{10}$***
é =ĝu=Ø =(ʔa)m
house=my=ABS=be:3N.S
'It is my house.' (NG 199 3:6'; L; 22)

(42) **ki-sur-*ra-ĝu$_{10}$***
ki.sur.ra=ĝu=Ø =(ʔa)m
border =my=ABS=be:3N.S
'It is my border.' (Ukg. 6 4:8'; L; 24)

(43) **lú-*ĝír-su*^{ki} maškim-*bé-em***
lú.ĝír.su.k=Ø maškim =be =Ø =(ʔa)m
Lu.Girsu =ABS commissioner=its=ABS=be:3SG.S
'Lu-Girsu was its commissioner.' (NG 41 9'; L; 21)

(44) **gala-tur / aga$_3$-ús / maškim-*bé***
gala.tur aga$_3$.ús=Ø maškim =be =Ø =(ʔa)m
Galatur soldier =ABS commissioner=its=ABS=be:3SG.S
'Galatur, the soldier, was its commissioner.' (VS 14:20 4:1-3; L; 24)

(45) **níĝ *ú-rum-ma-ne-ne***
níĝ ú.rum=anēnē=Ø =(ʔa)m
thing own =their =ABS=be:3N.S
'These are their own things.' (VS 14:80 3:2; L; 24)

After a consonant, the forms and spellings of /ʔam/ present a similarly mixed picture. After four consonants (/d/, /k/, /l/, and /n/), /ʔam/ is consistently written with the CVC-signs ***dam***, ***kam***, ***lam***, and ***nam***. Clearly, the glottal stop of /ʔam/ assimilates here with the preceding consonant. E.g.:

(46) ***ma-mu-dam***
ma.mu.d=Ø =ʔam
dream =ABS=be:3N.S
'It was a dream.' (Cyl A 12:13; L; 22)

(47) **níĝ-sám ašag-*kam***
níĝ.sám ašag=ak =Ø =ʔam
price field=GEN=ABS=be:3N.S
'This is the price of the field.' (BIN 8:170 23; N; 23)

(48) **(...) / *en-nu-ĝá* / *ì*-ti-*lam***
en.nu.ĝ=ʔa ʔi-n(i)-ti.l -Ø =Ø =ʔam
guard =LOC VP-in -live-3SG.S/DO=ABS=be:3N.S

‘(Because silver was seized in his hand,) it is (the case) that he stays under guard.’ (NATN 32 4-5; N; 21)

(49) **an en-*nam***
an =Ø en =Ø =ʔam
heaven=ABS lord=ABS=be:3SG.S
‘Heaven was lord.’ (Ukg. 15 2:1; L; 24)

After all other consonants, /ʔam/ is consistently written with the CVC-sign ***am$_6$*** in Old Sumerian texts. E.g.:

(50) **sá-du$_{11}$-*am$_6$***
sá.du$_{11}$.g =Ø =ʔam
provisions=ABS=be:3N.S
‘These are provisions.’ (VS 25:43 1:6; L; 24)

Other such spellings are, e.g., ^{ĝiš}**ù-suḫ$_5$-*am$_6$*** ‘This is fir-wood.’ (DP 410 3:2; L; 24), **munus-*am$_6$*** ‘This is a woman.’ (DP 374 1:3; L; 24), **ĝuruš-*am$_6$*** ‘He is a young man.’ (Nik 1:17 1:3; L; 24), and **munu$_4$-gaz-*am$_6$*** ‘He is a malt-crusher.’ (CT 50:33 9:6; L; 24). Such spellings are also common after the Old Sumerian period, but then with the sign ***àm*** instead of ***am$_6$***.

Thus, the spelling suggests that the glottal stop of /ʔam/ *only* assimilates with a preceding /d/, /k/, /l/, or /n/ but is retained after all other consonants. Yet, this is very unlikely. The initial glottal stops of the locative case marker {ʔa} (§7.7.1) and of the nominalizing suffix {ʔa} (§31.2) assimilate to a much wider range of consonants. The more restricted behaviour of the initial glottal stop of /ʔam/ is almost certainly an artefact of the spelling. The Sumerian script simply lacked the CVC-signs needed to write the actual pronunciation. There is no sign ****gam***, ****bam***, or ****mam***. Hence, the scribes chose to use a morphophonemic spelling with ***am$_6$*** or ***àm***, which represented a more abstract and more basic form of /ʔam/.

This morphophonemic spelling remained the norm, even after the invention of CV-VC-spellings. But the latter type of spelling is sometimes used, although it remains rare. Contrast, for example, the following pairs of forms, which only differ in spelling:

(51a) **libir-*àm***
libir =ʔam
of.old=be:3N.S
‘These are of old.’ (PIOL 19:120 3:1; U; 21)

(b) **libir-*ra-àm*** ‘These are of old.’ (MVN 3:370 13; U; 21)

(52a) **2-*kam-ma* ur-saĝ-*àm***
2 -kamma=Ø ur.saĝ=Ø =ʔam
two-ORD =ABS warrior=ABS=be:3SG.S
‘The second was a warrior.’ (Cyl A 6:3; L; 22)

(b) **2-*kam* ur-saĝ-*ĝá-àm*** ‘The second was a warrior.’ (Cyl A 5:2; L; 22)

(53a) **á-lá u$_4$-*dam šeg$_{12}$ mu-na-ab*-gi$_4$**
á.lá =e u$_4$.d =Ø =ʔam šeg$_{12}$=Ø Ø -mu -nna -b -gi$_4$ -Ø
a.drum=ERG storm=ABS=be:3N.S shriek=ABS VP-VENT-3SG.IO-3N.A-turn-3N.S/DO
‘The **á-lá**-drum thundered for him like a storm (lit. “The **á-lá**-drum, which was a storm, thundered for him”).’ (Cyl B 19:1; L; 22)

(b) **na$_4$-šu-min-*e* u$_4$-*da-àm šeg$_{12}$ mu-na-ab*-gi$_4$**

'The two-hand stone thundered for him like a storm.' (Cyl A 16:31; L; 22)

Thus, in the Old Sumerian period, a CV-VC-spelling ***Ca-am$_6$*** always represents a sequence /Caʔam/. After that period, a spelling ***Ca-àm*** is ambiguous because it either stands for simple /Cam/ or represents /Caʔam/. The latter use occurs more frequently.

29.3. The subject of a copular clause

The subject of a copular clause has some grammatical properties that distinguish it from the other parts of a copular clause. Most importantly, it is always expressed by the form of the copula, which is inflected for person and number of the subject. Thus, the form of the copula suffices to express English 'I am', 'it is', and so on. In other words, the copula expresses what in English would be a pronominal subject. E.g.:

(54) **an-dùl daĝal-*me***
an.dùl daĝal=Ø =me-en
protective.cover wide =ABS=be-2SG.S
'You are a broad protective cover.' (Cyl A 3:14; L; 22)

(55) **dumu-*né-me-éš***
dumu=ane=Ø =me-eš
child =his =ABS=be -3PL.S
'They are his sons.' (AUCT 1:438 9; U; 21)

In such copular clauses, the copula of the third person singular human and third person non-human, /ʔam/, has a wide range of uses. It can refer to a single woman or man, to one or more things, or it can refer back to one or more persons or things mentioned earlier. Depending on the context, it can be translated with such different English phrases as 'he is', 'she is', 'it is', 'this is', or 'these are'. E.g.:

(56) **munus-*am$_6$***
munus=Ø =ʔam
woman=ABS=be:3SG.S
'This is a woman.' (BIN 8:359 8:2; L; 24)

(57) **á-*né-šè* anzu$_2$^{mušen}-*dam***
á =ane=še anzu$_2$.d =Ø =ʔam
arm=his =TERM Anzu.bird=ABS=be:3SG.S
'According to his arms, he was the Anzu-bird.' (Cyl A 4:17; L; 22)

(58) **é *àm-ma ì-me-a***
é àm.ma=ak =Ø ʔi -me-Ø -ʔa
house Amma=GEN=ABS VP-be -3N.S-NOM
'that it was Amma's house' (NG 103 9; L; 21)

(59) **lá-*a im-ma-kam***
lá -Ø -ʔa im =ak =Ø =ʔam
be.short-NFIN-NOM last.year=GEN=ABS=be:3N.S
'These are the arrears of last year.' (DP 281 2:2; L; 24)

Often, the subject is not only expressed by the form of the copula, but also by a noun phrase. This noun phrase is always in the absolutive case and precedes, as a rule, the predicate.

Such a noun phrase with subject function can consist of an independent personal pronoun (In the glosses of this section, the noun phrase expressing the subject is enclosed by square brackets.):

(60) ***a-ne* saĝ-*ĝá-né-šè* diĝir-*ra-àm***
[a.ne=Ø] saĝ =ane=še diĝir=Ø =ʔam
[he =ABS] head=his =TERM god =ABS=be:3SG.S
'He was a god according to his head.' (Cyl A 4:16; L; 22)

As stated earlier, however, a copular clause normally lacks such an additional pronoun, so that its presence probably has a special function beyond simply expressing the subject. Due to the small number of attestations, though, the precise function of such an explicit pronominal subject is hard to identify.

Mostly, the noun phrase with subject function has a noun as its head:

(61) **lugal-an-*da* / ensi$_2$-*kam***
[lugal.an.da=Ø] ensi$_2$.k=Ø =ʔam
[Lugalanda =ABS] ruler =ABS=be:3SG.S
'Lugalanda was the ruler.' (RTC 28 2:4-5; L; 24)

(62) **zà šúm é-gal-*ka-ta* / še-lú absin$_3$ 1-*am$_6$***
zà.g šúm é.gal =ak =ak =ta [še.lú =Ø] absin$_3$ diš =Ø =ʔam
border onion palace=GEN=GEN=ABL [coriander=ABS] furrow one=ABS=be:3N.S
'From the border of the onions of the palace onwards, the coriander is one furrow.' (VS 14:189 1:1-2; L; 24)

(63) **ki-su$_7$ zà-*bé***
[ki.su$_7$.g =Ø] zà.g =be=Ø =(ʔa)m
[threshing.floor=ABS] border=its=ABS=be:3N.S
'The threshing floor is its border.' (DP 605 1:5; L; 24)

Such a noun phrase in subject function can be complex. E.g.:

(64) ***ḫu-ba ù* lugal-bàd-iri-*na* maškim-*me-éš***
[ḫu.ba ù lugal.bàd.iri.na.k=Ø] maškim =Ø =me-eš
[Huba and Lugalbadirina =ABS] commissioner=ABS=be -3PL.S
'Huba and Lugal-badirina were the commissioners.' (MVN 15:343 12; ?; 21)

(65) **níĝ-e$_{11}$-*ta* / im-nun é en-ku$_4$ *ab*-řú-*a* / zà-*bé***
níĝ.e$_{11}$=ta [im.nun é en.ku$_4$=ak =Ø
? =ABL [? house Enku =GEN=ABS

ʔa -b(i) -řú -Ø -ʔa =Ø] zà.g =be=Ø =(ʔa)m
VP-3N:on-erect-3N.S/DO-NOM=ABS] border=its=ABS=be:3N.S
'From the **níĝ-e$_{11}$** onwards, the **im-nun** on which Enku's house is built, is its (i.e., of a stretch of dike) border.' (DP 454 2:3-5; L; 24)

(66) **PN / lú e maḫ / ^{d}nin-*ĝír-sú-ka* / ak-*ka* / diĝir-*ra-né* / ^{d}šul-utul$_{12}$-*am$_6$***
PN lú e.g maḫ nin.ĝír.sú.k=ak =Ø ak -Ø =ak
PN person dike great Ningirsu =GEN=ABS make-NFIN=GEN

[diĝir=ane=Ø] šul.utul$_{12}$=Ø =ʔam
[god =his =ABS] Shulutul =ABS=be:3SG.S

'Of PN, the one who made Ningirsu's great dike, his god is Shulutul.' (Ent. 41 5:1-6; L; 25)

An independent personal pronoun or a noun phrase with a noun as its head are not the only noun phrases that can function as the subject of a copular clause. An ordinal can perform this function too:

(67) **2-*kam* ur-saĝ-*ĝá-àm***
[2 -kam=Ø] ur.saĝ =Ø =ʔam
[two-ORD =ABS] warrior=ABS=be:3SG.S
'The second was a warrior.' (Cyl A 5:2; L; 22)

As stated above, a noun phrase expressing the subject of the copular clause precedes, as a rule, the predicate. The opposite word order is also attested, though, albeit only rarely. E.g.:

(68) **a *nu*-tuku-*me* a-*ĝu*$_{10}$ *zé-me***
a =Ø nu =tuku-Ø =Ø =me-en a =ĝu=Ø [zé =Ø]=me-en
father=ABS NEG=have-NFIN=ABS=be -1SG.S father=my=ABS [you=ABS]=be -2SG.S
'I am someone who has no father: you are my father.' (Cyl A 3:7; L; 22)

Of the following two parallel copular clauses, only the second shows an inverted word order:

(69a) **ninda ĝi$_6$-*a-na-ka-né* 6-*am*$_6$**
[ninda ĝi$_6$.an.na=ak =ane=Ø] 6 =Ø =ʔam
[bread night =GEN=his =ABS] six=ABS=be:3N.S
'His loaves of bread during the night are six.' (Ukg. 1 6:2'; L; 24)

(b) **6 ninda gi$_6$-*an-na-ka-né***
6 =Ø [ninda ĝi$_6$.an.na=ak =ane=Ø]=(ʔa)m
six=ABS [bread night =GEN=his =ABS]=be:3N.S
'Six are his loaves of bread during the night.' (Ukg. 4 11:6; L; 24)

Because of the small number of attestations, it is difficult to identify the function of such an inversion of subject and predicate. However, the most obvious reason for such an inverted word order would be to give the predicate more prominence in the information structure of the copular clause.

29.4. The predicate of a copular clause

29.4.1. General remarks

In addition to a subject and a form of the copula, every copular clause contains a predicate. The predicates can be divided into two groups: nominal predicates, which always have a case marker, and adjectival predicates, which never have a case marker. The predicate is usually the last clause constituent before the copula, but sometimes we find an inverted word order predicate – subject – copula.

Nominal predicates are usually in the absolutive case, but other cases are also found. E.g. (In the glosses of §29.4, the predicate is enclosed by square brackets.):

(70) **diĝir-*ra-né* ^{d}šul-utul$_{12}$-*am*$_6$**
diĝir=ane=Ø [šul.utul$_{12}$=Ø]=ʔam
god =his =ABS [Shulutul =ABS]=be:3SG.S

'His god is Shulutul.' (Ent. 26 33-34; L; 25)

(71) **ur-^{d}šara$_2$-*ka-kam***
[ur.šara$_2$.k=ak]=ʔam
[Ur.Shara =GEN]=be:3N.S
'These are of Ur-Shara.' (MAD 4:24 5; U; 23)

All nominal predicates consist of a noun phrase and most of them involve therefore predicative nouns (§29.4.2). But not every noun phrase has a noun as its head (§5.2), and the same is true for nominal predicates. Some nominal predicates consist of a predicative numeral (§29.4.3) or pronoun (§29.4.4). It is also possible for a subordinate clause to be used as the nominal predicate of a copular clause (§29.4.9).

Adjectival predicates never have a case marker and consist of a predicative adjective (§29.4.5) or participle (§29.4.6-§29.4.8). E.g.:

(72) **du$_{11}$-*ga-zu* zi-*dam***
du$_{11}$.g-Ø -ʔa =zu =Ø [zi.d]=ʔam
say -NFIN-NOM=your=ABS [right]=be:3N.S
'What you say is true.' (Cyl A 4:10; L; 22)

29.4.2. Predicative nouns

Most copular clauses have a nominal predicate which consists of a noun phrase with a noun as its head. As a rule, such a noun phrase is in the absolutive case, but there are also constructions where the predicate is in the genitive or some other case. The nominal predicate may consist of a single noun, but that noun may also be accompanied by all kinds of modifying elements:

(73) ***dam-gara$_3$-me-éš***
[dam.gara$_3$=Ø]=me-eš
[merchant =ABS]=be -3PL.S
'They are merchants.' (CT 32 pl.25 BM 103439 17; D; 21)

(74) **túg sumun-*àm***
[túg sumun=Ø]=ʔam
[cloth old =ABS]=be:3N.S
'It is old cloth.' (UET 3:1755 4; Ur; 21)

(75) **lú inim-ma-bé-em**
[lú inim=ak =be=Ø]=(ʔa)m
[man word=GEN=its=ABS]=be:3N.S
'He is its witness (lit. "its man of the word").' (MVN 3:292 9; N; 21)

(76) **pa$_5$ 3-*kam-ma-am$_6$***
[pa$_5$ 3 -kamma=Ø]=ʔam
[ditch three-ORD =ABS]=be:3N.S
'It is the third ditch.' (DP 419 5:1; L; 24)

(77) **e *nu*-ak-*dam***
[e.g nu =ʔak -ed -Ø =Ø]=ʔam
[dike NEG=make-IPFV-NFIN=ABS]=be:3N.S
'It is (a stretch of) dike which will not be done.' (VS 14:130 1:1; L; 24)

(78) **maš ašag-*ga* / di-utu-*ke*$_4$ / *e-ta*-è-*a-am*$_6$**
[maš ašag=ak di.utu.k=e ʔi -b -ta -n -ʔè -Ø -ʔa =Ø]=ʔam
[kid field=GEN Di'utu =ERG VP-3N-from-3SG.A-go.out-3N.S/DO-NOM=ABS]=be:3N.S
'These are the "field kids" (a kind of rent) which Di-Utu collected (lit. "caused to go out").' (Nik 1:170 3:1-3; L; 24)

The nominal predicate may refer to a specific person or thing. The copular clause then identifies this entity with the entity to which the subject refers. The relation between the subject and the predicate is one of identification. E.g.:

(79) **u$_4$-*ba du-du* / saĝĝa ^{d}nin-*ĝír-sú-ka-kam***
u$_4$.d=be =ʔa du.du=Ø [saĝĝa nin.ĝír.sú.k=ak =Ø]=ʔam
day =this=LOC Dudu=ABS [administrator Ningirsu =GEN=ABS]=be:3SG.S
'At this time Dudu was the administrator of Ningirsu.' (Ent. 34:21-22; L; 25)

Because the subject and predicate independently refer to the same entity, the two noun phrases expressing the subject and nominal predicate could in theory switch places. Indeed, a clause like 'the administrator of Ningirsu was Dudu' is possible in English. In practice, such mirrored constructions do not seem to be attested for Sumerian. But they do exist between English and Sumerian. Thus, while English normally construes 'His name is NN', Sumerian consistently has 'NN is his name', a construction occurring dozens of times:

(80) **^{d}*ba-ú* ama iri-ka-*ge-na-ka* / mu-*bé***
ba.ú=Ø ama iri.ka.ge.na.k=ak =Ø =Ø [mu =be=Ø]=(ʔa)m
Bau =ABS mother Irikagena =GEN=ABS=ABS [name=its=ABS]=be:3N.S
'Its name is Bau-is-the-mother-of-Irikagena.' (Ukg. 42; L; 24)

(81) **saĝ-*ba ḫa-ba*-lu$_5$-*ke*$_4$ mu-*né***
[saĝ =be =ak] ḫa.ba.lu$_5$.ke$_4$=Ø [mu=ane =Ø]=(ʔa)m
[head=this=GEN] Habaluke =ABS [name=his=ABS]=be:3SG.S
'The name of this slave is Habaluke (lit. "Of this slave H. is his name").' (FAOS 17:93 2; U; 21)

Without any formal difference, the nominal predicate may also have a non-specific instead of a specific meaning. The copular clause then classifies, expressing that the entity to which the subject refers belongs to a more general category. E.g.:

(82) **kù-dím-*me-éš***
[kù.dím =Ø]=me-eš
[silversmith=ABS]=be -3PL.S
'They are silversmiths.' (UET 3:1475 13; Ur; 21)

(83) **PN geme$_2$ *ì-me-a***
PN=Ø [geme$_2$ =Ø] ʔi -me-Ø -ʔa
PN=ABS [slave.woman=ABS] VP-be -3SG.S-NOM
'that PN was a slave woman' (NG 123 2; L; 21)

This classificatory use also includes some special senses. The nominal predicate may, for instance, express the material the subject consists of:

(84) **^{na4}esi-*àm***
[esi =Ø]=ʔam
[diorite=ABS]=be:3N.S

'It (= a statue) is (of) diorite.' (St B 7:54; L; 22)

Whether identifying or classifying, the copular clause may also express a comparison of the subject to the nominal predicate. E.g.:

(85) **ig ^{ĝiš}eren-*na* é-*a* šu$_4$-*ga-bé* / ^{d}iškur an-*ta* gù nun *di-da-àm***
ig eren =ak é =ʔa šu$_4$.g -Ø -ʔa =be=Ø
door cedar=GEN house=LOC stand:PLUR-NFIN-NOM=its=ABS

[iškur an =ta gù nun =Ø di.d -Ø =Ø]=ʔam
[Ishkur heaven=ABL voice princely=ABS do:IPFV:NFIN-NFIN=ABS]=be:3N.S
'Its cedar doors which stand in the temple are (like the storm god) Ishkur roaring from heaven.' (Cyl A 26:20-21; L; 22)

The nominal predicate can also be in another case than the absolutive. It can, for instance, be in the genitive case and is then a headless genitive (§7.2.4), meaning literally 'the one(s) of ...'. E.g.:

(86) **má é-gal-*ka-kam***
[má é.gal =ak =ak]=ʔam
[boat palace=GEN=GEN]=be:3N.S
'It belongs to (lit. "is of") the boat of the palace.' (VS 14:80 2:1; L; 24)

(87) **é-mí-*me***
[é.mí =ak]=me-eš
[women's.quarters=GEN]=be -3PL.S
'They are of the women's quarters.' (RTC 35 4:3; L; 24)

(88) **^{ĝiš}ig-*kam***
[ig =ak]=ʔam
[door=GEN]=be:3N.S
'This (lion) is the one of the door.' (FAOS 9/1 Gudea 13 9; L; 22)

The nominal predicate can also be in the ablative case:

(89) **inim ensi$_2$-*ka-ta-àm***
[inim ensi$_2$.k=ak =ta]=ʔam
[word ruler =GEN=ABL]=be:3N.S
'It is by order of the governor.' (MVN 4:182 5; U; 21)

(90) **tukum-*bé* šu SI.A-*a-ta-àm***
tukum.bé [šu SI.A.a=ak =ta]=ʔam
if [hand SI.A.a=GEN=ABL]=be:3N.S
'if it was by the hand of SI.A-a' (NG 215 49; U; 21)

The nominal predicate can also be in the equative case:

(91) **á túg gada-*a* DU-*a* / urim$_5^{ki}$-*ma-gen$_7$-nam***
á túg gada=ʔa DU -Ø -ʔa =Ø [urim$_5$=ak =gen]=ʔam
wages cloth linen=LOC walk-NFIN-NOM=ABS [Ur =GEN=EQU]=be:3N.S
'The wages for fulling (lit. "walking on") cloth and linen are as those of Ur.' (TCS 1:327 3-4; L; 21)

The nominal predicate can also be in the comitative case, but only in one specific construction to be treated below (§29.6.4). The enclitic copula is also attested after other case markers than the ones mentioned thus far, but those do not seem to be part of a nominal predicate (§29.7).

Finally, two expressions need to be mentioned where the semantic relation between subject and nominal predicate is unusual. One involves the nominal predicate ***šer$_7$-da*** 'offence'. While the first example is quite normal, the second one literally means 'PN is an offence' but obviously expresses something like 'PN is at fault'.

(92) **u$_4$** ***ba*-zàḫ-*dè*-*na*-*ĝá*** **/** ***šer$_7$-da ḫé-a***
u$_4$.d Ø -ba -zàḫ -ed -en -ʔa =ĝu=ʔa [šer$_7$.da =Ø] ḫa =ʔi-(me)-Ø
day VP-MM-run.away-IPFV-1SG.S:IPFV-NOM=my=LOC [offence=ABS] MOD=VP-be -3N.S
'On the day I run away, it will be an offence.' (BE 3/1:1 5-7; N; 21)

(93) **tukum-*bé* (...) /** ***lú-ša-lim-e*** **saĝ šuku-*ra* *ba-ra-an*-kid /** ***lú-ša-lim šer$_7$-da-àm***
tukum.be lú.ša.lim=e saĝ šuku.r =ak =Ø
if Lū.šalim=ERG head subsistence=GEN=ABS

ba -ta -n -kid$_7$ -Ø lú.ša.lim=Ø [šer$_7$.da =Ø]=ʔam
MM-from-3SG.A-pinch-3N.S/DO Lū.šalim =ABS [offence=ABS]=be:3SG.S
'If Lū-šalim pinched off the best part of the subsistence field, Lū-šalim is at fault.' (NG 215 11-13; U; 21)

The second expression involves the noun ***nam*-erim$_2$** 'oath' and in its most simple form runs as follows:

(94) **ur-é-ḫuš /** ***nam*-erim$_2$-*àm***
[ur.é.huš=Ø] nam.erim$_2$=Ø =ʔam
[Urehush=ABS] oath =ABS=be:3N.S
'Ur-Ehush was the oath(taker).' (NG 197 11-12; L; 21)

(95) ***da-ga*** **/** ***sa$_6$-ga-ĝu$_{10}$*** **/** ***nam*-erim$_2$-*àm***
[da.ga sa$_6$.ga.ĝu$_{10}$=Ø] nam.erim$_2$=Ø =ʔam
[Daga Sagagu =ABS] oath =ABS=be:3N.S
'Daga and Sagagu were the oath(takers).' (NG 182 6-8; L; 21)

Clearly the person or persons mentioned are not the subject of the clause, or the second example would have had a plural form of the copula. It would seem therefore that the noun ***nam*-erim$_2$** 'oath' is the subject and that this construction consistently shows an inversion of the normal order subject – predicate – copula. Unfortunately, there is yet one further complication, because this construction often involves a third noun phrase: a nominalized clause expressing the content of the oath. In theory, the content of the oath could also be the subject. E.g.:

(96) **(...)** ***bí-in*-du$_{11}$-*ga*** **/ nin-*nam-ḫa-né* / ur-^{d}lama$_3$ /** ***nam*-erim$_2$-*àm***
Ø -bi -n -du$_{11}$.g-Ø -ʔa =e
VP-3N.OO-3SG.A-say -3N.S/DO-NOM=DIR

[nin.nam.ḫa.né ur.lama$_3$.k=Ø] nam.erim$_2$=Ø =ʔam
[Ninnamhani Ur.Lama =ABS] oath =ABS=be:3N.S
'As for that he had said "...", Ninnamhani and Ur-Lama were the oath(takers).' (NG 15 6-9; L; 21)

Because the person or persons mentioned can hardly be in another case than the absolutive, I have analysed the subordinate clause as being in the directive case, but this is not at all certain

(§7.6.2) and the grammatical analysis proposed here for these clauses with ***nam*-erim$_2$** 'oath' must be taken as highly tentative.

29.4.3. Predicative numerals

In English, a copular clause like **They are eight* is not acceptable. Instead, one uses the existential construction *There are eight*, or expressions such as *They are eight in number* (cf. Pustet 2003: 32-33). By contrast, in Sumerian a cardinal number can be used as the predicate of a copular clause:

(97) **pisaĝ-*bé* 8-*am*$_6$**
pisaĝ =be=Ø [8 =Ø]=ʔam
basket=its =ABS [eight=ABS]=be:3N.S
'These (fish) amount to eight baskets (lit. "Its baskets are eight").' (DP 305 2:3; L; 24)

(98) **ugula 60-*da-bé* 20-*me-éš***
ugula 60.d=ak =be=Ø [20 =Ø]=me-eš
foreman sixty=GEN=its=ABS [twenty=ABS]=be -3PL.S
'Their foremen over sixty are twenty (in number).' (TrD 54 obv 2:7; D; 21)

(99) **ninda-*né* 420-*nam***
ninda=ane=Ø [420.n=Ø]=ʔam
bread =his =ABS [420 =ABS]=be:3N.S
'His loaves of bread are four-hundred and twenty (in number).' (Ukg. 4 6:6; L; 24)

Additional examples can be found in §29.6.2 below and in §9.3.3.

Sometimes the normal order of subject and predicate is inverted, with the predicate preceding the subject:

(100) **5 ninda ĝi$_6$-ba-*a-ka-né***
[5 =Ø] ninda ĝi$_6$.ba.a =ak =ane=Ø =(ʔa)m
[five=ABS] bread midnight=GEN=his =ABS=be:3N.S
'Five is (the number of) his loaves of bread at midnight.' (Ukg. 4 11:4; L; 24).

Not only a cardinal number but also an ordinal number or a fraction can be used as the predicate:

(101) **2-*kam-ma-am*$_6$**
[2 -kamma=Ø]=ʔam
[two-ORD =ABS]=be:3N.S
'This is the second one.' (VS 25:56 3:6; L; 24)

(102) **gu-niĝin$_2$-*bé* ⅔-*àm***
gu.niĝin$_2$=be=Ø [⅔=Ø]=ʔam
bale =its=ABS [⅔=ABS]=be:3N.S
'These (reed bundles) amount to two thirds of a bale (lit. "Its bales are two thirds").' (TENS 465 6; U; 21)

A predicative ordinal can be accompanied by attributive phrases:

(103) **3-*kam-ma* bala-*a-am*$_6$**
[3 -kamma bala?-Ø -ʔa =Ø]=ʔam
[three-ORD cross -NFIN-NOM=ABS]=be:3N.S

'This is the third (consignment) which was transferred.' (VS 14:81 1:2; L; 24)

(104) **2-*kam-ma* / é-gal-*šè* / ře$_6$-*a-am$_6$***
[2 -kamma é.gal =še ře$_6$ -Ø -ʔa =Ø]=ʔam
[two-ORD palace=TERM bring-NFIN-NOM=ABS]=be:3N.S
'These are the second ones that were brought to the palace.' (VS 14:48 2:4-6; L; 24)

A predicative numeral is usually in the absolutive case, as in the examples above, but it can also be in the genitive or ablative case:

(105) **3-*a-ne-ne-kam***
[3 =anēnē=ak]=ʔam
[three=their =GEN]=be:3N.S
'This is of the three of them.' (DP 223 10:5'; L; 24)

(106) **máš-*bé* 0.1.0-*ta-àm***
máš =be=Ø [0.1.0 =ta]=ʔam
interest=its=ABS [1.*bariga*=ABL]=be:3N.S
'Its interest is with one *bariga* (for one *gur*) (= 20 %).' (BE 3/1:31 2; N; 21)

29.4.4. Predicative pronouns

The predicate of a copular clause can consist of a pronoun, but the texts of our corpus happen to contain very few examples. This section includes therefore a small selection of attestations from later sources. Only pronouns with noun-like grammatical properties (§8.1) are found as predicates of copular clauses.

A predicative demonstrative (§8.4.3) occurs in the Old Babylonian version of an Ur III royal letter:

(107) **(...) *ur$_5$ ì-me-a***
[ur$_5$=Ø] ʔi-me-Ø -ʔa
[that=ABS] VP-be -3N.S-NOM
'(Why do you not know) that (it) is thus?' (Letter A 2:5; OB)

Independent personal pronouns (§8.2) may also be used as the predicate of a copular clause. The corpus contains examples in the genitive case. E.g.:

(108) **an-*ta*-sur-*ra* / *ĝá-kam***
an.ta.sur.ra=Ø [ĝe$_{26}$=ak]=ʔam
Antasura =ABS [I =GEN]=be:3N.S
'The Antasura is mine.' (Ukg. 6 4:7'-8'; L; 24)

Old Babylonian copies of literary texts show that an interrogative pronoun (§8.5) can also be used as the predicate:

(109) ***ĝe$_{26}$-e a-na-me-en***
ĝe$_{26}$=Ø [a.na =Ø]=me-en
I =ABS [what=ABS]=be -1SG.S
'What am I?' (Inanna B 92; OB manuscript)

(110) ***a-ba-àm za-e-me-en-zé-en***
[a.ba=Ø]=ʔam za.e=Ø =me-enzen
[who=ABS]=3N.S you=ABS=be -2PL.S

'Who are you people? (lit. "It is who (that) you are?")' (Inanna's Descent 240; OB)

For the difference in word order between the preceding two examples, see §29.7 below and §8.5.

29.4.5. Predicative adjectives

The predicate of a copular clause can consist of a predicative adjective. E.g.:

(111) **du_{11}-*ga-zu* zi-*dam***
du_{11}.g-Ø -ʔa =zu =Ø [zi.d]=ʔam
say -NFIN-NOM=your=ABS [right]=be:3N.S
'What you say is true.' (Cyl A 4:10; L; 22)

(112) **libir-*àm***
[libir]=ʔam
[of.old]=be:3N.S
'This is of old.' (MVN 9:120 1:8; L; 21)

Predicative adjectives do not occur very often in the corpus, so that it may be useful to give an additional example from a later period:

(113) ***za-e* maḫ-*me-en***
za.e=Ø [maḫ]=me-en
you =ABS [great]=be -2SG.S
'You are great.' (Inanna C 218; OB manuscript)

Predicative adjectives are rare because Sumerian mostly uses finite verbal forms instead (see §10.5.2).

29.4.6. Predicative present participles

A present participle used as a headless verbal adjective (§28.2.2) can be the predicate of a copular clause:

(114) **ama *nu*-tuku-*me***
[ama =Ø nu =tuku-Ø =Ø]=me-en
[mother=ABS NEG=have-NFIN=ABS]=be -1SG.S
'I am one who has no mother.' (Cyl A 3:6; L; 22)

(115) **lú-zàḫ dab_5-dab_5-me**
[lú.zàḫ =Ø dab_5-dab_5-Ø =Ø]=me-eš
[runaway=ABS take -take -NFIN=ABS]=be -3PL.S
'They are ones who catch runaways.' (AAS 176 10 & AAICAB I/2 pl. 115 Ashm. 1945-134 obv 8; 21; L)

29.4.7. Predicative past participles

A past participle used as a verbal adjective (§28.3.3) can be the predicate of a copular clause. In its most simple construction, the past participle is used alone, like an adjective. E.g.:

(116) **íd kù-*ga-*am_6 / šà-*bé* zalag-zalag-*ga-*am_6**

íd =Ø [kù.g -Ø -ʔa]=ʔam
river=ABS [be.pure-NFIN-NOM]=be:3N.S

šà.g =be=Ø [zalag -zalag -Ø -ʔa]=ʔam
heart=its=ABS [be.clear-be.clear-NFIN-NOM]=be:3N.S
'The canal is pure; its bed is clear.' (Ukg. 4 12:41-42; L; 24)

(117) **mu ĝen-*na-àm* iti til-*la-àm***
mu =Ø [ĝen-Ø -ʔa]=ʔam iti.d =Ø [til -Ø -ʔa]=ʔam
year=ABS [go -NFIN-NOM]=be:3N.S month=ABS [end-NFIN-NOM]=be:3N.S
'The year was gone; the month was finished.' (Cyl B 3:5; L; 22)

(118) **u_4 tu-*ra-a ì-me-a***
u_4.d [tu.r -Ø -ʔa] ʔi -me-Ø -ʔa =ʔa
day [be.ill-NFIN-NOM] VP-be -3SG.S-NOM=LOC
'when he was ill' (PDT 1:528 22; D; 21)

(119) **mu (...) é ḫulu-*a ì*-me-*a-šè***
mu é =Ø [ḫulu -Ø -ʔa] ʔi -me-Ø -ʔa =ak =še
name house=ABS [destroy-NFIN-NOM] VP-be -3N.S-NOM=GEN=TERM
'because the estate was destroyed' (MVN 2:2 case 3; L; 21)

Mostly, however, the past participle is accompanied by one or more noun phrases

(120) **1 ^{d}nin-šubur-an-dùl / iti RI-*ta* / iti é-iti-6-*šè* / tu-*ra-àm***
nin.šubur.an.dùl=Ø [iti.d RI =ta iti.d é.iti.6=še tu.r -Ø -ʔa]=ʔam
Ninshubur.andul =ABS [month NN=ABL month NN =TERM be.ill-NFIN-NOM]=be:3N.S
'Ninshubur-andul was ill from month V to month VIII.' (AAICAB I/4 pl. 256 Bod. S 333 1-4; U; 21)

(121) **ki-su_7-*ge* ús-*sa-am*$_6$**
[ki.su_7.g =e ús -Ø -ʔa]=ʔam
[threshing.floor=DIR be.next.to-NFIN-NOM]=be:3N.S
'This is next to the threshing floor.' (DP 605 3:5; L; 24)

(122) **é gibil-*ta* / ĝar-*ra-am*$_6$**
[é gibil=ta ĝar -Ø -ʔa]=ʔam
[house new =ABL place-NFIN-NOM]=be:3N.S
'This was supplied from the new house.' (Nik 1:134 4:1-2; L; 24)

(123) **é gu_4 niga-*ke*$_4$ gub-*ba-me***
[é gu_4.r niga =ak =e gub -Ø -ʔa]=me-eš
[house bull barley.fed=GEN=DIR stand-NFIN-NOM]=be -3PL.S
'They are serving (lit. "standing for") the stable of barley-fed bulls.' (TMHC NF 1/2:293 8; N; 21)

(124) **sá-du_{11} kas gi_6 / iti 1-*a-ka* ki-*ba* ĝar-*ra-am*$_6$**
[sá.du_{11}.g kas gi_6.g =ak iti.d 1=ak =ak ki =be=ʔa
[provisions beer black=GEN month 1=GEN=GEN place=its=LOC

ĝar -Ø -ʔa]=ʔam
place-NFIN-NOM]=be:3N.S

‘This was put in the place of the provisions for dark beer of one month.’ (DP 147 2:1-2; L; 24)

(125) ***ga-eš^{ki}-šè ĝen-na-me***
[ga.eš =še ĝen-Ø -ʔa]=me-eš
[Gaesh=TERM go -NFIN-NOM]=be -3PL.S
‘They are ones who went to Gaesh.’ (TCTI 1:939 13; L; 21)

The subject of these copular clauses is comparable to the head noun of an attributively used past participle. It always refers to a participant which plays a role in the action or state expressed by the participle (cf. §28.3.3). Mostly, the subject of the copular clause is to be taken as the intransitive subject of the past participle, as in all examples thusfar. But Sumerian participles are inherently unoriented (§28.1), and other roles are also possible. Thus, the subject of the following copular clause plays the role of local adjunct with the past participle:

(126) **numun ĝar-*ra-am$_6$***
[numun=Ø ĝar -Ø -ʔa]=ʔam
[seed =ABS place-NFIN-NOM]=be:3N.S
‘This (land) was sown in.’ (lit. ‘This is where seed was placed .’) (VS 14:40 2:5 = DP 611 5:3; L; 24)

Many past participles followed by a form of the copula are not predicative but attributive past participles. E.g.:

(127) **udu ti-*la-àm***
[udu ti.l -Ø -ʔa]=ʔam
[ram live-NFIN-NOM]=be:3N.S
‘These are sheep which are alive.’ (TJAMC IES 120 3; D; 21)

Such constructions involve predicative noun phrases (see §29.4.2).

29.4.8. Predicative imperfective participles

An imperfective participle used as a verbal adjective (§28.4.3) can be the predicate of a copular clause. Consider, for instance, the following construction:

(128) **maš *ĝá-ĝá-dam***
maš =Ø [ĝar:RDP -ed -Ø]=ʔam
interest=ABS [place:IPFV-IPFV-NFIN]=be:3N.S
‘Interest is to be paid.’ (TMHC NF 1/2:10 5; N; 21)

In lexical texts from well after the third millennium, Akkadian scribes translated such forms with transitive or intransitive verbal forms. E.g. ***ĝá-ĝá-dam*** = *iš-ša-ka-an* ‘it (i.e., interest) will be paid (lit. “placed”)’ (MSL 1 p. 19 Ana ittišu II 1:44); **máš *ĝá-ĝá-dam*** = MIN (= *ṣibtam*) *i-šak-kan* ‘he will pay interest’ (MSL 5 p. 13 Ḫḫ I 56). They used a single Akkadian verbal form to translate what in Sumerian actually are two verbal forms, an imperfective participle and a form of the copula. This discrepancy between the Akkadian translation and its Sumerian original has not always been taken into account and may, in fact, have been the source of some confusion about the grammatical make-up of the Sumerian construction.

Since the Sumerian includes two different verbal forms, it also involves two subjects, one of the copula and one of the participle. In example (128) above, the subject of the copular clause

is also interpreted as the subject of the participle, but the two subjects do not always coincide. In the following sentence, for instance, they are different:

(129) **lú-iri-saĝ-*ke₄* / *nam*-erim₂-*bé* ku₅-*dam***
[lú.iri.saĝ.ak=e nam.erim₂=be=Ø ku₅.r-ed -Ø]=ʔam
[Lu'irisag =ERG oath =its=ABS cut -IPFV-NFIN]=be:3N.S
'This is to be taken an oath about by Lu'irisag.' (ITT 2/1:764 2-3; L; 21)

Here the proper noun **lú-iri-saĝ** is in the ergative case and, accordingly, expresses a transitive subject. Now, a transitive subject in the ergative case can hardly be the subject of the copula, which is an intransitive verbal form. At the same time, a transitive subject perfectly fits the participle, which is transitive and is construed with a direct object (***nam*-erim₂-*bé***).

Such an analysis is also supported by other evidence. The form of the copula always includes a person suffix expressing person and number of the subject. In the construction under discussion, however, the form of the copula does not become plural (with the form /meš/ instead of /ʔam/) when more than one person is to take an oath:

(130) **á-*ta ù* lú-du₁₀-*ga* / *nam*-erim₂-*bé* ku₅-*dam***
[á.ta ù lú.du₁₀.ga=e nam.erim₂=be =Ø ku₅.r-ed -Ø]=ʔam
[Ata and Luduga =ERG oath =its=ABS cut -IPFV-NFIN]=be:3N.S
'This is to taken an oath about by Ata and Luduga.' (NG 62 12-13; U; 21)

The singular form of the copula in this example proves that the plural phrase **á-*ta ù* lú-du₁₀-*ga*** cannot be its subject. Clearly, the copula and the participle have here different subjects.

Thus, an imperfective participle used as a verbal adjective can be the predicate of a copular clause. The subject of such a copular clause is comparable to the head noun of an attributively used participle. It always refers to a participant which plays a role in the action expressed by the participle. Which role it plays can only be determined from the context (cf. §28.1).

Mostly the subject of the copular clause is to be interpreted as the intransitive subject of the participle. E.g.:

(131) **kišib ur-tur *ze-re-dam***
kišib ur.tur=ak =Ø [ze.r -ed -Ø]=ʔam
seal Urtur =GEN=ABS [destroy-IPFV-NFIN]=be:3N.S
'Urtur's sealed document is to be destroyed.' (MVN 8:149 11; D; 21)

(132) **kišib-*bé* tùm-*dam***
kišib=be=Ø [tùm -ed -Ø]=ʔam
seal =its=ABS [bring:IPFV-IPFV-NFIN]=be:3N.S
'The sealed document about this is to be brought.' (MVN 6:225 obv 2; L; 21)

(133) **udu-*bé* su-su-*dam***
udu=be =Ø [su.g:RDP -ed -Ø]=ʔam
ram=this=ABS [repay:IPFV-IPFV-NFIN]=be:3N.S
'These rams are to be repaid.' (AOAT 240 p. 80:6 5; ?; 21)

Copular clauses may lack a noun phrase expressing the subject, so that only the form of the copula represents the subject (§29.3). E.g.:

(134) **su-su-*dam***
[su.g:RDP-ed -Ø]=ʔam
[repay:IPFV-IPFV-NFIN]=be:3N.S

'It is to be repaid.' (PDT 2:910 rev 1; L; 21)

(135) **daḫ-*ḫe-dam***
[daḫ-ed -Ø]=ʔam
[add-IPFV-NFIN]=be:3N.S
'This is to be added.' (ITT 2:5722 10; L; 23)

(136) **im ^{ĝiš}apin-*na-ke$_4$* / dah-*ḫe-dam***
[im apin =ak =e daḫ-ed -Ø]=ʔam
[clay plough=GEN=DIR add-IPFV-NFIN]=be:3N.S
'These (oxen and ploughs) are to be added to the clay tablet about the ploughs.' (MVN 3:89 7-8; L; 23)

(137) **é-gal-*la* ku$_4$-ku$_4$-*dam***
[é.gal =ʔa ku$_4$.r:RDP-ed -Ø]=ʔam
[palace=LOC enter:IPFV -IPFV-NFIN]=be:3N.S
'This is to be brought into the palace.' (ITT 3:5576 4; L; 21)

The subject of the copular clause may also function as the direct object of the participle. E.g.:

(138) **saĝ dam *ab-ba-a-ke$_4$* túm-*mu-dam***
saĝ =Ø [dam ab.ba.a=ak =e túm -ed -Ø]=ʔam
head=ABS [wife Abba =GEN=ERG bring-IPFV-NFIN]=be:3N.S
'The slave is to be brought by Abba's wife.' (SNAT 360 rev 10; U; 21)

(139) **gu$_4$ anše-*bé nam-ḫa-né* su-su-*dam***
gu$_4$.r anše =be =Ø [nam.ḫa.ne=e su.g:RDP-ed -Ø]=ʔam
ox donkey=this=ABS [Namhani =ERG repay:IPFV-IPFV-NFIN]=be:3N.S
'These oxen and donkeys are to be repaid by Namhani.' (MVN 5:180 tablet 6; L; 21)

(140) **ur-^{d}ištaran-*ke$_4$* / su-su-*dam***
[ur.ištaran.ak=e su.g:RDP-ed -Ø]=ʔam
[Ur.Ishtaran =ERG repay:IPFV-IPFV-NFIN]=be:3N.S
'This (silver) is to be repaid by Ur-Ishtaran.' (MVN 14:447 5-6; U; 21)

(141) **kišib lú-*bé-ne* / ^{d}šara$_2$-*kam-e* / tùm-*dam***
kišib lú =be =enē=ak =Ø [šara$_2$.kam=e tùm -ed -Ø]=ʔam
seal man=this=PL =GEN=ABS [Sharakam =ERG bring:IPFV-IPFV-NFIN]=be:3N.S
'The sealed documents of these persons are to be brought by Sharakam.' (AUCT 3:254 9-11; D; 21)

The subject of the copular clause may also function as the transitive subject of the participle. E.g.:

(142) **lugal-á-zi-*da* gudu$_4$ urdu$_2$ ^{d}šara$_2$ *ì-me-a* / *nam*-erim$_2$-*bé* ku$_5$-*dam***
lugal.á.zi.da gudu$_4$.g=Ø [urdu$_2$ šara$_2$ =ak =Ø ʔi -me-Ø -ʔa =ak
Lugalazida priest =ABS [slave Shara=GEN=ABS VP-be -3N.S-NOM=GEN

nam.erim$_2$=be =Ø ku$_5$.r-ed -Ø]=ʔam
oath =its=ABS cut -IPFV-NFIN]=be:3SG.S
'Lugalazida, the priest, is to take an oath about that he (i.e., Lugalitida) is a slave of the god Shara.' (NG 212 17-18; U; 21)

The subject of the copular clause can also refer to the oblique object of the participle. For instance, the phrasal verbs **igi—kara$_2$** 'inspect' (lit. 'brighten up the eyes at') and **káb—du$_{11}$.g** 'verify the amount of' construe their objects as oblique objects (§18.3.3). Yet, the subject of a copular clause can play this role too:

(143) **kišib lugal-á-zi-*da* igi kara$_2$-kara$_2$-*dam***
kišib lugal.á.zi.da=ak =Ø [igi =Ø kara$_2$:RDP -ed -Ø]=ʔam
seal Lugalazida =GEN=ABS [eye=ABS brighten.up:IPFV-IPFV-NFIN]=be:3N.S
'Lugalazida's sealed document is to be inspected (lit. "to be eye-brightened at").' (MVN 8:149 5; D; 21)

(144) **še-*bé* káb *di-dam***
še =be =Ø [káb =Ø di.d -Ø]=ʔam
barley=this=ABS [verification=ABS do:IPFV:NFIN-NFIN]=be:3N.S
'This barley is to be verified as to its amount.' (MCS 6 p. 65 AO 8091 6; L; 21)

The same applies to phrasal verbs which construe their objects as locatives (§20.3.2), such as **al—řú** 'dig (a canal)' and **igi—saĝ$_5$** 'sort':

(145) **al řú-*dam***
[al =Ø řú -ed -Ø]=ʔam
[hoe=ABS erect-IPFV-NFIN]=be:3N.S
'This is to be dug (lit. "This is to be hoe-erected on").' (TSA 25 8:3; L; 24)

(146) **igi saĝ$_5$-saĝ$_5$-*dam***
[igi =Ø saĝ$_5$:RDP -ed -Ø]=ʔam
[eye=ABS ?:IPFV-IPFV-NFIN]=be:3N.S
'These are to be sorted (lit. "These are to be eye-... on").' (TSA 28 2:4; L; 24)

And it applies to the phrasal verb **šu—ùr** 'erase', which construes its object either as an oblique object or as a locative:

(147) **mu-DU lugal-ta / šu ùr-dam**
[mu.DU.r lugal=ak =ta šu =Ø ùr -ed -Ø]=ʔam
[delivery king =GEN=ABL hand=ABS rub-IPFV-NFIN]=be:3N.S
'These (eight bulls and two cows) are to be erased (lit. "hand-rubbed over") from the royal deliveries.' (ZA 68 p. 37 NCBT 1628 6-7; D; 21)

The subject of the copular clause can also refer to a participant with the role of possessor in the action expressed by the participle. The precise role of the subject is then explicitly indicated by a possessive pronoun which refers to the same person or thing as the subject of the copular clause. E.g.:

(148) **ur-^{d}suen-*ke$_4$* *nam*-erim$_2$-*bé* ku$_5$-*dam***
[ur.suen.ak=e nam.erim$_2$=be=Ø ku$_5$.r-ed -Ø]=ʔam
[Ursuen =ERG oath =its=ABS cut -IPFV-NFIN]=be:3N.S
'This is to be taken an oath about by Ursuen.' (NG 212 33; U; 21)

29.4.9. Predicative clauses

There are two types of subordinate clause that occur as the nominal predicate of a copular clause: headless relative clauses and content clauses. The former type of clause has been

discussed in §27.4.2, which also includes several attestations of copular clauses with a headless relative clause as their predicate. We will therefore limit ourselves here to two examples:

(149) **1 gu$_4$ lugal-saĝ / *ì*-du$_8$-*ra* / *e*-*na*-gub-*ba*-*am$_6$***
1 gu$_4$.ř [lugal.saĝ ì.du$_8$ =ra ʔi -nna -gub -Ø -ʔa =Ø]=ʔam
1 ox [Lugalsag gatekeeper=DAT VP-3SG.IO-stand-3N.S/DO-NOM=ABS]=be:3N.S
'One ox: this is one which served (lit. "which stood for") Lugalsag, the gatekeeper.' (VS 25:56 1:6-2:2; L; 24)

(150) **áb zi-*dè* MUNUS *ba*-dú-*da*-*me***
[áb zi.d =e mí Ø -ba -b -dú.d -Ø -ʔa =Ø]=me-en
[cow right=ERG ? VP-MM-3N.A-give.birth.to-3SG.S/DO-NOM=ABS]=be -2SG.S
'You are the one whom the right cow gave ... birth to.' (Cyl B 23:21; L; 22)

A content clause can also be used as the nominal predicate of a copular clause. This is a highlighting construction emphasizing what is stated in the content clause (cf. §29.7). The copular clause then has a neuter subject 'it', which is semantically rather empty but which probably refers back to the content clause functioning as the nominal predicate.

In the Old Sumerian texts from Lagash, this construction has two variants: in one the finite verb of the content clause contains the nominalizing suffix {ʔa} (cf. §27.3.4) and in the other it lacks that suffix (cf. §27.3.5). The second variant, the one without the nominalizing suffix, is typical for verbs with a stative meaning (Krecher 1990). E.g.:

(151) **ašag sa$_6$-*ga* / diĝir-*ré*-*ne*-*ka* / ki šúm-*ma* / ki ukuš$_2$ / ensi$_2$-*ka* / *e*-ĝál-*lam***
[ašag sa$_6$.g -Ø -ʔa diĝir=enē=ak =ʔa ki šúm =ak
[field be.good-NFIN-NOM god =PL =GEN=LOC place garlic=GEN

ki ukuš$_2$ =ak ensi$_2$.k=ak =Ø ʔi -n(i)-ĝál -Ø =Ø]=ʔam
place cucumber=GEN ruler =GEN=ABS VP-in -be.there-3N.S/DO=ABS]=be:3N.S
'It was (the case) that the ruler's garlic and cucumber fields were in the best fields of the gods.' (Ukg. 4 4:13-18; L; 24)

(152) **é ensi$_2$-*ka* / gana$_2$ ensi$_2$-*ka*-*ke$_4$* / é é-mí / gana$_2$ é-mí-*ke$_4$* / é *nam*-dumu / gana$_2$ *nam*-dumu-*ke$_4$* / zà *ì*-ús-ús-*am$_6$***
[é ensi$_2$.k=ak gana$_2$ ensi$_2$.k=ak =e é é.mí=ak gana$_2$
[house ruler =GEN field ruler =GEN=DIR house Emi =GEN field

é-mí=ak =e é nam.dumu=ak gana$_2$ nam.dumu=ak =e
Emi =GEN=DIR house princedom =GEN field princedom =GEN=DIR

zà.g =Ø ʔi -b -ʔús -ʔús -Ø =Ø]=ʔam
border=ABS VP-3N.OO-be.next.to-be.next.to-3N.S/DO=ABS]=be:3N.S
'It was (the case) that the ruler's buildings and the ruler's fields, the queen's buildings and the queen's fields, as well as the prince's buildings and the prince's fields, each one of them was adjoining the other.' (Ukg. 4 7:5-11; L; 24)

(153) ***be$_6$-lu$_5$-da* / u$_4$-*bé*-*ta* / *e*-*me*-*am$_6$***
[be$_6$.lu$_5$.da u$_4$.bé.ta =ak =Ø ʔi -me-Ø =Ø]=ʔam
[custom former.days=GEN=ABS VP-be -3N.S=ABS]=be:3N.S
'It was (the case) that these were the institutions of former days.' (Ukg. 4 7:26-28; L; 24)

(154) **ĝiš-kíĝ-ti / ninda šu íl-*la* / *ì*-tuku-*am$_6$***

[ĝiš.kíĝ.ti =e ninda šu íl -Ø -ʔa =ak =Ø
[craftsman=ERG bread hand lift-NFIN-NOM=GEN=ABS

ʔi -b -tuku-Ø =Ø]=ʔam
VP-3N.A-have-3N.S/DO=ABS]=be:3N.S
'It was (the case) that the craftsmen had bread "of the lifted hand".' (Ukg. 4 6:28-7:1; L; 24)

If the preceding examples had included the nominalizing suffix {ʔa}, the verbal forms would have been written: ***e*-ĝál-*la-am*$_6$**, ***ì*-ús-ús-*sa-am*$_6$**, ***e-me-a-am*$_6$**, and ***ì*-tuku-*a-am*$_6$**. Note, however, that the last two examples are less certain, because the suffix {ʔa} may contract with a preceding vowel (§27.3.3).

If the finite verb of the content clause has a non-stative meaning, it contains the nominalizing suffix {ʔa}. E.g.:

(155) **anše sur$_x$**(ERIM)***-ra* / gu$_4$ du$_7$-du$_7$ / saĝĝa-saĝĝa-*ne* / *e-ne*-keše$_2$-*ř*á-*am*$_6$**
[anše sur$_x$=ak gu$_4$.ř du$_7$.ř -du$_7$.ř saĝĝa -saĝĝa =enē=ak =Ø
[donkey team=GEN bull perfect-perfect administrator-administrator=PL =GEN=ABS

ʔi -nnē -keše$_2$.ř-Ø -ʔa =Ø]=ʔam
VP-3PL.IO-bind -3N.S/DO-NOM=ABS]=be:3N.S
'It was (the case) that the donkey teams and the perfect oxen were yoked for the temple administrators.' (Ukg. 4 4:19-22; L; 24)

(156) **lú u[mma]^{ki}-*k*[*e*$_4$] / ege[r$_4$ la]gas$^{[k]i}$ / *ba*-ḫulu-*a-ta* / *nam*-dag / ^{d}nin-*ĝír-su-da* / *e-da*-ak-*ka-am*$_6$**
[lú umma=ak =e eger$_4$ lagas =Ø Ø -ba -ḫulu -Ø -ʔa =ak =ta
[man Umma=GEN=ERG back Lagash=ABS VP-MM-be.bad-3N.S/DO-NOM=GEN=ABL

nam.dag=Ø nin.ĝír.su.k=da ʔi -n -da -n -ʔak -Ø -ʔa =Ø]=ʔam
sin =ABS Ningirsu =COM VP-3SG-with-3SG.A-make-3N.S/DO-NOM=ABS]=be:3N.S
'It is (the case) that the Ummaite, after Lagash was destroyed, has committed a sin against Ningirsu.' (Ukg. 16 7:10-8:3; L; 24)

If the preceding examples had lacked the nominalizing suffix {ʔa}, the verbal forms would have been written: ***e-ne*-keše$_2$-*am*$_6$** and ***e-da*-ak-*kam***.

After the Old Sumerian period, the sequence /ʔaʔam/ is contracted to /ʔām/, which is written in the same way as a simple /ʔam/ (§29.2.3). As a result, the spelling ceases to express the contrast between the stative and non-stative variants, so that it is unclear for how long and to what extent this contrast remained alive in the spoken language. The construction as such, though, remains in full use and in the absence of any positive evidence to the contrary, I analyse the stative examples (ex. 159-161) as if they contain the nominalizing suffix:

(157) **gù-dé-*a* en ^{d}nin-*ĝír-su-ra* igi *mu-ni*-du$_8$-*àm***
[gù.dé.a=e en nin.ĝír.su.k=ra igi =Ø
[Gudea =ERG lord Ningirsu =DAT eye=ABS

Ø -mu -nni -n -du$_8$ -Ø =ʔa =Ø]=ʔam
VP-VENT-3SG.OO-3SG.A-spread-3N.S/DO=NOM=ABS]=be:3N.S
'It was (the case) that Gudea saw lord Ningirsu.' (Cyl A 1:18; L; 22)

(158) **é-*a-na ba-ni*-ku$_4$-*ra-à*[*m*]**

[é.j =ane=ʔa Ø -ba -ni-n -ku$_4$.r-Ø -ʔa =Ø]=ʔam
[house=his =LOC VP-MM-in-3SG.A-enter -3SG.S/DO-NOM=ABS]=be:3N.S
'It was (the case) that he had brought her into his house.' (NG 129 9'; L; 21)

(159) **geme$_2$ nin-*a-né mu-da-*sá-*àm***
[geme$_2$ =Ø nin =ane=d(a)
[slave.woman=ABS lady=her=COM

Ø -mu -n -da -sá -Ø -ʔa =Ø]=ʔam
VP-VENT-3SG-with-be.equal-3SG.S/DO-NOM=ABS]=be:3N.S
'It was (the case) that a slave woman was equal to her mistress.' (St B 7:31; L; 22)

(160) **ki dam *a-ne-a-*ti-*ka ì-dú-ru-né-ša-àm***
[ki dam a.ne.a.ti=ak =ʔa ʔi -b(i) -durun -eš -ʔa =Ø]=ʔam
[place wife Aneati =GEN=LOC VP-3N:on-sit:PLUR-3PL.S/DO-NOM=ABS]=be:3N.S
'It was (the case) that they live at the place of Aneati's wife.' (NG 214 41; U; 21)

(161) ***a-bu-ni* kaskal-*a mu-ti-la-àm***
[a.bu.ni=Ø kaskal =ʔa Ø -mu -n(i)-ti.l -Ø -ʔa =Ø]=ʔam
[Abūni =ABS journey=LOC VP-VENT-in -live-3SG.S/DO-NOM=ABS]=be:3N.S
'It was (the case) that Abūni was on a journey.' (AOAT 25 p. 445 2:6; L; 21)

This construction with a content clause as the nominal predicate of a copular clause is also found with independent forms of the copula:

(162) ***nu*-bar-*re nam-nu*-bar-*ra-na ba-ni*-ře$_6$-*a ì-me-a-ke$_4$-eš***
nu.bar=e nam.nu.bar=ane=ʔa Ø -ba -ni-n -ře$_6$ -Ø -ʔa =Ø
nubar =ERG *nubar*.hood =her =LOC VP-MM-in-3SG.A-bring-3N.S/DO-NOM=ABS

ʔi -me-Ø -ʔa =ak =eš
VP-be -3N.S-NOM=GEN=ADV
'because it is (the case) that the *nubar*-priestess carried it off in her position of *nubar*' (Studies Borger p. 73 AO 11276 29; ?; 21)

29.5. Adjuncts and other optional constituents

Every copular clause contains a subject (§29.3), a predicate (§29.4), and a form of the copula (§29.2). In addition it may contain one or more noun phrases or subordinate clauses with an adverbial function, which are optional parts of a copular clause. They precede or follow any noun phrase with subject function, which leads to the following template for the word order in a copular clause:

(optional parts) – (subject noun phrase) – (optional parts) – predicate – copula

The noun phrase with subject function is between brackets, because it, too, is optional: the copula alone suffices to express the subject (§29.3). Sometimes the normal order of subject and predicate is inverted (§29.4.2 and §29.4.3), so that in theory the following template should hold as well:

(optional parts) – predicate – (optional parts) – subject noun phrase – copula

However, I do not know any examples of copular clauses which have an inverted order of predicate and subject and which also contain adverbial expressions. Until such examples come available, the second template must remain hypothetical.

Mostly, the optional parts precede the subject and the predicate, but sometimes they follow the noun phrase expressing the subject:

(163) **u_4-*ba* *ì-ar-la-ga-an* / lugal *gu-ti-um-kam***
u_4.d=be =ʔa ì.ar.la.ga.an=Ø lugal gu.ti.um=ak =Ø =ʔam
day =this=LOC Iarlagan =ABS king Gutium =GEN=ABS=be:3SG.S
'At this time Iarlagan was the king of Gutium.' (RIM E2.11.12.1 9-10; U; 23)

(164) **u_4 *ba*-*zàḫ*-*dè*-*na*-*ĝá* / *šer*$_7$-*da* *ḫé*-*a***
u_4.d Ø -ba -zàḫ -ed -en -ʔa =ĝu=ʔa šer$_7$.da=Ø ḫa =ʔi -(me)-Ø
day VP-MM-run.away-IPFV-1SG.S:IPFV-NOM=my=LOC offence=ABS MOD=VP-be -3N.S
'On the day I run away, it will be an offence.' (BE 3/1:1 5-7; N; 21)

(165) ***a*-*ne*** **saĝ**-*ĝá*-*né*-*šè* **diĝir**-*ra*-*àm***
a.ne=Ø saĝ =ane=še diĝir=Ø =ʔam
he =ABS head=his =TERM god =ABS=be:3SG.S
'He was a god according to his head.' (Cyl A 4:16; L; 22)

(166) **á**-*né*-*šè* **anzu$_2$**$^{\text{mušen}}$-*dam***
á =ane=še anzu$_2$.d =Ø =ʔam
arm=his =TERM Anzu.bird=ABS=be:3SG.S
'According to his arms, he was the Anzu-bird.' (Cyl A 4:17; L; 22)

A copular clause may begin with a noun phrase in the directive case, which means something like 'as for' (§7.6.). E.g.:

(167) ^{ĝiš}**šu-dím**-*zu*-*ù* **muš-šà-tùr** *sim*-*dam* **ak šu**-*ba* **nú**-*me*-*èn***
šu.dím=zu =e muš.šà.tùr sim.dam=Ø ak -Ø
timber =your=DIR a.serpent sniff =ABS make-NFIN

šu =be=ʔa nú-Ø =Ø =me-en
hand=its=LOC lie-NFIN=ABS=be -2SG.S
'As for your timbers, you are a sniffing **muš-šà-tùr**-serpent, lying on its paws.' (Shulgi R 12; N; 21, OB copy)

29.6. Subordinate copular clauses

29.6.1. Introduction

Subordinate copular clauses resemble in many ways the non-copular subordinate clauses treated in chapter 27. They have similar forms: there are subordinate copular clauses with a subordinating conjunction and there are nominalized copular clauses, both with and without the nominalizing suffix {ʔa}. They also have similar uses, as relative clauses, complement clauses, and as adverbial clauses.

Yet, there are also two important differences. Firstly, all subordinate copular clauses are finite. Non-finite copular clauses do not seem to exist. The noun **me** 'essence, being' is generally thought to be cognate with the copula **me** 'be', but it is only used as a common noun, never as a verbal noun – it never occurs with a subject or predicate.

The second difference has to do with the nominalized clauses, where all finite verbal forms have the nominalizing suffix {ʔa}, except in a few frozen expressions (§27.3.5). The copula also has the suffix {ʔa} in nominalized clauses, but only consistently so in content clauses. In relative clauses the copula generally lacks the nominalizing suffix, whereas all other verbs use it there, too.

The following section will treat the subordinate copular clauses which are used as relative clauses. All of them are nominalized clauses and they nearly always lack the nominalizing suffix {ʔa} (§29.6.2). Next, we will deal with the complement clauses. They, too, are nominalized clauses, but depending on the kind of construction they either contain or lack the nominalizing suffix {ʔa} (§29.6.3). Finally, we will address the adverbial clauses and related constructions. They mostly involve nominalized clauses with the suffix {ʔa}, but copular clauses with a subordinating conjunction are attested as well (§29.6.4).

29.6.2. Relative clauses

Most subordinate copular clauses are relative clauses, but only a few of them have the same structure as the non-copular relative clauses treated in §27.4:

(168) **ki šuku-*a-né* / *nu-me-a***
ki šuku.ř =ane=Ø nu =ʔi -me-Ø -ʔa
place subsistence=his =ABS NEG=VP-be -3N.S-NOM
'a place which is not his subsistence plot' (TCS 1:50 6-7; L; 21)

(169) **ᵖ*iš-bi-èr-ra* numun ki-en-*ge-ra nu-me-a***
iš.bi.èr.ra numun ki.en.ge.r=ak =Ø nu =ʔi -me-Ø -ʔa =r(a)
Ishbi.Erra seed Sumer =GEN=ABS NEG=VP-be -3SG.S-NOM=DAT
'to Ishbi-Erra, who is not of Sumerian descent (lit. "who is not the seed of Sumer")' (ZA 49 p.61 19; OB)

Relative clauses like these two are construed in exactly the same way as other relative clauses (§27.4) and their analysis poses little problems. They are the exception, though. As a rule, copular relative clauses differ in two crucial ways from other relative clauses. Firstly, whereas other verbs show the nominalizing suffix {ʔa} when used in a relative clause, the copula consistently lacks it (Poebel 1923: §280). The negative forms of the copula, like the ones quoted above, are the only exception.

The second difference has to do with the use of clitics. Relative clauses are part of noun phrases and tend therefore to be followed by one or more phrase-final clitics: an enclitic pronoun, the plural marker {enē}, and/or some case marker (§5.2). Copular relative clauses, however, not only lack the nominalizing suffix {ʔa} but they also are never followed by a phrase-final clitic.

These two properties make it often difficult to recognize a copular relative clause as such, because it usually looks just like a copular main clause. The same set of enclitic forms of the copula is used in both types of clause, so that only the context can make clear whether we are dealing with a main or a subordinate copular clause. As a result, the grammatical structure is only unambiguous where a copular clause is preceded by a noun phrase which is clearly dependent on the verb that follows the copular clause.

Luckily for us, such clear-cut cases do exist. They are particularly common with numerals. If a numeral follows the counted noun, it is very often construed as the nominal predicate of a relative copular clause (§9.3.1). E.g.:

(170) **šà-*ba* iti diri 6-*àm* *ì*-ĝál**
šà.g =be=ʔa iti.d diri.g 6=Ø =ʔam ʔi-n(i)-ĝál -Ø
heart=its=LOC month extra 6=ABS=be:3N.S VP-in -be.there-3N.S/DO
'In this, there are six intercalary months. (Lit. "In its heart there are extra months which are six in number.")' (TRU 2 12; D; 21)

(171) **ki *nam*-erim$_2$-*šè* / u$_4$ 3-*àm* / *nu-um-e-re-eš***
ki nam.erim$_2$=ak =še u$_4$,d 3=Ø =ʔam nu =ʔi-m(u) -ʔer -eš
place oath =GEN=TERM day 3=ABS=be:3N.S NEG=VP-VENT-go:PLUR-3PL.S/DO
'For three days (lit. "days which are three in number"), they did not come to the place of the oath.' (NG 209 56-58; N; 21)

(172) **lú dam *ù*-taka$_4$ / kù giĝ$_4$ 5-*am*$_6$ / ensi$_2$-*ke*$_4$ / *ba*-ře$_6$**
lú =e dam=Ø ʔu -n -taka$_4$-Ø kù.g giĝ$_4$ 5=Ø =ʔam
man=ERG wife=ABS REL.PAST-3SG.A-leave-3N.S/DO silver shekel 5=ABS=be:3N.S

ensi$_2$.k=e Ø -ba -n -ře$_6$ -Ø
ruler =ERG VP-MM-3SG.A-bring-3N.S/DO
'When someone divorced his wife, the ruler took five shekels of silver for himself. (Lit. "shekels which are five in number")' (Ukg. 6 2:15'-18'; L; 24)

Clear-cut cases such as these allow us to analyse more ambiguous examples in the same way, as relative and not as main clauses:

(173) **ĝuruš 2-*me* / addir$_x$**(PAD.BI.GIŠ.SI) ***a-bul*$_5$-*la* / *ì*-tuku-*am*$_6$**
ĝuruš 2=Ø =me-eš addir a.bul$_5$.la=ak =Ø
young.man 2=ABS=be -3PL.S toll city.gate=GEN=ABS

ʔi -b -tuku-Ø =Ø =ʔam
VP-3N.A-have-3N.S.DO=ABS=be:3N.S
'It was (the case) that two men had the toll of the city gate.' (NOT: 'The men were two in number; it was the case that they had the toll of the city gate.') (Ukg. 4 7:2-4; L; 24)

(174) **lú ḫuĝ-*ĝá* é-gal 16-*àm* / *a-šà* lugal-gu$_4$-*e-ka* al *íb-ba***
lú ḫuĝ-Ø -ʔa é.gal =ak 16=Ø =ʔam
man hire-NFIN-NOM palace=GEN 16=ABS=be:3N.S

a.šà.g lugal.gu$_4$.e=ak =ʔa al =Ø ʔi -b -ʔak -Ø
field Lugalgue =GEN=LOC hoe=ABS VP-3N.A-make-3N.S/DO
'Sixteen hirelings of the palace did hoe-work on Lugalgue's field.' (NOT: The hirelings of the palace were sixteen in number; they did hoe-work on Lugalgue's field.') (JCS 52 p. 53:92 20-21; U; 21)

Relative copular clauses are also found with other predicates than numerals.

(175) **du$_{11}$-*ga*-^{d}*ba-ú-šè* / ur-^{d}[šu]l-utul$_x$-*ke*$_4$ / kù níĝ-*ga-né-em in-ši-in*-lá-*a***
du$_{11}$.ga.ba.ú=še ur.šul.utul$_x$.k=e kù.g níĝ.ga.r =ane=Ø =(ʔa)m
Duga.Bau =TERM Ur.Shutul =ERG silver property=his =ABS=be:3N.S

ʔi -n -ši-n -lá -Ø -ʔa
VP-3SG-to-3SG.A-weigh-3N.S/DO-NOM
'that Ur-Shulutul had paid silver for Duga-Bau which was his property' (NG 210 4:4-6; L; 21)

(176) **é-ninnu me-*bé* gal-gal-*la-àm* / igi *mu-na-ni*-ĝar**
é.ninnu me =be=Ø gal-gal=ʔam igi =Ø
Eninnu being=its=ABS big-big=be:3N.S eye=ABS

Ø -mu -nna -ni-n -ĝar -Ø
VP-VENT-3SG.IO-in-3SG.A-place-3N.S/DO
'He showed him (lit. "place for him the eye in") an Eninnu whose qualities were great.' (Cyl A 1:20-21; L; 22)

(177) **lú é lugal-*na* řú-*dam* / ensi$_2$-*ra***
lú é lugal=ane=ak =Ø řú -ed-Ø =ʔam ensi$_2$.k=ra
man house king =his =GEN=ABS erect-PF-NFIN=be:3SG.S ruler =DAT
'to the man building his master's temple, (to) the ruler' (Cyl A 16:18-19; L; 22)

(178) **1 saĝ-nita / kù ⅓^{ša} *ma-na-kam* / *mu*-ře$_6$**
1 saĝ.nita kù.g ⅓ ma.na =ak =ʔam Ø -mu -n -ře$_6$ -Ø
1 male.slave silver ⅓ pound=GEN=3SG.S VP-VENT-3SG.A-bring-3SG.S/DO
'He brought one male slave for one-third of a pound of silver (lit."which was of one-third of a pound of silver").' (Nik 1:293 2:7-3:2; L; 24)

All the preceding attestations of copular relative clauses had an explicit head noun, but just like non-copular relative clauses (§27.4.2), they may also lack a head noun:

(179) **lú-*bé-ne* lul-*àm ra-an-eš***
lú =be=enē=e lul =ʔam Ø -ra -n -e -eš
man=its=PL =ERG false=be:3SG.N VP-2SG.IO-3SG.A-say:PLUR-3PL.S/DO
'These men spoke lies (lit. "what is false") to you.' (JCS 54 p. 10:70 rev. 7; U; 21)

(180) **[^{d}e]n-líl-*l*[*a*] / [e]n-šà-kúš-an-*na*-<*ke$_4$*> / níĝ-*ga* kiš^{ki} / ḫulu-*a-kam* / a *mu-na*-r[u]**
en.líl=ra en.šà.kúš.an.na.k=e níĝ.ga.r kiš ḫulu -Ø -ʔa =ak =Ø =ʔam
Enlil =DAT Enshakushanna =ERG property Kish destroy-NFIN-NOM=GEN=ABS=be:3N.S

a =Ø Ø -mu -nna -n -ru -Ø
water=ABS VP-VENT-3SG.IO-3SG.A-eject-3N.S/DO
'To Enlil, Enshakushanna dedicated (lit. "ejected water at") what was the property of the defeated town Kish.' (FAOS 5/2 Enšak. 2 1-5; N; 24, OB copy)

(181) ***ab-ba*-kal-*la* / ur-mes-*ra* / zi lugal / *ĝe$_{26}$-e-me* / *ḫa-na*-šúm**
ab.ba.kal.la=Ø ur.mes=ra zi lugal=ak
Abbakalla =ABS Urmes=DAT life king =GEN

ĝe$_{26}$=Ø =me-en ḫa =ʔi -nna -ʔ -šúm-Ø
I =ABS=be -1SG.S MOD=VP-3SG.IO-1SG.A-give-3N.S/DO
'By the king's life, I, myself, (lit. "(I) who is me") gave Abbakalla to Urmes.' (TCS 1:81 3-7; L; 21)

Such headless copular relative clauses are commonly used as highlighting constructions (see §29.7 below).

Headless copular relative clauses can be used as appositions after a noun. The case marker expressing the case of both noun and apposition is then placed after the noun:

(182) **ur-saĝ-*e* me-*né* gal-gal-*la-àm* / šu *ma-ra-ni-íb*-mú-mú**

ur.saĝ=e me =ane=Ø gal-gal=ʔam
warrior=ERG being=his=ABS big-big=be:3SG.S

šu =Ø Ø -mu -ra -ni-b -mú:RDP -e
hand=ABS VP-VENT-2SG.IO-in-3N.DO-grow:IPFV-3SG.A:IPFV
'The warrior, he whose qualities are great, will let it grow for you (lit. "will let the hand grow in it for you").' (Cyl A 7:7-8; L; 22)

(183) **na$_4$-šu-min-*e* u$_4$-*da-àm* šeg$_{12}$ *mu-na-ab*-gi$_4$**
na$_4$.šu.min =e u$_4$.d =Ø =ʔam šeg$_{12}$ =Ø
two.hand.stone=ERG storm=ABS=be:3N.S shriek=ABS

Ø -mu -nna -b -gi$_4$ -Ø
VP-VENT-3SG.IO-3N.A-turn-3N.S/DO
'The two-hand stone thundered for him like a storm.' (Lit. "The two-hand stone, the one which was (like) a storm, thundered for him.") (Cyl A 16:31; L; 22)

(184) **šà ^{d}en-líl-*lá-ke$_4$* íd idigna-*àm* a du$_{10}$-*ga nam*-ře$_6$**
šà.g en.líl=ak =e íd idigna=Ø =ʔam
heart Enlil =GEN=ERG river Tigris =ABS=be:3N.S

a du$_{10}$.g -Ø -ʔa =Ø na -m(u) -ře$_6$ -Ø
water be.sweet-NFIN-NOM=ABS PFM-VENT-bring-3N.S/DO
'Enlil's heart, that which was (like) the river Tigris, brought sweet water.' (Cyl A 1:9; L; 22)

(185) **šà lugal-*na* u$_4$-*dam mu*-è**
šà.g lugal=ane=ak =Ø u$_4$.d=Ø =ʔam Ø -mu -n -ʔè -Ø
heart king =his =GEN=ABS day =ABS=be:3N.S VP-VENT-3SG.A-go.out-3N.S/DO
'He brought out his master's intention like a light (lit. "his master's heart, what was (like) a light").' (Cyl A 19:28; L; 22)

Note that appositions are always in the same case as their head nouns, but normally the case marker is placed after the apposition, not after the head noun (§5.3).

Finally a construction must be mentioned which shows some unique features and which remains therefore somewhat obscure in its details. It seems to involve a headless relative copular clause with the interrogative pronoun ***a-ba*** 'who' meaning 'whoever' (§8.5):

(186) ***a-ba-me-a nu a-ba-me-a-né***
a.ba=Ø ʔi -me-Ø -ʔa nu a.ba=Ø ʔi-me-Ø -ʔa =ane
who=ABS VP-be -3SG.S-NOM NEG who=ABS VP-be -3SG.S-NOM=her
'whoever she may be (lit. "whoever she is not, whoever she is")' (Cyl A 4:23; L; 22)

Note that the position of the negation is here unusual – one would expect a form ***nu-me-a***. A related construction with the pronoun ***a-na*** 'what' meaning 'whatever' occurs in later texts:

(187) ***a-na-me-a-bé***
a.na =Ø ʔi -me-Ø -ʔa =be
what=ABS VP-be -3SG.S-NOM=its
'whatever it may be' (e.g., BE 6/2:24 18; N; OB)

The analysis given here is basically the traditional one (Poebel 1923: §264; Falkenstein 1949: 181). For a different analysis see Edzard (1972: 16), who takes ***me-a-né*** and ***me-a-bé*** as non-finite forms and as instances of the pronominal conjugation.

29.6.3. Complement clauses

Subordinate copular clauses with the nominalizing suffix {ʔa} can be used as complement clauses (§27.5.1). They occur, for instance, as anticipatory genitives construed with ***nam-*** **erim$_2$** 'oath' or with **mu lugal** '(oath by) the king's name' (cf. §27.5.3):

(188) **esir$_2$ eren$_2$-*na ì-me-a* / PN ugula *nam*-erim$_2$-*bé* ku$_5$-*dam***
[esir$_2$ eren$_2$=ak =Ø ʔi -me-Ø -ʔa =ak PN ugula =e
[bitumen troops=GEN=ABS VP-be -3N.S-NOM=GEN PN foreman=ERG

nam.erim$_2$=be =Ø ku$_5$.r-ed -Ø]=ʔam
oath =its=ABS cut -IPFV-NFIN]=be:3N.S
'About (lit. "of") that it is bitumen of the troops – this is to be taken an oath about by PN the foreman.' (NG 214 58-59; U; 21)

(189) **(...) *šer$_7$-da ì-me-a* / mu lugal-*bé in*-pà**
šer$_7$.da =Ø ʔi -me-Ø -ʔa =ak mu lugal=ak =be=Ø ʔi -n -pà.d-Ø
offence=ABS VP-be -3N.S-NOM=GEN name king =GEN=its=ABS VP-3SG.A-find -3N.S/DO
'He took an oath by the king's name that it would be an offence (if ...).' (MVN 2:1 12-13; L; 21)

They are also attested as nominal predicates in a copular clause (cf. §29.4.9 above):

(190) **$^{\text{p}}$làl-*la-gu-la* dumu *e-la* gudu$_4$ *nu-mu*-kuš *ì-me-àm***
làl.la.gu.la dumu e.la gudu$_4$.g=ak =Ø
Lallagula child Ela priest =GEN=ABS

nu.mu.kuš=Ø ʔi -me-Ø -ʔa =Ø =ʔam
widow =ABS VP-be -3SG.S-NOM=ABS=be:3N.S
'It was (the case) that Lallagula, the daughter of the priest Ela, was a widow.' (NG 6 2; L; 21)

(191) **lú-$^{\text{d}}$li$_9$-si$_4$ lú-*ge-na-ab-tum-bé ì-me-àm***
lú.li$_9$.si$_4$=Ø lú.ge.na.ab.tum=be=Ø ʔi -me-Ø -ʔa =Ø =ʔam
Lu.Lisi =ABS guarantor =its=ABS VP-be -3SG.S-NOM=ABS=be:3N.S
'It was (the case) that Lu-Lisi was its guarantor.' (NG 70 9'; L; 21)

29.6.4. Adverbial clauses

Most subordinate copular clauses with the nominalizing suffix {ʔa} are used as adverbial clauses and related constructions. The most common among them are the temporal clauses in the locative case, for which several different constructions are attested (see §27.6.2 for details):

(192) **saĝĝa *e-me-a***
saĝĝa =Ø ʔi -me-Ø -ʔa =ʔa
administrator=ABS VP-be -3SG.S-NOM=LOC
'when he was administrator' (CT 50:26 3:6; L; 24)

(193) **u_4 tu-*ra ì-me-a***
u_4.d tu.r-Ø -ʔa ʔi -me-Ø -ʔa =ʔa
day be.ill-NFIN-NOM VP-be -3SG.S-NOM=LOC
'on the day when he was ill' (PDT 2:1171 rev 2; D; 21)

Note that between a vowel and the locative case marker {ʔa}, the nominalizing suffix {ʔa} contracts with either the preceding vowel or the case marker (§27.3.3). With the copula, only once an explicit spelling of both elements is found: ***e-me-a-a*** 'when he was' (VS 14:48 4:4; L; 24).

One construction with a temporal clause has become lexicalised: the form ***nu-me-a*** with a nominal predicate in the comitative case means 'without (the permission of)' (lit. "when it is/was not together with"):

(194) **tukum-*bé* ur-^{d}nuska-*da* / *nu-me-a* iri-*ta ba-ta*-è**
tukum.be ur.nuska.k=da nu =ʔi -me-Ø -ʔa =ʔa
if Ur.Nuska =COM NEG=VP-be-3N.S-NOM=LOC

iri =ta Ø -ba -ta -ʔè -en
town=ABL VP-MM-from-go.out-1SG.S/DO
'if I leave town without permission of Ur-Nuska' (NATN 368 3-4; N; 21)

Further examples of this construction occur in proper names like ^{d}***ba-ú-da-nu-me-a*** 'without (the goddess) Bau' (e.g. NG 68 2; L; 21), **lugal-*da-nu-me-a*** 'without the king' (e.g. DP 113 12:5; L; 24), and so on.

Subordinate copular clauses with the nominalizing suffix {ʔa} are also frequently found in reason clauses and related constructions (see §27.6.5 for a detailed discussion):

(195) **ur-saĝ ug_5-*ga ì-me-ša-ke$_4$-éš***
ur.saĝ ug_5 -Ø -ʔa =Ø ʔi -me-eš -ʔa =ak =eš
warrior die:PLUR-NFIN-NOM=ABS VP-be -3PL.S-NOM=GEN=ADV
'because they were killed heroes' (Cyl A 26:15; L; 22)

(196) **mu tu-*ra ì-me-a-šè***
mu tu.r -Ø -ʔa ʔi-me-Ø -ʔa =ak =še
name be.ill-NFIN-NOM VP-be -3SG.S-NOM=GEN=TERM
'because he was ill' (TCTI 2:3342 10; L; 21)

(197) **mu *nu-ma*-kuš *ì-me-a-šè***
mu nu.ma.kuš=Ø ʔi -me-Ø -ʔa =ak =še
name widow =ABS VP-be -3SG.S-NOM=GEN=TERM
'because she is a widow' (MVN 17:129 6; L; 21)

Once a subordinate copular clause with the nominalizing suffix {ʔa} occurs with the formal element ***-na-an-na***, which has been discussed in §7.1. See there for details:

(198) **dub-lá-maḫ / (...) / *ì-me-a-na-an-na* / é-*bé nu*-řú-*àm***
dub.lá.maḫ (...) ʔi -me-Ø -ʔa =nanna é =be =Ø nu =řú -Ø =ʔam
Dublamah (...) VP-be -3N.S-NOM=apart.from house=this=ABS NEG=erect-NFIN=be:3N.S
'the Dublamah – this temple was unbuilt, apart from that it had been (a ... since time immemorial)' (FAOS 9/2 Amarsuen 12 3-8; Ur; 21)

Subordinate copular clauses with a subordinating conjunction are rare but possible, as the following conditional clause with **tukum-*bé*** 'if' (cf. §27.6.6) shows:

(199) **geme$_2$-^{d}dumu-zi-*da* / tukum-*bé* / geme$_2$ *ba-la-la-kam* / šu *ḫé-na*-bar-*re***
geme$_2$.dumu.zi.da.k=Ø tukum.be geme$_2$ ba.la.la=ak =Ø =ʔam
Geme.Dumuzida =ABS if slave.woman Balala =GEN=ABS=be:3SG.S

šu =Ø ḫa =ʔi -nna -n -bar -e
hand=ABS MOD=VP-3SG.IO-3SG.OO-open-3SG.A:IPFV
'If Geme-Dumuzida is the slave woman of Balala, he should release her to him (lit. "should open the hand on her for him.")' (AuOr 17/18 p. 228:40 5-8; L; 21)

29.7. The copula in highlighting constructions

In many languages, the copula is used in highlighting constructions. English has, for instance, the following two structures, usually called 'cleft' (a) and 'pseudo-cleft' (b):

(a) *It was the temple of Ningirsu that Gudea built.*
(b) *What Gudea built was the temple of Ningirsu.*

Both constructions highlight the phrase *the temple of Ningirsu*, both consist of a superordinate copular clause, and both contain a subordinate relative clause: (a) *that Gudea built* and (b) *what Gudea built*. Constructions like these are attested in many different and unrelated languages (Harris and Campbell 1995: 151-168).

In Sumerian, the copula is also involved in various highlighting constructions, but their general make-up and historical origin differ from those of the English clefts. One Sumerian construction was already identified by Poebel (1932: 4-6, 1923: §194). He observed that Sumerian independent pronouns cannot be followed by an apposition (§8.2) and that headless copular relative clauses (see §29.6.2 above) are used instead. This construction can also be used as a highlighting construction. E.g.:

(200) **lugal-ezem-*àm* / *ma-an*-šúm**
lugal.ezem=Ø =ʔam Ø -ma -n -šúm-Ø
Lugalezem =ABS=be:3SG.S VP-1SG.IO-3SG.A-give-3N.S/DO
'(Anamu is accused of stealing sheep. He says:) He, Lugalezem, gave them to me. (Lit. "He who is L.")' (NG 127 4-5; U; 21)

(201) ***ab-ba*-kal-*la* / ur-mes-*ra* / zi lugal / *ĝe$_{26}$-e-me* / *ḫa-na*-šúm**
ab.ba.kal.la=Ø ur.mes=ra zi lugal=ak
Abbakalla =ABS Urmes=DAT life king =GEN

ĝe$_{26}$=Ø =me-en ḫa =ʔi -nna -ʔ -šúm-Ø
I =ABS=be -1SG.S MOD=VP-3SG.IO-1SG.A-give-3N.S/DO
'By the king's life, I, myself, gave Abbakalla to Urmes. (Lit. "(I) who is me")' (TCS 1:81 3-7; L; 21)

(202) ***ù ḫa-la-*^{d}*ba-ú-kam* / é-*bé in*-sa$_{10}$-*a***
ù ḫa.la.ba.ú.k=Ø =ʔam é =be =Ø ʔi-n -sa$_{10}$ -Ø -ʔa
and Hala.Bau =ABS=be:3SG.S house=this=ABS VP-3SG.A-barter-3N.S/DO-NOM
'and that she, Hala-Bau, had bought this house (lit. "she who is H.")' (NG 106 10-11; L; 21)

Thus, this construction involves a superordinate clause which contains one noun phrase consisting of a headless relative copular clause. Although that noun phrase is usually the first noun phrase of the superordinate clause, it does not have to be in sentence-initial position. The

subject of the copular clause refers to the same person or thing as its nominal predicate. It is the nominal predicate that is highlighted.

A second highlighting construction involving the copula is made up from a sequence of two main clauses, the first of which is a copular clause with an interrogative pronoun as its predicate. Our corpus contains only examples with ***a-na-aš*** 'why' (lit. 'for what'), but that may be due to chance. Later texts provide numerous examples with other interrogative pronouns. E.g.:

(203) ***a-na-aš-àm* / dumu-dumu-*e-ne-ke$_4$-eš* / inim sig-*ĝu$_{10}$ íb-bé***
a.na =še =ʔam dumu-dumu=enē=ak =eš
what=TERM=be:3N.S child -child =PL =GEN=ADV

inim sig =ĝu =Ø ʔi -b -ʔe -e
word weak=my=ABS VP-3N.OO-say:IPFV-3SG.A:IPFV
'Why is it he slanders me regarding the children?' (MVN 11:168 3-5; U; 21)

(204) ***a-na-aš-àm* / *nu-ù-na*-šúm**
a.na =š(e) =ʔam nu =ʔi -nna -n -šúm-Ø
what=TERM=be:3N.S NEG=VP-3SG.IO-3SG.A-give-3N.S/DO
'Why is it he did not give it to him?' (AuOr 17/18 p. 222:15 7-8; L; 21)

Note that the normal position of an interrogative pronoun is before the verb. Only when used in this construction with the copula, the pronoun comes in clause-initial position (§8.5). The subject of the copular clause refers here to the entire following clause. Again, it is the nominal predicate that is highlighted.

A third highlighting construction involves a copular clause with a content clause as its nominal predicate. Here, too, it is the nominal predicate that is highlighted: in this case an entire clause. E.g.:

(205) **kù-*ĝu$_{10}$* 4 *ma-na* mu 1-*àm* ki-*za ì*-ĝál-*àm***
kù.g =ĝu 4 ma.na=Ø mu 1=Ø =ʔam ki =zu =ʔa
silver=my 4 pound=ABS year 1=ABS=be:3N.S place=your=LOC

ʔi -b(i) -ĝál -Ø -ʔa =ʔam
VP-3N:on-be.there-3N.S/DO-NOM=be:3N.S
'It is (the case) that my silver, four pounds, has been at (lit. "on") your place for one year (lit. "for years which are one in number").' (ZA 53 p. 68:9 1:4'; L; 21)

See §29.4.8 above for further examples and a more detailed discussion.

The three highlighting constructions discussed so far are biclausal structures. Each of them involves two clauses, one of which a copular clause. However, there is yet one more construction where specifically the enclitic form /ʔam/ is used to draw attention to a linguistic unit. This construction is attested from the Ur III period onwards and involves attaching /ʔam/ to a noun phrase in order to emphasize it. E.g.:

(206) **tukum-*bé* eger$_5$ *ab-ba-na-ta-àm* / *lú-ša-lim-e* saĝ šuku-*ra ba-ra-an*-kid$_7$**
tukum.be eger$_5$ ab.ba =ane=ak =ta =ʔam lú.ša.lim=e
if back father=his =GEN=ABL=be:3N.S Lū.šalim=ERG

saĝ šuku.r =ak =Ø ba -ta -n -kid$_7$ -Ø
head subsistence=GEN=ABS MM-from-3SG.A-pinch-3N.S/DO
'If, after his father's death, Lū-šalim pinched off the best part of the subsistence field, Lū-šalim is at fault.' (NG 215 11-12; U; 21)

(207) **níĝ-tuku** ***ab-ba-ĝá-šè-àm*** **šu** ***ba-an-ti-a***
níĝ.tuku ab.ba=ĝu =ak =še =ʔam šu =e
property father=my=GEN=TERM=be:3N.S hand=DIR

Ø -ba -n -ti -Ø -ʔa =ak
VP-3N.IO-3SG.A-approach-3N.S/DO-NOM=GEN
'about that she received it as property of my father' (Studies Pettinato p. 183 BM 23678 rev 9; L; 21)

(208) **ur-^{d}lama$_3$-*ke$_4$* / ses-kal-*la* urdu$_2$ / ki ur-^{d}kuš$_7$-^{d}*ba-ú-ka-àm* *ì*-dú-*da***
ur.lama$_3$.k=e ses.kal.la urdu$_2$.d=Ø
Ur.Lama =ERG Seskalla slave =ABS

ki ur.kuš$_7$.ba.ú =ak =ʔa =ʔam ʔi -n -dú.d -Ø -ʔa
place Ur.Kush.Bau=GEN=LOC=be:3N.S VP-3SG.A-give.birth.to-3SG.S/DO-NOM
'that Ur-Lama had begotten Seskalla, the slave, at Ur-Kush-Bau's place' (NG 32 10-12; L; 21)

30. NOMINAL CLAUSES

30.1. Introduction

Most Sumerian clauses with a nominal or adjectival predicate contain a form of the copula and are therefore copular clauses. They were the topic of the preceding chapter. But Sumerian also has nominal clauses, which are also clauses with a nominal or adjectival predicate but which lack a copula. Their use is limited to a few very specific and clearly definable environments, where the division of labour between copular and nominal clauses is different from elsewhere:

1. In proper nouns, the copula is only used when the clause lacks a subject noun phrase. Every other clause is a nominal clause (§30.2).
2. Interrogative clauses with a subject of the third person are always nominal clauses (§30.3).
3. The paradigm of the copula lacks certain forms with the negative proclitic {nu}, viz. those with a meaning 'he/she/it is/was not'. Nominal clauses are used instead (§30.4).
4. Some fixed expressions involve nominal clauses (§30.5).

The use of nominal clauses seems to be limited to conservative environments, with the proper nouns as the most obvious example. It suggests that the attested use of the copula is the result of an expansion of copular clauses at the expense of nominal ones, whereby the operation of the earlier rules became more and more restricted. In all likelihood, the rules that apply to proper nouns and interrogative clauses were much more widely operative in earlier stages of Sumerian.

30.2. Proper nouns

Generally speaking, Sumerian clauses with a nominal or adjectival predicate always contain a form of the copula ***me*** 'be', whether the subject is expressed as a noun phrase or not (§29.3). In proper nouns, however, the copula is only used if the clause lacks a subject noun phrase. Or to put it differently: the copula is only used to express what in English is a pronominal subject. This rule is fully productive within the internal grammatical structure of proper nouns and has already been treated in §6.8.3. Here a simple illustration will suffice. Thus, a clause lacks the copula if it contains a noun phrase functioning as its subject:

(1) **^{d}*ba-ú*-ama-*ĝu$_{10}$***
ba.ú=Ø ama =ĝu=Ø
Bau =ABS mother=my=ABS
'Bau is my mother.' (CTNMC 54 7:27'; L; 21)

(2) **lugal-kù-zu**
lugal=Ø kù.g =Ø zu -Ø
king =ABS pureness=ABS know-NFIN
'The king is wise (lit. "is purely knowing").' (BIN 3:227 3; D; 21)

And the clause contains a copula if it lacks a noun phrase functioning as its subject:

(3) **eš-*àm***
eš =Ø =ʔam
three=ABS=be:3SG.S
'He is (number) three.' (HSS 4:3 11:15; L; 21)

As proper nouns are conservative, their usage of the copula is probably an archaism, a rule which belongs to an older stage of Sumerian. Nominal clauses were probably far more common in prehistoric Sumerian.

30.3. Interrogative clauses

As a rule, interrogative clauses with a nominal or adjectival predicate do not contain a copula linking the subject and the predicate. In this, interrogative clauses differ from declarative clauses, something nicely illustrated by a piece of dialogue known from Old Babylonian sources:

(4) ***a-ba-àm*** **mu-*zu* / *nam*-zi-tar-*ra*** **mu-*ĝu*$_{10}$-*um***
a.ba=Ø =ʔam mu =zu =Ø nam.zi.tar.ra=Ø mu =ĝu =Ø =(ʔa)m
who=ABS=be:3N.S name=your=ABS Namzitarra =ABS name=my=ABS=be:3N.S
'What (lit. "who") is your name? – Namzitarra is my name.' (ENam 23-24; OB)

Here the question consists of a nominal clause and the answer of a copular clause. (For the copula after ***a-ba***, see §29.7.) Such interrogative nominal clauses are also attested in our corpus:

(5) ***a-ba*** **ses-*ĝu*$_{10}$-*gen*$_7$**
a.ba=Ø ses =ĝu =gen
who=ABS brother=my=EQU
'Who is like my brother?' (e.g., TCS 1:346 5; D; 21)

Later texts provide examples with the question word ***me-a*** 'where?':

(6) ***mar-za-ĝu*$_{10}$** ***me-a***
mar.za =ĝu=Ø me =ʔa
function=my=ABS where=LOC
'Where are my functions?' (EWO 423; OB)

Similar nominal clauses with ***me-a*** are found in other literary texts known from Old Babylonian sources: IE tablet I, lines 19-33 and NinTu UET 6/1:2 53.

Nominal clauses are not limited to interrogative clauses with question words, but are also the norm for yes/no questions. One example, again from an Old Babylonian source, has already been discussed in §8.5, but it is useful to repeat it here:

(7) **urdu$_2$ lú-*še* lugal-*zu*-*ù***
urdu$_2$.d lú =še =Ø lugal =zu =Ø
slave man=that=ABS master=your=ABS
'Slave! Is that man your master?' (GA 69; OB)

A further expression involving a nominal clause is illustrated by the following two examples:

(8) **lugal-*za*** **du$_{11}$-*ga*-*né*** ***nam*-*ĝu*$_{10}$**
lugal=zu =ak du$_{11}$.g-Ø -ʔa =ane=Ø nam=ĝu=Ø
king =your=GEN say -NFIN-NOM=his=ABS ? =my=ABS
'What is it to me what your king has said? (lit. "Of your king, is his what-was-said my **nam**?")' (ELA 178; OB)

(9) **du$_{11}$-*ga*-*me*** ***nam*-*me***

du$_{11}$.g-Ø -ʔa =mē =Ø nam=mē=Ø
say -NFIN-NOM=our=ABS ʔ =our=ABS
'What is it to us what we have said? (lit. "Is our what-was-said our ***nam***?")' (LSU 397 manuscript QQ; OB)

Although the general meaning of this construction has long been known,[1] its precise analysis is a different matter. The noun ***nam*** may be the same word as the noun ***nam*** 'status, fate'. As is clear from a comparison of the two examples, it is followed by a possessive pronoun referring to the speaker(s).

All the preceding attestations have a subject of the third person. Does the use of nominal clauses instead of copular clauses also extend to interrogative clauses with a first or second person subject? Probably not or, at least, to a far lesser extent. That much is clear from an example like the following:

(10) ***ĝe$_{26}$-e a-na-me-en***
ĝe$_{26}$=Ø a.na=Ø =me-en
I =ABS what=ABS=be-1SG.S
'What am I?' (Inanna B 92; OB manuscript)

30.4. Negative declarative clauses

A third type of nominal clause occurs with the negation ***nu*** 'not'. There are many forms of the copula with the preformative {nu}, but it lacks a simple third person declarative form ****nu-me*** or ****nu-um*** 'he/she/it is not', even though such forms are well-attested with other preformatives: ***ba-ra-me*** 'he should not be', ***nam-me*** 'he must not be', and ***ḫé-em*** 'may he be' (§29.2.2). Instead, we find simply ***nu*** 'not', without copula. E.g.:

(11) **mu-*bé* / lú-*a nu***
mu =be=Ø lú =ak =Ø nu
name=its=ABS person=GEN=ABS NEG
'Its name is not that of a person.' (Ean. 1 rev 10:24-25; L; 25)

(12) ***ù* uruda *nu ù* nagga *nu* / zabar *nu***
ù uruda=Ø nu ù nagga=Ø nu zabar =Ø nu
also copper=ABS NEG also tin =ABS NEG bronze=ABS NEG
'It (= a statue) is neither (of) copper, nor is it (of) tin, nor is it (of) bronze.' (St B 7:51-52; L; 22)

By contrast, the positive counterpart of the previous example is a copular instead of a nominal clause:

(13) **^{na4}esi-*àm***
esi =Ø =ʔam
diorite=ABS=be:3N.S
'It (= a statue) is (of) diorite.' (St B 7:54; L; 22)

The final example of a nominal clause with ***nu*** 'not' involves a more complex construction, which also includes an enclitic possessive pronoun attached to the negation:

(14) **ĝiskim-*ĝu$_{10}$* *nu-ĝu$_{10}$***

[1] See Hallo and van Dijk (1968: 86) with earlier literature.

ĝiskim=ĝu =Ø nu =ĝu
sign =my=ABS NEG=my
'I am without a sign. (lit. "My sign is not mine.")' (Cyl A 8:19; L; 22)

30.5. Other nominal clauses

The previous sections covered three clearly demarcated types of nominal clauses but do not exhaust the full range of possibilities. Unfortunately, a more comprehensive overview is not possible at this time. For that far more research into Sumerian nominal clauses is needed than can be done within the framework of the present grammar.

Nevertheless, there is at least one more fixed expression which involves a nominal clause. Consider the following year name:

(15) **mu amar-^{d}suen lugal-*àm***
mu amar.suen=Ø lugal=Ø =ʔam
year Amarsuen =ABS king =ABS=be:3SG.S
'The year: Amarsuen is king.' (e.g., NRVN 1:113 15; N; 21)

This is a variant of the standard year name for the first regnal year of a king. However, the *form* of this particular example is unusual, because it contains a copula. Normally – and this is true of many hundreds of attestations – the formula runs like **mu amar-^{d}suen lugal** (e.g., SNAT 74 8; L; 21), without the copula: a clear example of a nominal clause. That it really is a nominal clause and not some phrase is obvious from the rare variant with a copula as well as from the fact that all other contemporary year names are clauses too.

31. THE NOMINALIZING SUFFIX {ʔa}

31.1. Introduction

The nominalizing suffix {ʔa} is found in several different grammatical categories: with the cardinals /min/ 'two' and /eš/ 'three' (§9.3.1), in past participles (§28.3), in the pronominal conjugation (§28.6), and in nominalized clauses (§27.3), including some with the copula (§29.6). In addition, the suffix has some special uses with de-adjectival verbs (§10.5.3).

Although all such forms contain a suffix {ʔa}, it is not obvious that we are dealing with one and the same morpheme in each instance. In actual fact, Poebel (1923) seems to have been the only one to link all of them explicitly. In his view, the suffix of the non-finite verbal forms is identical to the one found in nominalized clauses (Poebel 1923: §693) and it is presumably identical to the suffix of the cardinals (Poebel 1923: §294).

Other grammarians, however, posit two or three different suffixes. Most do not discuss the suffix of the cardinals at all, which probably means that they do not see a connection between this type of form and the nominalizing suffix. Yet, the only one to state this explicitly is Krecher (1993d: 95 note 46). Keeping apart the suffix in the cardinals, he tentatively brings together all other forms under the single heading of his 'suffix of determination -/a/' (Krecher 1978b, 1993d). Others do not discuss the cardinal suffix but similarly take all other forms together. Thomsen (1984: §483), for instance, does so under the heading 'subordination suffix /-a/', while Foxvog (2008) works with a 'nominalizing suffix -a'. Thus, several grammarians explicitly or implicitly posit two suffixes, one for the cardinals and one for all other forms. They only have different views on the primary function of the latter suffix, something reflected by the labels they use.

Neither Edzard nor Attinger discuss the cardinal suffix, but they subdivide the other forms over two or three suffixes. Edzard (2003: 74, 137, 150-151) distinguishes between a 'nominalizer [a]', used with finite verbal forms, a 'particle [a]', found in what I call the past participle, and 'an additional [a]' in what I call the imperfective forms of the pronominal conjugation. Attinger (1993: 201, 300) makes more or less the same distinction, positing an '{a} aspectuel' for the past participle and an '{a} nominalisant' for both the finite verbal forms and the imperfective forms of the pronominal conjugation. In contrast with Edzard, he explicitly accepts that the two are historically the same morpheme.

Clearly, we cannot take for granted that all forms under discussion really are instances of a single suffix. Such an analysis needs to be justified and this is what the present chapter aims to do. In order to prove that all attestations of the nominalizing suffix involve the same morpheme we have to show that they involve the same form with the same meaning. This chapter will try do so in three steps. The next section (§31.2) will show that the forms and spellings of the suffix are the same in each case. Section §31.3 will then briefly describe the uses of the nominalizing suffix in each type of form, showing the family resemblances between them. The final section (§31.4) will summarize the evidence linking the various attestations of the suffix. It will also speculate a little on its possible origin.

31.2. Forms and spellings

As noted by Krecher (1993d: 87), the locative case marker {ʔa} (§7.7.1) is written just like the nominalizing suffix {ʔa}. The two morphemes must therefore be identical in form. However, since their meanings are completely different, they obviously are homonyms. They clearly are two different morphemes and everyone has always treated them as such.

The genitive case marker {ak} (§7.2.2) is often written in the same way as the nominalizing suffix {ʔa}, but here the formal overlap is partial at the most. The basic forms of the two morphemes, /ak/ and /ʔa/, are quite different, but these forms undergo changes that make them more similar after certain consonants. So similar in fact, that the two morphemes are written with the same CV-signs: primarily ***ba***, ***da***, ***ga***, ***la***, ***ma***, ***na***, ***ĝá***, and ***ra***, but CV-signs with other consonants are occasionally attested as well. Nevertheless, even where the sign used to write them is the same, one important difference remains: its use is optional for the genitive case marker but is always obligatory for the nominalizing suffix. The scribes regularly ignore the genitive case marker but they always spell out the nominalizing suffix. Hence, their forms must be different in all environments, even where their spelling can be identical.

What the present grammar has dubbed the nominalizing suffix occurs in different grammatical categories, but forms and spellings are the same in each of them. They have been described in detail for the nominalized clauses (§27.3.3) and for the past participles (§28.3.2). Our discussion here will start with a brief summary of its forms and spellings in past participles. For details and attestations see §28.3.2.

The basic form of the suffix is /ʔa/. Its initial glottal stop is shown by the facts that the suffix does not contract with a preceding vowel and that after a vowel it is consistently written with the sign ***a***: e.g. **sa$_{10}$-*a***, **ře$_6$-*a***, **gi$_4$-*a***, **nú-*a***. The glottal stop, however, usually assimilates to a preceding consonant. That the suffix has a final vowel is proven by the behaviour of the plural marker {enē}: its initial /e/ contracts with a preceding vowel and this is precisely what happens after the nominalizing suffix: e.g. **gíd-*da*-*ne***.

The nominalizing suffix is either written with the sign ***a*** or with a CV-sign containing the vowel /a/. The choice between them depends on which phoneme precedes the suffix. After a vowel or after a glottal consonant, the suffix is consistently written with the sign ***a***. After the fricatives /s/, /š/, /ḫ/, and the affricates /ř/ and /z/, the suffix is either written with the sign ***a*** or with a CV-sign: e.g. **ús-*sa*** vs. **ús-*a***, **tuš-*ša*** vs. **tuš-*a***, **duḫ-*ḫa*** vs. **duḫ-*a***, **ku$_5$-*řá*** vs. **ku$_5$-*a***, **gaz-*za*** vs. **gaz-*a***. After all other consonants, the suffix is written with a CV-sign: e.g. **dab$_5$-*ba***, **gíd-*da***, **zi-*ga***, **šúm-*ma***, **ĝen-*na***, **ga$_6$-*ĝá***, **ĝál-*la***, and **ĝar-*ra***. The two types of spelling reflect different pronunciations, those with ***a*** representing /ʔa/, with retention of the glottal stop, and those with a CV-sign representing its assimilated form.

The forms and spellings of the nominalizing suffix show the same pattern when it is used in finite verbal forms in nominalized clauses. The same types of spellings occur after the same kinds of sounds (see §27.3.3). Its behaviour in other grammatical categories has not been explicitly described in the present grammar but is also exactly the same. In the cardinals it is always written with the CV-sign ***na*** after /n/ and with the sign ***a*** after /š/: e.g. **min-*na*-*bé*** and **eš$_5$-*a*-*bé*** (see §9.3.1). The same is true for its use with adjectival stems (see §10.5.3) and in the pronominal conjugation (see §28.6). Thus, in the imperfective participle with the nominalizing suffix, this suffix always follows the imperfective stem suffix {ed} and is consistently written with the CV-sign ***da***, e.g. **bala-*e*-*da*-*bé*** (§28.5 and §28.6). Likewise, after the copula ***me*** 'be' it is always written with the sign ***a***: e.g. ***ì*-*me*-*a*** (§29.2.2).

Thus, there can be no doubt that we are dealing with the same formal element in all these different grammatical categories. But this is not enough to prove that we are dealing with a single morpheme instead several homonymous ones. For that we need to look at its uses in the various grammatical categories and how they relate to each other.

31.3. Uses

31.3.1. Copula

With most verbs the nominalizing suffix has a wide range of uses, but with the copula it is more or less limited to content clauses, where it is used consistently:

(1) **^{ĝiš}kiri$_6$-*a* ki-maḫ / gala-maḫ iri-*ka* *ì-me-a* *bí-in-*[*e*]*š-a***
kiri$_6$ =ʔa ki.maḫ gala.maḫ iri =ak =ak =Ø
orchard=LOC grave chief.lamentation.priest town=GEN=GEN=ABS

ʔi -me-Ø -ʔa =Ø Ø -bi -n -ʔe -eš -ʔa
VP-be -3N.S/DO-NOM=ABS VP-3N.OO-3SG.A-say:PLUR-3PL-NOM
'that they said that the grave of the town's chief lamentation priest was in the orchard' (NG 101 13-14; L; 21)

(2) **mu tu-*ra* *ì-me-a-šè***
mu tu.r -Ø -ʔa ʔi-me-Ø -ʔa =ak =še
name be.ill-NFIN-NOM VP-be -3SG.S-NOM=GEN=TERM
'because he was ill (lit. "for the name of that he was ill")' (TCTI 2:3342 10; L; 21)

These two examples illustrate how the nominalizing suffix is typically used with the copula: it is found in those subordinate clauses that make up a full noun phrase in their own right and that refer to a situation. Subordinate copular clauses that refer to a participant, that is to say relative copular clauses, lack as a rule the nominalizing suffix. And this is equally true for headless relative copular clauses. Although they make up a full noun phrase in their own right, they, too, lack the suffix. See §29.6.2 for examples and details.

Since non-finite forms of the copula do not exist, it cannot provide any information for this type of form.

31.3.2. De-adjectival verbs

The nominalizing suffix has the same uses with de-adjectival verbs as with most other verbs and these uses will be treated below in the sections on non-finite verbal forms (§31.3.4) and nominalized clauses (§31.3.5). However, the past participles of de-adjectival verbs have some additional uses that will be summarized here. For details see chapter 10, especially §10.5.3.

As pointed out in chapter 10, Sumerian adjectives can be used attributively (**èš gibil** 'the new (**gibil**) shrine (**èš**)') or predicatively (**zi-*dam*** 'it is (**ʔam**) right (**zi.d**)'). In addition, bare adjectival stems can be used as abstract nouns. Thus, the adjective **sukud** means 'high' but the noun **sukud** means 'height'. However, for expressing notions like German *der Alte* 'the old one' and *das Gute* 'the good thing(s)', Sumerian uses forms with the nominalizing suffix. Whereas **tur** means 'small' or 'smallness', **tur-*ra*** means 'small one'. Other examples are:

(3) **du$_{10}$-*ga*-*ĝu$_{10}$***
du$_{10}$.g -Ø -ʔa =ĝu
be.sweet-NFIN-NOM=my
'my sweet one' (PN) (TCS 1:58 1; L; 21)

(4) **du$_{10}$-*ga* iri-ka-ge-*na-ka***
du$_{10}$.g -Ø -ʔa iri.ka.ge.na.k=ak
be.sweet-NFIN-NOM Irikagena =GEN

'the sweet things of Irikagena' (Ukg. 41 1; L; 24)

Forms with the nominalizing suffix can also be used attributively. They have a restrictive meaning, while forms without the nominalizing suffix simply characterize. Sumerian does not have special comparative or superlative forms, but a form with the nominalizing suffix may have a comparative or superlative meaning. E.g.:

(5) **lú sukud-*da* an-*šè* *nu-mu-un-da*-lá**
lú sukud -Ø -ʔa =Ø an =še nu =Ø -mu -n -da -lá -Ø
man be.high-NFIN-NOM=ABS heaven=TERM NEG=VP-VENT-3SG-with-stretch-3SG.S/DO
'The highest man cannot reach out until heaven.' (GH A 28 = JCS 1 p. 23 YBC 9857 28; OB manuscript)

31.3.3. Numerals

Only the two cardinals /min/ 'two' and /eš/ 'three' occur with the nominalizing suffix and they show it consistently in a construction with the demonstrative clitic {be}. The expression as a whole is always definite. Thus, the following example always means 'the two eyes, both eyes' and can never denote an indefinite 'two eyes' (§9.3.1):

(6) **igi 2-*na-bé***
igi min-ʔa =be
eye two-NOM=this
'both eyes' (VS 14:66 3:2; L; 24)

(7) **é ^{d}*ba-ú* 3-*a-bé***
é ba.ú=ak eš -ʔa =be
house Bau =GEN three-NOM=this
'the three Bau temples' (TLB 3:167 1:6; L; 21)

They also show it when construed with a possessive pronoun (§9.3.3):

(8) **geme$_2$ *ù* 3-*a-bé* / PN-*ra* / *ba-na-ge-en$_6$***
geme$_2$ ù eš -ʔa =be=Ø PN=ra Ø -ba -nna -ge.n -Ø
slave.woman and three-NOM=its=ABS PN =DAT VP-MM-3SG.IO-be.firm-3N.S/DO
'The slave woman and the three of them (i.e., her children) were assigned (by the court) to PN.' (NG 72 23'-25'; L; 21)

The higher cardinals above 'three' have no nominalizing suffix in these constructions, while the behaviour of 'one' remains unknown.

Why should the use of the nominalizing suffix be limited to the cardinals 'two' and 'three' (and possibly 'one')? I am unable to give a definite answer, but it is possible to make a suggestion. The nominalizing suffix occurs with verbs and adjectives (that is, de-adjectival verbs), but is never found with nouns. The use of the nominalizing suffix divides the cardinals into two groups: the lower cardinals /min/ 'two' and /eš/ 'three', which always have the suffix, and the higher cardinals from /limmu/ 'four' on, which never have the suffix. This difference in grammatical behaviour between the two groups suggests that the lower cardinals may be more adjective-like and the higher cardinals more noun-like, the cut-off point being between 'three' and 'four'. This would follow a pattern commonly found across languages. In many languages the lower cardinals are adjectives, while the higher are nouns. The precise cut-off point between adjectives and nouns, however, differs from language to language. In Hebrew, for

instance, only the cardinal for 'one' is an adjective, whereas in Lithuanian 'one' through 'nine' belong to that class (Greenberg 1978: 285-286).

Yet, however plausible this explanation may be, I have refrained from analysing /min/ 'two' and /eš/ 'three' as adjectives. Nor have I analysed the forms **2-*na*** and **3-*a*** as past participles. This is for one simple reason: neither cardinal ever occurs as a verbal stem in a finite verbal form., whereas most adjectival stems do so (§10.5). However adjective-like /min/ 'two' and /eš/ 'three' may appear, this is a property that clearly separates them from the adjectives.

31.3.4. Non-finite verbal forms

The non-finite verbal forms have been the subject of many and detailed discussions, which it is impossible for me to summarise here.[1] Suffice it to say that these discussions revolved at least as much around issues of form as around issues of meaning. This is, of course, to be expected. A proper understanding of their meanings crucially depends on the correct morphological analysis of the non-finite forms. If we misinterpret the forms, we are bound to misunderstand their meanings as well.

As discussed in chapter 28, the present grammar distinguishes four non-finite forms, two perfective and two imperfective. Either pair contains one form with and one form without the nominalizing suffix. This analysis implies that the primary contrast is the one between perfective and imperfective. Only within these two categories, there is a secondary contrast between a form with and a form without the nominalizing suffix. We will therefore discuss the perfective and imperfective forms separately.

The two perfective non-finite forms are the past participle (§28.3), which contains the nominalizing suffix, and the present participle (§28.2), which lacks it. Taken together they show the same range of meanings as finite perfective forms, expressing timeless truths, states, and past actions (§15.4.2). But these meanings are divided up between the two forms. Disregarding two irregular verbs (see below), we can say that a present participle is used to express a timeless truth, referring to a generic action or state (§28.2.1), while a past participle is used to refer to a past action or to a specific state. E.g.:

(9) **3-*kam-ma* ús**
3-kamma ús -Ø
3-ORD be.next.to-NFIN
'third quality (lit. "the third which follows")' (DP 382 1:3; L; 24)

(10) **guru$_7$ é ^{d}*ba-ú-ke$_4$* ús-*sa-ta***
guru$_7$ é ba.ú=ak =e ús -Ø -ʔa =ta
granary house Bau =GEN=DIR be.next.to-NFIN-NOM=ABL
'from the granary beside (lit. "which is next to") the Bau temple' (DP 150 9:2; L; 24)

The present participle **ús** in the first example is part of a generic qualification which expresses the general standard of quality to which a certain amount of flax belongs. The past participle **ús-*sa***, however, refers to a specific state, viz. where exactly a particular granary is located.

Present participles are primarily used as action nouns (e.g. **kas$_4$** 'running') or as agent nouns (e.g. **kas$_4$** 'runner'), but they also occur in non-finite relative clauses, as in ex. 9 above. See for details §28.2.2 and §28.2.3.

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[1] See Attinger (1993: 199-204), Krecher (1993d), Edzard (2003: 130-142), and the earlier literature found there.

Past participles occur far more frequently than present participles. They occur so often, in fact, that the past participle is almost the perfective participle by default. While present participles occur only rarely in non-finite relative clauses, past participles do so frequently, both in relative clauses with an explicit head and in headless relative clauses (§28.3.3):

(11) **gana$_2$ uru$_4$-*a***
gana$_2$ uru$_4$ -Ø -ʔa
land plough-NFIN-NOM
'ploughed land' (MVN 17:116 2; L; 21)

(12) **lú ^{d}*ba-ú* kur-*ré* laḫ$_5$-*ḫa-me***
lú ba.ú=ak kur =e laḫ$_5$ -Ø -ʔa =Ø =me-eš
man Bau =GEN mountains=ERG carry:PLUR-NFIN-NOM=ABS=be -3PL.S
'They are men of Bau who were carried off by the "mountain land".' (DP 141 6:2; L; 24)

(13) **gu$_7$-*a-bé* / *e-ta*-zi**
gu$_7$-Ø -ʔa =be=Ø ʔi -b -ta -zi.g -Ø
eat -NFIN-NOM=its=ABS VP-3N-from-rise-3N.S/DO
'What was used up of this was raised from it.' (DP 437 8:9-10; L; 24)

While present participles cannot be used in non-finite content clauses, past participles occur there regularly (§28.3.4). An example of this construction is **inim til-*a*** 'that the matter was completed':

(14) **lú inim-*ma* inim til-*a-kam***
lú inim=ak inim=Ø til -Ø -ʔa =ak =Ø =ʔam
man word=GEN word=ABS end-NFIN-NOM=GEN=ABS=be:3N.S
'He is the witness for (lit. "of") that the matter was completed.' (BIN 8:172 16; I; 23)

The division of labour between the present and past participles is different for the two stative verbs **zu** 'know' and **tuku** 'have'. They behave differently from other verbs, including other stative verbs. As with other verbs, the past participle of **zu** 'know' is used in a non-finite content clause. (How **tuku** 'have' behaves in this construction is unknown, because it is not yet attested in a non-finite content clause.):

(15) **^{d}nin-*ĝír-su-ka nam*-nir-ĝál-*né* / kur-kur-*re* zu-*a***
nin.ĝír.su.k=ak nam.nir.ĝál=ane=Ø kur -kur =e
Ningirsu =GEN authority =his =ABS mountains-mountains=ERG

zu -Ø -ʔa =ak
know-NFIN-NOM=GEN
'of that the foreign lands know Ningirsu's authority' (Cyl B 24:12-13; L; 22)

But the present participles of **zu** and **tuku** have a much wider range of use in non-finite relative clauses. In contexts where other verbs show a past participle, **zu** and **tuku** basically always have the present participle. Thus, the present participles of **zu** and **tuku** are not only used to express a generic, non-specific state, but also a non-generic, specific one. See §28.2.4 and §28.3.5 for examples and details.

The two imperfective non-finite forms are the imperfective participle (§28.4) and the imperfective participle with the nominalizing suffix (§28.5). Like the finite imperfective forms, they primarily express non-past actions, but these meanings are not divided up between the two forms. The only difference between them is the kind of construction in which they are used.

The imperfective participle always lacks the nominalizing suffix except in a single construction, viz. the so-called pronominal conjugation (§28.6):

(16) **umma^{ki} / e-*bé* bala-*e-da-bé***
umma=Ø e.g =be =e bala$_2$-ed -Ø -ʔa =be=e
Umma=ABS canal=this=DIR cross -IPFV-NFIN-NOM=its=DIR
'when Umma crosses this canal' (Ean. 1 rev 5:37-38; L; 25)

Note that the irregular imperfective verb **du** 'to go', which has an imperfective participle without the suffix {ed} (§28.4.1), consistently lacks the nominalizing suffix in the pronominal conjugation:

(17) **lugal urim$_5^{ki}$-*šè* du-*né***
lugal=Ø urim$_5$=še du -Ø =ane=e
king =ABS Ur =TERM go:IPFV-NFIN=his =DIR
'when the king was going to Ur' (SACT 1:109 7:5; D; 21)

All perfective forms in the pronominal conjugation are past participles. Present participles do not occur in this construction. Thus, with the sole exception of the imperfective verb **du** 'go', all perfective and imperfective forms include the nominalizing suffix in the pronominal conjugation.

Since imperfective participles never show the nominalizing suffix outside this particular construction, its presence may be a secondary development by analogy of the {ʔa} of the past participle in this construction. Such a development could have started with a reanalysis of the third person forms with the possessive pronouns {ane} 'his, her' and {anēnē} 'their', which already contained a vowel /a/ as a part of the possessive pronoun:

(18) **ur-saĝ é-*a-na* ku$_4$-ku$_4$-*da-né***
ur.saĝ=Ø é =ane=ʔa ku$_4$.r:RDP-ed -Ø -ʔa =ane=e
warrior=ABS house=his =LOC enter:IPFV -IPFV-NFIN-NOM=his =DIR
'as the warrior was entering his house' (Cyl B 5:4; L; 22)

The irregular verb **du** would then be a fossilized form from the time that no imperfective participle contained the nominalizing suffix. Of course, the secondary nature of the nominalizing suffix in imperfective participles is no more than a hypothesis and is far from being proven.

31.3.5. Finite nominalized clauses

Most finite subordinate clauses are nominalized clauses. Their predicates regularly show the nominalizing suffix {ʔa}, in content clauses as well as in relative clauses, with perfective as well as with imperfective verbal forms. In finite nominalized clauses, the use of the nominalizing suffix is all but obligatory (§27.3.4).

Yet, nominalized clauses with the nominalizing suffix do occur, but they are limited to frozen expressions, leftovers from an earlier period when there was still a living and productive contrast between nominalized clauses with and without the nominalizing suffix. These frozen expressions give an impression of what the original uses of the forms without the nominalizing suffix may have been. As §27.3.5 already provides a convenient overview of these expressions, a very brief summary will suffice here.

They include a kind of content clause with the stative verb **zu** 'know', a verb that also shows irregular behaviour in its non-finite forms (see the previous section). There is also a

unique example of a relative clause with the stative verb **dul$_5$** 'cover'. Finally, there are several common nouns that are headless relative clauses in origin. They express concepts and thus have a generic meaning. They have been discussed in more detail in §6.6.2.

31.4. Conclusions

Section 31.3 has given an overview of how the various forms with the nominalizing suffix are used and how they differ from the contrasting forms without the suffix. This overview shows that there are both differences and similarities in use between the various categories discussed.

The grammatical property shared by all types of forms with the nominalizing suffix is that they can be used as noun phrases in their own right. Most can also be used attributively but certainly not all of them. Imperfective participles with the nominalizing suffix are never used in this way and such forms of the copula **me** 'be' only very exceptionally so. And what is true of the copula equally applies to the non-finite verbal forms of the stative verbs **zu** 'know' and **tuku** 'have'. Attributive use is clearly not something that all types of forms with the nominalizing suffix have in common.

Thus, the potential of being used as a full-fledged noun phrase is a clear common trait and this is what justifies the label 'nominalizing' suffix. Yet, it is insufficient as a defining property, because the contrasting forms without the suffix can usually be used as noun phrases as well. However, wherever contrasting forms with and without the nominalizing suffix exist side by side, they show a similar semantic contrast: the form lacking the suffix always has a more time-stable meaning, expressing a more timeless property or situation – a generic, non-specific one. In other words, the nominalizing suffix not only nominalizes but it also conveys a certain meaning, restricting the form's reference and making it time-unstable and specific.[2]

However, this semantic contrast is hardly productive anymore. It still survives in the contrast between present and past participles (§31.3.4) and in a few frozen expressions (§31.3.5). It also survives in the more limited use of the nominalizing suffix in forms of stative verbs like **me** 'be', **zu** 'know', and a few others. That all this is only survival and not a living, productive contrast anymore is clear from the fact that most stative verbs do not show the contrast anymore.

A clear case in point are the finite nominalized clauses: all such clauses contain a finite verbal form with the nominalizing suffix (§31.3.5). The only systematic exception is the verb **me** 'be', where its use is far more limited (§31.3.1). In this type of construction the nominalizing suffix has been completely generalized, with only the verb **me** as a kind of fossil revealing an earlier state of affairs. With the sole exception of copular clauses, the nominalizing suffix has become an obligatory marker in all nominalized clauses, so that its original meaning plays no role anymore. In this type of form, it now only nominalizes forms, making them more noun-like.

A similar generalization has taken place among the perfective non-finite forms, but not quite to the same extent. Here, the original contrast is still alive (§31.3.4), even though the forms with nominalizing suffix greatly outnumber the ones without. But that here, too, some generalization took place is clear from how the stative verbs behave: like the non-stative verbs, they generally show the nominalizing suffix. Its use is only limited with two stative verbs, **zu** 'know' and **tuku** 'have', which thus reveal themselves as fossils of an earlier situation.

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[2] This semantic aspect of the nominalizing suffix seems to be what Krecher (1993d) led to calling it the suffix of 'determination', even though he defines its meaning in somewhat different terms.

Thus, the use of the nominalizing suffix has been generalized in many types of forms to such an extent that its original meaning – making the form less generic and more specific – has been partly or wholly obliterated.

The nominalizing suffix is mostly found in verbal forms. The only clear exception involves the numerals /min/ 'two' and /eš/ 'three' (§31.3.3). But their forms, too, show the typical traits of the nominalizing suffix: it is used in those forms that are used a noun phrase in their own right and that have a very specific meaning. In fact, they are always definite, but they also always contain en enclitic pronoun, which makes it difficult to determine the exact semantic contribution of the nominalizing suffix. Structurally, these forms are very similar to the pronominal conjugation (§31.3.4). All in all, there is enough reason to include the forms of the numerals here.

Although the exact nature of the nominalizing suffix remains somewhat elusive, I would like to mention a possible origin of it. But since the available evidence is very meagre, most of what follows must remain speculative. Let me begin by recalling Wilcke's observation discussed in §27.3.3: in a sequence of coordinate nominalized clauses, the last finite form always contains the nominalizing suffix {ʔa}, but the preceding forms may lack it. In such a construction, a single nominalizing suffix covers, as it were, several nominalized clauses and, thus, behaves almost as a kind of clitic. This suggests that the suffix was in origin a separate word.

I suspect that in origin it was a deictic word, probably a demonstrative. Its development to a grammatical suffix may have been similar to how, for instance, German *dass* (= *das*) and English *that* became subjunctions. In those languages, a sequence of two main clauses was reanalysed as one with a main and a subordinate clause. Thus, *I know that: the king died* became *I know that the king died*. While *that* is a demonstrative in the first example, referring to the second main clause, it has become a subjunction in the second, introducing a subordinate clause. The Sumerian nominalizing suffix may have undergone a similar development from demonstrative to subjunction, evolving even further to becoming a suffix.

Such a very hypothetical and obsolete demonstrative may occur fossilized in the following fixed expressions: **u$_4$-*da*** 'today' (< **u$_4$.d** 'day', usually analysed as containing the locative case marker {ʔa}), ***a-gen$_7$*** 'like this' (with the equative case marker {gen}, PSD A/1 88), and in:

(19) **mu-*a-kam***
mu =ʔa =ak =ʔam
year=this=GEN=be:3N.S
'This is of the current year.' (e.g. ITT 1:1053 6; L; 23)

Taking this line of speculative thought a little further, we might posit an original demonstrative pronoun ***ʔa** 'this', which behaved grammatically like a noun. Following a clause and referring back to it, it gave rise to the nominalized content clause. Following a clause and referring back to a participant in that clause, it gave rise to the nominalized relative clause. Its use with adjectives and some numerals may have had a slightly different origin. Here, the adjective and the numeral may have been in origin modifiers of the demonstrative, with the demonstrative originally being the head of the phrase. Thus, **zi.d** 'right' plus ***ʔa** 'this one' might have become **zi-*da*** 'the right one'.

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APPENDIX: DIAGRAM OF THE FINITE VERB

Preformatives		*Prefix {nga}*	*Ventive prefix*	*Prefix {ba}*	*Initial person-prefixes*	*Dimensional prefixes*				*Final person-prefixes*	*Stem*	*Imper-fective suffix*	*Person suffixes*		*Nomin-alizing suffix*
Proclitics	*Prefixes*					*Indirect object marker*	*Prefix {da}*	*Prefixes {ta} and {ši}*	*Local prefixes*				*Set A*	*Set B*	
	ʔi	**nga**	**mu**	**ba**	**ʔ**	**(a)**	**da**	**ta**	**ni**	**ʔ**		**ed**		**en**	**ʔa**
	ʔa				**e**	**(ra)**		**ši**	**e**	**e**				**en**	
	ʔu				**n**					**n**			**Ø**	**e**	
nu					**b**					**b**					
					mē									**enden**	
ḫa					**enē**						STEM			**enzen**	
	na(n)				**nnē**								**eš**	**enē**	
	ga														
	bara														
	ši		**ma**												
	na														

N.B.: Elements from the same box or from the same column cannot co-occur in the same verbal form.
Exception: The preformatives {nu} and {ḫa} can co-occur with the preformative {ʔi} and perhaps also with the preformative {ʔa}.

SAMENVATTING IN HET NEDERLANDS

Een beschrijvende grammatica van het Soemerisch

Het Soemerisch is een taal die in het zuiden van Iraq gesproken werd tot ongeveer vierduizend jaar geleden, toen het door het Akkadisch verdrongen werd uit het dagelijks leven. In de cultus en als schrijftaal van geleerden is het nog bijna tweeduizend jaar langer blijven bestaan, niet alleen in Zuid-Iraq, maar ook in de rest van het oude Mesopotamië en soms zelfs ook elders in het oude Nabije Oosten (hoofdstuk 1).

Het Soemerisch is overgeleverd in honderden inscripties en op vele tienduizenden kleitabletten, geschreven in het spijkerschrift dat de Soemeriërs uitgevonden hebben rond 3200 v. Chr. Oorspronkelijk bestond dat schrift alleen uit woordtekens, waarbij ieder teken een compleet woord uitdrukte. Maar gaandeweg ontwikkelden zich ook klanktekens totdat vanaf ongeveer 2500 v. Chr. alleen nog de stam van een woord met een woordteken geschreven werd, maar de grammaticale elementen met behulp van klanktekens (hoofdstuk 2).

Deze grammatica geeft een beschrijving van het Soemerisch zoals dat overgeleverd is in teksten uit de periode van ca. 2500 tot 2000 v. Chr. In die periode was het Soemerisch nog een levende taal en werd het geschreven op een manier die een redelijke basis biedt voor grammaticaal onderzoek.

Het Soemerisch is niet alleen een dode maar ook een geïsoleerde taal: het is niet verwant aan een andere bekende taal. Dat gegeven en de beperkingen van het spijkerschrift maken een reconstructie van het klanksysteem lastig. Toch laten een analyse van de spelling en van leenwoorden in en uit andere talen enige conclusies toe (hoofdstuk 3).

Met hoofdstuk 4, ‘woorden en woordsoorten’, begint de eigenlijke grammaticale beschrijving. Het spijkerschrift drukt geen woordgrenzen uit: hele woordgroepen en zinnen worden aan elkaar vast geschreven. Gelukkig zijn er tot op zekere hoogte andere manieren om te bepalen waar het ene woord ophoudt en het volgende begint. Dit hoofdstuk geeft ook een overzicht van de Soemerische woordsoorten die deze grammatica onderscheidt. Het Soemerisch heeft bijvoorbeeld geen bijwoorden, maar wel een woordsoort ideofonen die volgens een vast sjabloon specifieke geluiden uitdrukken.

De grammatica vervolgt met de nominale woordgroepen (hoofdstuk 5) en de woordsoorten die daar een belangrijke rol in spelen. Dat zijn vooral de zelfstandige naamwoorden, die verdeeld zijn in de twee geslachten menselijk en niet-menselijk. Alleen de woorden van het menselijk geslacht hebben een meervoud, dat uitgedrukt wordt met een enclitisch woordje (hoofdstuk 6).

Iedere nominale woordgroep staat in één van de twaalf naamvallen die het Soemerisch rijk is. Zij worden uitgedrukt door enclitische woordjes, een soort achterzetsels die worden gehecht aan het laatste woord van de nominale woordgroep. Als een dergelijke woordgroep meer dan één zelfstandig naamwoord bevat, kan dit leiden tot een opeenhoping van naamvallen aan het eind van die woordgroep. Het Soemerisch is een zogenaamde ergatieftaal. Het gebruikt dezelfde naamval (de absolutief) voor het lijdend voorwerp in een overgankelijke zin als voor het onderwerp in een onovergankelijke zin, terwijl het een aparte naamval (de ergatief) heeft voor het onderwerp van een overgankelijke zin (hoofdstuk 7).

De voornaamwoorden vormen een heterogene groep. Sommige gedragen zich grammaticaal als zelfstandige naamwoorden, andere als adjectieven en nog weer andere zijn enclitische woordjes. Tot die derde groep behoren de bezittelijke voornaamwoorden en een deel van de aanwijzende voornaamwoorden (hoofdstuk 8).

Het systeem van de Soemerische telwoorden is uniek in dat het een zestigtallig stelsel volgt, met een apart basiswoord voor ‘zestig’ waarbij het tellen opnieuw begint. ‘Zeventig’ is zo ‘zestig-tien’, ‘honderd’ is ‘zestig-veertig’, ‘driehonderdzestig’ is ‘vier-zestig’, en zo verder (hoofdstuk 9). Dit Soemerische zestigtallig stelsel heeft overigens nog zijn sporen achtergelaten in onze verdeling van het uur in zestig minuten, van onze minuut in zestig seconden en in onze cirkel van 360 graden, zestig voor elk van de vier windstreken.

Het Soemerisch heeft maar een beperkt aantal adjectieven. Zij zijn geen naamwoorden maar lijken grammaticaal sterk op werkwoorden (hoofdstuk 10).

Met hoofdstuk 11 begint de beschrijving van het meest ingewikkelde onderdeel van de Soemerische grammatica: het werkwoord. Een Soemerische persoonsvorm bestaat uit een stam met minimaal één en maximaal negen verschillende voorvoegsels en met tussen de één en de drie achtervoegsels (zie het schema op p. 743). Die voor- en achtervoegsels drukken een breed scala aan betekenissen uit, waaronder tijd, aspect en wijze, maar ook persoon en getal van zowel het onderwerp, het lijdend voorwerp, het meewerkend voorwerp en bepaalde bijwoordelijke bepalingen. Eén enkele Soemerische persoonsvorm kan zo een volledige zin uitdrukken. Een mooi voorbeeld hiervan is de Oud-Soemerische werkwoordsvorm *munnintumma?a* ‘toen hij het hier voor haar geschikt gemaakt had’ (voorbeeld 22 in hoofdstuk 11).

De werkwoordstam kan een speciale vorm hebben om uit te drukken dat er sprake is van een meervoudige handeling of toestand. Meestal gebeurt dat door de stam te verdubbelen, maar in sommige gevallen zijn er gespecialiseerde werkwoordsstammen voor de enkel- en de meervoudige betekenis (hoofdstuk 12).

Persoon en getal van het onderwerp en van het lijdend voorwerp worden uitgedrukt door de achterste persoonsprefixen (hoofdstuk 13) en de persoonssuffixen (hoofdstuk 14). De manier waarop verschilt tussen de perfectief en de imperfectief, de twee basisvormen van het Soemerische werkwoord. Voor wat hun vorm betreft, verschillen zij deels in hoe zij de persoonsprefixen en -suffixen gebruiken en deels in de vorm van de werkwoordsstam. Een perfectieve vorm drukt een toestand uit, een tijdloze waarheid of een afgesloten handeling, een imperfectieve vorm een niet-afgesloten handeling (hoofdstuk 15).

Persoon en getal van het meewerkend voorwerp en van bepaalde bijwoordelijke bepalingen worden uitgedrukt door de voorste persoonsprefixen en de dimensionele voorvoegsels. Een persoonsvorm bevat ten hoogste één voorste persoonsprefix, maar kan meerdere dimensionele voorvoegsels bevatten waarvan dan alleen de eerste gecombineerd wordt met een persoonsprefix (hoofdstuk 16). Bij de dimensionele voorvoegsels voor het meewerkend voorwerp (hoofdstuk 17) en het ‘oblique object’ (hoofdstuk 18) is altijd sprake van een dergelijke combinatie, maar bij {da} ‘samen met, ermee’, {ta} ‘uit, eruit, met, ermee’, {ši} ‘naar, ernaar’ en {e} ‘op, erop’ is dat vaak niet het geval. Het voorvoegsel {ni} ‘erin’ wordt nooit gecombineerd met een voorste persoonsprefix (hoofdstukken 19 en 20).

Het voorvoegsel {ba} heeft twee functies. Het kan een meewerkend voorwerp van de derde persoon niet-menselijk uitdrukken, maar het wordt ook gebruikt als medio-passief voorvoegsel (hoofdstuk 21). Het voorvoegsel {mu} drukt onder meer ‘hier, hierheen’ uit (hoofdstuk 22). De preciese functie van het zeldzame voorvoegsel {nga} is nog tamelijk onduidelijk. Het wordt meestal vertaald met ‘ook’ of iets dergelijks (hoofdstuk 23).

De zogenoemde preformatieven zijn de eerste voorvoegsels van de persoonsvorm. Ze kunnen in verschillende groepen verdeeld worden. De drie vocalische voorvoegsels lijken oorspronkelijk vooral een functie gehad te hebben bij het uitdrukken van tijd en aspect, maar twee ervan, {?a} en {?i}, hebben vrij ingrijpende veranderingen ondergaan. Het

voorvoegsel {ʔa}, bijvoorbeeld, is daardoor uiteindelijk vrijwel verdwenen uit het zuidelijke dialect, terwijl het de passief is gaan uitdrukken in het noordelijke dialect (hoofdstuk 24).

Andere preformatieven drukken de gebiedende en aanvoegende wijs uit, of een ontkenning of een combinatie van beide. Er zijn bijvoorbeeld drie ontkennende preformatieven: {nu} voor de aantonende wijs, {na(n)} voor de gebiedende en aanvoegende wijs en {bara} voor een zeer sterke ontkenning ongeacht de wijs. De preformatieven {ḫa} en {ga} drukken een niet-ontkennende gebiedende en aanvoegende wijs uit, de eerste vooral voor de derde persoon en de tweede uitsluitend voor de eerste persoon. Een niet-ontkennende gebiedende wijs voor de tweede persoon wordt gevormd door alle voorvoegsels voor de stam weg te halen en achter de werkwoordsstam te plaatsen (hoofdstuk 25).

Van de overige twee preformatieven, {na} en {ši}, is de functie nog onduidelijk (hoofdstuk 26).

Het Soemerisch heeft vrijwel geen nevenschikkende of onderschikkende voegwoorden. Nevenschikking is daarom vooral een kwestie van woordvolgorde, van achter elkaar zetten. Alleen in de jongste teksten komt het Akkadische leenwoord *u* ‘en’ wel eens voor. Onderschikking van zinnen gaat meestal via nominalisatie. Zulke genominaliseerde zinnen kunnen gebruikt worden als bijwoordelijke bijzinnen, als complementszinnen of als bijvoeglijke bijzinnen (hoofdstuk 27).

Het Soemerisch heeft vier verschillende niet-finiete vormen, twee perfectieve en twee imperfectieve, met een zeer breed scala aan functies, die voor een groot deel overlappen met die van de bijzinnen met persoonsvormen (hoofdstuk 28).

Er is één koppelwerkwoord, *me* ‘zijn’, dat verplicht is in vrijwel alle soorten zinnen met een niet-werkwoordelijk gezegde (hoofdstuk 29). Er zijn slechts een paar gevallen waarin het koppelwerkwoord ontbreekt (hoofdstuk 30).

Het achtervoegsel {ʔa} speelt een centrale rol bij allerlei nominalisaties. Het komt voor bij de telwoorden voor ‘twee’ en ‘drie’, bij adjectieven, bij persoonsvormen en bij niet-finiete vormen. In al deze gevallen contrasteert het met vormen zonder {ʔa}. Hoofdstuk 30 vat de eigenschappen van dit achtervoegsel samen en bespreekt mogelijke historische ontwikkelingen.

CURRICULUM VITAE

Bram Jagersma werd op 11 november 1955 geboren te Ede. Hij behaalde in 1974 zijn diploma gymnasium alfa aan het Dr. Nassau-college te Assen en studeerde in 1988 af in de Semitische talen en culturen aan de Rijksuniversiteit te Leiden. Sinds 1978 is hij in deeltijd werkzaam bij diezelfde universiteit in verschillende ondersteunende functies, tegenwoordig als vakreferent taalwetenschap bij de Universitaire Bibliotheekorganisatie Leiden.