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A grammar of Ik (Icé-tód) : Northeast Uganda's last thriving Kuliak language

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A grammar of Ik (Icé-tód)

Northeast Uganda's last thriving Kuliak language

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Table of Contents

| | |
|--|-------|
| Dedication..... | xiv |
| Acknowledgments | xv |
| Foreword..... | xix |
| Abbreviations..... | xxi |
| Symbols | xxiii |
| Affixes..... | xxv |
| Archaic Affixes | xxix |
| Clitics..... | xxxi |
| 1 Introduction..... | 1 |
| 1.1 The Ik people..... | 1 |
| 1.1.1 History | 4 |
| 1.1.2 Ecology | 6 |
| 1.1.3 Economy | 8 |
| 1.1.4 Society and culture..... | 10 |
| 1.2 The Ik language | 14 |
| 1.2.1 Classification..... | 14 |
| 1.2.2 Typology | 17 |
| 1.2.3 Lectal variation and language contact..... | 23 |
| 1.2.4 Vitality | 25 |
| 1.2.5 Previous works | 26 |
| 1.3 Research background..... | 28 |
| 1.3.1 Methodology | 28 |
| 1.3.2 Fieldwork | 29 |
| 1.3.3 Data | 31 |
| 1.3.4 Orthography..... | 31 |
| 2 Segmental Phonology..... | 33 |
| 2.1 Consonants | 33 |
| 2.1.1 Consonant contrasts..... | 34 |
| 2.1.2 Consonant realizations..... | 35 |
| 2.1.3 Consonant distribution | 40 |
| 2.2 Vowels..... | 41 |

| | | |
|-------|--|-----|
| 2.2.1 | Vowel contrasts | 42 |
| 2.2.2 | Vowel realizations | 43 |
| 2.2.3 | Vowel distribution..... | 48 |
| 2.3 | Summary of allophonic realizations | 50 |
| 2.3.1 | Devoicing | 50 |
| 2.3.2 | Place assimilation..... | 54 |
| 2.3.3 | Glottalic effects | 55 |
| 2.4 | Syllables | 57 |
| 2.4.1 | Phonological syllables | 58 |
| 2.4.2 | Phonetic syllables..... | 61 |
| 2.4.3 | Syllabification methods | 62 |
| 2.5 | Morphophonology | 65 |
| 2.5.1 | Haplology..... | 65 |
| 2.5.2 | De-affrication | 69 |
| 2.5.3 | Non-final deletion..... | 71 |
| 2.5.4 | Vowel assimilation | 72 |
| 3 | Suprasegmental Phonology | 79 |
| 3.1 | Vowel harmony | 79 |
| 3.1.1 | Lexical vowel harmony..... | 81 |
| 3.1.2 | Dominant suffixes..... | 87 |
| 3.1.3 | Opaque dominant suffixes | 88 |
| 3.1.4 | Recessive suffixes | 93 |
| 3.1.5 | Opaque recessive suffixes | 94 |
| 3.1.6 | Recessive enclitics | 95 |
| 3.1.7 | Post-lexical /i,u/-dominance..... | 97 |
| 3.2 | Tone | 99 |
| 3.2.1 | Tones and allotones | 100 |
| 3.2.2 | Lexical tone | 103 |
| 3.2.3 | Depressor consonants | 108 |
| 3.2.4 | Tone processes | 114 |
| 3.3.5 | Intonation | 125 |
| 4 | Nouns | 131 |
| 4.1 | Noun roots..... | 134 |

| | | |
|-------|------------------------------------|-----|
| 4.1.1 | Basic roots..... | 134 |
| 4.1.2 | Partially reduplicated roots | 140 |
| 4.1.3 | Fully reduplicated roots..... | 142 |
| 4.1.4 | Affixated roots..... | 143 |
| 4.2 | Number | 152 |
| 4.2.1 | Plurative I | 156 |
| 4.2.2 | Plurative II | 158 |
| 4.2.3 | Plurative III | 160 |
| 4.2.4 | Suppletive plurals..... | 163 |
| 4.2.5 | Possessive plurative..... | 164 |
| 4.2.6 | Possessive singulative..... | 166 |
| 4.2.7 | Human singulative | 168 |
| 4.2.8 | Non-countable mass nouns | 169 |
| 4.2.9 | General number nouns | 170 |
| 4.3 | Compounds..... | 171 |
| 4.3.1 | Formal properties | 171 |
| 4.3.2 | Semantic properties | 177 |
| 4.3.3 | Diminutive | 180 |
| 4.3.4 | Agentive..... | 181 |
| 4.3.5 | Pronominal..... | 183 |
| 4.3.6 | Internal plurative | 183 |
| 4.3.7 | Variative plurative..... | 184 |
| 4.3.8 | Relational nouns..... | 185 |
| 4.4 | Kinship terms..... | 188 |
| 4.5 | Proper Nouns..... | 192 |
| 4.5.1 | Onomastics..... | 193 |
| 4.5.2 | Ethnonyms | 195 |
| 4.5.3 | Toponyms..... | 197 |
| 5 | Pronouns..... | 201 |
| 5.1 | Personal pronouns | 201 |
| 5.1.1 | Free personal pronouns | 202 |
| 5.1.2 | Personal possessive pronouns | 205 |
| 5.1.3 | Emphatic pronominal compound..... | 205 |

| | | |
|-------|------------------------------------|-----|
| 5.1.4 | Bound personal pronouns | 206 |
| 5.2 | Impersonal possessum pronoun..... | 208 |
| 5.3 | Indefinite pronouns..... | 210 |
| 5.4 | Interrogative pronouns | 212 |
| 5.5 | Demonstrative pronouns | 216 |
| 5.6 | Relative pronouns | 219 |
| 5.7 | Reflexive pronoun..... | 222 |
| 5.8 | Distributive pronouns | 224 |
| 5.9 | Cohortative pronouns | 225 |
| 5.10 | Dummy pronoun..... | 226 |
| 6 | Case..... | 231 |
| 6.1 | Case overview..... | 232 |
| 6.2 | Case suffixes | 240 |
| 6.2.1 | Case allomorphy..... | 240 |
| 6.2.2 | Case origins..... | 243 |
| 6.3 | Case on nouns..... | 246 |
| 6.3.1 | Oblique | 246 |
| 6.3.2 | Nominative..... | 252 |
| 6.3.3 | Instrumental..... | 256 |
| 6.3.4 | Ablative..... | 262 |
| 6.3.5 | Genitive..... | 267 |
| 6.3.6 | Accusative..... | 271 |
| 6.3.7 | Dative..... | 278 |
| 6.3.8 | Copulative..... | 285 |
| 6.4 | 'Case' and grammaticalization..... | 289 |
| 6.4.1 | 'Case' on verbs..... | 289 |
| 6.4.2 | 'Case' in other word classes | 297 |
| 7 | Verbs | 301 |
| 7.1 | Verbal roots | 303 |
| 7.1.1 | Basic roots..... | 306 |
| 7.1.2 | Partially reduplicated roots | 310 |
| 7.1.3 | Fully reduplicated roots..... | 311 |
| 7.1.4 | Prefixed roots | 313 |

| | | |
|-------|------------------------------------|-----|
| 7.2 | Derivatives..... | 319 |
| 7.2.1 | Intransitive infinitive..... | 320 |
| 7.2.2 | Transitive infinitive..... | 322 |
| 7.2.3 | Abstractive..... | 325 |
| 7.2.4 | Patientive..... | 326 |
| 7.2.5 | Substantive..... | 329 |
| 7.2.6 | Behaviorative..... | 330 |
| 7.4 | Directionals..... | 331 |
| 7.4.1 | Andative..... | 331 |
| 7.4.2 | Venitive..... | 334 |
| 7.5 | Subject-agreement pronominals..... | 336 |
| 7.6 | Dummy pronominal clitic..... | 340 |
| 7.7 | Modals..... | 343 |
| 7.7.1 | Irrealis..... | 346 |
| 7.7.2 | Realis..... | 348 |
| 7.7.3 | Intentional..... | 349 |
| 7.7.4 | Optative..... | 352 |
| 7.7.5 | Subjunctive..... | 356 |
| 7.7.6 | Imperative..... | 357 |
| 7.7.7 | Negative..... | 360 |
| 7.8 | Aspectuals..... | 361 |
| 7.8.1 | Sequential..... | 362 |
| 7.8.2 | Simultaneous..... | 367 |
| 7.8.3 | Imperfective..... | 370 |
| 7.8.5 | Inchoative..... | 372 |
| 7.8.6 | Completive..... | 376 |
| 7.8.7 | Present perfect..... | 378 |
| 7.8.8 | Pluractional..... | 379 |
| 7.9 | Voice and valency-changers..... | 382 |
| 7.9.1 | Causative..... | 383 |
| 7.9.2 | Passive..... | 385 |
| 7.9.3 | Impersonal passive..... | 391 |
| 7.9.4 | Sequential impersonal passive..... | 394 |

| | | |
|--------|--|-----|
| 7.9.5 | Middle..... | 396 |
| 7.9.6 | Reciprocal | 399 |
| 7.10 | Adjectivals..... | 401 |
| 7.10.1 | Physical property I | 407 |
| 7.10.2 | Physical property II | 410 |
| 7.10.3 | Stative | 412 |
| 7.10.5 | Plural | 415 |
| 7.10.6 | Distributive | 416 |
| 7.11 | Tense markers..... | 418 |
| 7.11.1 | Past tense clitics | 419 |
| 7.11.2 | Non-past tense adverbials..... | 422 |
| 7.12 | Epistemic qualification | 424 |
| 7.12.1 | Inferential | 424 |
| 7.12.2 | Counter-expectational..... | 425 |
| 7.12.3 | Confirmational | 426 |
| 8 | Other Word Classes..... | 427 |
| 8.1 | Quantifiers..... | 427 |
| 8.1.1 | Non-numeral quantifiers..... | 429 |
| 8.1.2 | Numeral quantifiers..... | 430 |
| 8.2 | Demonstratives | 434 |
| 8.2.1 | Spatial nominal demonstratives..... | 434 |
| 8.2.2 | Temporal nominal demonstratives..... | 435 |
| 8.2.3 | Anaphoric demonstratives | 437 |
| 8.2.4 | Locative adverbial demonstratives..... | 440 |
| 8.3 | Adverbs | 447 |
| 8.4 | Conjunctions..... | 450 |
| 8.4.1 | Subordinating conjunctions | 450 |
| 8.4.2 | Coordinating conjunctions..... | 453 |
| 8.5 | Prepositions | 457 |
| 8.6 | Interjections..... | 459 |
| 8.7 | Ideophones | 460 |
| 8.8 | Infantile imperatives | 462 |
| 8.9 | Time expressions | 462 |

| | |
|---|-----|
| 8.10 Greetings | 465 |
| 9 Phrases and Clauses | 471 |
| 9.1 Noun phrase structure..... | 471 |
| 9.2 Possession..... | 474 |
| 9.3 Basic clause structure..... | 479 |
| 9.4 Causative clauses | 483 |
| 9.5 Auxiliary verbs | 484 |
| 9.5.1 Auxiliary verbs proper..... | 484 |
| 9.5.2 Auxiliary-like verbs | 486 |
| 9.5.3 Occupative aspect..... | 488 |
| 9.6 Copula clauses | 489 |
| 9.7 Subordinate clause structure..... | 493 |
| 9.8 Relative clauses | 496 |
| 9.8.1 Common argument..... | 497 |
| 9.8.2 Relative pronouns..... | 500 |
| 9.8.3 Relative clause structure..... | 501 |
| 9.9 Adverbial clauses | 504 |
| 9.9.1 Temporal..... | 505 |
| 9.9.2 Simultaneous..... | 507 |
| 9.9.3 Manner..... | 508 |
| 9.9.4 Purpose | 510 |
| 9.9.5 Result..... | 511 |
| 9.9.6 Reason/Cause..... | 512 |
| 9.9.7 Conditional..... | 514 |
| 9.9.8 Hypothetical..... | 516 |
| 9.9.9 Concessive..... | 517 |
| 9.10 Verbless clauses | 517 |
| 9.10.1 Verbless copulative clause | 518 |
| 9.10.2 Verbless dative/genitive clause..... | 520 |
| 9.11 Focus and topic constructions | 521 |
| 9.11.1 Cleft construction | 521 |
| 9.11.2 Left-dislocation..... | 523 |
| 9.11.3 Apposition..... | 525 |

| | |
|---|-----|
| 9.12 Questions..... | 526 |
| 9.12.1 Polar questions | 526 |
| 9.12.2 Content questions..... | 529 |
| 9.12.3 Alternative questions..... | 533 |
| 9.12.4 Tags | 534 |
| 9.13 Complementation | 535 |
| 9.13.1 Complement clauses | 535 |
| 9.13.2 Complementation strategies..... | 538 |
| 9.13.3 Complement-taking verbs..... | 540 |
| 9.14 Reported speech | 541 |
| 9.15 Comparative constructions..... | 546 |
| 9.15.1 Mono-clausal comparative construction..... | 546 |
| 9.15.2 Bi-clausal comparative construction | 548 |
| 9.15.3 Equative clauses | 549 |
| 9.15.4 Superlative clauses | 549 |
| 9.16 Negation..... | 550 |
| 9.16.1 Indicative and interrogative..... | 552 |
| 9.16.2 Prohibitive | 554 |
| 9.16.3 Copula clauses..... | 555 |
| 9.16.4 Negative tags..... | 557 |
| 10 Sentences and Beyond..... | 559 |
| 10.1 Clause coordination | 559 |
| 10.1.1 Additional | 559 |
| 10.1.2 Contrastive..... | 561 |
| 10.1.3 Disjunctive | 562 |
| 10.2 Clause chaining..... | 563 |
| 10.2.1 Sequential clause chains | 564 |
| 10.2.2 Simultaneous clause chains | 569 |
| Appendix A—Sample Texts | 573 |
| 1 Lṛṅt ^a (Enemies)..... | 573 |
| 2 Rókés (Beekeeping)..... | 591 |
| 3 Cεṅ (Woodpecker) | 600 |
| 4 Ámázea Máv ^a (Mr. Lion) | 605 |

| | | |
|---|--|-----|
| 5 | Tadápítotósi-icik ^a (Sayings) | 612 |
| | Appendix B—Ik Root Lexicon | 617 |
| | Appendix C—Conjugations of Similar Verbs | 687 |
| | References..... | 691 |
| | Subject Index..... | 701 |
| | Samenvatting | 709 |
| | Curriculum Vitae..... | 715 |

To my parents, Arlin & Velma:

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And both, for taking a young boy to Africa long ago...

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In Memory of:

Lochiyo Gax Gabriel (197?-2011)

Lopuwa Paul (198?-2014)

Ik friends whose lives were cut short by sickness

Foreword

This book contains *a* grammar of Ik, not *the* grammar. It is really just a ‘state of knowledge’ report of one individual non-Ik linguist at one point in history. Of the many topics covered in the following pages, some are no doubt incorrectly analyzed, while others could probably have been correctly analyzed in more than one way. And then, of course, the ways of phrasing the descriptions of each linguistic entity number to infinity.

Trying to capture the grammar of a living language linearly on paper is a little like photographing an elusive wild animal. As it darts through the underbrush, you snap your photo. What the photo captures is true: the shape and contours of the animal, its color and patterns, its mode of movement. But as true as the photo may be, it in no way does justice to the living beast. In the same way, a written grammar can trace the structural features of a language: its phonemes, morphemes, syntactic structures. But seen in light of the living language in use, the grammar pales in comparison. Even after completing this project, all I have to do is walk through the neighborhood, overhear a conversation, or attend a public function to learn something totally new about the language. After cataloguing all the phonemes, morphemes, and many lexemes, I can still hear a string of Ik speech whose meaning escapes me entirely. I have tried to write a true description of Ik, but the language in use is much more colorful...and alive.

With this grammar I have also tried to initiate a philological tradition for Ik—‘philological’ in the etymological sense of ‘love of learning’, yes, but also in the sense of language study from written sources. From now on, one can study Ik from books alone, perhaps furthering the inquiry into the relationships between East African languages and where they came from. Attending to these questions is attending to the people who speak these languages, and this is one way we can communicate our love for them too.

“Man [and the language he speaks: TBS] is a mystery. It needs to be unraveled, and if you spend your whole life unraveling it, don’t say you’ve wasted time. I am studying that mystery because I want to be a human being.”

F. Dostoevsky 1839.

“To decipher man [and the language he speaks: TBS] is essentially to try to find out how the world was made and how it ought to go on making itself. The science of man is the practical and theoretical science of hominisation. It means profound study of the past and of origins. But still more, it means constructive experiment pursued on a continually renewed object.”

Teilhard de Chardin (1881-1955)

“Grammar would appear to represent the pinnacle of humanness.”

Martin Edwardes (2010)

Abbreviations

| | | | |
|--------|----------------------|-------|--------------------|
| 1 | first person | DISTR | distributive |
| 2 | second person | DP | dummy pronoun |
| 3 | third person | EMPH | emphatic particle |
| A | transitive subject | EV | epenthetic vowel |
| ABL | ablative | EXC | exclusive |
| ABST | abstractive | FF | final form |
| ACC | accusative | FILL | filler word |
| ADJ.PL | adjectival plural | FUT2 | removed future |
| ADV | adverb | FUT3 | remote future |
| AGT | agentive | G | glide (semi-vowel) |
| AND | andative | GEN | genitive |
| ANPH | anaphoric | H | high tone |
| ATR | advanced tongue root | HORT | hortative |
| AUX | auxiliary | HYPO | hypothetical |
| BHVR | behaviorative | IDEO | ideophone |
| C | consonant | IMP | imperative |
| CAUS | causative | INC | inclusive |
| CC | copula complement | INCH | inchoative |
| COMP | completive | INF | infinitive |
| COMPL | complementizer | INFR | inferential |
| CONF | confirmational | INS | instrumental |
| CONJ | conjunction | INT | intentional |
| COP | copulative | INTJ | interjection |
| CS | copula subject | IPFV | imperfective |
| DAT | dative | IPS | impersonal passive |
| DEF | definite | IRR | irrealis |
| DEM | demonstrative | L | low tone |
| DIM | diminutive | M | mid pitch |
| DIST | distal | MED | medial |

| | | | |
|-------|----------------------|-------|-------------------------|
| MID | middle | PST2 | removed past |
| N | noun | PST3 | remote past |
| NF | non-final form | QUOT | quotative particle |
| NOM | nominative | REAL | realis |
| NP | noun phrase | RECIP | reciprocal |
| O | object | REFL | reflexive |
| OBL | oblique | REL | relative pronoun |
| OPT | optative | S | subject |
| PASS | passive | SEQ | sequential |
| PAT | patientive | SG | singular |
| PHYS1 | physical property I | SIML | simultaneous |
| PHYS2 | physical property II | SING | singulative |
| PL | plurative, plural | SPS | sequential impersonal |
| PLUR | pluractional | | passive |
| POSS | possessive | STAT | stative |
| PRES | distended present | SUB | substantive |
| PRF | perfect | SUBJ | subjunctive |
| PRO | pronoun | V | verb, vowel |
| PROX | proximal | VCS | verbless clause subject |
| PSSM | possessum | VEN | venitive |
| PST1 | recent past | | |

Symbols

| | |
|-----|--|
| ∅ | zero realization |
| * | proto- or archaic form |
| ** | ungrammatical |
| → | realized as, progressively assimilates |
| ← | regressively assimilates |
| ↗ | is not realized as |
| = | results in |
| ≠ | does not result in |
| [] | phonetic form, allophone |
| // | phonemic form, allomorph |
| { } | morphemic form |
| - | morpheme boundary |
| = | clitic boundary |
| + | joined to |
| > | historically becomes |
| ↓ | downdrift, downstep |
| ˊ | high tone or pitch |
| ˋ | low pitch |
| ˊˋ | low-falling pitch |
| ˊˋˊ | mid-to-high pitch rise |
| ˋˊ | high-to-low pitch fall |
| - | mid pitch |
| + | floating [+ATR] |
| | pause |
| † | deceased |

Affixes

| <i>Affix</i> | <i>Abbreviation</i> | <i>Full name</i> | <i>Section</i> |
|---------------------|---------------------|----------------------------------|----------------|
| -Ø | [OBL] | Oblique Case | §6.3.1 |
| -Ø | [IRR] | Irrealis Modality | §7.7.1 |
| -a ⁺ | NOM | Nominative Case | §6.3.2 |
| -a ⁺ | REAL | Realis Modality | §7.7.2 |
| -aák ⁺ - | DISTR | Distributive Adjectival | §7.10.6 |
| -amá ⁺ - | PAT | Patientive Nominalizer | §7.2.4 |
| -án ⁺ - | STAT | Stative Adjectival | §7.10.3 |
| -aní- | IPS | Impersonal Passive | §7.9.3 |
| -ano´ | OPT/HORT | Optative First Plural/Hortative | §7.7.4 |
| -ásí- | ABST | Abstractive Nominalizer | §7.2.3 |
| -áti | 3PL | Third Person Plural | §5.1.2, §7.5 |
| -ɔ | INS | Instrumental Case | §6.3.3 |
| -ɔ | ABL | Ablative Case | §6.3.4 |
| -ɔni- | INF | Intransitive Infinitive | §7.2.1 |
| -ɔsí- | PASS | Passive | §7.9.2 |
| -ɛ | GEN | Genitive Case | §6.3.5 |
| -ɛdɛ- | POSS.SG | Possessive Singulative | §4.2.6 |
| -és | INT | Intentional Modality | §7.7.3 |
| -és | IPFV | Imperfective Aspect | §7.8.3 |
| -ese´ | SPS | Sequential Impersonal Passive | §7.9.4 |
| -ésí- | INF | Transitive Infinitive | §7.2.2 |
| -et- | VEN | Venitive Directional | §7.4.2 |
| -et- | INCH | Inchoative Aspect | §7.8.5 |
| -e´ | IMP.SG | Imperative Singular | §7.7.6 |
| -i | 3SG | Third Person Singular | §5.1.2, §7.5 |
| -í- | PLUR | Pluractional Aspect | §7.8.8 |
| -ia´- | 1SG[SEQ] | Sequential First Person Singular | §7.8.1 |
| -ís | IMP.PL | Imperative Plural | §7.7.6 |

| <i>Affix</i> | <i>Abbreviation</i> | <i>Full name</i> | <i>Section</i> |
|-------------------|---------------------|-----------------------------------|----------------|
| -ídi | 2SG | Second Person Singular | §5.1.2, §7.5 |
| -íí | 1SG | First Person Singular | §5.1.2, §7.5 |
| -ík- | ADJ.PL | Plural Adjectival | §7.10.5 |
| -íka- | PL | Plurative III | §4.2.3 |
| -íkó- | PL | Plurative I | §4.2.1 |
| -ím- | MID | Middle 2 | §7.9.5 |
| -íma´ | 1PL.EXC[OPT] | Optative First Plural Exclusive | §7.7.4 |
| -íma´- | 1PL.EXC[SEQ] | Sequential First Plural Exclusive | §7.8.1 |
| -ímí | 1PL.EXC | First Person Plural Exclusive | §5.1.2, §7.5 |
| -ínósí- | RECIP | Reciprocal | §7.9.6 |
| -íne´ | 1SG[OPT] | Optative First Singular | §7.7.4 |
| -íni | 3PL[SEQ] | Sequential Third Person Plural | §7.8.1 |
| -íni- | POSS.PL | Possessive Plurative | §4.2.5 |
| -ísíni | 1PL.INC | First Person Plural Inclusive | §5.1.2, §7.5 |
| -ít- | CAUS | Causative | §7.9.1 |
| -ítí | 2PL | Second Person Plural | §5.1.2, §7.5 |
| -ítíni- | PL | Plurative II | §4.2.2 |
| -ka ⁺ | ACC | Accusative Case | §6.3.6 |
| -kɔ | COP | Copulative Case | §6.3.8 |
| -kɔ | SEQ | Sequential Aspect | §7.8.1 |
| -kɛ | DAT | Dative Case | §6.3.7 |
| -kɛ | SIML | Simultaneous Aspect | §7.8.2 |
| -nanesi- | BHVR | Behaviorative Verbalizer | §7.2.6 |
| -uʔɔtí- | AND | Andative Directional | §7.4.1 |
| -uʔɔtí- | COMP | Completive Aspect | §7.8.6 |
| -ʋd- | PHYS1 | Physical Property I Adjectival | §7.10.1 |
| -ʋkV- | SUB | Substantive Nominalizer | §7.2.5 |
| -ʋm- | MID | Middle 1 | §7.9.5 |
| -ʋm- | PHYS2 | Physical Property II Adjectival | §7.10.2 |
| -ʋma- | SING | Human Singulative | §4.2.7 |
| -ʔka ⁺ | PRF | Present Perfect Aspect | §7.8.7 |

Morphemes grammaticalizing into affixes (?)

| <i>Morpheme</i> | <i>Abbreviation</i> | <i>Full name</i> | <i>Section</i> |
|---------------------|---------------------|----------------------|----------------|
| -ajíká- | INT.PL | Internal Plurative | §4.3.6 |
| -ama ⁺ - | AGT.SG | Agentive Singular | §4.3.4 |
| -ení- | PSSM | Impersonal Possessum | §5.2 |
| -icé- | AGT.PL | Agentive Plural | §4.3.4 |
| -icíká- | VAR.PL | Variative Plurative | §4.3.7 |
| -imá- | DIM.SG | Diminutive Singular | §4.3.3 |
| -wicé- | DIM.PL | Diminutive Plural | §4.3.3 |

Archaic Affixes

| <i>Affix</i> | <i>Function</i> | <i>Source</i> | <i>Section</i> |
|--------------|------------------------|------------------------|----------------|
| *a- | Gender marker? | ? | §4.1.4 |
| *a- | Verbal prefix | ? | §7.1.4 |
| *-a(t) | Singulative | Teso-Turkana/Cushitic? | §4.1.4 |
| *-áŋi- | First sg. possessive | Proto-/Pre-Kuliak? | §4.4 |
| *-ata- | Singulative | Teso-Turkana/Cushitic? | §4.1.4 |
| *-ati- | Singulative | Teso-Turkana/Cushitic? | §4.1.4 |
| *-atí- | Third sg. possessive | Proto-/Pre-Kuliak? | §4.4 |
| *ɔ-/o- | Gender marker? | ? | §4.1.4 |
| *ε-/e- | Verbal prefix | ? | §7.1.4 |
| *ha- | Verbal prefix | ? | §7.1.4 |
| *I-/i- | Class 2 verbal prefix | Teso-Turkana | §7.1.4 |
| *-ísí- | Nominalizer | Eastern Nilotic | §7.2.3 |
| *-ita- | Singulative | Teso-Turkana | §4.1.4 |
| *-iti- | Singulative | Teso-Turkana | §4.1.4 |
| *-kɪ/ki- | Preposition, case? | (pre-)Nilotic | §4.1.4 |
| *lo-/lɔ- | Locative masc./neuter | Teso-Turkana | §4.1.4 |
| *na- | Locative feminine | Teso-Turkana | §4.1.4 |
| *-nan- | Nominalizer | ? | §7.2.5 |
| *nd(V)- | Interrogative | Proto-Nilo-Saharan | §5.4 |
| *nt(V)- | Interrogative | Proto-Nilo-Saharan | §5.4 |
| *ɲV- | Nominal gender | Teso-Turkana | §4.1.4 |
| *ŋa- | Feminine plural prefix | Teso-Turkana | §4.1.4 |
| *ŋi- | Masc./neuter plurative | Teso-Turkana | §4.1.4 |
| *-oo- | Second sg. possessive | Proto-/Pre-Kuliak? | §4.4 |
| *sɪ-/si- | Nominal prefix | (pre-)Nilotic | §4.1.4 |
| *tɔ-/to-/ta/ | Class I verbal subsec. | Teso-Turkana | §7.1.4 |
| *tɛ-/te- | Verbal prefix | ? | §7.1.4 |
| *tɪ-/ti- | Nominal prefix | ? | §4.1.4 |
| *tɪ-/ti- | Verbal prefix | ? | §7.1.4 |

| <i>Affix</i> | <i>Function</i> | <i>Source</i> | <i>Section</i> |
|--------------|-----------------|---------------------|----------------|
| *-Vc | Singulative | Cushitic | §4.1.4 |
| *-Vd- | Adjectival? | Proto-Nilo-Saharan? | §7.10.2 |
| *-Vk- | Adjectival? | Proto-Nilo-Saharan? | §7.10.2 |
| *-Vl- | Adjectival? | Proto-Nilo-Saharan? | §7.10.2 |
| *-Vɲ | Singulative | Cushitic | §4.1.4 |
| *-Vɲ- | Adjectival? | Proto-Nilo-Saharan? | §7.10.2 |
| *-Vɳ- | Adjectival? | Proto-Nilo-Saharan? | §7.10.2 |
| *-Vr- | Adjectival? | Proto-Nilo-Saharan? | §7.10.2 |
| *-Vs- | Adjectival? | Proto-Nilo-Saharan? | §7.10.2 |
| *-Vts' | Singulative | Cushitic/Surmic? | §4.1.4 |

Clitics

| <i>Clitic</i> | <i>Abbr.</i> | <i>Full name</i> | <i>Section</i> |
|---------------|--------------|-----------------------------------|----------------|
| =batse | PST2 | Removed Past Marker | §7.11 |
| =já | ADV | Adverb: ‘so, then, just’ | §8.3 |
| =jikɪ | ADV | Adverb: ‘also, too, even’ | §8.3 |
| =kótó | ADV | Adverb: ‘so, then, but’ | §8.3 |
| =ke | DEM.SG.DIST | Distal Demonstrative Enclitic Sg. | §8.2.1 |
| =ki | DEM.PL | Distal Demonstrative Enclitic Pl. | §8.2.1 |
| =na | DEM.SG | Proximal Dem. Enclitic Sg. | §8.2.1 |
| =na | REL.SG | Non-Past Relative Pronoun Sg. | §5.6 |
| =náka | PST1 | Recent Past Marker | §7.11 |
| =ná-ka | DEM.SG-PST1 | Recent Past Demonstrative Sg. | §8.2.2 |
| | REL.SG-PST1 | Recent Past Relative Pronoun Sg. | §5.6 |
| =ɲáka | ADV | Adverb: ‘so, then, just’ | §8.3 |
| =nɔkɔ | PST3 | Remote Past Marker | §7.11 |
| =nɔ-kɔ | DEM.SG-PST3 | Remote Past Demonstrative Sg. | §8.2.2 |
| | REL.SG-PST3 | Remote Past Relative Pro. Sg. | §5.6 |
| =ne | DEM.SG.MED | Medial Demonstrative Enclitic Sg. | §8.2.1 |
| =ni | DEM.PL | Proximal Dem. Enclitic Pl. | §8.2.1 |
| =ni | REL.PL | Non-Past Relative Pronoun Pl. | §8.2.2 |
| | | | §5.6 |
| =ní-ki | DEM.PL-PST1 | Recent Past Demonstrative Pl. | §8.2.2 |
| | REL.PL-PST1 | Recent Past Relative Pronoun Pl. | §5.6 |
| =nu-ku | REL.PL-PST3 | Remote Past Demonstrative Pl. | §8.2.2 |
| | | Remote Past Relative Pronoun Pl. | §5.6 |
| =si-na | DEM.SG-PST2 | Removed Past Demonstrative Sg. | §8.2.2 |
| | REL.SG-PST2 | Removed Past Relative Pro. Sg. | §5.6 |
| =si-ni | REL.PL-PST2 | Removed Past Demonstrative Pl. | §8.2.2 |
| | | Removed Past Relative Pro. Pl. | §5.6 |
| =‘dée | ANPH.SG | Anaphoric Demonstrative Sg. | §8.2.3 |
| =‘díí | ANPH.PL | Anaphoric Demonstrative Plural | §8.2.3 |

| <i>Clitic</i> | <i>Abbr.</i> | <i>Full name</i> | <i>Section</i> |
|-------------------|--------------|------------------------------------|----------------|
| = 'de | DP | Dummy Pronoun | §5.10, §6.6 |
| ki = | DIST | Distal Demonstrative Proclitic Sg. | §5.5, §8.2.4 |
| ki = | DIST | Distal Demonstrative Proclitic Pl. | §5.5, §8.2.4 |
| na = | PROX | Proximal Dem. Proclitic Sg. | §5.5, §8.2.4 |
| na ⁺ = | CONJ | Subordinating Conjunction | §8.4.1 |
| ni = | PROX | Proximal Dem. Proclitic Pl. | §5.5, §8.2.4 |

1 Introduction

This book is a description of the grammar of Ik, a Kuliak (Rub) language spoken in northeast Uganda. Since any given language is the cognitive tool and cultural capital of its speakers, knowing a bit about those speakers may help one to better know the language. For that reason, this grammar of Ik begins with a short description of the Ik people themselves. This is then followed by a general introduction to the subject at hand: the Ik language.

1.1. The Ik people

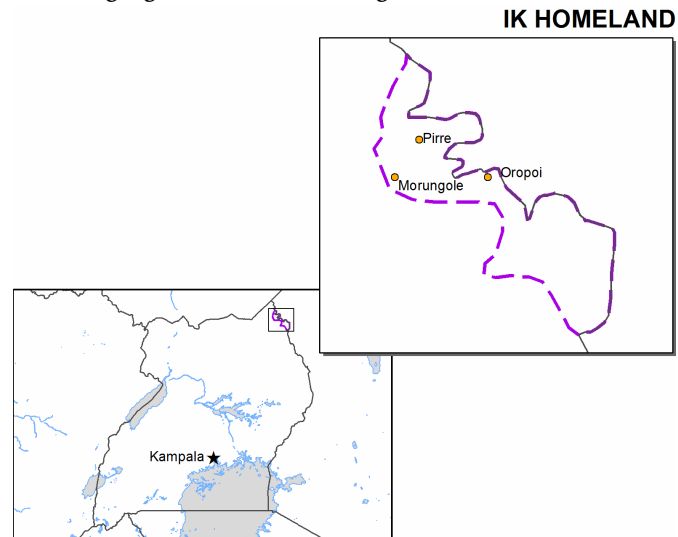
The people whose language is the subject of this book call themselves the Ik (sg. *Icé-ám* [itʃéám], pl. *Ik^a* [iká]). Because the Ik word for ‘head’ is also *ik*, some have speculated that the ethnic name comes from the Ik being the ‘head’ of a southerly migration long ago. However, an insight from Ik morphology makes this unlikely: Only in the nominative case do the two words resemble each other. With other cases, such as the accusative, the resemblance vanishes: cf. *icé-k^a* ‘Ik-ACC’ and *iká-k^a* ‘head-ACC’. A more likely connection from the grammar comes from the plural agentive suffix {-icé-} whose form is identical to that of the ethnonym. The plural agentive suffix conveys the idea of ‘the people (who...)’. If this semantic connection is on the right track, then the Ik refer to themselves simply as The People.

The cattle-keeping Teso-Turkana (Eastern Nilotic) tribes surrounding the Ik have two names for them, both of which mean ‘poor, without livestock’. These are *Ŋíkúlyâk* (sg. *Ékulyakít*) and *Ŋíteusó* (sg. *Éteusóít*). Both terms are also applied to members of the Turkana or Karimojong tribes who are considered poor. The latter term, *Ŋíteusó*, gave rise to ‘Teuso’, the name by which the Ik people and language have been known abroad up to recent years. And *Ŋíkúlyâk* is the source of ‘Kuliak’, the title given to the linguistic subgroup of which it is a part, along with So and Nyang’í (Heine 1976).

Due to its derogatory overtones, some scholars have suggested replacing *Kuliak* with *Rub* (a Proto-Kuliak word for ‘people’; see Ehret 1981; cf. *Ik roba-* ‘people’), but it seems the older term has become conventional. Among other Ugandan peoples and internationally, the Ik are known simply as the ‘Teuso’ or ‘Ik’ (pronounced [íkà] or [ík̩] or somewhere in between).

The Ik people live in Kaabong District (formerly part of Kotido District), Dodoth County, Kamion Subcounty, in the extreme northeast corner of Uganda’s Karamoja Region (see Map 1 below). Their current homeland stretches from Mt. *Lopokók* and *Tímu* Forest in the south to Mt. *Morújole* and Kidepo National Park in the north, occupying a narrow, 50 km long/1 km wide swath of ground along the frontier between Uganda and Kenya. A group of several hundred Ik is reported to be living in New Site, Sudan, while around 100 or so more can be found scattered across north-western Kenya seeking livelihood in urban centers. Beyond these, a small community of Ik from one family lives in Masindi, western Uganda. Although in the early 21st century the Ik mostly inhabit the nation of Uganda, it seems in times past they roamed freely between Uganda, Kenya, Ethiopia, and Sudan.

Map 1: The Ik language area in northeast Uganda



When not living in urban centers like Kaabong (Uganda) or Kakuma (Kenya), the Ik live in *awik*^a, ‘manyattas’ or ‘villages’—homesteads enclosed by a high fence made of sticks, poles, and thorns (*maríj*). These homesteads may be small, hosting only one family, or big, hosting ten to twenty related or unrelated families. In Map 2 below, all the eighty-one (81) known (as of 2012) current Ik homesteads are marked with white pins:

Map 2—Horizontal view of Ik homesteads from the south



In Map 2, the thirty (30) homesteads clustered on the right side are known collectively as *Tímu*, while the next eight (8) ones to the left may be referred to as *Kámion*. The three (3) in the very middle are in *Lotíjám*, and the ten (10) just to the left of *Lotíjám* are in *Lokwakaramo*¹. Finally, the thirty (30) homesteads clustered to the far left are known collectively as *Morújole*.

Getting an accurate population number for the Ik has been problematic. Members of the Toposa, Turkana and Karimojong tribes intermingle and occasionally intermarry with the Ik. Numbers of family members are inflated when relief is suspected as the reason for the census. Although figures as low as 1,300 (Turnbull 1972:64) and 4,000 (Heine 1999:11) have been proposed in the past, my impression is that population has grown to at least around 7500, thanks to increased security and access to healthcare.

1.1.1 History

According to a major strand of their own oral tradition, the Ik came to their current homeland from Egypt, down the Blue Nile, by way of Ethiopia. The Egyptian origin hypothesis is highly speculative and perhaps not falsifiable. Tucker saw a connection between the Ik personal pronouns and those of Middle (1967b) or Ancient (1971) Egyptian, and the Ik themselves wonder whether their ethnonym might be related to the Egyptian *Iksos* people. But whatever their ultimate provenance may be, a more sure-footed starting point for reconstructing Ik prehistory lies within Ethiopia. Lamberti considered it the ‘unquestionable result’ of his 1988 study that the Ik moved to Uganda from Ethiopia (p. 6). He cites the ‘numerous conformities’ Ik (Kuliak) shares with Ethiopian Afroasiatic and Nilo-Saharan languages alike (p. 146), and supposes that the Ik birthplace or *Urheimat* is in the west-central Ethiopian province of Gojjam (p. 14). So though it is still impossible to piece together Ik prehistory in detail, a reasonable guess is that the Kuliak peoples spent several thousand years (Knighton 2005:40) migrating down from south-western Ethiopia and roaming the deserts and desolate hills among the borderlands of Sudan, Ethiopia, Kenya, and Uganda.

The initial migration from Ethiopia is thought to have been motivated by hunger. After finding wild honey and fruits on *Sojot* mountain in Kenya, the Ik sent young men further south in search of even better lands. Eventually they all moved southward, and settled in *Tulútúl*, on the edge of *Tímu* Forest. After some years, a skin disease (*kodó*) ravaged the people, so that they split up and settled in other areas. Later, raids from slave traders caused them to divide again and migrate once more. This pattern of migrating to escape hunger, thirst, disease, and insecurity has characterized Ik (pre-)history up to this day. As a result, the Ik have become masters of surviving against terrible odds. The good humor they maintain in the face of hardship is testimony to their indomitable spirit and its struggle for life.

By the late 1800s, foreigners began reaching northern Karamoja and may have had contact with the Ik. In the 1950s, Catholic priests evangelized the Ik together with the Karimojong. Then, the colonial British government of Uganda turned the Kidepo Valley, one of the Ik's prime hunting grounds, into a game park in the early 1960s. The Ik's expulsion from the park was soon followed by the famine and societal upheaval so controversially narrated in the book *The Mountain People* (Turnbull 1972). In 1980, a cholera epidemic befell the Ik, killing hundreds. This prompted a widespread scattering of people, separating even parents from children.

What is known about the Ik's past tells a story of eking out survival amidst difficult, traumatic situations. To some degree, these difficulties have continued into the 21st century in the form of extreme climatic flux, tribal conflict, lack of government services, ethnic discrimination, and political marginalization. Despite these challenges, the Ik are growing numerically and are poised to grow as a culture and society. At the time of writing this grammar, things are improving on many fronts. Inter-tribal violence is being curtailed by disarmament. Government services are coming to the Ik area. And Ik political representation and human rights' awareness is on the rise.

Pending their ongoing health and the security of the Ugandan nation as a whole, the future of the Ik looks brighter than their recent past. To paraphrase a priest-scientist speaking of humankind, "Even in this century, [the Ik] are still living as chance circumstances decide for them, with no aim but their daily bread and quiet old age...After having for so long done no more than allow [themselves] to live, [the Ik] will one day understand that the time has come to undertake [their] own development and to mark [their] own road" (De Chardin 1978:182-195). This grammar is devoted to giving the Ik the cognitive and cultural tools they need to make the difficult transition from an isolated traditional society to a modern, national one... and from there to share in greater human solidarity at the global level.

1.1.2 Ecology

The current Ik habitat portrays a scenario oft-repeated in this part of the world: minority non-pastoralist groups—often hunter-gatherer and/or farmers—being forced to high ground by powerful invading cattle-keepers. This reportedly happened to the Kuliak peoples when the Teso-Turkana groups entered northeastern Uganda. Up to this day, the Ik and the So live in mountainous areas (the Nyang'ía live at the base of a mountain range). Compare this situation to that of the South Omotic Dime people of Ethiopia who were pushed up in the mountains by the pastoralist Bodi who have them entrenched and embattled on all sides (Mulugeta 2008:1, 3). Like the Dime, the Ik are forcibly confined to their mountain perches. But they seem well adapted to them, having learned to exploit every available ecological niche. One worsening problem, though, is the lack of enough arable land.

For the terrain of Ikland (*Icé-kíj^a*) is rugged and precarious. Its rocky surface is strewn with granite, quartz, siltstone, and chert—traces of the birth of the Eastern Rift Valley. Altitudes range from 1800–3000 meters (6000–9000 ft.), and changes in height are often dramatic as mini-plateaus give way to steep ravines and gorges. The Ik are famous for their ability to traverse these gorges with speed and agility, especially when escaping enemies.

Moreover, the climate of Ikland is characterized by extremes. Rainy season (*otá*) typically starts in March or April, takes a break from June to August, and then resumes until December. On a light year, the rains may be scarce, leading to the desiccation of crops and wild plant foods. On a heavy year, the rains may be torrential, eroding topsoil and drowning crops in waterlogged soil. Dry season (*ódz*) usually begins in December and lasts until March. In a matter of weeks, the sun and wind blanch the vegetation, making the once lush landscape only a memory. Then the land is burned off to expose wildlife to hunting and to encourage new grass growth.

Despite the long dry periods, Ikland is still home to an abundant floral life. Lower-lying valleys are covered in bushland and wooded grassland, while in the higher slopes woodland and forest fade into an Afro-alpine zone. The Ik have a thorough knowledge of local vegetation; this is reflected in the 263 plant names already catalogued (Heine 1999:153–173). They use plants and trees as food, medicine, tools, toys, household items, and building materials. Some of the more common trees found in the area include those in (1):

(1) *Some trees indigenous to the Ik homeland*

| | | |
|--------------------|------------------------|------------------------------|
| asunán | ‘African pencil cedar’ | <i>Juniperus procera</i> |
| áts ^a | ‘Sycamore fig’ | <i>Ficus sycomorus</i> |
| ḃukólá | ‘Gerrard’s acacia’ | <i>Acacia gerrardii</i> |
| gázad ^a | ‘Red-pod terminalia’ | <i>Terminalia brownii</i> |
| itítí | ‘Flame tree’ | <i>Erythrina abyssinica</i> |
| mos | ‘Candelabra’ | <i>Euphorbia candelabrum</i> |
| tsum’ | ‘Desert date’ | <i>Balanites aegyptiaca</i> |
| tsóúr | ‘White-thorn acacia’ | <i>Acacia hockii</i> |

Ikland is also host to a remarkable array of bird species. For example, Kidepo Valley National Park, bordering Ik territory to the northwest, boasts an astonishing 472 recorded birds species. Some of the more commonly seen or heard species around the Ik homesteads include:

(2) *Some birds indigenous to the Ik homeland*

| | | |
|--------------------|-------------------------|--------------------------------|
| alálá | ‘Augur buzzard’ | <i>Buteo augur</i> |
| fúlukurú | ‘White-crested turaco’ | <i>Tauraco leucolophus</i> |
| itsók ^a | ‘Amethyst sunbird’ | <i>Chalcomitra amethystina</i> |
| káarakár | ‘Green wood-hoopoe’ | <i>Phoeniculus purpureus</i> |
| kíryooró | ‘Crested helmet shrike’ | <i>Prionops plumatus</i> |
| kórak ^a | ‘Fan-tailed raven’ | <i>Corvus rhipidurus</i> |
| múdufú | ‘Senegal coucal’ | <i>Centropus senegalensis</i> |
| tsits ^a | ‘Gabar goshawk’ | <i>Micronisus gabar</i> |

Although domestic chickens and wild birds provide an occasional meal for the Ik, small mammals supply the bulk of their protein intake. A century ago, Ikland was home to much of the great East African mega-fauna (elephants, rhinos, lions, buffalo, elands, etc.), but over-hunting with guns led to their extinction in most places outside the Kidepo park. Smaller animals, like the following, are still trapped and hunted regularly:

(3) *Some animals indigenous to the Ik homeland*

| | | |
|---------------------|---------------------|---------------------------------|
| borok ^a | ‘Bushpig’ | <i>Potamochoerus porcus</i> |
| gasó | ‘Warthog’ | <i>Phacochoerus aethiopicus</i> |
| kwótór | ‘Oribi’ | <i>Ourebia ourebi</i> |
| kwáláb ^a | ‘Bushbuck’ | <i>Tragelaphus scriptus</i> |
| ŋamur’ | ‘Common duiker’ | <i>Cephalophus grimmia</i> |
| ŋur’ | ‘Cane rat’ | <i>Thryonomys swinderianus</i> |
| ŋól | ‘Günther’s dik-dik’ | <i>Madoqua guentheri</i> |
| róg ^a | ‘Mountain reedbuck’ | <i>Redunca fulvorufula</i> |
| twómɔɔ | ‘Crested porcupine’ | <i>Hystrix cristata</i> |
| tsór | ‘Baboon’ | <i>Papio cyncephalus</i> |

The Ik names for many more biological species are found in Appendix B.

1.1.3 Economy

The Ik live off the land. At times they have been portrayed as pure hunter-gatherers forced to take up agriculture, but the truth is that they have been both hunter-gatherers and farmers for at least centuries. As adept survivalists, they have learned to exploit every available resource, whether meat or meal. They are omnivores and opportunists, hunting, trapping, gathering, and farming with the seasons. This broad survival strategy has enabled them to survive in an ecologically harsh yet fecund environment.

Trapping (*twók^a*) is done throughout the year, while hunting (*kak^a*) occurs only during dry season, as soon as the lower valleys have been burned off.

In addition to trapping and hunting, the Ik regularly harvest wild honey (*dād^o*) from tree-hives, rock-hives, and hand-made hives. Another relished treat—white ants (*dáj*)—is collected after the first big rains.

When harvested food supplies run low, the Ik return to the bush to forage for wild fruits and greens (*waicík^o*). However, this survival strategy has been constrained by regional insecurity. Not only does the bush provide meat, leather, honey, and greens, it also supplies grass (*ku^o*), sticks (*kedítín*), poles (*títúrík^o*), and bark fibers (*simitín*) for building or renovating houses, fences, and granaries. And when an Ik needs quick cash, they may sell these materials to the neighboring Dodoth or Turkana who are eager to buy.

It is often reported that the Ik have no livestock. While this is presently true, it has not long been the case. Before the 1970s, when spears and old rifles were the weapons of the day, the Ik still kept herds of cows, goats, and sheep. Today, however, the Ik keep no domestic animals larger than dogs and chickens longer than a few days or weeks. If any are acquired at all, they are soon either given to a Dodoth or Turkana friend for safe-keeping in his herd or killed and eaten. Otherwise, they will be stolen away. The Ik miss their herds of livestock and often dream of a future time when they can again eat meat and butter and drink milk to their satisfaction.

Farming (*tokób^o*) is the main economic activity of the Ik. It is an all-consuming effort that takes up much of the year and requires the contribution of all family members. The Ik cultivate sorghum (*hám*), finger millet (*réb^o*), and maize (*nabura^o*) as staple crops and supplement these with pumpkins (*kaidé^o*), beans (*morid^o*), and greens (*waicík^o*) of various kinds. The hard labor of agriculture is often done in groups of men and/or women. The payment for group work is typically home-brew sorghum or maize beer (*mes*). Harvested crops that are not immediately consumed are stored in granaries (*lódúríík^o*). The centrality of farming to the Ik is ritualized in the agricultural ceremonies they hold throughout the year. For example:

(4) *Ik agricultural ceremonies*

| | |
|---------------|---------------------------------------|
| inónómés | ‘ceremony for the first harvest’ |
| irórikés | ‘ceremony for opening the harvest’ |
| itówéés | ‘ceremony for blessing the seeds’ |
| dzíberika-mes | ‘ceremony for blessing farming tools’ |

Before the advent of the AK-47 rifle and the chaos it has caused around Ikland, the Ik used to carry on successful trade (*dzígw^a*) with the Turkana from Kenya. The Ik would exchange their snuff tobacco (*lótóó^a*), decorated gourds (*bolóik^a*), and grains (*ed^a*) for the Turkana’s milk (*ídw^a*), meat (*em*), animals (*ínw^a*), clothing (*kwázik^a*), and jewelry (*ηábitik^a*). In times of need, the two tribes could get what they did not have in exchange for what they had. Even though this trade remains today to a limited extent, the region’s violence has eroded a certain level of trust between the two groups.

1.1.4 *Society and culture*

The seven thousand or so Ik may be divided up on the basis of patriclan, family, gender, age, or government administrative unit. The twelve traditional clans, listed in (5), are exogamous, patrilineal, and patrilocal. When a particular clan gets too big, it can be divided into two, as in:

(5) *Ik patriclans*

| | |
|-----------------------|-----------------------|
| Sigétia I | ηίδótsa |
| Sigétia II | Télék ^a I |
| Komokua I | Télék ^a II |
| Komokua II | Gadúkúη |
| Νορóbat | ηίβόηοrana |
| Iléηí-ik ^a | Úzet ^a |

Clans are tied to certain areas historically, but because Ik are required to marry outside their clan, clan members may end up in different territory. A newly married couple starts their own nuclear family (*ts’adí-ékw^a*, lit. ‘fire-

eye' or 'hearth'), building a homestead either attached to the bridegroom's parents' village or in a new, separate spot. Clan and family ties are strong, to the point that kinship relations form the backbone of Ik society.

Men and women have fairly clear-cut divisions of labor. Men protect the family, hunt, trap, farm, cut and bring trees from the forest, and build fences and houses. Women fetch water and firewood, cook and clean, farm, thatch houses, and raise children. Fathers and mother both discipline children. Not too long ago, the Ik further divided themselves according to age-groups or age-sets. Each age-group had a totem based on a particular animal. Each age-group had its own rites of initiation, activities, benefits, and duties. Today, with the influence of modern education and forms of Christianity leading to cultural apathy, the age-group system has sadly been mostly abandoned. These age-groups included the following (Heine 1999):

(6) *Ik age-groups*

| | |
|---------------------|-----------------|
| Basaúr | 'Eland' |
| Gasar | 'Buffalo' |
| Gwaíts ^a | 'Giraffe' |
| Kađokó ⁱ | 'Vervet Monkey' |
| Kođow ^a | 'Gazelle' |
| Leweŋ | 'Ostrich' |
| Rágw ^a | 'Ox' |

Traditional patriclan and family divisions are often centered around homesteads clustered into units called 'villages'. On top of this organization, the Ugandan government has laid its own administrative system. This system starts at the 'village' and then goes up through wards, parishes, subcounties, and so on up to the district level. The newly founded (2010) Kamion Subcounty comprises all the Ik population and is divided into five parishes: Kapalu, Timu, Kamion, Lokwakaramoe, and Moruŋole.

Traditionally, the male elders ruled Ik society. Elderly woman gave input when invited. Men can become elders on the basis of age but also influence or ability to speak well publicly. The elders built a system of taboos, fines for breaking taboos, and punishments for wrong-doing. Since British rule more than a hundred years ago, the Ik also have had government-appointed or popularly elected Ik as officials. These include Villages Counselors and Parish Chiefs. They have official authority but comparatively little real authority among the people. The two systems of rule now coexist and conflict in Ikland. People are not always sure which system to refer to when a crime has been committed. Traditional punishments like caning are discouraged by the government whose own judicial procedures are corrupt. So unfortunately, true justice is rarely upheld for the victims of crimes.

In terms of religion, the Ik practice what has been generally called African Traditional Religion (ATR). This religion involves a sky-god called *Didi-Gwarí*, literally ‘weather-top’, who is mostly associated with benevolent or malevolent weather patterns and the effects they have on the Ik’s livelihood. The Ik can influence this god through prayer (*wáán*) and sacrifice (*síts’^a*).

Various forms of Christianity are now intermingled with traditional Ik religion: Roman Catholicism from the mid-20th century, Anglicanism and Pentecostalism from the early 21st century. Although the supreme God of Christianity can be translated into Ik as *Didi-Gwarí*, it is more commonly rendered *Nakúj*, after the sky-god *Akuj* of the Karimojong and Turkana.

While *Didi-Gwarí* governs the affairs of the skies, it is the lesser gods (*nakújüicik^a*) and evil spirits (*nekípyéik^a*) who meddle in the daily affairs of people. More than the great Weather-Top sky-god, these lesser spirits can be manipulated by skilled practitioners, for either good purposes like healing or evil purposes like killing. Those Ik who are skilled at using traditional herbs (*cémérnk^a*) for healing are called *ηkwaatikw^a*. And those who use charms, amulets, and other devices to curse or hex another are called *subésí-ik^a*. These hexers are often paid to carry out revenge.

In Ik belief, spirits can also be embodied, and their embodiments seem to be ambiguous in regard to their intent toward humankind. Stories circulate among the Ik about the *kíjá-wík^a*, or ‘earth-children’: small, often light-skinned humanoid creatures seen on paths or among trees. While not outright dangerous, these forest-fairies often warn Ik settlers against settling in their territory. Another embodiment is the *badi-am*, a ‘wizard’ or ‘sorcerer’. Typically spoken of as a human, these mysterious figures are said to move about at night, haunting villages and doing things weird and fantastic. They are more humorous than dangerous. Owls (*lófúk^a*) are believed to be wizards transforming themselves into birds, and hyenas (*haí*) are thought to be the animal that wizards travel around on at night.

The strong belief among the Ik that physical effects in their lifeworld have spiritual causes, often initiated by other humans manipulating the spirits, has led to a culture of superstition. Where one might expect conventional wisdom, for example in the realm of child-rearing, one gets instead superstitions encapsulated in short sayings. Consider the following:

(7) *Na ima zekwétjó gwaséé na ηυésíéé, badukota ηwaát^a.*
If a child sits on a grinding stone, his or her mother will die.

Máá kókída asaka néé íídee ho-akók^e, ipédída as.
Don’t close the door when you’re inside, lest you bewitch yourself.

Cema cíkóroiko sédikee ηura didia sédikoo díí.
Fighting over garden boundaries will stop rain in those gardens.

In addition to superstitions, prohibitions or taboos also figure prominently in Ik daily life. These taboos play an important role in governing the society and avoiding conflict. Breaking a prohibition usually requires the offender to pay a fine to the elders or those offended. The following are some examples of prohibitions:

(8) *Some Ik prohibitions*

| | |
|-----------------|---|
| bósés | against fining children or youth |
| cu ^e | against failing to give water to elders first |
| dɛ | against failing to give leg-meat to elders |
| ifófóés | against eating the first harvest secretly |
| imwánjón | against seeing your mother-in-law |

While such taboos remain salient in the society overall, their power is lessening as the younger generations embrace modern, homogenized, and Christianized Ugandan national culture. Inevitably, the old spiritual ways of parents and ancestors are increasingly being seen as strange and irrelevant.

1.2 The Ik language

The Ik people call their language *Icé-tód* [itʃé-tôḍ̚] (Ethnologue code *ikx*), meaning literally ‘Ik-talk’. It is the mother-tongue of approximately 7,500 people. The neighboring Teso-Turkana peoples call the language *Ŋáteusó*, and on a recently created page of the Swahili Wikipedia (<http://sw.wikipedia.org/wiki/Kiik>), the language received the Swahili name *Kiik*. In keeping with scholarly convention and for the sake of brevity, the language is referred to simply as *Ik* throughout the rest of this grammar.

1.2.1 Classification

Greenberg (1963) is the purportedly the source of the original ‘Kuliak Hypothesis’ which placed Ik and Nyang’ía into a linguistic cluster based on observed shared traits (Fleming 1983:426). Heine (1976) elaborated on this hypothesis with a comparative grammar sketch and internal reconstruction of the group he called *Kuliak* consisting of Ik, Nyang’ía, and So/Tepeth. Since then, the internal linguistic relationship between the Kuliak languages has never been seriously questioned in the literature (Fleming 1983:426). But, amazingly, no less than six different external classifications for Kuliak have been proposed over the last fifty years. These conflicting classifications and some of the linguists who have supported them are presented below:

(9) *Conflicting classifications of Kuliak*

- ❖ Afroasiatic, ‘Fringe’ Cushitic—Tucker 1967a, 1967b, 1971–3. This classification was based on, among other things, supposed similarities between Ik and Ancient Egyptian personal pronouns. Ik’s elaborate case system also suggests an Afroasiatic affiliation, but this could just as likely be from sustained language contact.
- ❖ Afroasiatic, East Cushitic—Lamberti 1988. Although Lamberti never actually claimed that Kuliak is related to Cushitic genetically, he provides ample lexical and morphological evidence demonstrating at least a significant and long-term cultural contact between Kuliak and Cushitic.
- ❖ Nilo-Saharan, East Sudanic—Greenberg 1963, Ehret 1981a, 1981b, 1989 (in a modified form), 2001, Fleming 1983, Lewis 2013. Evidence supporting this classification includes a high percentage of lexical cognates with Eastern Nilotic (and Western and Southern Nilotic to a lesser degree), as well as shared morpho-syntactic traits with the larger Nilo-Saharan phylum.
- ❖ Nilo-Saharan, ‘Satellite-Core’/independent—Bender 1976b, 1989, 1996, Knighton 2005, Dimmendaal 2011.
- ❖ Nilo-Saharan, Northeastern branch—Dimmendaal 2013. This classification is based on traits shared between Kuliak and Nilo-Saharan languages, e.g. an accusative case marker **ka/ga*, derivational verbal prefixes, and the causative *ɪ-/i-* which is considered a stable diagnostic of Nilo-Saharan.
- ❖ Unclassified—Gulliver 1952, Laughlin 1975, Heine 1976, 1999, König 2002. Due to conflicting or insufficient evidence, these linguists believe a sure classification cannot yet be made.

If these differing classifications are any indication, the Kuliak languages truly are “an enigma in African linguistics” (Carlin 1993:4)

The purpose of this grammar is not to advance another classificatory hypothesis for Kuliak. But nonetheless, it is hoped that the insights gained from this study will get the problem closer to its resolution. For a variety of reasons, there seems to be a bias in the literature toward a Nilo-Saharan classification for Ik (and Kuliak). The question really has to do with what it means for a language to be related to another. If, as has been pointed out in Ehret (1981a) and Fleming (1983), a larger percentage of Ik phonological, morphological, and lexical traits can be linked to Nilo-Saharan than to Afroasiatic, is that sufficient evidence for positing a genetic relationship with Nilo-Saharan? Is the ample counter-evidence linking Ik to Cushitic (e.g. Lamberti 1988) or Omotic not convincing because of lower percentages?

Without going into great detail, my impression after completing this study of Ik grammar is that Ik—and Kuliak by extension—should not be pronounced Afroasiatic or Nilo-Saharan at this time. This statement no doubt puts me in the camp of ‘splitters’ who resist higher-level classifications before strongly established sub-groupings (cf. Blench 2010). I have taken note of the high number of phonological, morphological, syntactic, and lexical traits tying Ik to Nilo-Saharan, particularly Eastern and Southern Nilotic. But I have also traced a growing number of morphemes to both Cushitic and Omotic. Then there remains, of course, a number of affixes and lexemes for which no areal parallels have been identified.

To summarize, I believe that the Ik language is a yet unclassifiable ancient language originating somewhere in Ethiopia that has had millennia of contact with both Afroasiatic and Nilo-Saharan. This sustained contact has left traces in the form of linguistic ‘genes’ or ‘traits’ shared with both phyla. In recent centuries, a particularly influential contact with Eastern Nilotic languages led to a massive influx of vocabulary and calqued grammatical structures. Like Shabo in Ethiopia, Ik’s linguistic traits straddle at least two language phyla, and distinguishing contact versus genetic influence will be extremely difficult. These cross-phyletic resemblances must be exhaustively identified and catalogued to see what remains of any old Kuliak substrate.

1.2.2 Typology

The difficulty in classifying Ik genetically stems largely from its unique and eclectic typological profile among other languages in East Africa. This typological profile is summarized below and illustrated with an annotated text. The goal of this section is to give the reader an overall impression of the language—a sort of typological *Gestalt*—in case there is no time to read through each chapter in detail. The overview begins with phonology and then proceeds through morphology, syntax, and finally the annotated text.

In terms of phonology, Ik has thirty-nine (39) contrastive sounds: thirty (30) consonants and nine (9) vowels. Consonants made with pulmonic airstream include plosives, affricates, fricatives, liquids, nasals, and glides. Those made with glottalic airstream include implosives and ejectives. The three lateral fricatives and ejectives Ik once used are now almost entirely lost. Eight of the nine vowels consist of [+ATR]/[-ATR] pairs that operate in a [+ATR]-dominant vowel harmony system. The low vowel /a/ is opaque but can be lexically (morphologically) specified with either [ATR] value.

The rightward edge of an Ik phonological phrase is strictly observed. This means that the final segment of any word or morpheme, whether consonant or vowel, is reduced before a pause. In this reduction, consonants may be partially devoiced and/or unreleased, while vowels are usually fully devoiced or deleted. Devoiced consonants and vowels are allophonic, not phonemic. Other allophonic changes observed among consonants include nasal assimilation, place assimilation, implosivization, and debuccalization, while other allophones among vowels arise from raising and glottalization. At the juncture of morphemes, certain consonants may be deleted and vowel may assimilate partially or totally to nearby vowels.

The template (C)V can generate all lawful phonological syllables in Ik, and the concatenation of morphemes may require resyllabifications in the form of vowel epenthesis, inter-consonantal syncope, vowel deletion, haplology,

desyllabification/compensatory lengthening, and metathesis. At the surface level, the template (C)V(V)(C) generates all lawful phonetic syllables.

Ik is a tonal language with two underlying tone levels: H and L. Ik has lexical tone though few tonal minimal pairs. There is no grammatical tone in the sense of a morpheme made up solely of a tonal autosegment. However, tone changes do accompany various segmental morphemes. H-tone may surface phonetically as high, high-falling, or downstepped high pitch. L-tone may surface as low, low-falling, or mid pitch. Voiced obstruents function pervasively as depressor consonants, pulling the pitch of a preceding high tone to high-falling, mid, or low pitch. Downdrift occurs, as well as depressor-consonant induced downstep. All noun and verb roots have a lexically assigned tone melody whose surface realization may change according to grammatical context. Stem-level and phrase-level tonal processes are complex and appear to count metrical feet in the (re)assignment of tones. At the clause level, at least three intonational patterns can be observed: the indicative, interrogative, and the 'solicitive'.

Morphologically, Ik is mostly agglutinative. Roots and affixes can typically be separated out linearly. Except for lexicalized prefixes on words borrowed from other languages, Ik is exclusively suffixing. On the continuum between analytic and polysynthetic, Ik ranks as moderately synthetic: Only three suffixes can be attached to noun roots, while up to six can be attached to verb roots (one more if one counts root reduplication).

In terms of form, verb roots tend to have a (V)(C)VC syllabic shape. Verb roots can be partially or fully reduplicated, though only full reduplication is productive. Ik verbs may be intransitive, transitive, ditransitive, or ambitransitive. Tonal verbal minimal pairs signify only slight semantic differences, and a small subset of verbs are inherently pluractional.

A basic morphological division in the verbal system is realis-irrealis. This division is posited more on the basis of morphology than semantics. Other

verbal extensions include suffixes to nominalize the verb, give it directional deixis, subject agreement, or non-core argument reference. And yet other suffixes give the verb modal, aspectual, valency-changing, or polarity properties. Most attributive (descriptive) notions are handled by intransitive ‘adjectival’ verbs in Ik. Tense, contrary to aspect and modality, is communicated by clitics and lays out a three-level time deixis in both the past and non-past. Ik uses a variety of strategies to express epistemic status.

The majority of Ik nouns have a CVC(V) or CVCVC(V) syllable shape. Roughly one third of the nominal lexicon begins with the Teso-Turkana gender prefix *nV-* (or one of its locative allomorphs) which has been lexicalized in Ik. Noun roots may also be partially or fully reduplicated, though neither strategy is productive in the language. Each noun has a lexical tone melody that can change in various morphological and syntactic contexts. Nominal suffixes include a two types of singulative, five types of plurative and eight case endings. The language’s limited noun suffixation is counterbalanced by productive (pro-)nominal compounding.

Case—an interface of phonology, morphology, syntax—is a pan-systemic feature of Ik grammar. Not only must every noun be inflected for case, but even some of the verbal suffixes appear to be grammaticalized case markers. The Ik case system is split-accusative: Direct objects are marked in the nominative case with 1/2-person subjects and in the accusative with 3-person subjects. In the Ik system, eight cases are observed: nominative, instrumental, ablative, genitive, accusative, dative, copulative, and oblique.

Nouns and verbs represent the two open lexical word classes in Ik. Other, closed word classes include the pronouns, quantifiers, demonstratives, adverbs, conjunctions, interjections, infantile imperatives, ideophones. The seven personal pronouns incorporate three persons, three numbers, and an inclusive/exclusive distinction in first person plural. Non-verbal quantifiers and adverbs exist but are very few. Demonstratives provide spatial deixis in three degrees of distance (near/medial/far) and temporal deixis in four

degrees of time (tense). Other demonstratives provide anaphoric reference for either actual discourse or a shared deictic context. Lastly, Ik makes wide use of ideophones to colorfully enhance the meaning of verbs.

In noun phrases, modifiers follow the head noun. Modifiers consist of genitive noun phrases, adjectival verbs, quantifiers, and other relative clauses. Relative pronouns mark the number of their noun head as well as the tense of the predicate in the relative clause. The fullest statement of the 'common argument' of a main and relative clause is in the main clause. Like in other subordinate clauses, the syntax of relative clauses is marked.

The basic, unmarked constituent order of Ik main clauses is VSO (VS/VAO), but SVO is attested in subordinate clauses. In a main clause, the verb comes first, followed by a tense clitic (if present) and then the subject and object(s) if explicitly mentioned (both subjects and objects may be left implicit in Ik.) Peripheral arguments come next, followed by any adverbs.

Clause chaining is a definitive aspect of Ik discourse. An initial controlling clause sets the TAM context for the chain of clauses to follow. Clause chains may consist of one or many more sequential clauses or one or two simultaneous clauses. Chained simultaneous clauses may be used as a complementation strategy and in bi-clausal comparative constructions.

The Ik lexicon exhibits several recognizable substrata. Perhaps the oldest substratum can simply be called 'Ik' since it has yet to be tied to any other subgroup within Africa. Ik of course shares numerous lexemes with the other Kuliak languages, Nyang'ia and So. A handful of lexemes have parallels in Didinga (Surmic). A fair number of Ik lexemes appear to be pre- or proto-Nilotic, while very many more are obviously cognate with forms in Eastern, Southern, and even Western Nilotic. A substantial number of core lexemes are also traceable to Afroasiatic Cushitic languages like Afar/Saho, Dhaasanac, Ts'amakko, and West Rift Cushitic. Finally, English (Germanic) and Swahili (Bantu) have in recent centuries loaned quite a few lexemes.

In conclusion, perhaps some of the most typologically interesting things about Ik are its rich consonant inventory (including ejectives and lateral fricatives), vowel harmony (with binary /a/), tone, numerous pluratives, meta-categorial case system, tensed demonstratives, morphologically-based realis-irrealis distinction, directional suffixes, and clause chaining.

The following short annotated text is provided to further illustrate some of the salient features of Ik grammar. Trace each number to its corresponding explanatory comment in the paragraph that follows.

(9) Oṅor ńda Tulú ('The Elephant and the Hare')

Noo sayo kainikee nuu ilujukotat,

noo¹ say-o² kam-íké-é³ = nuu⁴ ilúṅ-úkót⁵-át^{-a6},
 CONJ.PST3 some-INS year-PL-GEN = REL.PL.PST3 pass-COMP-3PL-REAL

In some years gone by,

iya noo Tulua nda Oṅor.

i-a⁷ = noo⁸ tulú-a⁹ ńda oṅor¹⁰
 be-REAL = PST3 hare-NOM and elephant[OBL]

there was a Hare and an Elephant.

1 Tensed relative pronouns like *noo* (remote past) have been grammaticalized into use as conjunctions introducing temporal subordinate clauses. 2 The instrumental case marker {-o} is found on noun phrases expressing time concepts. 3 This noun phrase in the genitive case modifies the preceding noun *sayo*. 4 Relative pronouns are enclitics that convey both the number of their heads (in this case plural) and the tense of the relative clause (in this case remote past). 5 The directional suffixes, like the andative {-úkótí-}, are also used aspectually, here as completive. 6 Because there is a brief pause between the subordinate and main clauses, the final morpheme, here the realis suffix {-a}, is devoiced. 7 The verb comes first in unmarked main clauses. 8 Tense enclitics come between the verb and the following

subject(s). 9 The nominative case suffix {-a} marks the subject (A/S) of indicative main clauses. 10 Oblique (peripheral) arguments, like those following the coordinating conjunction *ńda*, are marked with the oblique case in Ik, which is zero morpheme.

The text continues below with more annotated features:

- (10) *Mitiya noo koto Orjora nda Tulu ebaik,*
 mit-i¹¹-a = noo = kótó¹² orjor-a ńda tulú éba-ik^{o13}
 be-PLUR-NOM = PST3 = ADV elephant-NOM and hare[OBL] friend-PL[OBL]
 The Elephant and the Hare were friends,

minimosatie dıta liaatikoe.

mín-ímós¹⁴-áti¹⁵-e¹⁶ dıtá liaát-íkó^e
 love-RECIP-3PL-SIML like brother-PL-GEN
 loving each other like brothers.

11 The pluractional suffix {-í-} encodes grammatical number in the verbal system. In this case, it conveys the habitual nature of the animals' friendship. Being dominantly [+ATR], it has also harmonized the preceding [-ATR] root *mit-* 'be'. 12 The adverbial (=) *koto* is an important clause connector and is one of the few indicators of contrastiveness or counter-expectation (though here that meaning is not in focus). 13 The oblique case zero-morpheme often allows the underlying form of morphemes to surface, here the plurative {-íkó-}. 14 The reciprocal suffix requires high tones on the preceding root, regardless of its underlying tone melody. Functionally, it detransitivizes a transitive clause by conflating the A and O into S. 15 The 3PL subject-agreement suffix {-áti-} is one of the language's opaque [+ATR]-dominant morphemes that block leftward harmony to the stem. 16 The simultaneous aspect marker {-ke} is used to mark chained clauses like this one that express circumstances attending the main clause.

A final excerpt from this story brings out a few more grammatical features:

- (11) *Na konto odowi, todoyoo didia watik,*
 na¹⁶ = kón-ít¹⁷-ó ódou-i¹⁸ todó-y-óo¹⁹ didi-a watí-k^{a20}
 CONJ = one-SING-INS day-GEN begin-3SG-SEQ weather-NOM raining-ACC
 One day, it started raining,

itsyaketuo ja roba ni tokobak.

- itsyák²¹-ét²²-u²³-o = ja roḃ-a = ni²⁴ tókoba-k^a
 begin-INCH-3SG-SEQ = ADV people-NOM = DEM.PL cultivating-ACC
 and these people (the Elephant and Hare) started cultivating.

16 The proclitic conjunction *na*= introduces temporal clauses within a sequential clause chain. Such temporal clauses are tensed relative to the preceding and following sequential clauses; they do not express absolute tense. 17 The singulative **-it/it* is no longer productive and can only be found in lexemes and lexicalized expressions like *kónító* ‘on one...’. 18 The genitive case marker {-e} is raised to /i,i/ after high back vowels. 19 When the 3SG suffix {-i-} is desyllabified into a glide, the following vowel, in this case the sequential aspect marker {-(k)ɔ}, is lengthened compensatorily. The sequential aspect suffix marks chained sequential clauses that depend on an initial controlling clause for TAM specification. 20 If the subject of a transitive verb is 3-person, any objects will be in the accusative case. 21 Younger speakers increasingly use Teso-Turkana borrowings, here the verb *itsyák-* in place of the Ik *isá-* ‘begin’. 22 The venitive directional suffix {-et-} is also used aspectually to convey inchoativeness. 23 A high front vowel, like this 3SG {-i-}, is backed to /u/ when followed by /ɔ,o/. 24 Ik demonstratives indicate number as well as tense.

1.2.3 *Lectal variation and language contact*

Lectal variation is minimal among Ik speakers. This is due to the combined factors of the Ik’s small numbers, proximity, mobility, and ethnic solidarity. No lectal varieties that could be described as dialects are known to exist. What little variation does occur is mainly in phonology, tonology, and lexis.

For example, speakers from *Loúsúna*, a village on the edge of a gorge between *Tímu* and *Kámion*, tend to reduce the affricates /ts/ and /ts'/ to [s] and [s']. Thus the common greeting *Atsída awóo?* 'Have you come from home?', rendered as *Aśída awóo?*, quickly identifies speakers from *Loúsúna*. On the side of lexis, speakers from certain areas, like *Kámion* for example, tend to use more Teso-Turkana loanwords than speakers from other areas. The general consensus among the Ik is that the Ik spoken around *Tímu* Forest in the south is 'pure' Ik, i.e. less influenced by Teso-Turkana.

A second type of lectal variation involves sound shifts between speakers of different generations. These demographically defined lects, or 'chronolects', were first described by Heine (1983, 1999). As described by Heine, these chronolects differ in their inventory of contrastive consonants, leading to splits and mergers of several sounds. The most easily recognizable difference between chronolects is the loss of lateral fricatives in younger generations. But chronolects also differ in tonology. Younger speakers tend to employ high-tone insertion more than their parents' generation (see §3.2.4).

Various linguistic traits suggest that Ik used to be in contact with Cushitic (Lamberti 1988) and Southern Nilotic (Rottland 1983) languages, whereas nowadays its contact is with English, Swahili, and the Teso-Turkana (including Dodoth, Jie, Toposa, and Turkana). Beyond areal contact through trade and travel, the cultural dominance exerted by the Teso-Turkana peoples has strongly influenced the Ik language. As many Ik children enter their teen-age years, they begin learning a Teso-Turkana language during trips outside Ikland, stints at non-Ik schools, or periods when a non-Ik guest stays at their home. Thus many Ik adults have a functional command of one or more Teso-Turkana languages, though few become very fluent.

Contact with Swahili comes about in three ways. First, over the years many Ik have lived in Kenya, having gone there for school, work, or to escape some catastrophe in their homeland. Typically, the longer they remain in Kenya, the more fluent they become in Swahili. Second, since one of the

languages of the Ugandan army is Swahili, the presence of soldiers patrolling Ikland leads to contact with Swahili. Third, a few Swahili songs are sung in churches. As a result of these three inroads, Swahili functions as a useful but limited language of wider communication among the Ik.

English touches the Ik by being the national language of Uganda, the language of national media and education, of inter-ethnic business, of religious materials, and of general cultural aspiration toward the West. Ik people who have completed on average five–seven years of primary education manage to get by in English. Fluency of course increases the longer they stay in school. Some Ik, especially men—as women have had much fewer educational opportunities—become reasonably adept at English with little to no formal education. For most Ik, learning these contact languages has been more out of survival necessity than leisure or pleasure.

1.2.4 Vitality

In contrast to the other, endangered Kuliak (Rub) languages, Ik language is still vital. According to the EGIDS scale (Simons & Lewis 2010), Ik is a level 6 ‘vigorous’, since “the language is used by all generations and the situation is sustainable.” Small children are still learning it as their mother tongue and typically remain monolingual for at least six years. After that, they may begin to pick up English or Teso-Turkana from school and/or travels outside Ikland. Ik young people face a subtle pressure to learn Teso-Turkana as a language of wider communication. It is especially useful in trade, travel, and simple physical survival. A fair number of Ik children attend primary schools in towns and thus have to learn one of these languages in order to learn from the teachers. But adding Teso-Turkana, English, or Swahili (in Kenyan schools) to the repertoire of Ik youth has not so far diminished the vitality of Ik in the homeland. There, Ik is still spoken in all domains of life, with the exception of local community schools (if teachers are non-Ik) and in Christian churches (with non-Ik songs or visiting non-Ik preachers).

But perhaps the more important indicator of Ik's vitality is the positive attitude the Ik have toward their language. It is a symbol of their ethnic identity and solidarity. They revel in their ability to communicate in a language that no outsider, including their long-time Teso-Turkana enemies, can understand in the least. It is a rightful means of surviving and subverting the oppression they have so often experienced.

Recognizing their language as a unifying cultural asset, the Ik today are eager to see their language taught (alongside English) in schools and used in churches, since those are the two domains which present the greatest threat. The Ik do also take great pride in being able to speak other languages, but this is not in opposition to speaking their mother tongue. Teso-Turkana languages and cultures have had massive influence on Ik language and culture, but the Ik have managed to absorb the impact. This they did by accommodating foreign influences to the point needed for physical survival but resisting at the point needed for ethnic and linguistic survival. With increased language development efforts, the Ik language should remain strong and vital at least well into the present century.

1.2.5 Previous works

It goes without saying that this grammar of Ik builds on the good linguistic work of many others. The first of these others, Wayland (1931), compiled a short list of Ik words on a geological survey through the area. In his article, he refers to the Ik as the 'Wanderobo', a common term for non-pastoralist peoples bordering the lands of Eastern Nilotes. Because his word list includes several items not immediately recognizable as Ik, it fostered a belief that persisted for years that 'Dorobo' might be a fourth, now extinct Kuliak language. Careful scrutiny, however, reveals that Wayland's 'Dorobo' wordlist is most likely Ik, poorly transcribed and poorly glossed (Schrock, to appear; also Serzisko 1992:7). The implication is that there never was a fourth Kuliak language called 'Dorobo', though credit is still due Wayland for recording the first information on the language.

As the years progressed, other linguists undertook to describe Ik. This led to several early grammar sketches, each with different emphases, including Crazzolara 1967, Heine 1971, Tucker 1971-73, and Heine 1975. Once Ik became known to the linguistic world, the question of Kuliak internal and external classification arose. This question was first addressed by Greenberg 1963, then Heine 1976, and in the same year Bender 1976, followed later by contributions from Ehret 1981, Fleming 1983, and Lamberti 1988.

The first attempt at a full grammar of Ik was Heine 1983, which unfortunately was never published. From there, the mantle of Ik grammar study was taken up by Fritz Serzisko, a colleague of Heine's at Cologne. Serzisko published a series of books and articles on Ik and on various linguistic topics with Ik as the main source of data (Serzisko 1985, 1985-87, 1987, 1988, 1989a-b, 1992, and 1993a-b). Heine 1990 also appears, a study of the dative case in Ik and Kanuri. Later in the decade comes Heine & König 1996, an unpublished revision and expansion of Heine 1983.

In the 1980s and '90s, formerly SIL linguist Richard Hoffman began working on the language. Although he never published on it, he gained a thorough knowledge of Ik grammar and began working out a practical orthography. Also in the 1990s, Heine returned to Ik and published the first Ik-English dictionary (1999) that included an ethnographic sketch, phonology sketch, and an ethnobotanical section. The new millennium began with König's lengthy exposition of Ik case (2002) and SIL's sociolinguistic survey of the Ik area (2007). König 2008 refined her 2002 analysis of Ik case and fit it into a broader and much-needed discussion of case across Africa.

Since 2008, I have been personally conducting linguistic research on Ik, under the auspices of SIL Uganda. This research has led to a number of papers, including a foray into nominal tone (2011a), a phonological sketch (2011b), and a description of the Ik instrumental case (Schrock 2014).

1.3 Research background

Seen in light of what has already been written on Ik, the need for a fuller grammatical description arose from the practical challenges of language development, as well as from a desire to contribute to linguistic science. On the side of language development, creating a practical orthography has required a growing knowledge of phonology and morphology, just as the creation and translation of literature will require knowledge of lexis, syntax, and discourse. Attempts to develop the language practically under SIL kept bumping up against newly discovered allophones and unidentified morphemes. At last it seemed good to consolidate previous research and add new findings into one comprehensive treatment. Doing so fulfils the second desire—adding to linguistic science—by documenting the last vital member of the dwindling Kuliak (Rub) subgroup and describing its unique features.

1.3.1 Methodology

The aim reflected in this book has been to research and analyze Ik grammar in terms of Basic Linguistic Theory (BLT) expounded in Dixon (2010-2012). BLT is a theory of linguistics as a natural science that “consists in the study and comparison of the grammatical patterns of individual languages” (Dixon 2010a:5). This approach makes eclectic use of the classical grammatical tradition and the growing body of generally accepted linguistic terms, concepts, and categories. The hope of using this methodology is that the unique genius of the Ik language might be brought to the fore without being overly constrained by any particular formal theory. Insofar as this hope is realized in the following pages, people from different theoretical backgrounds should be able to easily follow it. Given the diverse theoretical orientations of prior linguists who have worked on Ik, this seemed to be the best way to capture the language in a grammatical description.

Also, this grammar is primarily a form-based, analytical grammar. It is form-based in that it seeks to exhaustively list and describe all the grammatical forms of Ik: phonemes, morphemes, syntagmemes, and

lexemes. As much as possible, the functions of the forms are discussed as well. By the same token, the grammar is analytical in that it breaks apart the language bit by bit. In this sense it is designed to assist one in the more passive skill of interpreting or decoding the Ik language. The more advanced and culturally relevant skill of using or encoding the language appropriately will have to await a work building on a much greater knowledge of the language's semantics, pragmatics, cultural matrix...and people.

In describing the forms found in Ik, an eye has been kept toward diachronic origin and explanation. The need for this element of my approach is captured eloquently in the following quote: "Because grammar is always emergent but never present it could be said that it never exists as such, but is always coming into being. There is, in other words, no 'grammar' but only 'grammaticization'—movements toward structure which are often characterizable in typical ways." (Hopper 1987:148, cited in Serzisko 1992).

Diachronic exploration requires comparison with other languages in the area. To this end, I have tried—as time and opportunity allowed—to seek parallels for Ik forms in the non-Bantu languages of East Africa. Due to limited library access, this comparison focused primarily on Dhaasanac (Tosco 2001), So (Carlin 1993), and Turkana (Dimmendaal 1983).

1.3.2 Fieldwork

Fieldwork for this grammar was carried out intermittently from March 2008 until July 2014. From 2008-2009, my wife and I lived in a Baptist mission compound surrounded by Dodoth (Karimojong) people. Collecting Ik data was limited to occasional visits by four educated Ik men: †Lochiyo Gabriel, Lokwang Hillary, †Lopuwa Paul, and later Longoli Philip. From time to time, day-trips were made to the Ik area. In Kaabong, I focused on Ik phonology, collecting the 1700-word Comparative African Wordlist as well as SADUL grammatical questionnaires (Bouquiaux & Thomas 1992).

In late 2009, we finally were able to move to Ikland, to a compound with an Ik village less than 100 meters away. Although still living in a private compound, our contact with Ik speakers increased significantly. During the first two months, SIL lexicographer Ron Moe and I conducted a lexicography workshop involving fifteen Ik men and women. Many of the words in Appendix B were collected during that workshop. And since we lived there, language learning and text collection increased from that point on.

For much of 2010, Longoli Philip became a regular language informant, working with me on various aspects of the language development program. Longoli completed Form Two of secondary school but has had opportunity for many types of training over the years, including in linguistics. He had worked previously with Bernd Heine, Fritz Serzisko, and Richard Hoffman. In late 2010, Longoli Philip and I took part in a tone workshop led by SIL tone specialist Keith Snider. Philip was the only Ik speaker in Nairobi at that time. For six weeks we elicited and analyzed tone data together.

For the next year and a half (2011-2012), Longoli Philip continued to work with me as my main teacher of Ik. American linguist Kate Shugart visited in late 2011, and along with Amber Schrock collected numerous oral histories that were later transcribed by Longoli Philip. In January 2012, two other men, Komboni Daniel and Lokwameri Sylvester, began interacting with us and providing more data through a translation training course we held.

Finally, after six months away from the Ik area, we returned to Ikland to intermittently fill in gaps in the data, revise hypotheses, and finish writing during the whole year of 2013. From the end of 2013 through the early part of 2014, Lomeri John Mark—at last returned to Ikland—provided crucial last-minute help in answering grammatical questions, checking examples, and filling in paradigms. In March-April of 2014, a group of ten Ik men participated with me in an orthography workshop. More data and insights came from our enjoyable interaction. Research then concluded in July 2014.

1.3.3 Data

The data used in this description of Ik comprises approximately 6,000 words (mostly nouns and verbs) in a FLEx lexical database and over 100 texts of different genres and varying numbers of pages. Additional data was collected throughout the fieldwork period through direct elicitation, uncountable scribbled notes, and lots of careful listening. When data is quoted from previous works, the source is indicated with the example. Otherwise, data comes from my research, usually through Longoli Philip and Lomeri John Mark or through daily interactions with Ik neighbors.

This book is the first step in making my data widely accessible. Anything I have is available upon request (betsoniik@gmail.com), with the disclaimer that it may be poorly written, transcribed, or analyzed! The Ik 1,700-word Comparative African Wordlist is available at the Comparalex website (<http://comparalex.org/>). And plans are being made to eventually produce a fuller Ik linguistic lexicon, a non-linguist's Ik-English dictionary, one or more volumes of annotated Ik texts, and a pedagogical grammar of Ik.

1.3.4 Orthography

Currently two orthographies exist for Ik: 1) a Linguistic Orthography (LingO) and 2) a Popular Orthography (PopO). This 'dual orthography' situation arose from the differing needs of different language practitioners and is described in detail in Schrock (In preparation). The LingO is to be used in grammars and dictionaries, while the PopO is to be used for any material produced for the general (future) Ik reading community.

The PopO uses only five vowels and does not represent tone or voiceless vowels. One consonantal difference between it and the LingO is that it represents /j/ as <x>. The PopO is used in the first line (in *italics*) in all the example sentences and texts in this grammar. An adapted LingO is used in the second line of examples and texts. It represents all thirty consonants and nine vowels, as well as assimilated nasals, tone and voiceless vowels.

2 Segmental Phonology

Ik segmental phonology involves a relatively rich inventory of contrastive consonants and vowels and phonological and morphophonological variations. Although a full account of Ik phonology is beyond the scope of this book, its basics are offered here as a gateway into the broader grammar.

2.1 Consonants

Ik uses thirty (30) contrastive consonants, presented in (1) below. This is a high number compared to the neighboring Eastern Nilotic language Turkana which has only seventeen (Dimmendaal 1983:7). But it is not so high in the greater Rift Valley language area where the East Cushitic language Dhaasanac has twenty-five (Tosco 2001:16) and the South Omotic language Dime has thirty-three (Mulugeta 2008:9). Unlike Turkana, but like Dhaasanac and Dime, Ik has glottalic (im)plosives in addition to pulmonic.

(1) *Ik contrastive consonants*

| | Labial | Alveolar | Lateral | Palatal | Velar | Glottal |
|-----------------|--------|----------|---------|---------|-------|---------|
| Plosives, vl. | p | t | | | k | |
| Plosives, vd. | b | d | | | g | |
| Implosives | ɓ | ɗ | | ɟ | | |
| Ejectives | | ts' | (tɬ') | | k | |
| Fricatives, vl. | f | s | (ʈ) | ʃ | | h |
| Fricatives, vd. | | z | (ɟ) | ʒ | | ɦ |
| Affricates, vl. | | ts | | c | | |
| Affricates, vd. | | dz | | j | | |
| Liquids | | r | l | | | |
| Nasals | m | n | | ɲ | ŋ | |
| Glides | w | | | y | | |

With Table 1 still in mind, note that those sounds whose orthographic symbols differ from the IPA include: ɰ [f], k [k'/g'], c [tʃ], j [dʒ], y [j]. Three sounds in Table 1—tʰ, ɬ, lʒ—are in parentheses because they are all but lost from the form of Ik spoken at the time this grammar was being written.

2.1.1 Consonant contrasts

Some evidence for the existence of the thirty contrastive consonants comes from sets of segmentally similar nouns (in the NOM case) like those below. High tone is marked with an accent, while low tone is unmarked. Low tone before a floating high tone is pronounced with mid level pitch (see §3.2):

- | | | |
|-----|----------------------|---|
| (2) | pakw ^{a'} | 'cave' |
| | bakuts ^{a'} | 'chest' |
| | ɓaláj | 'Toothbrush tree' |
| | fádw ^a | 'scale' |
| (3) | taɓ ^{a'} | 'boulder' |
| | dakw ^{a'} | 'tree' |
| | ɗám' | 'brain' |
| (4) | karats ^a | 'stool' |
| | gasar | 'Cape buffalo' |
| | kak ^a | 'hunt' |
| (5) | ts'ol | 'drop' |
| | sore' | 'boy' |
| | zɔt ^a | 'chain' |
| | tsól | 'Bee-eater (bird sp.)' |
| | dzon | 'well' |
| (6) | ram | 'pile of dried <i>Euphorbia</i> branches' |
| | lar | 'tobacco pipe' |

- (7) matáj 'cheek'
 nakús 'sleeping place'
 natal' 'custom'
 ŋamur' 'duiker'
- (8) yáj 'my mother'
 wa 'greens'

For the palatal set, which is considerably rarer, sufficiently similar nouns are not available for all the sounds, so a few verbs have to be included:

- (9) ʎej- 'stay'
 jeje 'leather mat'
 céŋ 'joke'
 ʃakw^a 'meat left on skinned hide'
 ʒabúd- 'be soft'

2.1.2 Consonant realizations

All consonants except for glottals are produced with an egressive airstream from the lungs. The glottals are made with an airstream produced in the larynx—implosives with an ingressive airstream and ejectives with egressive. The voice quality and articulators (active and passive) of all Ik consonants, as well as notes on phonetic realization, are provided below.

- /p/ is a voiceless bilabial plosive.
 /t/ is a voiceless lamino-alveolar plosive [t̪].
 /k/ is a voiceless dorso-velar plosive.
- /b/ is a voiced 'fortis' bilabial plosive [b̪].
 /d/ is a voiced 'fortis' lamino-alveolar plosive [d̪].
 /g/ is a voiced 'fortis' dorso-velar plosive [g̪].

All six Ik plosives may be unreleased before a pause. This only occurs when a pre-pause devoiced vowel is deleted entirely. Moreover, the three voiced plosives are (partially) devoiced before a pause or a devoiced vowel. Thus the voiceless plosives have [p̥, t̥, k̥] as allophones, and the voiced plosives have devoiced [b̥, d̥, ɡ̥] and unreleased devoiced [b̥̚, d̥̚, ɡ̥̚] as allophones.

The lamino-alveolars /t, d/ are audibly fronted, nearly dental, but not quite. For some speakers, this fronting is more pronounced, the tongue even being visible against the teeth. Perhaps this is an areal feature: Dhaasanac contrasts ‘dental oral stops’ and ‘post-alveolar stops’ (Tosco 2001:16), while in the Eastern Jebel language Gaahmg, “the dental stops are made with the tongue tip touching the back of the top teeth” (Stirtz 2004:128).

The voiced plosives /b, d, ɡ/ can also be described as ‘fortis’ in the following sense: They sound as though they are made with greater supralaryngeal pressure and slightly delayed release, especially in slower speech. According to De Jong, a fortis-lenis distinction is an areal feature in at least Southwest Surmic languages like Didinga and Eastern Nilotic languages like Lopit and Lotuxo (2004:146). With the prevalence of ejectives in Ethiopian languages, one wonders if for Ik these fortis plosives have their origin in ejectives like /p̰/ and /t̰/ that are long since lost.

- /b/ is a voiced bilabial implosive.
- /d/ is a voiced apico-post-alveolar implosive [ɖ].
- /j/ is a voiced lamino-palatal implosive [ɟ].

Like the plosives, the implosives are partially devoiced before a devoiced vowel and may optionally be unreleased. This means they have [b̥, ɖ̥, ɟ̥] and [b̥̚, ɖ̥̚, ɟ̥̚] as allophones. Also, the apico-post-alveolar /d/ sounds nearly retroflexed at times (cf. /d/→[ɖ] of Dhaasanac, Tosco 2001:22).

- /ts'/ is a voiceless lamino-alveolar ejective affricate [tʂʰ].
- (tɬ') is a voiceless lamino-alveolar lateral ejective affricate [tɬʰ].
- /k/ is a voiceless dorso-velar ejective [kʰ/g].

Uncommon in the area, Ik ejective affricates /ts'/ and (tɬ') are a link to South Cushitic languages that also have them (Mous 2012:356). The lateral ejective affricate (tɬ') now seems entirely lost from the language. In five years of fieldwork, the sound was never once heard. Yet, as recent as 1999, it was still considered a rare but present phoneme (Heine 1999). Based on reconstructions, the sound is replaced by the palatal implosive /ɟ/, as in *tɬ'ɔt → ɟɔt^a 'Adenium obesum (plant sp.)' and *tɬ'ábú-gwa → ɟábú-gwa 'guinea-fowl'. A similar trend is observed today among young children who substitute /ɟ/ for /ts'/ as in ɟjókɔ́tíak^a 'I have eaten it up' versus áts'ókɔ́tíak^a.

The dorso-velar ejective /k/ has several allophones including a dorso-velar voiced implosive [g] and fronted and backed variants according to following vowels. Linguists have differed on which of the two sounds (k/g) is phonemic and which is allophonic. Tucker (1971) was the first to mention the implosive as a phone in Ik along side the ejective, while Heine (1999) claims that the implosive is the phoneme that has replaced the ejective still used by elderly speakers. Contrary to what Heine claimed, the velar ejective is still very much in use today, though the implosive is a common allophone of it. Younger speakers often seem to prefer the implosive, and it tends to show up in faster and more casual speech. The ejective may even weaken to the point of becoming merely a glottal stop [ʔ] (see §2.3.3).

- /f/ is a voiceless labio-dental fricative.
- /s/ is a voiceless lamino-alveolar fricative [ʂ].
- (ɬ) is a voiceless lateral fricative.
- /ʃ/ is a voiceless lamino-post-alveolar fricative [ʃ].
- /h/ is a voiceless glottal fricative.

The voiceless lamino-post-alveolar fricative /ʃ/ is the heir of the old Ik voiceless lateral fricative (ɬ), which is now only used by the eldest of speakers. As such, (ɬ), like (tʰ), is considered marginal. Any given speaker tends to use either (ɬ) or /ʃ/ but not both. Occasionally one may hear a middle-aged Ik speaker pronounce /ʃ/ with a slight laterality. Also, for younger speakers and those in contact with Teso-Turkana languages, (which lack [ʃ] as a phoneme), /ʃ/ may freely vary with [tʃ] or [dʒ].

- /z/ is a voiced lamino-alveolar fricative [z̥].
- (ɮ) is a voiced lateral fricative.
- /ʒ/ is a voiced lamino-post-alveolar fricative [ʒ̥].
- /fiy/ is a lightly palatalized voiced glottal fricative [fiʲ].

The voiced lamino-alveolar fricative /z/ is partially devoiced before a devoiced vowel, making [z̥] an allophone. Also, some speakers, like those with more influence from Teso-Turkana languages, may freely alternate /z/~/s/. The voiced lamino-post-alveolar fricative /ʒ/ is one of two heirs of an old Ik voiced lateral fricative (ɮ), which may now only be heard rarely among the most elderly speakers (the reason it is considered marginal). (ɮ) split into /ʒ/ and /fiy/, probably within the last 50–100 years.

The phonetic nature of /fiy/ has been extremely hard to ascertain. What is clear is that it never surfaces only as [fi] without tongue being raised toward the palate. Perhaps the tongue raising is phonetic remnant of the tongue position of (ɮ), while the voicing of /fiy/ is a phonetic remnant of the voicing of (ɮ). Lexemes containing /fiy/—fiyɔ ‘cow’, for example—have been transcribed variously as [fiɪɔ], [fièɔ], and [fiʲɔ]. Of this sound, Heine said, “word-initially, y is pronounced as a sound intermediate between a palatal semivowel and a voiced glottal fricative” (1999:15). As such, /fiy/ could be represented phonetically as [fiʲ] or [fi̠]. For some speakers, especially younger ones, /fiy/ may lose either its voicing or its stridence, leading to free variants [hj] or simply [j]. /fiy/ is only found word-initially.

- /ts/ is a voiceless lamino-alveolar affricate [t͡s].
- /c/ is a voiceless lamino-post-alveolar affricate [t͡ʃ].
- /dz/ is a voiced lamino-alveolar affricate [d͡z].
- /j/ is a voiced lamino-post-alveolar affricate [d͡ʒ].

The voiceless affricate /ts/ is replaced by /s/ by some speakers, particularly from certain areas. The voiced affricate /dz/ has the partially devoiced allophone [d͡z̥] before devoiced vowels before a pause. This does not affect /j/ because it is only found in word-initially and word-medially.

- /r/ is a voiced lamino-alveolar rhotic flap/tap [ɾ].
- /l/ is a voiced lamino-alveolar lateral approximate [ɫ].

The rhotic flap /r/ may be rolled [r̥] in any position but especially in word-medial and word-final positions. Emotional intensity and rhetorical flourishes in speech seem to increase the frequency of rolling. Also, before devoiced vowels, the rolled flap is devoiced [r̥̥] and often lengthened [r̥̥ː]. The lateral approximate is partially devoiced [ɫ̥] before a pause or a devoiced vowel and may optionally be unreleased [ɫ̥̚].

- /m/ is a voiced bilabial nasal.
- /n/ is a voiced lamino-alveolar nasal [n̥].
- /ɲ/ is a voiced lamino-palatal nasal [ɲ̥].
- /ŋ/ is a voiced dorso-velar nasal.
- /w/ is voiced bilabial/dorso-velar glide.
- /y/ is a voiced lamino-palatal glide [j̥].

The glides are partially devoiced [w̥, y̥] before a pause or a devoiced vowel, and depending on syllabification, may occasionally be analyzed as vowels.

2.1.3 Consonant distribution

Most Ik consonants can occur in any position. However, nasals, glottal fricatives, and the affricate /j/ have distributional restrictions, as do implosives vis-à-vis their plosive counterparts. First, nasals that immediately precede another consonant must be made at the same place of articulation as that consonant. Some of the personal pronouns provide evidence of this restriction. In the left column of (10), the pronouns are shown with an archi-phonemic nasal (N), followed by surface realizations. Note the velar, alveolar, and palatal places of nasal articulation in the right column:

| | | | | |
|------|------------------|----------|---|---------|
| (10) | Nk ^a | I:NOM | → | [ŋk̄a] |
| | Nc ⁱ | I:OBL | → | [ɲt̄j̄] |
| | Ngw ^a | we:NOM | → | [ŋgw̄a] |
| | Nt ^a | they:NOM | → | [nt̄a] |

An exception to nasal assimilation occurs when a nasal-stop sequence arises from vowel syncope, as when *maran-it-et-és* ‘to make good’ → *maran-t-et-és*.

Second, the voiceless glottal fricative /h/ only occurs word-initially in Ik. Historically, this restriction may be related to the universal tendency to avoid onsetless syllables, as in Dhaasanac (Tosco 2001:42), Turkana (Dimmendaal 1983:45), and So (Carlin 1993:15). Unlike in Dhaasanac, the Ik glottal fricative is a phoneme, but even so, it is rare, occurring in less than twenty noun and verb roots. Currently, Ik does not show a strict onset principle that is consistently satisfied by a glottal fricative. This can be seen from the pair *hn-* ‘drive’ and *oní-* ‘abandoned village’ in which /h/ and zero are clearly contrasted word-initially. Nevertheless, speakers do prefer an onset before the back vowel /u/, giving words like *úd* ‘grass sp.’ and *úg-* ‘dig’ surface pronunciations like [ʷúḡ̄] or [ʰúḡ̄] and [ʷúḡ̄] or [ʰúḡ̄].

The voiced glottal fricative /fʏ/ also only occurs word-initially. This restriction was created when (ɣ) split historically to /fʏ/ word-initially and /ʒ/ elsewhere. Examples of this include *fʏɔ* ‘cow’ and *góʒow^a* ‘mist’.

Third, the voiced lamino-post-alveolar affricate /j/ is attested only in word-initial and word-medial positions. As a phoneme, it is quite rare, known to be present in only five noun lexemes: *jeje* ‘leather mat’, *jíje* ‘opposite side/slope’, *lejé* ‘mental illness’, *ɲjín* ‘we INCL.’, *ɲájarán* ‘sewing machine’. Similarly, in nearby Dhaasanc, /j/ is a very rare sound (Tosco 2001:17).

Lastly, implosives/ejectives and their plosive counterparts at the same place of articulation do not occur in the same root. The only exceptions are /d/ and /d/, presumably because their places of articulation differ slightly. The three instances are *dod^a* ‘vagina’, *dudér* ‘water-beetle’, and *ɲodód^a* ‘ant-bear’.

2.2 Vowels

Ik uses nine (9) contrastive vowels, shown in (11) below. These include the low vowel /a/ and four pairs whose members differ only in Advanced Tongue Root [ATR] value. In its basics, the Ik vowel system is quite similar to those of Surmic languages like Didinga and Eastern Nilotic languages like Turkana. But it differs substantially from others in the wider area like those of the Cushitic Dhaasanac and Omotic Dime which lack ATR distinctions.

(11) *Ik contrastive vowels*

| | Front | | Central | Back | |
|------|-------|------|---------|------|------|
| | +ATR | -ATR | -ATR | +ATR | -ATR |
| High | i | ɪ | | u | ʊ |
| Mid | e | ɛ | | o | ɔ |
| Low | | | a | | |

2.2.1 Vowel contrasts

Some evidence for the existence of nine contrastive vowels comes from segmentally similar pairs of nouns like the following:

(12) *Evidence of vowel contrasts*

| | | | | |
|-------|-------------------|------------------|--------------------|---------------------|
| /i-i/ | ínw ^a | ‘animal’ | gid ^a | ‘cloud’ |
| | inw ^{aʼ} | ‘Milk-bush’ | gızá | ‘stone surface’ |
| /e-e/ | céŋ | ‘joke’ | éd ^a | ‘name’ |
| | cεŋʼ | ‘wood-pecker’ | éb ^a | ‘horn’ |
| /a-a/ | lar | ‘pipe’ | hab ^a | ‘tree-hive’ |
| | ler | ‘Naivasha Thorn’ | fiyeg ^a | ‘bone marrow’ |
| /u-u/ | gúr | ‘heart’ | kurʼ | ‘shade’ |
| | gur | ‘Sickle Bush’ | kóra | ‘Wait-a-bit Acacia’ |
| /o-o/ | nosʼ | ‘male leopard’ | tsól | ‘bee-eater’ |
| | nɔs | ‘noise’ | tsór | ‘baboon’ |
| /a-o/ | kak ^{aʼ} | ‘leaf’ | fádw ^a | ‘scale’ |
| | kɔk ^a | ‘small reeds’ | fód ^a | ‘loincloth’ |

On the surface, vowel length is also contrastive in Ik, as the following show:

(13) *Contrastive vowel length*

| | V | VV | | |
|--------|----------------------|--------------|---------------------|------------------|
| /i-ii/ | díd ^a | ‘donkey’ | dīit ^{aʼ} | bird sp.’ |
| /ɪ-ɪɪ/ | ts’ík ^{aʼ} | ‘bee’ | tsɪɪʼ | ‘narrow ridge’ |
| /e-ee/ | seg ^a | ‘Acacia sp.’ | seekw ^{aʼ} | ‘broth’ |
| /ε-εε/ | dεrét ^a | ‘Acacia sp.’ | ɲεrét ^a | ‘marsh’ |
| /a-aa/ | kwarʼ | ‘mountain’ | kwaár | ‘baboon troop’ |
| /ɔ-ɔɔ/ | kɪlórít ^a | ‘tree sp.’ | bílɔɔr | ‘bird sp.’ |
| /o-oo/ | tsól | ‘bee-eater’ | coór | ‘leg bangle’ |
| /u-uu/ | tsuɓ ^a | ‘bird tail’ | tsúúr | ‘White Thorn’ |
| /u-uu/ | tulú | ‘rabbit’ | lúulú | ‘firewood chips’ |

The phonetically long vowels shown in the VV column in (13) above are analyzed in this grammar as sequences of individual short vowels, not vocalic units with a length feature. A similar analysis is posited for the Teso-Turkana languages which have heavily influenced Ik (Dimmendaal 1994:154). In addition to the sequences of identical vowels listed in (13), Ik also exhibits many sequences of dissimilar vowels (see §2.2.3 below).

2.2.2 *Vowel realizations*

All nine Ik vowels are fully voiced, except before a pause where they are devoiced. The four vowels with advanced tongue root [+ATR] have a deeper resonance phonetically and can be characterized as ‘heavy’ or ‘breathy’. The five vowels with a neutral tongue root [-ATR] are less resonant due to a narrower pharyngeal cavity. They can be characterized as ‘light’ or ‘flat’. Precise feature specifications for the vowels are as follows:

- /i/ is a close front unrounded vowel with [+ATR].
- /ɪ/ is a close front unrounded vowel with [-ATR].
- /e/ is a mid front unrounded vowel with [+ATR].
- /ɛ/ is a mid front unrounded vowel with [-ATR].
- /a/ is a low central unrounded vowel with [-ATR].
- /ɔ/ is a mid back rounded vowel with [-ATR].
- /o/ is a mid back rounded vowel with [+ATR].
- /ʊ/ is a close back rounded vowel with [-ATR].
- /u/ is a close back rounded vowel with [+ATR].

The back vowels /o, ɔ, u, ʊ/ can be desyllabified before an adjacent vowel, yielded [w] as a semi-vocalic allophone. The front vowels /i, ɪ/ can also be desyllabified, producing [y] as their semi-vocalic allophone. Whether the mid front vowels /e, ɛ/ can desyllabify to [y] is an analytical issue touching on the interpretation of diphthongs (see §2.2.3 below). Dimmendaal 1995 argues that for Nilotic languages, so-called diphthongs should be reanalyzed as glide+vowel sequences. But Ik diphthong-like units (vowels with two

targets) include combinations of mid and low vowels like [ɛa], making a [ya] interpretation inappropriate. So if the diphthong analysis is rejected, the existence of mid-level semi-vowels [ɛ̃, ɛ̂] must be posited instead.

Using Speech Analyzer software, the following four nouns were compared in terms of the duration of their vowel targets. The approximate measurements from a single Ik speaker indicate that the duration of a diphthong-like sound is longer than for single vowels but shorter than for double vowels:

(14) *Vowel length measurements*

| | | | |
|-----|--------------------|---------|-------------|
| V | ak ^a | ‘mouth’ | (~0:0.1600) |
| V | ekw ^a | ‘eye’ | (~0:0.1700) |
| V̥V | ɛakw ^a | ‘man’ | (~0:0.1900) |
| VV | seekw ^a | ‘broth’ | (~0:0.2050) |

The question of diphthongs versus glide + vowel combinations is taken up again below in §2.2.3, where a list of representative words is presented.

All nine Ik vowels are devoiced before a pause as a general rule. This is a clear example of the phonology-syntax interface: A syntactic boundary (clause-finally and before a pause) is the conditioning environment for vowel allophony. Non-voiced vowels are an areal trait; they are found in various language families around Sub-Saharan Africa, including the local Teso-Turkana languages and more distant Cushitic languages like Oromo, Burunge, Alagwa, and K’abeena (Mous 2012:353). Vine gives them the ‘phonetically neutral’ label ‘shadow vowels’ (1981:385), while Novelli calls them ‘breathed’ (1985:29). ‘Whispered’ is also a term found in the literature. According to Vine, voiceless vowels are either 1) allophones of underlyingly voiced vowels, 2) surface realizations of underlyingly voiceless vowels, or 3) the result of the auto-segmental behavior of laryngeal features (1981:409).

The Ik vowels of this type are called called ‘devoiced’ here to reflect the analysis that they are underlyingly voiced vowels that have undergone

devoicing. Following a tradition started by Crazzolara 1967, the Ik devoiced vowels are written with the superscript symbols [i̥, ɪ̥, e̥, ɛ̥, ḁ, ɔ̥, o̥, u̥, ʉ̥]. Even though their occurrence is allophonic, the devoiced vowels are written throughout this grammar. Perhaps because their conditioning environment is syntactic as well as phonological, native speakers seem much more aware of devoiced vowels than other consonantal or vocalic allophones.

In the neighboring languages of Toposa (Schröder & Schröder 1987) and Turkana (Dimmendaal 1983), non-voiced vowels have been analyzed as distinct phonemes, contrasting with voiced vowels. Dimmendaal writes that “With regard to the position of non-voiced vowels, it is noted that they only occur in word-final position (i.e. potentially in the position before pause), but so may voiced vowels. It is, therefore, not predictable synchronically in Turkana when a vowel is [+voiced], or [-voiced]” (1983:31). But in Ik, it is generally predictable: *Any vowel before a pause is devoiced, and any vowel not before a pause is voiced.* For Turkana it is claimed that underlying non-voiced [-voiced] vowels become voiced “in the position other than before pause”, as the following examples illustrate (Dimmendaal 1983:31):

- (15) lo-mugj̥ || → [lomug^{h̥}j̥] ‘the mauve-colored one’
 lo-mugj̥ lo → [lomugj̥ lo] ‘this mauve-colored one’

The opposite interpretation is given for Ik: *Underlyingly voiced vowels become devoiced before a pause.* Such a view helps explain apparent evidence for phonemic voicing contrast in examples like the following:

- (16) ín-o || → ín^o [ín^o] ‘with (an) animal(s)’
 ínó-o || → ínó [ínó] ‘from (an) animal(s)’

In (16), the noun root *ínó*- ‘animal(s)’ takes two case suffixes. In the first line, the instrumental case suffix {-o}, which first subtracts the root-final vowel /o/, is devoiced before a pause. In the second line, the ablative case suffix, also {-o}, which preserves the root-final vowel, gets devoiced and

actually deleted, leaving the root final vowel fully voiced. So what first appears to be a case of contrastiveness between voiced and non-voiced vowels is really a syntactically conditioned type of allophony. The devoiced/deleted vowels in (16), when in a clause-medial position, surface as fully voiced in line with their underlying voicing specification:

- (17) $\acute{in}\text{-}\acute{o}=\text{ni}$ \rightarrow $\acute{in}\acute{o}=\text{ni}$ $[\acute{in}\acute{o}\grave{n}\grave{i}]$ ‘with these animals’
 $\acute{in}\acute{o}\text{-}o=\text{ni}$ \rightarrow $\acute{in}\acute{o}o=\text{ni}$ $[\acute{in}\acute{o}\hat{o}\grave{n}\grave{i}]$ ‘from these animals’

The examples above in (16) illustrate another trait of Ik devoiced vowels: Depending on the vowel preceding them, they may be completely inaudible. As such, a further allophone of all nine vowels is simply zero $[\emptyset]$. A devoiced vowel is inaudible when it is identical or very close in quality to the vowel that immediately precedes it, for example in:

- (18) $\text{baro}\text{-}o$ \rightarrow baro° $[\text{b}\grave{a}\text{r}\grave{o}]$ ‘from the corral’
 $\text{dak}\acute{u}\text{-}o$ \rightarrow $\text{dak}\acute{u}^\circ$ $[\text{d}\acute{a}\text{k}\acute{u}]$ ‘from the tree’
 $\text{ɲ}\acute{e}\acute{k}\acute{e}\text{-}\epsilon$ \rightarrow $\text{ɲ}\acute{e}\acute{k}\acute{e}^\epsilon$ $[\text{ɲ}\grave{e}\acute{k}\grave{e}]$ ‘of hunger’
 $\text{s}\acute{\text{is}}\acute{\text{is}}\text{-}\epsilon$ \rightarrow $\text{s}\acute{\text{is}}\acute{\text{is}}^\epsilon$ $[\text{s}\bar{\text{is}}\acute{\text{is}}]$ ‘in the honey-beer’

As noted above, pre-pause vowel devoicing is a general rule. The rule is suspended in the following four environments: 1) when the phrase or clause has interrogative intonation, 2) when the phrase or clause has solicitive intonation, 3) when the anaphoric demonstratives =¹*déé* (sg.) or =¹*díí* (pl.) are present, and 4) when the vowel in question is part of a deictic demonstrative. In environments (1)-(2), the syntax and therefore the phonology iconically reflect the pragmatic notion that the clause lacks the level of finality needed for devoicing. For a question, this entails waiting for an answer. For solicitation, this entails waiting for the desired response:

- (19) *Kaa naa awak.* INDICATIVE
 ka-a = náa awá-k^e
 go-3SG = PST1 home-DAT
 S/he went home.
- (20) *Kaa naa awee?* INTERROGATIVE
 ka-a = náa awé-e
 go-3SG = PST1 home-DAT
 Did s/he go home?
- (21) *Kaa naa aweee?* SOLICITIVE
 ka-a = náa awé-eé
 go-3SG = PST1 home-DAT
 S/he went home, okay?

For environment (3)—after anaphoric demonstratives—it is not known why devoicing is suspended. Perhaps there is a historical explanation:

- (22) *Kaa naa awee dee kona.*
 ka-a = náa awé-é = ⁺déé kɔn-a (**kɔn-∅)
 go-3SG = PST1 home-DAT = ANPH.SG one-REAL
 S/he went to that very home.

Lastly, many deictic demonstratives consist only of a consonant and a vowel, making the devoicing of the sole vowel impractical. For example:

- (23) *Kaa naa awee ne.*
 ka-a = náa awé-é = ne (**n)
 go-3SG = PST1 home-DAT = DEM.SG
 S/he went to that home.

2.2.3 Vowel distribution

Ik vowels can occur in any position within a word. For all nine vowels in a word-medial position, please refer back to §2.2.1 above. The data below show vowels in word-initial and word-final positions. A hyphen is used to signify that nouns are in their lexical forms to show their final vowels. (In isolation, nouns take the nominative case which deletes root-final vowels).

| | | | |
|------|----------------------|---------------------|--------------------|
| (24) | Word-initial | | Word-final |
| | ínó- | ‘animal’ | ɲókí- ‘dog’ |
| | mó- | ‘Milkbush’ | sísí- ‘honey beer’ |
| | ekú- | ‘eye’ | ḃóré- ‘corral’ |
| | ekéú- | ‘muscle fiber’ | ɲɛkɛ- ‘hunger’ |
| | aká- | ‘mouth’ | kwará ‘mountain’ |
| | ɔ́lí- ‘female hyrax’ | | ɲɔ́- ‘men’ |
| | oní- | ‘abandoned village’ | dé- ‘rat’ |
| | úzɛɪ- | ‘Uzet clan’ | kafu- ‘thorn’ |
| | úde- | ‘soft grass sp.’ | dakú- ‘tree’ |

As already noted, sequences of identical and non-identical vowels occur. Please refer to (13) above for sequences of same vowels. Sequences of different vowels are shown below in a couple of phonological syllable types:

| | | |
|------|------|--------------------------------------|
| (25) | CVVC | |
| | ɪ | míɔkɔ- ‘mamba’ |
| | ɪa | mílári- ‘plant sp.’ |
| | ei | keídzo- ‘wild potato-like plant sp.’ |
| | eu | leúzo- ‘charcoal’ |
| | ɛu | mɛura- ‘Superb starling’ |
| | aɪ | gwaítsí- ‘giraffe’ |
| | au | lɔkaudé- ‘weevil’ |
| | au | kaúdzɔ- ‘plant sp.’ |
| | ɔɪ | kɔíná- ‘whiff’ |

| | | |
|----|----------|---------------|
| ou | lóúpee- | ‘plant sp.’ |
| ua | lósuapa- | ‘stone anvil’ |

(26) CVV

| | | |
|----|---------|--------------------|
| ia | emusia- | ‘plant sp.’ |
| io | tsarió- | ‘weaver-bird’ |
| ie | aríé- | ‘small intestines’ |
| iu | ǰilíó- | ‘bird sp.’ |
| ea | deá- | ‘leg/foot’ |
| ai | lobáí- | ‘bone disease’ |
| ao | máó- | ‘lion’ |
| oi | isókói- | ‘Euphorbia sp.’ |
| oe | tsoé- | ‘hunting dog’ |
| ue | yué- | ‘falsehood’ |
| ue | cué- | ‘water’ |

Vowel pairs not attested in the data include: *ie, iu, uo, oa, ei, eo, ui, ua, uo, oe, ou, oa, ae, and ao* (though they are found across morpheme boundaries).

Some vowel sequences must be analyzed as diphthongs or as glides + vowels because a) they clearly consist of two vocalic targets and b) they consist of one tone-bearing unit (see discussion under §2.2.2). These include: *ɿɛ, ɿa, ɿɔ, ɿu, ɛa, ɛa, and ɛo*, and are found in few words like the following:

| | | | |
|-------|-------|-------------------|-------------------|
| (27) | ɿɛ/yɛ | ɿéβ- | ‘cold’ |
| | | ɿɛk- | ‘be far’ |
| ɿa/ya | | ɿán- | ‘converse’ |
| | | ɿánɲ- | ‘rest’ |
| | | ɿát- | ‘add’ |
| ɿɔ/yɔ | | ɿók- | ‘flower (v)’ |
| | | ɿom- | ‘capture a bride’ |
| ɛa/ěa | | ɛakw ^a | ‘man’ |
| | | ɛas | ‘truth’ |

| | | |
|-------|-------------------|--------------------------|
| ɛo/ěo | ɛód- | ‘be full’ |
| ɛa/ěa | ɛán | ‘sister-in-law, co-wife’ |
| | ɛáát ^a | ‘his/her sister’ |

The Ik diphthong-like sounds are found only root-initially. In all but two identified cases, this means they come word-initially. But if a root is reduplicated, the sound may appear stem-internally, as in the following:

- (28) ɪau-ɪau- (yawɪyaw^a) small stream
 ɪuk-ɪúk- (yukúúk-) force in

2.3 Summary of allophonic realizations

The preceding sections describe Ik contrastive consonant and vowel sounds. They also introduced a variety of allophones arising from different phonological and syntactic environments. The present section summarizes these allophonic realizations according to environment because many environments affect both consonants and vowels in similar ways.

2.3.1 Devoicing

The Ik phonology-syntax interface strictly observes the right-edge of speech and does so by universally devoicing the final segment (consonant or vowel), regardless of the morpheme type involved. Voiced consonants are partially devoiced in this environment, and voiced vowels are either fully devoiced, reduced to a feature (like labialization) or deleted (rendered inaudible). This devoicing can be captured in the following aphorism:

- (29) *Phonological Rule 1 (P1)—Final Devoicing*

- “A voiced vowel devoices before a pause.”
- “A voiced consonant devoices before a pause whether followed by a devoiced vowel or not.”

The data below illustrate devoicing in consonants and vowels. The first column of (30) gives the abstract lexical form of the nouns (to show their final vowels), and the second column shows how the nouns surface phonetically in the final-form of the oblique case (see §6.3.1):

| | | | | |
|------|---------|---|----------------------|------------------|
| (30) | rébe- | → | [rêḃɛ] | ‘finger millet’ |
| | édi- | → | [êḃi] | ‘name’ |
| | sega- | → | [sèḃǵa] | ‘Umbrella Thorn’ |
| | tabá- | → | [tāḃǵa] | ‘rock’ |
| | morido- | → | [mòrìḃo] | ‘beans’ |
| | emé- | → | [ēm] | ‘meat’ |
| | eḃúnú- | → | [ēḃún ^w] | ‘lastborn’ |
| | wela- | → | [wè] | ‘opening’ |
| | baro- | → | [bār] | ‘herd’ |

As (30) shows, if the devoiced vowel is a back vowel, it may leave a trace of labialization on the preceding nasal, as in *eḃúnú-* ‘lastborn’ → [ēḃún^w].

The impact that pre-pause devoicing has on final consonants and vowels ultimately depends on the particular combination of consonant and vowel. This is also true for neighboring Toposa (Schröder & Schöder 1987:19) and Turkana languages (Dimmendaal 1983:32). In Ik, there is a general but violable tendency for devoiced vowels to become completely inaudible after fricatives /f, s, z, ʒ/, nasals /n, m, ŋ, ŋ/, and liquids /l, r/. The degree to which holds true depends on such factors as idiolect, speech rate, and other yet unknown articulatory or pragmatic factors. If, however, the devoiced vowel in question is needed for meaning, it is pronounced as whispered regardless of the preceding consonant. This happens, for example, with the instrumental case. Compare the following final (pre-pause) forms of nouns with the nominative suffix {-a} and the instrumental suffix {-ɔ}:

| | | | |
|------|-----------------------|-----------------------|---------------------------------------|
| (31) | <i>Nominative</i> | <i>Instrumental</i> | |
| | bíb ^a | bíb ^o | ‘dove’ |
| | biḃ ^a | biḃ ^o | ‘egg’ |
| | kuc ^a | kuc ^o | ‘hyrax den’ |
| | éd ^a | éd ^o | ‘name’ |
| | ḏid ^a | ḏid ^o | ‘donkey’ |
| | kaf | kaf ^o | ‘thorn’ |
| | dzóg ^a | dzóg ^o | <i>Pappea capensis</i> tree sp. |
| | kíj ^a | kíj ^o | ‘land’ |
| | cúruk ^a | cúruk ^o | ‘bull’ |
| | ḏerék ^a | ḏerék ^o | ‘wasp’ |
| | ɲól | ɲól ^o | ‘dik-dik’ |
| | jum´ | jum ^o ´ | ‘soil’ |
| | kwan´ | kwan ^o ´ | ‘penis’ |
| | leweɲ | leweɲ ^o | ‘ostrich’ |
| | ceɲ´ | ceɲ ^o ´ | ‘wood-pecker’ |
| | kop ^a | kop ^o | ‘vulture’ |
| | gúr | gúr ^o | ‘heart’ |
| | bos | bos ^o | ‘ear’ |
| | bot ^a ´ | bot ^o ´ | ‘load’ |
| | bakuts ^a ´ | bakuts ^o ´ | ‘chest’ |
| | ḑots ^a ´ | ḑots ^o ´ | ‘insect’ |
| | sɛw ^a | sɛw ^o | ‘stick’ |
| | ḑwaz | ḑwaz ^o | ‘article of clothing’ |
| | míʒɪʒ | míʒɪʒ ^o | <i>Hippocratea africana</i> plant sp. |

Ik nouns spoken in isolation are typically in the nominative case. So throughout this grammar, the nominative case suffix {-a} in its non-final form is written as a raised vowel everywhere except after /f, s, z, ʒ, m, n, ɲ, ŋ, l, r/. Even though there is some variation among speakers, the line must be drawn somewhere in terms of how to represent such forms.

Even after consonants other than fricatives, nasals, and liquids, the tendency to soften the final element of a word or phrase may lead an Ik speaker to eliminate the final vowel entirely, leaving only a consonant. This type of consonantal unrelease is in free variation with releasing the final vowel in a whispered puff. Compare the two possible surface pronunciations of five nouns in the final-form oblique case:

| | | | | |
|------|---------|---|----------------------|------------------|
| (32) | rébe- | → | [rêb̥ɛ] / [rêb̥] | ‘finger millet’ |
| | édi- | → | [êd̥i] / [êd̥] | ‘name’ |
| | sega- | → | [sèg̥a] / [sèg̥] | ‘Umbrella Thorn’ |
| | tabá- | → | [tāb̥a] / [tāb̥] | ‘rock’ |
| | morido- | → | [mòrìd̥o] / [mòrìd̥] | ‘beans’ |

As note above in §2.2.2, vowels can surface fully voiced before a pause. This can happen, for example, when a stem ends in a VV sequence. The last vowel in the pair is devoiced, allowing the first to surface with voicing. If the two vowels are identical, the devoiced vowel tends not to be audible at all—in other words, deleted. If the vowels are different, the devoiced vowel will remain as a whispered puff. A devoiced /a/ can at times cannot be distinguished from a mere puff of aspiration. These tendencies are illustrated below with a set of nouns ending in VV in the oblique case:

| | | | | |
|------|----------|---|-----------------------|------------------------|
| (33) | didii- | → | [dìdì] | ‘rain’ |
| | séi- | → | [séi] | ‘quartz’ |
| | sábai- | → | [sábàɪ] | ‘fatty stomach lining’ |
| | muceé- | → | [mūt̥ɛ] | ‘path’ |
| | ɲkwaá- | → | [ɲk̥wā ^h] | ‘traditional healer’ |
| | girúu- | → | [girú] | ‘locust’ |
| | ɔ́ɔ́ɔ́o- | → | [ɔ́ɔ́ɔ́] | ‘sheep’ |
| | demio- | → | [dèm̥iɔ] | ‘Wild Olive tree’ |
| | ɔ́au- | → | [ɔ́aʋ] | ‘knife’ |

2.3.2 Place assimilation

Ik consonants and vowels may shift their place of articulation slightly to accommodate to other nearby segments. On the side of consonants, this assimilation affects nasals and velars. Nasals must be articulated at the same place as a consonant immediately following them (except when vowel syncope is involved; see §2.1.3 above), and velars shift slightly forward [ç] before front vowels and slightly backward [C] before back vowels, as in:

| | | | | |
|------|--------------------|---|-----------|-----------------|
| (34) | kũts ^{a'} | → | [k'ũts'ã] | 'insect' |
| | kɔb ^a | → | [k'ɔ̃bã] | 'navel' |
| | kíw ^a | → | [k'íwã] | 'leather strap' |
| | kɛkér | → | [k'ɛk'ér] | 'grasshopper' |
| | kak ^a | → | [k'ák'ã] | 'hunt' |

A similar situation is found in neighboring Turkana where [q, χ, ʁ, ɸ] are all allophones of /k/ (Dimmendaal 1983:9), and in Dhaasanac where /k/ is uvularized to [q] before back vowels /a, o, u/ (Tosco 2001:21).

On the side of vowels, place assimilation raises the low central vowel /a/ to [ã] or [æ] following palatal consonants like /c, j, ɲ/:

| | | | | |
|------|----------------------|---|-----------|----------------|
| (35) | jan' | → | [fãɲ] | 'broom' |
| | caál | → | [tʃæ:] | 'hearth-stone' |
| | ɲátats ^{a'} | → | [ɲátãtsã] | 'spike trap' |

Ik vowel height assimilation recalls Dhaasanac where /a/ also raises to [æ], before instead of after palatal consonants and glides (Tosco 2001:27). Similarly, a few words traceable back to Teso-Turkana (T-T) origins show the raising of /a/ to [æ] after the (semi-)vocalic target /ɪ/ or /ts/:

| | | | | | |
|------|-----------|---|-----------|---------------|---------------------------|
| (36) | ɣán-ón | → | [ɣænón] | ‘to converse’ | (T-T <i>ak-ian</i>) |
| | ɣát-és | → | [ɣátés] | ‘to add’ | (T-T <i>ak-iat-akin</i>) |
| | itsan-es´ | → | [itsænēs] | ‘to disturb’ | (T-T <i>ak-ican</i>) |
| | tsam-és | → | [tsæmés] | ‘to like’ | (T-T <i>a-camutt</i>) |

With the latter two examples of (36), Ik speakers often reanalyze the raised /a/ as /ɛ/, thereby rendering *itsenes´* ‘to disturb’ and *tsemés* ‘to like’.

A final lexeme of unknown etymological origin exhibits /a/-raising without apparent phonetic motivation, and that is: *kwaár* → [kwæ:ɾ] ‘baboon troop’.

Place assimilation processes in Ik are verbalized in the following aphorisms:

(37) *Phonological Rule 2 (P2)—Place Assimilation*

- “Nasal consonants must be articulated at the same place as a consonant immediately following (except after syncope).”
- “Velar consonants shift slightly back or front to accommodate the back or front vowel that follows them.
- “The low central vowel /a/ is raised slightly when following high segments like palatals, alveolars, or high vowels.”

2.3.3 Glottalic effects

Two types of allophony have to do with glottalic consonants: implosives and ejectives. The first type affects consonants and involves a) the weakening of an ejective to an implosive (*Implosivization*) or b) the weakening of either an ejective or implosive to a glottal stop (*Debuccalization*). The second type involves vowels given a creaky quality (*Laryngealization*) when surrounded by glottalic consonants. Glottalic effects on consonants are discussed first.

Implosivization: The velar ejective /k/ often surfaces as a voiced velar implosive [g]. Schrock 2011 offers an hypothesis on the articulatory motivation for this allophony. Based on observation and on practice making

these sounds, it seems that making the ejective requires more muscular tension and articulatory effort than does the implosive. So, in fast or casual speech, the speaker makes only half an attempt at the ejective, and this results in a sound approximating an implosive. Examples include:

- | | | | | |
|------|-------------------------|---|----------------|---------------|
| (38) | ƙɛƙɛ́r | → | [g̃ɛg̃ɛ́r] | ‘grasshopper’ |
| | ɬɔ́ɬɔ́k’ | → | [tɔ́g̃ɔ́tɔ́k’] | ‘slug/snail’ |
| | ƙaka-akɔ-k ^e | → | [g̃âg̃â:ƙòkɛ́] | ‘for hunting’ |

In Ik, implosivization appears to be an historical as well as a current phenomenon. As Heine pointed out, older Ik speakers often retain ejective sounds where younger ones prefer implosives (1999:14). Take for example the following set of three, adapted from Heine:

- | | | | | |
|------|---------|--------------|----------------|---------------|
| (39) | | <i>Older</i> | <i>Younger</i> | |
| | /tɬ’→j/ | tɬ’abú-gwa | jabú-gwa | ‘guinea-fowl’ |
| | /ts’→j/ | ts’an’ | jan’ | ‘louse’ |
| | /k→g/ | zekw’ | zegw’ | ‘sit’ |

In such lexical pairs, Heine certainly captured a chronolectal variation, but the situation today is not so clear cut. True, the lateral affricate ejective /tɬ’/ is entirely lost, but /ts’/ and /k/ are still widely used across generations.

Debuccalization: An implosive, or an ejective-turned-implosive, may further weaken into a glottal stop [ʔ]. Although speakers of all ages do this, it is more often heard among the young. Frequent examples include these below:

- | | | | | |
|------|-------------------------|---|----------------|-----------------|
| (40) | bia = ji | → | [biāʔi] | ‘you (sg.) too’ |
| | ntsíó ɖa = ke | → | [ñtsíó ʔà kè] | ‘There it is!’ |
| | ɲkáká-kwet ³ | → | [ɲʔáʔá-kwɛ̀tə] | ‘right hand’ |
| | ƙéd-ayé | → | [ʔédájé] | ‘there’ |
| | ɖekés | → | [ɖɛʔés] | ‘to walk’ |

(40) shows that glottal stops arising from weakened glottal consonants can occur word-initially and word-medially. No glottal stops have been found word-finally, or as allophones of the bilabial implosive /b/ or the alveolar affricate ejective /ts'/. Therefore only /d/, /j/, and /k/ are affected.

Finally, vowels may be creaky (laryngealized) in the vicinity of glottalics like ejectives or a glottal stop. Examples include: $\eta k'á k^a \rightarrow [\eta k'á k'á]$ 'food', $bék'és$ 'to walk' $\rightarrow [bék'és]$, and $kék'ér$ 'grasshopper' $\rightarrow [kék'ér]$.

To conclude, glottalic allophonic processes can be summarized as follows:

(41) *Phonological Rule 3 (P3)—Glottalic Consonant Weakening*

- "A velar ejective may weaken to an implosive."
- "The implosives /d, j/ and the ejective /k/ may further weaken to a glottal stop [ʔ]."

Phonological Rule 3 (P3)—Vowel Laryngealization

- "A vowel adjacent to glottalic consonants may become creaky."

2.4 Syllables

The concept of the syllable is invoked here to account for peaks of vocal energy or sonority and the types of sounds that can enclose them. It is also a useful analytical tool for describing phenomena like: epenthesis, syncope, haplology, desyllabification, and metathesis. Because of the pre-pause devoicing of vowels in Ik, it is necessary to distinguish phonological syllables from phonetic syllables. In the phonological, or underlying syllable structure, the devoiced vowels are fully present. Whereas in the phonetic syllable, they are not. This means that for Ik, syllable structure differs significantly between the underlying and surface levels.

2.4.1 Phonological syllables

In Ik, all phonological syllables can be generated by the template: (C)V. This maximal syllable template produces the open syllables V and CV:

(42) *Ik phonological syllable types*

| | |
|----|------------------------|
| V | single vowel |
| CV | open with single vowel |

Any V can be a vowel, diphthong, or syllabic nasal (only directly before another non-nasal consonant). And any consonant (C) may be a simple consonant or a complex consonant (consonant plus glide). The absence of VV sequences in underlying representations is due to their being analyzed as two syllabic peaks. This is because they do not behave as a single unit. The same has been claimed for neighboring Turkana (Dimmendaal 1983:34, 50) and for some languages in wider Eastern Nilotic (Dimmendaal 1995:151). Ik VV sequences consist of two tone-bearing units and can involve nearly any sequence of like or different vowels (see §2.2.1 and §2.2.3 above).

The following lexical noun roots illustrate a few phonological syllable combinations. At the surface level, with phonetic syllable types, each of these words would syllabify according to different parameters:

(43) *Phonological syllabification*

| | | |
|-------|--------|------------------|
| V.CV | í.nó- | ‘animal’ |
| | é.di- | ‘name’ |
| | a.ká- | ‘mouth’ |
| | ú.za- | ‘bottom’ |
| | ú.de- | ‘soft dry grass’ |
| CV.CV | si.sí- | ‘honey-beer’ |
| | ce.kí- | ‘woman’ |
| | ka.ka- | ‘hunt’ |

| | | |
|------|--------|--------------------|
| | bó.ré- | ‘corral’ |
| | gú.ró- | ‘heart’ |
| CV.V | kí.ś- | ‘leather strap’ |
| | dɛ.á- | ‘leg’ |
| | má.ó- | ‘lion’ |
| | tso.é- | ‘wild hunting dog’ |
| | ku.a- | ‘grass’ |

Syllabic nasals are found in just a few environments, for example:

| | | | | |
|------|------|--------|---------|-----------|
| (44) | V.CV | ŋ.ka | [ŋk̚a] | ‘I’ |
| | | n.tsaʼ | [n̩tsa] | ‘s/he/it’ |
| | | ŋ.kɛʼ | [ŋk̚ɛ] | ‘Eat!’ |

Complex onsets involving a consonant-glide (CG) combination are rather more common. In Ik, these come from two sources: 1) desyllabified high vowels that lose their mora, causing compensatory lengthening on the following vowel and 2) lexicalized consonant-glide complexes. The first type is discussed below in §2.4.3, while the second type is exemplified in (42). At the phonological level, these CG sequences are found only in onsets:

| | | | |
|------|-------------------------------------|---------------------|--|
| (45) | <i>Consonant-glide combinations</i> | | |
| | di.kwá- | ‘dance, song’ | |
| | gwa.á- | ‘bird’ | |
| | kwa.rá- | ‘mountain’ | |
| | k̥wa.za- | ‘clothing’ | |
| | ŋwa.á- | ‘female’ | |
| | gwá.mó.ni- | ‘to stand’ | |
| | i.ɓwa.te.sí- | ‘to handle roughly’ | |
| | i.mwá.ŋó.ni- | ‘to shift the eyes’ | |

| | |
|--------------|-----------------|
| i.rwa.te.sí- | ‘to sprinkle’ |
| i.twa.re.sí- | ‘to chase away’ |

The semi-vowel /y/ may also appear in an onset, though more rarely:

| | |
|-------------------|-------------------|
| (46) i.syó.nó.ni- | ‘to have pity’ |
| i.tsyá.ké.to.ni- | ‘to begin’ |
| i.tsyá.tó.ni- | ‘to be resistant’ |
| i.tya.ke.sí- | ‘to forge’ |

Semi-vowels of the second type mentioned above can be analyzed as back vowels underlyingly. Though at present it is not possible to recover whether a given Cw, for example, is Co, Cɔ, Cu, or Cʊ, there is evidence they have the same moraic value as other vowels. As described ahead in §4.2.1, the assignment of Ik pluratives in some cases references the number of moras in a noun root. Nouns with two moras take a particular suffix, while nouns with three or more take a different one. As it turns out, nouns with the profile CGVCV pattern not with CVCV nouns but with CVCVV and CVCVCV nouns. This means that in terms of syllable weight, at least, the semi-vowel is ‘read’ as a vowel. In this light, compare the following examples:

| | | | | |
|-----------|--------|---|----------------------|--------------------|
| (47) CVCV | ƙɔba- | → | ƙɔb-ítín | ‘navel(s)’ |
| CVCVV | ƙɔfɔ- | → | ƙɔfɔ-ɪk ^a | ‘small gourd(s)’ |
| CGVCV | ƙwaza- | → | ƙwáz-ɪk ^a | ‘clothing (pl.)’ |
| CVCVCV | ƙɔɔta- | → | ƙɔɔt-ɪk ^a | ‘hooked ladder(s)’ |

In (47), only the first noun with a CVCV syllable structure takes the plurative {-ítín-}. Note that the three following nouns all take the plurative {-ɪka}, including the one with a CG sequence: *ƙwaza-* ‘clothing (sg.)’. Apparently then, the semi-vowel has the same moraic value as a vowel. As a result, it is possible to syllabify forms like *ƙwaza-* in the following two ways:

- (48) gwa.sá- OR gu.a.sá- ‘stone’
 kwa.rá- OR ko.a.rá- ‘mountain’
 kwe.tá- OR kɔ.ɛ.tá- ‘hand, arm’

Interestingly, other similar words like *kwaní-* ‘penis’ pattern with CVCV nouns, its plural surfacing as *kwanítín* not ***kwaník^a*. Also, the fact that the noun *déá-* ‘leg, foot’ pluralizes as *dɛik^a* suggests that depressor consonants like /d/ count for one mora in the mora-counting plurative inflection. So there are exceptions, perhaps hiding yet undiscovered relevant factors.

Because of the large number of consonants that can form complex onsets with semi-vowels (11 out of 30), it was decided not to treat each complex as a separate phoneme. It could happen that further historical insight into Ik will require the positing of at least some labialized phonemes like the velars.

2.4.2 *Phonetic syllables*

The universal devoicing of vowels before pauses means that at the surface level, closed syllables are attested. Closed phonetic syllables account for the cases where a final vowel is devoiced, leaving an unreleased final consonant. If, on the other hand, the devoicing leaves a whispered vowel, it may be analyzed as syllabic, non-syllabic, or extra-syllabic. The descriptive framework permits all three interpretations at the phonetic level.

Closed phonetic syllables may contain a complex VV nucleus, though as noted above, these are treated as V.V at the phonological level. This is also what has been claimed for Turkana (Dimmendaal 1983:50). Thus, at the surface level, the template (C)V(V)(C) is a more accurate generator of allowable phonetic syllable types, such as these shown below:

(49) *Ik phonetic syllable types*

| | |
|------|--------------------------|
| V | single vowel |
| VV | double vowel |
| CV | open with single vowel |
| CVV | open with double vowel |
| CVC | closed with single vowel |
| CVVC | closed with double vowel |

It may be helpful now to make a comparison between phonological and phonetic syllable types. This can be done by syllabifying various items both at an underlying level and at the surface level:

| (50) | <i>Phonological syllable</i> | | <i>Phonetic syllable</i> | |
|------|------------------------------|-------------|--------------------------|----------------------------|
| | V.V | é.é | VV | [éé] 'yes' |
| | CV.CV | ŋó.kí- | CVC | [ŋókɨ] 'dog' |
| | CV.V.CV | kwa.a.tí- | CVVC | [k'wáátɨ] 'frog' |
| | CV.CV.V | ts'é.'dé.é | CV.CVV | [ts'éd'ée] 'there' |
| | CV.CV.V.CV | cu.cwá.á.na | CV.CVVC | [tʃütʃwá:ŋ] 'It's liquid.' |

2.4.3 *Syllabification methods*

Ik words are syllabified left-to-right, and syllable onsets are maximized. The following lengthy noun and verb stems illustrate normal syllabification:

| | | | |
|------|---------------------|--------------------|------------|
| (51) | a.rá.gwa.néé.bi.tín | V.CV.CV.CVV.CV.CVC | 'new moon' |
| | a.lá.máá.rá.nón | V.CV.CVV.CV.CV.CVC | 'to sway' |

When morphemes are strung together, the normal method of syllabification may be challenged. In such cases, Ik has ways of resyllabifying the string to form allowable syllable types. These procedures include epenthesis, syncope, haplology, and desyllabification, all described below.

Epenthesis: Whenever a CVC lexical root is fully reduplicated, a disallowed consonant cluster (CVC.CVC) is created word-internally. If this happens, an epenthetic vowel is inserted to break up the cluster. The default epenthetic vowel in Ik is /i/ or /i/ (which may be backed to /u/ or /u/):

- (52) *bot.bot- → bo.ti.bot- ‘be nomadic’
 *cem.cem- → ce.mi.cem- ‘be combative’
 *ket.ket- → ke.ti.ket- ‘pitter-patter’
 *sur.sur- → su.ru.súr- ‘be lanky’

Syncope: Vowels may be deleted in words for two reasons: 1) They fall between a nasal and non-nasal consonant, or 2) they occur in a disallowed VVV sequence. In the first environment, when a nasal is the onset of a word-medial syllable, and its vowel nucleus is deleted, the nasal then becomes part of the VV nucleus of the preceding syllable as in the following:

- (53) ma.rá.ɲí.té.su.kotⁱ → ma.ráj.té.su.kotⁱ ‘to heal’
 i.tsu.ɲu.kot^e → i.tsuɲ.kot^e ‘Burn (it)!’
 ɲí.ki.swa.hí.lí.tod^a → ɲ.ki.swa.hí.lí.tod^a ‘Kiswahili’

In the second environment—when a disallowed VVV sequence appears at the juncture of two morphemes—one of the first two vowels is deleted. This can be illustrated by affixing the non-final Accusative case morpheme {-a} to a couple of noun roots ending in a VV sequence:

- (54) hótɔ- → **hótɔ-a → hótɔa... ‘egret-ACC’
 mucéé- → **mucéé-á → mucéá... ‘path-ACC’

Haplology: When two identical or very similar consonants occur in adjacent morphemes, the first similar consonant may be deleted. The loss of a syllable onset means that the string of segments has to be resyllabified:

- (55) fá.ní.ni.o mup^u → fá.í.ni.o mup^u ‘from all directions’
 de.ti.duk^o → de.i.duk^o ‘And you (sg.) bring (it).’

In the first example of (55), the /n/ in *fán* ‘direction’ is lost before the /n/ in the possessive plurative {-ni-}. Likewise, in the second example, the /t/ in *det-* ‘bring’ is lost before the /d/ in the second person singular suffix {-ídi-}.

Desyllabification and Compensatory Lengthening: A back vowel /o, ɔ, u, ʊ/ may desyllabify to /w/ if preceded by a consonant and following by another vowel. A front vowel /i, ɪ/ may also desyllabify to /y/ in the same context. If this happens, the mora (syllabic weight unit) of the desyllabified vowel shifts to the vowel of the suffix, causing it to lengthen in compensation:

- (56) bién → [byé:ŋ] ‘yours’
 cuán → [tʃwá:ŋ] ‘It’s liquid.’
 dzúám → [dʒwá:m] ‘thief’
 egíade = nak^a → [ēgyâ:dènàkə] ‘I put it there (earlier).’
 ídoe → [ídwè:] ‘in the milk...’
 jués → [fwe:s] ‘to roast’
 ŋués → [ŋwe:s] ‘to grab’
 epúáw^a → [ēpwá:wə] ‘sleeping place’
 taítaión → [tāitāyó:ŋ] ‘to spin’
 tswa → [tswà:] ‘Now?’

At the surface level, desyllabification of this type is the source of many semi-vowels acting as allophones of underlying vowels.

Methathesis: Onsets of successive syllables may swap places with each other. Interestingly, when this happens, the swapped onsets may or may not take the voicing quality of the onset that they replaced. This type of metathesis has only been observed in the following three words:

- (57) zi.kí.bon → gi.sí.bon ‘to be tall’
 kí.dzi.me.ton → tsí.gi.me.ton ‘to come down’
 gaú.sú.mon → saú.kú.mon ‘to be shaggy’

Isolated cases of different kinds of metathesis include *fíluḱurú* ‘turaco’ → *ḱíluḱurú* and *nanḱḱḱ* ‘axe-head’ → *nanḱḱḱḱ*. For the latter case, native speakers argue over which form is original and which one methathesized.

2.5 Morphophonology

Besides the sound changes that happen in phonological environments, some consonant and vowel changes happen in certain morphophonological environments (at the boundaries of specific morphemes and not others). These include haplology, de-affrication, and non-final deletion for consonants; and for vowels, several types of vowel assimilation.

2.5.1 Haplology

For Ik, *haplology* refers to the process whereby the first of two consonants made at the same place of articulation in certain adjacent morphemes is deleted. Presumably this has its origin in ease of pronunciation. Haplology has only been observed affecting the consonants /k, ḱ, n, t/—that is, two velars and two alveolars. Not only does haplology involve only those four consonants but only those four in specific morphological environments, i.e:

- (58) *Morphophonological Rule 1 (M1)—Haplology*
- A root-final /k/ or /ḱ/ may be deleted before the andative/completive suffix {-ḱḱtí-} or the plurative III {-ika-}.
 - A morpheme-final /n/ may be deleted before an adjacent morpheme also containing /n/.
 - The /t/ in the venitive/inchoative suffix {-et-} and the andative/completive suffix {-ḱḱtí-} may be deleted before the /t/ in the 2SG, 1PL.INC, and 2PL subject-marking suffixes.

The first such environment is when a lexical root ending in /k/ or /k̄/ is followed by the andative/completive suffix {-ukótí-}. In this environment, the root-final /k,k̄/ is deleted, as the following verbs show:

- (59) *Luu^hkotuk*.
 luk-ukót-u-k^o → lu-ukót-tu-k^o
 swallow-COMP-3SG-SEQ
 And s/he swallowed (it).

- (60) *Kook^hotuk*.
 kək-ukót-u-k^o → kə-ukót-u-k^o
 close-COMP-3SG-SEQ
 And s/he closed (it).

The second morphophonological environment involves a noun root ending in /k/ pluralized by the plurative III {-ika-}. When this environment arises, the root-final /k/ deletes before the /k/ of the plurative suffix:

- (61) *baciika muⁿ*
 bácik-ik-a muⁿ → báci-ika muⁿ
 area-PL-NOM all
 all areas

The third morphophonological environment involves /n/ and comprises two different morphemic combinations. First, when the impersonal passive suffix {-aní-} is followed by the recent past tense clitic =*náka*, the /n/ in the suffix is deleted before the /n/ in the clitic:

- (62) *ŋabitetaa nak*.
 ŋáb-it-ét-an-a = nak^a → ŋáb-it-ét-a-a = nak^a
 wear-CAUS-INCH-IPS-REAL = PST1
 S/he was dressed.

Second, when a noun root ending with /n/ takes the possessive plurative {-mr-}, the root-final /n/ gets deleted, as in the following noun phrase:

- (63) *xainio mup*
 ʃán-íni-o mup → ʃá-íni-o mup
 direction-POSS.PL-ABL all
 from all directions

The fourth morphophonological environment causing haplology involves the venitive/inchoative suffix {-et-}. When this suffix is followed by any of the subject-agreement marking suffixes that contain an alveolar consonant, the /t/ in the suffix is deleted. This happens with 2SG, 1PL.INC, and 2PL, as shown in the following table. Note the missing /t/ in those three root forms:

(64) *Haplology in the venitive/inchoative paradigm*

| | | |
|---------|---------------------|-------------------|
| 1SG | det-í | 'I bring.' |
| 2SG | dé-íd ^a | 'You (SG) bring.' |
| 3SG | det- ^a | 'S/he brings.' |
| 1PL.EXC | det-ím | 'We (EXC) bring.' |
| 1PL.INC | de-ísín | 'We (INC) bring.' |
| 2PL | de-ít ^a | 'You (PL) bring.' |
| 3PL | det-át ^a | 'They bring.' |

The fifth and final haplological environment is similar to the previous one in that it involves /t/ and subject-agreement suffixes. But in this case, it is the andative/completive suffix {-ukotí-} that loses its /t/ before the 2SG, 1PL.INC, and 2PL verb forms. Take note of the missing /t/ in those forms:

(65) *Haplology in the andative/completive paradigm*

| | | |
|---------|-----------------------|------------------|
| 1SG | d-ukot-í | 'I take.' |
| 2SG | d-ukó-íd ^a | 'You (SG) take.' |
| 3SG | d-ukot ^a | 'S/he takes.' |
| 1PL.EXC | d-ukot-ím | 'We (EXC) take.' |

| | | |
|---------|-------------------------|------------------|
| 1PL.INC | d-ufko-ísín | ‘We (INC) take.’ |
| 2PL | d-ufko-ít ^a | ‘You (PL) take.’ |
| 3PL | d-ufkot-át ^a | ‘They take.’ |

That exhaustively completes the recorded instances of haplology in Ik and the morphophonological contexts that induce it. Haplology is marginally optional: It is grammatical for a speaker to circumvent haplology in very careful speech, but by all indications it is vastly preferred in these contexts.

The fact that haplology is restricted to certain morphophonological environments—as opposed to being a general rule—can be amply demonstrated by words such as the following in which it fails to occur:

| | | | |
|------|-------|---------------------|--|
| (66) | /k-k/ | kakák ^o | ‘It’s a leaf.’ |
| | | sískák ^e | ‘in the middle’ |
| | | lókók ^a | ‘worker ant’ |
| | /k-k/ | dúlúkúkú | ‘small oval gourd’ |
| | | kakak ^e | ‘in the hunt’ |
| | | ɲéturúkúku | ‘bone on chicken’s back’ |
| | /n-n/ | asonán | ‘African pencil cedar’ |
| | | imánán | ‘Castor-oil plant’ |
| | | seínení | ‘ <i>Stereospermum kuntianum</i> tree’ |
| | /t-t/ | akatát ^a | ‘gourd lid’ |
| | | botetam | ‘wood chip’ |
| | | Tutét ^a | ‘Tutet Mountain’ |

Nevertheless, one instance of intra-morphemic haplology has been observed: *ɲɔkɔkɔr* ‘chicken’ → *ɲɔkɔr*. This resembles Turkana haplology (Dimmendaal 1983:47-48), and indeed the word is borrowed from Turkana.

Haplology has also left an imprint on the Ik lexicon. The verb roots ‘bring/take’ and ‘give’ have different forms depending on which verbal extensions are attached to them. They have a shorter root with any verbal suffix but the andative {-ukotí-} and a longer root form with the andative:

| | | |
|------|--------------------------|-----------------------|
| (67) | d-et-és | ‘to bring’ |
| | duk-és-úkot ^a | ‘to take’ |
| | me-és | ‘to give (generally)’ |
| | me-et-és | ‘to give (this way)’ |
| | mak-és-úkot ^a | ‘to give (out/away)’ |

Looking at (67), it is not immediately clear whether the root for ‘give’ is *ma-* (*me-* when the vowel is assimilated by the following vowel) or *mak-*. It is also not clear whether the root for ‘bring/take’ is *d-* or *duk-*. Haplology in current Ik phonology gives a clue that the longer forms are original. In the imperative singular forms of these verbs with the andative—*ma-kot-e* and *d-ukot-e*—the velar /k/ in the root seems to have been deleted before the /k/ in the andative suffix. Speakers then re-interpreted the shorter forms (*ma-* and *d-*) as roots unto themselves and began extrapolating forms like *me-et-és* and *d-et-és* instead of *mak-et-és* and *duk-et-és*.

2.5.2 De-affrication

In the introduction of this grammar, the Ik word for themselves (*Ik^a*) and the Ik word for ‘head’ (*ik^a*) were said to be homophonous in the nominative case. In accordance with their homophony, it has been suggested that the Ik people were the ‘head’ of ancient migrations. But their being the same word historically is challenged by the fact that in the other cases, their base forms are different: *icé-* ‘Ik’ and *iká-* ‘head’. Comparing the full case declensions of these two noun roots opens up the discussion of (*de-*)affrication:

(68) *Non-final case paradigm for icé- ‘Ik’ and iká- ‘head’*

| | ‘Ik’ | ‘head’ |
|-----------|--------------|--------|
| Base form | icé- | iká- |
| OBL | ice | ika |
| NOM | ik-a | ik-a |
| INS | ik-o (ic-o?) | ik-o |
| ABL | icé-ó/icó-ó | ikó-ó |
| GEN | icé-é | iké-é |
| ACC | icé-á | iká-á |
| DAT | icé-é | iké-é |
| COP | icé-ó/icó-ó | ikó-ó |

As discussed further in §6.3, the Ik nominative and instrumental case suffixes first subtract the final vowel of the root to which they attach. This means that for *icé-* ‘Ik’, once the /é/ is deleted, the /c/ is directly exposed to the nominative suffix {-a} or the instrumental suffix {-o}. So, unlike in other regional languages where affrication of /k/ to /c/ before high vowels is common (e.g. Luganda), (68) presents a situation in Ik where /c/ de-affricates to /k/ before non-front vowels /a/ and /o/. De-affrication is also attested in other roots similar to *icé-*, like *wicé-* ‘children’ and *íci-* ‘I’.

This type of de-affrication applies only at the morpheme boundary between noun root and two case suffixes. If it applied more generally, one would expect words like *caalí-* ‘hearth-stone’ to become **kaalí-*, which it does not. Ik de-affrication can be captured in the following aphorism:

(69) *Morphophonological Rule 2 (M2)—De-affrication*

- In noun roots ending in the sequence /cV-/, the /c/ ‘hardens’ to [k] when the final vowel is subtracted by the nominative or instrumental case suffixes.

As a final note, a trend toward de-affrication has been noted among younger speakers and those from certain areas (like *Louúsína* valley). These speakers

like to pronounce words like *jeje*- ‘leather mat’ as *gege*- and *njíní*- ‘we.INC’ as *ngíní*-. Obviously, in these examples, the phonological motivation (de-affrication before non-high vowels) is not the same as in (68), since both words contain front vowels. So this type of de-affrication may just be an idiosyncratic preference of some speakers, or it may have historical explanations not immediately recognizable today.

2.5.3 Non-final deletion

Non-final deletion refers to the situation where the final consonant of a morpheme is deleted in phrase-medial environments (i.e., not before a pause). So it occurs in the exact opposite environment as devoicing (§2.3.1):

(70) *Morphophonological Rule 3 (M3)—Non-final deletion*

- In many grammatical morphemes ending in the sequence /...CV/, the consonant (C) is deleted in phrase-medial positions.

Although it can affect any class of morpheme, non-final deletion must be considered morphophonological because only certain morphemes are affected and not others. Below is a representative sample of the morphemes known to undergo non-final deletion. The reader is referred to the Affix list for more information on identifying each morpheme.

(71) *Non-final allomorphs*

| Morpheme | Underlying | Non-final |
|----------|------------|-----------|
| ACC | -ka | -a |
| ADV | =jike | =ji |
| DAT | -ke | -e |
| DP | =’de | =’e |
| PRF | -’ka | -’a |
| PST2 | =batse | =be |

2.5.4 Vowel assimilation

Vowel assimilation is widespread in Ik just as it is in neighboring Turkana (Dimmendaal 1983:29). Being aware the various types of assimilation is one of the keys to unlocking the larger system of Ik grammar. The types of assimilation attested include total and partial, regressive and progressive, adjacent and non-adjacent, in several combinations. Each type occurs between certain morphemes and not others, and no type occurs within single morphemes, but only between morphemes. Refer back to §2.2.3 for evidence of non-assimilated vowel sequences within lexical roots.

(72) *Morphophonological Rule 4 (M4)—Vowel assimilation*

- Particular vowel combinations across particular morpheme boundaries tend to assimilate to each other.

Total Regressive Assimilation is when the second vowel in a two-vowel sequence changes the first vowel to make it identical with it. The process may involve rounding, backing, raising, or lowering, depending on the vowels concerned. In Ik this occurs between noun stems and case suffixes and between verb stems and TAM (tense-aspect-mood/modality) suffixes. All vowels may be assimilated in this way, apart from the high [+ATR] /i/ and /u/ and the mid vowels /o/ and /ɔ/. In some cases, one consonant may intervene, making the assimilation non-adjacent. The table in (73) lists the known sequences resulting from *total regressive assimilation*. The arrow (→) signifies the direction of assimilation, i.e. regressive in this case:

(73) *Types of total regressive assimilation*

| | | | |
|---------------------------|-----|---|----|
| Rounding/backing | e←o | = | oo |
| | ɛ←ɔ | = | ɔɔ |
| Rounding/backing/raising | a←o | = | oo |
| | a←ɔ | = | ɔɔ |
| Rounding/backing/lowering | i←ɔ | = | ɔɔ |
| Backing/lowering | i←a | = | aa |

| | | | |
|------------------|-------|---|----|
| Lowering | u ← ɔ | = | ɔɔ |
| | i ← ε | = | εε |
| Fronting/raising | a ← e | = | ee |
| | a ← ε | = | εε |

The sequences of assimilated vowels in (73) are found in noun and verb stems like the following:

(74) *Examples of total regressive assimilation*

| | | | |
|------------|---|------------|-------------------|
| mucé-ó | → | mucó-ó | path-ABL/COP |
| mεεε-ɔ | → | mεɔɔ-ɔ | beer-ABL/COP |
| ɪdɪm-εt-ɔs | → | ɪdɪm-ɔt-ɔs | creature |
| da-on | → | do-on | be.nice-INF |
| tsá-ón | → | tsó-ón | be.dry-INF |
| séda-o | → | sédo-o | garden-ABL/COP |
| gwa-ɔ | → | gɔɔ-ɔ | stomach- ABL/COP |
| βεkés-í-ɔ | → | βεk-és-ɔ-ɔ | walk-IPFV-3SG-SEQ |
| sisí-á | → | sisá-á | honey.beer-ACC |
| kafu-ɔ | → | kafɔ-ɔ | thorn-ABL/COP |
| βεkés-í-ε | → | βεkés-é-ε | walk-3SG-SIML |
| da-és | → | de-és | be.nice-INT |
| tsá-és | → | tsé-és | be.dry-INT |
| séda-e | → | séde-e | garden-GEN/DAT |
| βisá-é | → | βisé-é | spear-GEN/DAT |

A further example of this kind of assimilation in a clausal context is when the negator verb *ńt-* comes before verbs that begin with a vowel:

(75) *Nte enid.*

| | | | |
|---------------------|--------------------|---|-------------------------|
| ńt-á | en-íd ⁱ | → | ńt-é en-íd ⁱ |
| not-REAL | see-2SG[IRR] | | |
| You don't see (it). | | | |

Partial regressive assimilation, by contrast, occurs when the second vowel in a sequence of two vowels (adjacent or not) changes the first vowel to be more but not totally like it. This assimilation only takes place in Ik when the first vowel is a high front vowel (/i, ɪ/) and the second vowel a mid back vowel (/o, ɔ/), which for nouns might be the ablative or copulative case and for verbs the sequential or plural imperative suffixes. This type of assimilation involves rounding and backing. *Adjacent* partial regressive assimilation affects only the [+ATR] /i/, while the *non-adjacent* type (with /k/ intervening) affects both the [+ATR] /i/ and the [-ATR] /ɪ/:

(76) *Types of partial regressive assimilation*

| | | | |
|------------------|-------|---|----|
| Rounding/backing | i ← o | = | uo |
| | ɪ ← ɔ | = | ʊɔ |

These partially assimilated sequences are taken from words like:

(77) *Examples of partial regressive assimilation*

| | | | |
|---------|---|---------|---------------|
| ats-i-o | → | ats-u-o | come-3SG-SEQ |
| ats-íó | → | ats-úó | come-IMP.PL |
| dí-ó | → | dú-ó | ones-ABL/COP |
| cekí-ó | → | cekú-ó | woman-ABL/COP |

The non-adjacent type occurs with the final form (FF) of the copulative case marker and the sequential aspect suffix, both of which contain a /k/:

(78) *Examples of non-adjacent partial regressive assimilation*

| | | | |
|-----------------------|---|-----------------------|-----------------|
| ats-i-k ^o | → | ats-u-k ^o | come-3SG-SEQ.FF |
| cekí-k ^o | → | cekú-k ^o | woman-COP.FF |
| áts'-í-k ^ɔ | → | áts'-ú-k ^ɔ | gnaw-3SG-SEQ.FF |
| kɔni-k ^ɔ | → | kɔnu-k ^ɔ | one-COP.FF |

Total progressive assimilation is when the first vowel in a sequence of two vowels changes the second vowel to be identical with it. The change may

involve raising, lowering, backing, fronting, rounding, and unrounding. This type of assimilation shows up in three specific morphological contexts:

1. When the non-final form ($=\acute{e}/=\acute{\epsilon}$) of the dummy pronoun clitic $\{=\acute{d}\acute{e}\}$ follows any TAM verbal suffix,
2. When the andative/completive suffix $\{-\text{okot}\acute{i}-\}$ follows either a) the pluractional suffix $\{-\acute{i}-\}$ or b) a verb root whose root-final velar consonant has been deleted by haplology (see §2.5.1),
3. When a verb stem whose last vowel is high and back is followed by a) the causative suffix $\{-\text{it}-\}$ or b) the reciprocal suffix $\{-\acute{i}\acute{n}\acute{o}\acute{s}\acute{i}-\}$ (with or without an intervening consonant).

The affected vowel sequences are listed below according to context:

(79) *Types of total progressive assimilation*

| | | | |
|------------------------------|---------------------------------|---|----|
| Raising | $i \rightarrow e$ | = | ii |
| | $i \rightarrow \epsilon$ | = | ii |
| Backing/rounding | $o \rightarrow e$ | = | oo |
| | $\text{ɔ} \rightarrow \epsilon$ | = | ɔɔ |
| Lowering/backing | $a \rightarrow e$ | = | aa |
| | $a \rightarrow \epsilon$ | = | aa |
| Backing | $i \rightarrow u$ | = | ii |
| Lowering | $o \rightarrow u$ | = | oo |
| | $\text{ɔ} \rightarrow u$ | = | ɔɔ |
| Lowering/fronting/unrounding | $a \rightarrow u$ | = | aa |
| | $a \rightarrow \text{ɔ}$ | = | aa |
| Backing/rounding | $u \rightarrow i$ | = | uu |
| | $\text{ɔ} \rightarrow i$ | = | ɔɔ |

Examples of the first morphological context include the following:

(80) *Examples of total progressive assimilation*

| | | | |
|------------|---|------------|----------------|
| ka-iní=e | → | ka-iní=i | go-SEQ=DP |
| kut-iní=ε | → | kut-iní=ɪ | say-SEQ=DP |
| ka-i-kó=e | → | ka-i-kó=ɔ | go-3SG-SEQ=DP |
| kut-i-kó=ε | → | kut-u-kó=ɔ | say-3SG-SEQ=DP |

Examples of the second morphological context include the following:

(81) *More examples of total progressive assimilation*

| | | | |
|-----------------------------|---|-----------------------------|-------------------------------|
| kwad-í-úkot-át ^a | → | kwad-í-íkot-át ^a | few-PLUR-COMP-3PL- REAL |
| ɪɪβ-áák-ukot-in | → | ɪɪβ-á-ákot-in | green-DISTR-COMP-SEQ |
| kɔk-ukot-ε | → | kɔ-ɔkɔt-ε | close-COMP-IMP.SG |
| ze-ik-áák-ukot-in | → | ze-ik-á-ákot-in | big-ADJ.PL-DISTR-COMP- SEQ |

Lastly, examples of the third morphological context include:

(82) *Yet more examples of total progressive assimilation*

| | | | |
|-------------|---|-------------|---------------------|
| ɖus-it-es | → | ɖus-ut-es | cut-CAUS-INF |
| itúr-ít-és | → | itúr-út-és | boast-CAUS-INF |
| ru-it-et-és | → | ru-ut-et-és | uproot-CAUS-VEN-INF |
| ɖúl-ínós | → | ɖúl-únós | oppress-RECIP |
| tolú-ínós | → | tolú-únós | betray-RECIP |
| ts'ún-únós | → | ts'ún-únós | kiss-RECIP |

Just as the vowels /ɪ,i/ in this third environment get backed and rounded, the reciprocal suffix {-ínósí-} also shows vowel rounding after any labial consonants like /b/, /β/, and /m/:

| | | | | |
|------|------------|---|------------|------------|
| (83) | ts'áb-inós | → | ts'áb-unós | hate-RECIP |
| | sáb-ínós | → | sáb-únós | kill-RECIP |
| | tsám-ínós | → | tsám-únós | like-RECIP |

Labially induced assimilation like this also occurs in Ik's sister language So, where it is called 'labial attraction' (Carlin 1993:24, 88). This shows up, for example, when the So word *nɛb-an* 'person-DEM.SG' becomes *nɛb-un*.

Finally, *partial progressive assimilation* is when the first vowel in a sequence of two vowels changes the second one to be more like it but not totally. This only happens when the andative/completive suffix {-ókɔ́tí-} follows a verb root ending in /e/, /ɛ/, or /a/. The affected sequences are:

(84) *Types of partial progressive assimilation*

| | |
|----------|----------|
| Fronting | e→u = ei |
| | ɛ→ɔ = ɛɪ |
| | a→u = ai |
| | a→ɔ = aɪ |

These sequences are derived from verb forms like the following:

(85) *Examples of partial progressive assimilation*

| | | | |
|--------------------------------|---|--------------------------------|------------------------|
| ts'é-úkɔ́t-át-a-k ^a | → | ts'é-íkɔ́t-át-a-k ^a | die-COMP-3PL-REAL-PRF |
| ɪbɛ́bɛ́-ókɔ́t-á-k ^a | → | ɪbɛ́bɛ́-íkɔ́t-á-k ^a | lay.eggs-COMP-REAL-PRF |
| tsá-úkɔ́t-á-k ^a | → | tsá-íkɔ́t-á-k ^a | dry-COMP-REAL-PRF |
| ɪlá-úkɔ́t-á-k ^a | → | ɪlá-íkɔ́t-á-k ^a | go-AND-REAL-PRF |

To conclude, the table below shows all the sequences of vowels involved in the various types of assimilation described in the preceding paragraphs:

(86) *Ik vowel assimilation types*

| | Progressive | Regressive |
|---------|---------------|------------------------------------|
| Partial | e→u = ei | i←o = uo |
| | ɛ→ʊ = ɛɪ | i←k ^o = uk ^o |
| | a→u = ai | ɪ←k ^o = ʊk ^o |
| | a→ʊ = aɪ | |
| Total | i→e = ii | e←o = oo |
| | ɪ→ɛ = ɪɪ | a←o = oo |
| | o→e = oo | ɛ←ɔ = ɔɔ |
| | ɔ→ɛ = ɔɔ | a←ɔ = ɔɔ |
| | a→e = aa | ɪ←ɔ = ɔɔ |
| | a→ɛ = aa | ʊ←ɔ = ɔɔ |
| | i→u = ii | a←e = ee |
| | o→u = oo | a←ɛ = ɛɛ |
| | ɔ→ʊ = ɔɔ | ɪ←ɛ = ɛɛ |
| | a→u = aa | ɪ←a = aa |
| | a→ʊ = aa | |
| | u(C)→i = u(C) | |
| | ʊ(C)→ɪ = u | |
| | | ʊ(C)ʊ |

3 Suprasegmental Phonology

Suprasegmental phonology covers those properties of the Ik sound system whose domain may be greater than the single segment or syllable. Ik vowel harmony (§3.1) and tone (§3.2) fall into this category and so are treated here together. They also belong together for other reasons, namely that they have been the most difficult aspect of Ik phonology to comprehend and are crucial characteristics of the overall Ik grammar and lexicon.

3.1 Vowel harmony

In their survey of African vowel harmony systems, Hall et al. noted that for ‘Teuso’ (Ik), ‘no information’ was available (1974:257). This section is intended to partly remedy that situation. Like many sub-Saharan languages, particularly in Nilo-Saharan, Ik shows a system of vowel harmony. This puts it in the areal company of Eastern Nilotic (Teso-Turkana), Southern Nilotic (Pokot, Kalenjin), Western Nilotic (Acholi, Lango), as well as the Cushitic Somali and Kuliak (Rub) So. Ik is a 9-vowel harmony language with two sets of high contrastive vowels—a /2IU/ system in Casali’s typology (2008:504)—two sets of mid contrastive vowels and one low vowel:

(1) *Ik 9-vowel harmony system*

| [+ATR] | FRONT | CENTRAL | BACK |
|--------|-------|---------|------|
| HIGH | i | | u |
| MID | e | | o |
| [-ATR] | FRONT | CENTRAL | BACK |
| HIGH | ɪ | | ʊ |
| MID | ɛ | | ɔ |
| LOW | | a | |

Vowel harmony is a general condition in the language that all vowels in a given phonological word have the same value for the feature Advanced Tongue Root or [ATR]. Cross-linguistically, the phonetic correlates of ATR vary from tongue-root frontness/backness to tongue-body height to laryngeal-cavity volume. Because it requires instrumental measurements, the exact phonetic manifestation of ATR in Ik has not been determined.

Ik is a [+ATR]-dominant language with dominant-recessive harmony. Harmony spread is bi-directional. Lexical roots are specified underlyingly for [ATR], and [+ATR] roots spread harmony rightward to any recessive suffixes. All synchronic Ik affixes are suffixes, and these suffixes are also specified underlyingly for [ATR]. Three suffixes with high front vowels are dominantly [+ATR], harmonizing the stem in both directions as far as possible (§3.1.2). Nine other suffixes containing /a/ as one or the only vowel are also [+ATR] but can only harmonize rightward due to /a/'s opacity (§3.1.3). Most suffixes in the language are recessively [-ATR] (§3.1.4). However, two unique [-ATR] suffixes containing /a/ block bi-directional [+ATR] spread, also due to /a/'s opacity (§3.1.5). The phonological domain over which Ik lexical vowel harmony presides is the phonological word, which may include a root, suffixes, and clitics.

From a typological point of view, the Ik system is interesting in the following respects (Casali, p.c.). First, roots and affixes whose only vowel is /a/ can be specified for either [ATR] value underlyingly. In other languages, /a/ often has a [+ATR] allophone in [+ATR] environments (Casali 2008:502), but in Ik there is no indication of this. This leads to a second fascinating feature: Because 1) /a/ is inherently [-ATR] and 2) morphemes containing only /a/ can be [+ATR], this requires positing a floating [+ATR] feature that can spread rightward but not leftward (i.e. through /a/ which is opaque). Third, though [+ATR] vowels are dominant and marked, they statistically outnumber [-ATR] vowels almost two-to-one (see §3.1.1).

3.1.1 Lexical vowel harmony

Vowel harmony in Ik operates at both the lexical and post-lexical levels (§3.1.6) of phonological representation. The lexical forms of all Ik roots and affixes are specified as either [+ATR] or [-ATR]. In the present analysis, the [ATR] specification—as an autosegment on a separate tier from the segmental—is a property of morphemes, not of individual vowels. As an autosegment, it links up to any available vowel in the morpheme.

From a traditional structuralist point of view, the nine vowels shown above in (1) are seen as individual ‘phonemes’. This view is fine and creates no problems for the analysis of Ik vowel harmony. But following Kutsch-Lojenga’s analysis of Ngiti vowel harmony (1994:56), a more generativist view is also possible, namely that—leaving aside /a/ for the moment—Ik has four ‘archi-phonemes’ underspecified for [ATR] in deep structure:

(2) *Ik archi-phonemic vowels*

| | [+/-ATR] | [-ATR] | [+/-ATR] |
|------|----------|---------|----------|
| | FRONT | CENTRAL | BACK |
| HIGH | I | | U |
| MID | E | | O |
| LOW | | a | |



In this analysis, while the low vowel /a/ stays inherently [-ATR], the other eight Ik vowels can be viewed as generated by these four archi-phonemes that get specified for their ‘allo-phoneme’ by a given morpheme’s [ATR] specification. Though quite abstract, this view may help account for why (in my experience with Ik and Ateso), vowel harmony falls largely below the perceptual threshold for native speakers. Paradoxically, the nine surface allophones (or ‘allo-phonemes’) of the archi-phonemes are also ‘phonemes’ themselves. This suggests that the strict division between ‘phoneme’ and ‘allophone’ may prove less than adequate for such vowel harmony systems.

With the archi-phonemic analysis in the background, lexical (near-) minimal pairs like the following can be viewed as (nearly) the same sequence of segments, only with different [ATR] (and in some case tone) specifications:

(3) *[ATR] (near-) minimal pairs*

| Nouns | | Verbs | |
|--------|--------------------|-------|-----------------|
| gúró- | ‘heart’ | bot- | ‘migrate’ |
| gura- | ‘Sickle-bush tree’ | bɔt- | ‘peel’ |
| ikóŋá- | ‘oath’ | bun- | ‘join in’ |
| ikɔŋa- | ‘fried beer mash’ | ɓun- | ‘pass by’ |
| ínó- | ‘animal’ | isá- | ‘do first’ |
| inó- | ‘Milkbush’ | isa- | ‘miss (a shot)’ |
| koni- | ‘ligament’ | isép- | ‘flow’ |
| kɔní- | ‘one’ | isép- | ‘be lame’ |
| kóré- | ‘back of knee’ | kup- | ‘be cloudy’ |
| kóré- | ‘ladle’ | kɔp- | ‘burn’ |

At an autosegmental level of representation, words like the above ones for ‘back of knee’ and ‘ladle’ can be depicted as in (4). Here, the relevant archi-phonemic vowels get specified for either of the two [ATR] values:

| | | |
|-----|---|---|
| (4) | ‘back of knee’ | ‘ladle’ |
| | [+ATR] | [-ATR] |
| |  |  |
| | /kÓrÉ/ → kóré- | /kÓrÉ/ → kóré- |

Less abstractly, it can be said that the two nouns in (4) simply contain similar (only different in [ATR]) vowels from the nine-vowel inventory.

Whatever theoretical interpretation one may make, Ik lexical roots can be neatly divided into two groups according to their [ATR] specification. The following table offers a few more examples of this. [+ATR] lexical roots are more numerous than [-ATR] ones. In a sample of 1930 noun roots, approximately 60% were found to be [+ATR] and 40% [-ATR]. Conversely, there are far more [-ATR] suffixes than there are [+ATR] ones (§3.1.4).

(5) *Lexical [ATR] specification on nouns and verbs*

| Nouns | | | |
|---------|-------------------|---------|--------------------|
| [+ATR] | | [-ATR] | |
| bíró- | ‘bird sp.’ | bílóró- | ‘bird sp.’ |
| démio- | ‘Wild olive tree’ | cəməri- | ‘herb’ |
| fetí- | ‘sun’ | dúdére- | ‘water beetle’ |
| gírúu- | ‘locust’ | đerétú- | ‘Sudan gum arabic’ |
| hoo- | ‘hut’ | ekéú- | ‘muscle fiber’ |
| ídeme- | ‘snake’ | gəgəmə- | ‘breast-bone’ |
| jíjei- | ‘opposite bank’ | járəku- | ‘toy spear’ |
| jolílé- | ‘Black kite’ | kídólé- | ‘young baboon’ |
| nébu- | ‘body’ | kófó- | ‘calabash’ |
| rébe- | ‘finger millet’ | ɲéééé- | ‘big rock’ |
| Verbs | | | |
| [+ATR] | | [-ATR] | |
| bíz- | ‘press’ | béɸ- | ‘want’ |
| boɸ- | ‘be deep’ | boŋ- | ‘be nearly ripe’ |
| dim- | ‘refuse’ | cəm- | ‘fight’ |
| erég- | ‘use’ | dúb- | ‘catch’ |
| fój- | ‘whistle’ | gwír- | ‘jump up and down’ |
| góóz- | ‘throw away’ | hɔn- | ‘drive’ |
| hod- | ‘free’ | ifɔ- | ‘scoot’ |
| itél- | ‘watch’ | jej- | ‘stay’ |
| luk- | ‘swallow’ | kóŋ- | ‘cook’ |
| mídz- | ‘smell’ | kud- | ‘suck’ |

In 9-vowel systems, it is cross-linguistically common for a low vowel to combine in roots with vowels of either [ATR] value (Casali 2008:528). This is certainly the case in Ik. Though inherently [-ATR], /a/ is found within morphemes with both [+ATR] and [-ATR] vowels in a variety of arrangements. This is illustrated below with only nouns, as most verb roots have a (i)CVC- profile. For VV combinations involving /a/, see §2.2.3:

(6) /a/ in combinaton with other vowels

| Nouns | | | |
|-----------|-----------------|---------|----------------------|
| [+ATR] | | [-ATR] | |
| abúba- | 'spider' | abeta- | 'Sitatunga antelope' |
| bácíka- | 'area' | barísá- | 'male hyrax' |
| bíba- | 'egg' | bísá- | 'spear' |
| céŋá- | 'joke' | céŋá- | 'woodpecker' |
| dokira- | 'old honeycomb' | dɛdesa- | 'Willow warbler' |
| ɗario- | 'dirty teeth' | ɗamó- | 'brain' |
| faido- | 'Ebony tree' | éba- | 'horn' |
| gasóo- | 'warthog' | gázadi- | 'Red-pod terminalia' |
| haúu- | 'Spotted hyena' | ílání- | 'Indian jujube' |
| kálíts'i- | 'jaw' | kekérá- | 'grasshopper' |

In light of the above data, a crucial claim for the Ik harmony system is that there are not two phonetically different /a/ vowels. This claim has yet to be confirmed by extensive instrumental evidence. But initial investigations reveal no detectable phonetic difference between the /a/'s in [+ATR] and [-ATR] environments (Casali, p.c.). This is corroborated by my auditory impressions over several years of exposure, as well as the adamant testimony of native speakers. Still, further instrumental testing is needed.

The main issue is this: It is not predictable whether a noun or verb containing /a/ as its only vowel will have [+ATR] or [-ATR] suffixes. For nouns, this is shown below by affixing the ablative case suffix {-ɔ} and for verbs either the transitive infinitive suffix {-és} or the intransitive infinitive

suffix {-ɔŋ}. In half of the roots shown in (7), these suffixes surface as their [+ATR] allomorphs. The vowel assimilation seen in the nouns in (7) is normal (see §2.5.4). In the [+ATR] nominal stems, vowel assimilation first takes place between the [-ATR] case suffix and root-final /a/ (still [-ATR] at that point). Then the [+ATR] autosegment is able to link up with both the root-final vowel (now /ɔ/) and the suffix {-ɔ} producing an /o-o/ sequence.

(7) *[ATR] ambiguity on roots containing only /a/*

| | | Nouns | |
|--------|----------|-------|-----------------------------|
| [-ATR] | báts'á- | → | báts'ɔ-ɔ 'from pus' |
| | gadárá- | → | gadárɔ-ɔ 'from slime' |
| | gwa- | → | gwɔ-ɔ 'from the stomach' |
| | kanaʃaa- | → | kanaʃɔ-ɔ 'from the beehive' |
| | ʃara- | → | ʃarɔ-ɔ 'from the bladder' |
| [+ATR] | ámá- | → | ámó-o 'from the person' |
| | asaka- | → | asako-o 'from the door' |
| | kaná- | → | kanó-ó 'from the back' |
| | kwaza- | → | kwazo-o 'from the clothing' |
| | tabá- | → | tabó-ó 'from the rock' |
| | | Verbs | |
| [-ATR] | áts'- | → | áts'-és 'to gnaw' |
| | bar- | → | bar-ɔŋ 'to be rich' |
| | kán- | → | kán-és 'to lick' |
| | ɲwaʃ- | → | ɲwaʃ-ɔŋ 'to be lame' |
| | tam- | → | tam-és 'to think' |
| [+ATR] | ákáf- | → | ákáf-on 'to yawn' |
| | ats- | → | ats-on 'to come' |
| | raj- | → | raj-és 'to return' |
| | táb- | → | táb-es 'to touch' |
| | tsáj- | → | tsáj-és 'to smear' |

To account for one /a/ in both [ATR] environments, it is claimed here that the feature [+ATR] simply does not link to /a/. Instead, whenever /a/ figures into a [+ATR] morpheme, it just floats its [+ATR] autosegment. But if a recessive suffix is attached to such a root, the floating [+ATR] autosegment spreads its harmony to it. This analysis is illustrated below, where the symbol (+) is used to signify the floating [+ATR] autosegment (on analogy with a floating tone). Note that for (8), vowel assimilation is shown to have already occurred at the docking of the [+ATR] autosegment:

- | | | |
|-----|---|---|
| (8) | ‘person’ [+ATR] \ / ámá ⁺ - | ‘from the person’ [+ATR] \ / ámó-ɔ → ámó-o |
| (9) | ‘yawn’ [+ATR] \ / ákáf ⁺ - | ‘to yawn’ [+ATR] \ / ákáf-ɔn → ákáf-on |

By contrast, in [-ATR] roots, the autosegment can readily dock to /a/ and any recessive suffixes that may follow, as in:

- | | | |
|------|---|---|
| (10) | ‘slime’ [-ATR] / / / gadára- | ‘from slime’ [-ATR] / / / \ / gadárɔ-ɔ |
| (11) | ‘think’ [-ATR] tam- | ‘to think’ [-ATR] \ / tam-és |

3.1.2 Dominant suffixes

As already noted, Ik is a [+ATR]-dominant language. In principle then, all [+ATR] suffixes (in addition to roots) are also dominant. In reality though, some [+ATR] suffixes contain /a/ which blocks harmony spread back to the stem; it only spreads rightward to other suffixes. These opaque dominant suffixes are treated below in §3.1.3. The present section concerns the three non-opaque dominant suffixes. These are the pluractional aspect suffix {-í-}, the plurative I nominal pluralizer {-íkó-}, and the middle voice suffix {-ím-}. All three of these suffixes spread harmony in both directions until they encounter an /a/ (if any). Incidentally, they all have H tone:

(12) *Ik dominant [+ATR] suffixes*

| | | | |
|---------|------|--------------|----------|
| {-í-} | PLUR | Pluractional | (§7.7.7) |
| {-íkó-} | PL | Plurative I | (§4.2.1) |
| {-ím-} | MID | Middle | (§7.8.5) |

To illustrate the harmony spread of {-í-}, a set of verbs is given below. In the first column is found the [-ATR] verb root. This is then followed by a 1PL.EXC verb containing the pluractional suffix which gives the verb a nuance of habitualness or repetitiveness. The 1PL.EXC bound pronominal is the recessive {-ím(i-)} that is harmonized by the pluractional suffix. Note that if the root-final vowel is /a/, it vowel blocks [+ATR] spread from {-í-}:

(13) *Vowel harmony spread by the pluractional {-í-}*

| | | |
|-------|-----------|-----------------------------------|
| ber- | ber-í-ím | ‘We (always/usually) build.’ |
| íbaɕ- | íbaɕ-i-ím | ‘We (always/usually) knock over.’ |
| idím- | idím-i-ím | ‘We (always/usually) make.’ |
| kóɕ- | kóɕ-i-ím | ‘We (always/usually) cry.’ |
| zík- | zík-i-ím | ‘We (always/usually) tie.’ |

Then, to illustrate the harmony spread of the plurative {-íkó-}, a set of nouns is given below. The singular [-ATR] noun root is shown in the first

column. And this is followed by the plural bearing the pluralive I suffix and then the recessive copulative case marker {-kɔ} in its non-final allomorph /-o/. Note the bi-directional [+ATR] harmony spread out from {-íkó-}:

(14) *Vowel harmony spread by the pluralive {-íkó-}*

| | | |
|-------|------------|----------------------------|
| kɔlá- | kól-íkó-o | ‘Is it uncastrated goats?’ |
| kórɛ- | kór-íkó-o | ‘Is it ladles?’ |
| ɲɛrá- | ɲér-íkó-o | ‘Is it mingling sticks?’ |
| ɔɔɔ́- | orór-íkó-o | ‘Is it smalls streams?’ |
| wɛla- | wél-íkó-o | ‘Is it small openings?’ |

Lastly, to illustrate the harmony spread of the middle suffix {-ím-}, a sample of Ik verbs is given in (15). The first column contains [-ATR] roots, while the second column shows the full harmonized stems. The middle suffix not only harmonizes leftward to the root but also rightward to the inchoative aspect marker {-ét} and the intransitive infinitive marker {-ɔn}. However, harmony spread to the root is blocked by /a/ in the case of *irajíméton*:

(15) *Vowel harmony spread by the middle {-ím-}*

| | | |
|--------|----------------|------------------|
| íbúts- | íbuts-ím-ét-on | ‘to be mistaken’ |
| iló- | ilo-ím-ét-on | ‘to be defeated’ |
| iráj- | iraj-ím-ét-on | ‘to be ruined’ |
| kɔk- | kok-ím-ét-on | ‘to shut’ |
| tubún- | tubun-ím-ét-on | ‘to close off’ |

3.1.3 Opaque dominant suffixes

Nine Ik suffixes are dominantly [+ATR] but differ from those in (12) in that they contain /a/ as one or their only vowel. These ‘opaque dominant suffixes’ include the suffix {-a⁺}, which is identical as the nominative case and realis modality markers; the distributive adjectival suffix {-aák⁺-}, the patientive {-amá⁺-}, the stative adjectival suffix {-án⁺}, the

hortative/optative {-ano'}, the 3PL bound pronominal suffix {-áti-}, the accusative case suffix {-ka'}, and the present perfect aspect suffix {-'ka'}:

(16) *Ik opaque dominant [+ATR] suffixes*

| | | | |
|-----------------------|-------|-------------------------|--------|
| {-a ⁺ -} | NOM | Nominative case | §6.3.2 |
| {-a ⁺ -} | REAL | Realis modality | §7.6.2 |
| {-aák ⁺ -} | DISTR | Distributive adjectival | §7.9.6 |
| {-amá ⁺ -} | PAT | Patientive nominalizer | §7.2.4 |
| {-án ⁺ -} | STAT | Stative adjectival | §7.9.3 |
| {-ano'} | OPT | Hortative/optative | §7.7.4 |
| {-áti-} | 3PL | 3-person plural | §7.4 |
| {-ka ⁺ } | ACC | Accusative case | §6.3.6 |
| {-'ka ⁺ } | PRF | Present perfect | §7.8.7 |

All nine of these suffixes harmonize [-ATR] vowels rightward (if no other /a/ intervenes) but not leftward. Apart from the hortative/optative suffix {-ano'} and the 3PL bound pronominal {-áti-}, which have underlying [+ATR] vowels /o/ and /i/, these opaque suffixes have only a floating [+ATR] autosegment. Since [+ATR] is dominant, it spreads to any following suffixes, but it cannot spread through the /a/ back to the root.

The rightward-only dominance of the nominative case and realis modality suffix {-a⁺} is illustrated in the next two tables. In the nominal system, the remote past demonstrative/tense enclitic {=nok} is contrasted on nouns with and without the nominative case suffix:

(17) *Rightward-only dominance of nominative {-a⁺}*

| Nouns with {-a ⁺ } | | Nouns without {-a ⁺ } | |
|-------------------------------|---------------|----------------------------------|--------------------|
| éba = nok ^o | 'that gun' | éba-ɔ = nok ^ɔ | 'It was a gun.' |
| fiya-a = nok ^o | 'that cow' | fiya-ɔ = nok ^ɔ | 'It was a cow.' |
| mutú-á = nok ^o | 'that needle' | mutú-ɔ = nok ^ɔ | 'It was a needle.' |

In the verbal system, the same tensed enclitic {=nɔɔ} is contrasted on verbs with and without the realis suffix:

(18) *Rightward-only dominance of realis {-a⁺}*

| Verbs with {-a ⁺ } | Verbs without {-a ⁺ } |
|---------------------------------------|--|
| bɛr-a = nok ^o 'He built.' | bɛr-ʊkɔɔ = nɔk ^o 'He built with it.' |
| kɔɔf-a = nok ^o 'He cried.' | kɔɔf-ʊkɔɔ = nɔk ^o 'He cried from it.' |
| dɔb-a = nok ^o 'He caught.' | dɔb-ʊkɔɔ = nɔk ^o 'He caught with it.' |

Moving on to the distributive adjectival suffix {-aák⁺-}, its rightward-only harmony spread caused by /a/ is shown below. The first column of (19) contains [-ATR] verb roots. Then in the second column are verbs stems with {-aák⁺-} followed by the recessive intransitive infinitive {-ɔn} and the completive aspect {-ʊkɔt}. It is clear from these examples that the distributive suffix spreads harmony to the suffixes but not back to the root:

(19) *Rightward-only dominance of distributive {-aák⁺-}*

| | | |
|-------|------------------|--|
| ci- | ci-aak-ón-ʊkot | 'to get full (of multiple people)' |
| ɔk- | ɔk-aak-ón-ʊkot | 'to become wet (of multiple entities)' |
| ɪlɪb- | ɪlɪb-aak-ón-ʊkot | 'to become green (of multiple entities)' |

Next, the rightward-only dominance of the patientive nominalizer {-amá⁺-} is illustrated in the following table. This [+ATR] suffix spreads harmony to the the non-final copulative case suffix {-(k)ɔ} but not back to the stem:

(20) *Rightward-only dominance of patientive {-amá⁺-}*

| | | |
|--------|--------------|---|
| bit- | bit-it-amó-o | 'Is it (a) reproducible?' |
| ɔkw- | ɔkw-amó-o | 'Is it a pillow?' |
| ɪbɔts- | ɪbɔts-amó-o | 'Is it (a) curdable (i.e. milk cream)?' |

The stative adjectival suffix {-án⁺-} also only harmonizes recessive vowels to its right. This is shown below with verb stems in the intransitive infinitive

(marked by {-ɔn}). Observe that the verb stem before the stative may be [-ATR], but the infinitive suffix also surfaces as [+ATR]:

(21) *Rightward-only dominance the stative adjectival {-án⁺-}*

| | | | |
|------|---------|---------------|---------------------|
| ɓɛl- | ‘crack’ | ɓɛlɛɓɛl-án-ón | ‘to crack, chap’ |
| cɛm- | ‘fight’ | cɛmɛk-án-ón | ‘to be combative’ |
| zík- | ‘tie’ | zíkízík-án-on | ‘to be all tied up’ |

As another opaque dominant morpheme, the hortative (or 1PL.INC optative) suffix {-ano’} also only harmonizes rightward. Because it contains the [+ATR] vowel /o/, no floating [+ATR] autosegment is posited. The morpheme’s [+ATR] specification can be associated with /o/. The following table shows the invariability of /o/ on the one hand, and the failure of preceding [-ATR] stems to harmonize on the other hand:

(22) *Rightward-only dominance the hortative/optative {-ano’}*

| | | | |
|------|---------|--------------|---------------------|
| cɛ- | ‘kill’ | cɛ-íkót-ano’ | ‘Let’s kill (it).’ |
| dúb- | ‘catch’ | dúb-ano’ | ‘Let’s catch (it).’ |
| kók- | ‘close’ | kók-ét-ano’ | ‘Let’s close up.’ |

Like {-ano’}, the 3PL subject-agreement pronominal {-áti-} also has a [+ATR] vowel in its underlying form. This vowel, /i/, provides a segment to which the morpheme’s [+ATR] autosegment can link to. In those verb paradigms that preserve /i/ on this suffix, it spreads harmony rightward in accordance with the language’s [+ATR] dominance.

In (23) below, the first column contains a [-ATR] verb. This is followed in column two by verb stems with {-áti-} and the recessive simultaneous aspect marker {-kɛ} in its non-final allomorph /-ɛ/. The first example also has the completive aspect suffix {-ukɔt} showing some vowel assimilation. What is evident from (23) is that any vowels to the right of {-áti-} surface as [+ATR], while any to the left may be [-ATR]. (And if they are [+ATR], it is because the root has spread its dominant harmony rightward):

(23) *Rightward-only dominance of 3PL {-áti-}*

| | | |
|----------|------------------|------------------------|
| ililí- | ililí-íkət-áti-e | ‘they getting angry’ |
| kəróǰóm- | kəróǰóm-áti-e | ‘they being emaciated’ |
| ɲədéd- | ɲədéd-ati-e | ‘they protruding’ |

The accusative case suffix {-ka⁺} is yet another opaque dominant [+ATR] morpheme. Because no other suffix can follow {-ka⁺}, its harmonizing behaviour can only be seen with enclitics. In the next table, the singular anaphoric demonstrative {=‘déeé} is appended to the non-final accusative case allomorph /-a/ on three nouns. Note that while the anaphoric enclitic is harmonized, the nominal stem preceding {-ka⁺} remains [-ATR]:

(23) *Rightward-only dominance of the accusative {-ka⁺}*

| | | |
|-----------|--------------------|--------------------|
| fiyɔ- | fiyɔ-a = ‘déeé | ‘that cow’ |
| kəkékéra- | kəkékéra-á = ‘déeé | ‘that grasshopper’ |
| pɔpɔsa- | pɔpɔsa-a = ‘déeé | ‘that lizard’ |

The final opaque suffix to be discussed is the present perfect aspect marker {-ka⁺}. In the following table, this suffix is placed on [-ATR] verbs and followed by the dummy pronoun enclitic {=‘dɛ} in its non-final allomorph /='ɛ/. Observe how the present perfect suffix {-ka⁺} harmonizes the dummy pronoun enclitic but cannot harmonize back to the verb due to /a/:

(24) *Rightward-only dominance of the present perfect {-ka⁺}*

| | | |
|--------|--------------|----------------------------|
| cɛ- | cɛ-á-ké=e | ‘Has he killed (with it)?’ |
| itsúŋ- | itsúŋ-á-ké=e | ‘Has he burnt (with it)?’ |
| kɔɔf- | kɔɔf-á-ké=e | ‘Has he cried (for it)?’ |

The human singulative suffix {-Vma-} varies in its morphological [ATR] specification. With a [-ATR] value, it takes the form {-ɔma-} as in *kón-óma* ‘someone (strange)’. And with a [+ATR] value, it takes the form {-ama⁺-} as in *ɲímókóká-áma* ‘young man’. In the latter form, it too functions as an opaque dominant suffix, for example in *ɲímókóká-ámo-o* ‘Is it a young man?’.

3.1.4 Recessive suffixes

However, most Ik affixes are recessively [-ATR]. For a full list of these morphemes, the reader is referred to the Affix list at the book's beginning. A few examples suffice here: 1) First, in (25), a comparative non-final form case paradigm with a plural [-ATR] noun and a plural [+ATR] noun—both marked by the plurative III suffix {-ika-}. 2) Then in (26), a table comparing [-ATR] and [+ATR] verbs with three suffixes after the root: the causative {-it-}, the inchoative aspect {-ét}, and the transitive infinitive {-és}:

(25) *Comparative case paradigm illustrating recessive nominal suffixes*

| | | [-ATR] | [+ATR] |
|------|-------------|------------|-------------|
| Case | Case suffix | 'arms' | 'mountains' |
| OBL | -∅ | kwet-ika | kwar-ika |
| NOM | -a | kwet-ik-a | kwar-ik-a |
| INS | -ɔ | kwet-ik-ɔ | kwar-ik-o |
| ABL | -ɔ | kwet-ikɔ-ɔ | kwar-iko-o |
| GEN | -ε | kwet-ikε-ε | kwar-ike-e |
| ACC | -(k)a | kwet-ika-a | kwar-ika-a |
| DAT | -(k)ε | kwet-ikε-ε | kwar-ike-e |
| COP | -(k)ɔ | kwet-ikɔ-ɔ | kwar-iko-o |

(26) *Verbs illustrating recessive verbal suffixes*

| [-ATR] | | [+ATR] | |
|----------------|--------------------|----------------|------------------|
| bit-it-et-és | 'to multiply' | aě-it-et-és | 'to light' |
| ĩéβ-ít-et-és | 'to make cold' | dékw-ít-et-és | 'to rebuke' |
| ĩán-ít-et-és | 'to explain' | dód-ít-et-és | 'to show' |
| ilélé-ít-et-és | 'to disgust' | en-it-et-és | 'to clarify' |
| itsán-ít-et-és | 'to cause trouble' | fek-it-et-és | 'to amuse' |
| kídz-it-et-és | 'to compare' | fiyek-it-et-és | 'to invigorate' |
| ɲk-it-et-és | 'to feed' | irím-ít-et-és- | 'to spin around' |
| zεkw-it-et-és | 'to settle' | kám-ít-et-és | 'to equate' |

As long as no /a/ interferes, [+ATR] vowel harmony continues from the root rightward to the end of the phonological word. The two sentences below further illustrate this with longer verb stems:

(27) [-ATR] dɔk- ‘wet’ → dɔk-it-és-úkɔt-ím-^θ
 wet-CAUS-INT-COMP-1PL.EXC-REAL
 We will make (it) wet.

[+ATR] boɓ- ‘deep’ → boɓ-it-és-úkɔt-ím-^θ
 deep-CAUS-INT-COMP-1PL.EXC-REAL
 We will make (it) deep.

3.1.5 Opaque recessive suffixes

Lastly, Ik has two [-ATR] suffixes opaque by virtue of containing /a/. These are the impersonal passive {-aní-} and the abstractive nominalizer {-ásí-}:

(28) *Ik opaque recessive [-ATR] suffixes*

| | | | |
|---------|------|-------------------------|----------|
| {-aní-} | IMP | Impersonal passive | (§7.8.3) |
| {-ásí-} | ABST | Abstractive nominalizer | (§7.2.3) |

Both of these suffixes block harmony spread from either direction. This is illustrated in the next two tables. In (29), {-aní-} is suffixed to [+ATR] verbs and followed by the simultaneous aspect marker {-(k)ε}. The fact that the simultaneous aspect marker remains [-ATR] throughout indicates that [+ATR] spread from the verb root has been blocked by the /a/ in {-aní-}:

(29) *[+ATR] harmony-blocking by {-aní-}*

| | | |
|--------------------|-----------|---------------------------|
| gon- | gon-aní-é | ‘while looking’ |
| i- | i-aní-é | ‘while being (somewhere)’ |
| ka ⁺ - | ka-aní-é | ‘while going’ |
| mor- | mor-aní-é | ‘while fleeing’ |
| sár ⁺ - | sár-aní-é | ‘while still...’ |

Then in (30), five [+ATR] verb roots are listed in the first column. In the second column are given their simple intransitive infinitives to confirm their [+ATR] specification. After that, the abstractive nominalizer {-ásí-} is suffixed to the bare verb roots and then followed by the non-final allomorph of the instrumental case suffix {-ɔ}. The fact that the case suffix consistently surfaces as [-ATR] shows the [+ATR] harmony from the root is blocked:

(30) [+ATR] harmony-blocking by {-ásí-}

| Root | Infinitive | Abstract noun | |
|---------------------|------------|---------------|---------------------|
| da ⁺ - | do-on | da-as-ɔ | ‘with niceness’ |
| gaan ⁺ - | gaan-ón | gáán-as-ɔ | ‘with badness’ |
| háɓ ⁺ - | háɓ-on | háɓ-as-ɔ | ‘with heat’ |
| kom- | kom-on | kom-ás-ɔ | ‘with multiplicity’ |
| itíón- | itíón-on | itíón-as-ɔ | ‘with difficulty’ |

3.1.6 Recessive enclitics

Up to this point, the lexical vowel harmony being discussed applied to the formation of grammatical words—roots with suffixes. But in the phonological word, post-lexical vowel harmony may also occur. The phonological word in Ik can coincide exactly with the grammatical word, but it may also include one of a set of enclitics. Among this set are found demonstratives, relative pronouns, tense markers, and adverbs. Recessive enclitics, the topic of this section, are fully harmonized by [+ATR] morphemes. Dominant [+ATR] enclitics (§3.1.7), harmonize leftward to the stem but only to the extent of one open phonetic syllable (CV or CVV).

The four enclitics that are harmonized by [+ATR] stems include the removed past tense marker =*bεε*, the form =*nɔ* which is the same for the singular remote past relative pronoun and remote past tense marker, the singular anaphoric demonstrative =^h*déé*, and the sentential adverb =*kɔɔ*:

(31) *Ik recessive enclitics*

| | | | |
|----------|-------------|--------------------------------|---------|
| = bεε | PST2 | Removed past tense marker | §7.11.1 |
| = nɔ(k)ɔ | DEM.SG.PST3 | Remote past demonstr. (sg.) | §8.2.2 |
| = nɔ(k)ɔ | REL.SG.PST3 | Remote past rel. pro. (sg.) | §5.6 |
| = nɔ(k)ɔ | PST3 | Remote past tense marker | §7.11.1 |
| = 'dɛɛ | ANPH.SG | Anaphoric demonstr. (sg.) | §8.2.3 |
| = kɔɔ | ADV | Sentential adverb ('then, so') | §8.3 |

The recessive enclitics in (31) are harmonized when attached to noun or verb stems whose final morpheme is [+ATR]. To illustrate this, in (32) the singular anaphoric demonstrative = 'dɛɛ and the singular remote past demonstrative = nɔkɔ are shown following first a [-ATR] nominal stem and then a stem ending with the dominantly [+ATR] Nominative case {-a⁺-}:

(32) *Ik recessive nominal enclitics*

| [-ATR] stem | | [+ATR] stem | |
|-----------------------------|--------------------|----------------------------|---------------|
| ɲɛkɔ-ɔ = 'dɛɛ | 'from that hunger' | ɲɛk-a = 'dɛɛ | 'that hunger' |
| ts'ikɔ-ɔ = 'dɛɛ | 'from that bee' | ts'ik-a = 'dɛɛ | 'that bee' |
| ɲɛkɔ-ɔ = nɔk ^ɔ | 'from that hunger' | ɲɛk-a = nɔk ^ɔ | 'that hunger' |
| ts'ikɔ-ɔ = nɔk ^ɔ | 'from that bee' | ts'ik-a = nɔk ^ɔ | 'that bee' |

And for the case of verbs, the table in (33) shows the non-final removed past tense marker = bεε and the sentential adverb = kɔɔ first on [-ATR] verb stems and then on stems ending in the [+ATR] realis suffix {-a⁺-}

(33) *Ik recessive verbal enclitics*

| [-ATR] stem | |
|----------------------------|--|
| ʃik-ɔ-kɔ = ɔ = bεε... | 'And he hung (it) from there (yesterday).' |
| ʃik-ɔ-ɔ = kɔt ^ɔ | 'And then he hung (it).' |
| [+ATR] stem | |
| ʃiká = bee... | 'He hung (it yesterday).' |
| ʃik-a = kɔt ^ɔ | 'So he hangs (it).' |

3.1.7 Post-lexical /i,u/-dominance

The recessive enclitics described in the previous section are harmonizable at the post-lexical level. But another type of post-lexical vowel harmony—/i,u/-dominance—is also operative in Ik. It involves [+ATR] harmony spreading leftward from *one open phonetic syllable* (CV or CVV) from the high vowels /i/ or /u/ and *only across a compound or clitic boundary*.

The uni-directionality of Ik /i,u/-dominance is a natural syntactic constraint imposed by the position of the harmonizing morpheme: as the final one in the phonological word. The harmony spread does not go beyond one phonetic syllable, that is, not past the first encountered consonant. A similar condition is reported for the Kuliak language So, where “the scope of vowel harmony does not extend beyond a preceding or following syllable” (Carlin 1993:23). Lastly, the special status of /i/ and /u/ in this kind of post-lexical harmony recalls the nearby Surmic language Didinga whose vowels /i/ and /u/ are also more dominant than others (De Jong (2004:148).

Post-lexical /i,u/-dominance takes place in two syntactic environments: 1) between the two terms of a (pro)nominal compound and 2) between certain plural enclitics and the preceding nominal stems. Each are described below.

As described in §4.3.1, Ik compounds consist of two or more (pro)nominals linked in an associative construction. The first element in the compound (N_1) is in the oblique case and therefore always ends in a vowel. Post-lexical harmony takes place in a compound if the following conditions are met: 1) the compound's N_1 is [-ATR] and 2) ends in a non-low vowel, 3) the compound's N_2 is [+ATR] and 4) begins with /i/. If these conditions are met, the final phonetic syllable of the N_1 is harmonized to [+ATR]. In the examples below, the brackets [] are meant to signify post-lexical vowel harmony, not necessarily any other allophonic or allotonic specifications:

(34) */i,u/-dominance in compounds*

| N ₁ | N ₂ | Compound | |
|----------------|----------------|--------------------------|-------------------|
| εδέε- | imá- | [εδέ-im] | ‘brother’s child’ |
| fiyo- | ído- | [fiyo-idw ^a] | ‘cow-milk’ |
| kača- | imá- | [kač-im] | ‘small car’ |
| κófó- | imá- | [κófó-im] | ‘small gourd’ |
| πókókóró- | imá- | [πókókóró-ím] | ‘chick’ |

The second environment for post-lexical /i,u/-dominance involves enclitics. A number of Ik plural enclitics contain the high vowels /i/ or /u/. They are listed below in (35). All but the plural anaphoric demonstrative = ‘dí have two different grammatical functions (due to grammaticalization):

(35) */i,u/-dominant enclitics*

| | | | |
|----------|-------------|----------------------------|--------|
| = ni | DEM.PL | Plural demonstrative | §8.2.1 |
| | REL.PL | Plural relative pronoun | §5.6 |
| = ní(k)i | DEM.PL:PST1 | Recent past pl. dem. | §8.2.2 |
| | REL.PL:PST1 | Recent past pl. rel. pro. | §5.6 |
| = sini | DEM.PL:PST2 | Removed past pl. dem. | §8.2.2 |
| | REL.PL:PST2 | Removed past pl. rel. pro. | §5.6 |
| = nu(k)u | DEM.PL:PST3 | Remote past pl. dem. | §8.2.2 |
| | REL.PL:PST3 | Remote past pl. rel. pro. | §5.6 |
| = ‘dí | ANPH.PL | Plural anaphoric dem. | §8.2.3 |

The enclitics in (35) cause /i,u/-dominance if the following conditions are met: 1) The preceding noun stem is [-ATR] and 2) ends in a non-low vowel. If these are met, the enclitic harmonizes the final phonetic syllable of the [-ATR] noun. The conditions are not so often met, because the two case suffixes often required on nouns are the nominative {-a⁺} and the accusative {-ka⁺}, both of which obstruct the spread of [+ATR]. The examples in (36) consist of nouns—four of which have plurative suffixes—with case suffixes and one example each of the [+ATR] clitics from (35):

(36) /i,u/-dominant enclitics in context

| | | |
|-------------|---------------------------------|------------------------------|
| jírók-ike-ε | [jírók-ike-e = ni] | ‘of the toy spears which...’ |
| kaín-ík-ɔ | [kaín-ík-o = nuk ^u] | ‘in those years’ |
| mese-ε | [mese-e = ní] | ‘in that beer which...’ |
| ηkáké-ε | [ηkáké-e = ‘díí] | ‘in that food’ |
| séw-ítín-ó | [séw-ítín-ó = sin] | ‘with those sticks’ |

3.2 Tone

Ik must be viewed as a ‘tone language’ because in Ik “the pitch of a word can change the meaning of the word. Not just its nuances, but its core meaning” (Yip 2002:1). The following lexical minimal or near-minimal pairs show how pitch (and therefore tone) creates meaningful contrasts:

(37) *Ik tonal (near-)minimal pairs*

| Nouns | | Verbs | |
|-------|-----------------|-------|------------------|
| céŋá- | ‘joke’ | ḅúk- | ‘enter’ |
| cēŋá- | ‘joke’ | ḅùk- | ‘lift’ |
| ésá- | ‘drunkenness’ | dôb- | ‘catch in hand’ |
| ēsá- | ‘termites’ | dòb- | ‘mix with water’ |
| gwāá- | ‘bird’ | hòn- | ‘drive’ |
| gwàà- | ‘crop, stomach’ | hón- | ‘chase animals’ |
| rōbá- | ‘animal collar’ | ītíŋ- | ‘force’ |
| ròbà- | ‘people’ | ìtìŋ- | ‘cook’ |
| séí- | ‘quartz’ | rúb- | ‘groan’ |
| sèà- | ‘blood’ | rùb- | ‘fall’ |

As a lexical tone language, Ik falls in the company of all the neighboring Surmic languages like Didinga, Eastern Nilotic languages like Teso-Turkana, Western Nilotic languages like Acholi and Lango, and Southern Nilotic languages like Pokot and Kupsabiny. But Ik differs from nearby ‘tonal accent’ languages like East Cushitic Dhaasanac that allow only one high tone per word (Tosco 2001:34). And from within the Kuliak group, Carlin “found no evidence of So being a tone language” but rather that “stress-accent is important in So, not on the paradigmatic level, but rather on the syntagmatic level” (1993:16). Tone data on Nyang’ia is not yet available.

Although Ik has a well developed lexical tonology, it does not have ‘grammatical tone’ in the sense of any morphemes consisting only of tone. This sets it apart from languages like Dhaasanac (Tosco 2001:93) and Turkana (Dimmendaal 1983:259) that mark case, for example, partially or exclusively with H tone/accents. Instead of grammatical tone *per se*, Ik shows ‘construction-specific tonology’ (Yip 2002:107) whereby various morphemes like pluratives, constructions like noun compounds, and verb paradigms combine segmental morphology with specific tone patterns.

3.2.1 *Tones and allotones*

Tucker identified three ‘significant’ level tones, two falling tones, and one rising tone for Ik (1971:342). Years later, Heine reduced the number of contrastive tones to two, noting that Tucker’s three levels can be derived from an underlying high and low (1999:18). In fact, both accounts are basically correct, but in different ways. In isolation, Ik words do exhibit two level, two falling, and one rising pitch. Since these pitches are found on words in isolation, they are ‘significant’ or ‘phonemic’ in the classic structuralist sense. While in a generativist sense, all this variation can be plausibly boiled down to two underlying tones (Keith Snider, p.c.). To see this, let us first look at pitch contrasts on some nouns and verbs in isolation:

(38) *Ik pitch contrasts on isolated nouns and verbs*

| Pitch | Nouns | | Verbs | |
|----------------|------------------|----------------|------------------|---------------------|
| <i>Level</i> | | | | |
| H | bór | ‘corral’ | fút ^a | ‘S/he blows.’ |
| | ɲók ^a | ‘dog’ | séɓ ^a | ‘S/he sweeps.’ |
| M | cēk ^a | ‘woman’ | lík ^e | ‘Nod!’ |
| | ǰūm | ‘soil’ | tēr | ‘Divide!’ |
| <i>Falling</i> | | | | |
| HL | môg ^a | ‘uncut forest’ | kâd ^a | ‘S/he shoots.’ |
| | sêd ^a | ‘garden’ | ɲôz | ‘S/he glares.’ |
| LL | kèd ^a | ‘reed’ | kòk ^a | ‘S/he closes.’ |
| | tùk ^a | ‘feather’ | ɲùs | ‘S/he grabs.’ |
| <i>Rising</i> | | | | |
| MH | dóm | ‘pot’ | béd ^a | ‘S/he wants.’ |
| | gūr | ‘heart’ | dón | ‘S/he distributes.’ |

At one’s first glance over the data in (38), it would appear that Ik has quite a few distinctive tones. But all the pitch contrasts shown there can be analyzed as deriving from two underlying tones: High (H) and Low (L). In other words, the various levels, falls, and rises are predictable based on modifications made to H and L in particular phonological environments. These variants, or ‘allotones’, are described in detail in (39) below:

(39) *Allotones of H and L*

| Tone | # | Allotone | | IPA |
|------|-----|---|-------|--------|
| H | (1) | High level pitch, in general | [-] | [v̌] |
| | (2) | High-falling-to-low pitch before a depressor consonant (see §3.2.3), when no H follows again in the same word | [\] | [v̋] |
| | (3) | High-falling-to-mid pitch before a depressor consonant when an H follows in the same word | [˘] | [v̋̆] |
| | (4) | Mid-rising-to-high pitch after a depressor consonant | [ˊ] | [v̌̆] |
| L | (1) | Low level pitch after H and with no following H in the same tonal domain, and not at the right edge of the domain | [-] | [v̋̆] |
| | (2) | Low-falling pitch if last TBU of tonal domain, with no floating H after it | [˘] | [v̋̆̆] |
| | (3) | Mid pitch before any H in the same tonal domain, whether word or phrase; the H may be floating at domain edge | [-] | [v̋̆̆] |
| | (4) | High-falling-to-low pitch directly after a H with no intervening consonant | [\] | [v̋̆̆] |

Using (39) as a key, the pitch variations back in (38) can now be explained in the following manner: In neutral environments, a H tone on a noun or verb will surface as a high level pitch. But if a H directly precedes a depressor consonant (/b, d, dz, g, h, j, z, ʒ/), that consonant will depress the pitch giving the H tone a high-falling to low or mid, depending on whether another H follows in the same word. And if the H directly follows a depressor consonant, the consonant will delay the pitch rise to high, thereby creating a mid-to-high rising pitch on the TBU bearing the H tone.

As for L tone, on nouns and verb in isolation (e.g. the monosyllabic forms in 38), the L surfaces as low-falling pitch before a pause. Otherwise, if any H tone—whether linked or floating—follows the L in the same tonal domain, the L surfaces with a mid level pitch (L is realized in similar fashion in Somali; Hyman 2007:485). The extent of the relevant tonal domain is syntactically and pragmatically defined: It can consist of a single morpheme/word, a phrase, or a whole clause. The Ik prosodic template ‘scans’ ahead for any H that signals the speaker to raise all intervening L tones to mid pitch. In this way, mid pitch acts as the baseline of Ik prosody—pitch deviates up and down off the baseline mid.

What is not clear from (38) is that those nouns with a mid pitch have a lexical LH tonal pattern. In other words, the nouns surface with mid pitch because there is a floating H after them. And for the verbs with mid pitch, the imperative singular suffix {-ε’} has an associated floating H that raises the preceding L to mid pitch at the surface level (see §7.6.6 on imperatives).

In summary, as Heine claimed, all pitch variations in Ik can be derived from only two underlying tones: H and L. This provides a simple and elegant analysis of the tonal phenomena. The main drawback to this analysis, however, is its abstractness. There is considerable conceptual distance between the two underlying tones and their allotonic realizations. Nevertheless, in the example sentences and texts outside the present chapter on tone, only H tone will be marked with an acute accent (´), while L tone will be left unmarked (except to indicate the L boundary tone of the interrogative intonational tune; see §3.3.5).

3.2.2 *Lexical tone*

Unlike pitch or tonal accent languages, Ik exhibits a wide range of lexical tone patterns or ‘melodies’. These melodies may or may not include a H tone, but there are no known restrictions on the number of H tones that may occur in a single word (tonal processes notwithstanding; see §3.2.4 below).

Since much of the Ik lexicon can be traced to Teso-Turkana, no doubt the tonologies of those languages have left an indelible mark on Ik. What follows here below is a basic inventory of tonal melodies on noun roots. This is given to show the full range of tonal possibilities. The tonal melodies of verbs, slightly more restricted, are presented in Chapter 7 on Verbs.

The lexical tone melodies given here are at the underlying level discussed in the previous section: H(igh) and L(ow). H is marked with an acute accent (´), and L is left unmarked. For details of surface realization (and pronunciation), please refer to the guide to allotones in (39) above.

On bisyllabic noun roots, all four possible melodic combinations are attested—H(H), HL, L(L), LH. Note the effect of depressor consonants in creating HL and the fact that with LH, the L will surface as mid pitch:

(40) *Tone melodies on disyllabic noun roots*

| H(H) | | HL | |
|---------|----------------|---------|--------------|
| bólé- | ‘shin’ | dóba- | ‘mud’ |
| fóré- | ‘corral’ | fádo- | ‘scale’ |
| dómá- | ‘pot’ | nébu- | ‘body’ |
| fódé- | ‘loincloth’ | rágo- | ‘ox’ |
| gúró- | ‘heart’ | rébe- | ‘millet’ |
| jáká- | ‘elders’ | séda- | ‘garden’ |
| kwára- | ‘scar’ | síbo- | ‘yeast’ |
| ᵛúnó- | ‘rope’ | tóda- | ‘speech’ |
| sátá- | ‘rock pool’ | ts’úde- | ‘smoke’ |
| tsítsá- | ‘honey-guide’ | wídzo- | ‘evening’ |
| L(L) | | LH | |
| baro- | ‘herd’ | befá- | ‘puff adder’ |
| bíba- | ‘egg’ | bísá- | ‘spear’ |
| dzoni- | ‘well’ | cekí- | ‘woman’ |
| déka- | ‘butter-churn’ | deké- | ‘hind-apron’ |

| | | | |
|--------|----------------|--------|--------------------|
| gwajr- | ‘belly’ | damó- | ‘brain’ |
| kafu- | ‘thorn’ | gwaní- | ‘Lesser galago’ |
| leba- | ‘liquid honey’ | jomó- | ‘soil’ |
| nera- | ‘girls’ | kurí- | ‘shade’ |
| riko- | ‘long pole’ | rokó- | ‘hump (of animal)’ |
| tuka- | ‘feather’ | zinó- | ‘zebra’ |

On trisyllabic noun roots, all eight possible melodies are attested:

(41) *Tone melodies on trisyllabic noun roots*

| | | |
|-----|----------|---|
| HHH | dúlélí- | ‘Dulel River’ |
| HHL | kásíta- | ‘Hook-thorn acacia’ |
| HLH | mókoló- | ‘ <i>Ozoroa insignis</i> tree’ |
| HLL | múmuta- | ‘ <i>Selaginella phillipsiana</i> moss’ |
| LLL | poposa- | ‘Agama lizard’ |
| LLH | tsirimó- | ‘metal’ |
| LHL | tiléŋi- | ‘eye pupil’ |
| LHH | jólílé- | ‘Black kite (bird sp.)’ |

On nouns with four syllables, all sixteen possible tone melodies are attested. Even though these nouns are monomorphemic in today’s Ik, they most likely consisted of more than one morpheme in older Ik, or at least in the languages from which they were borrowed. For instance, many nouns with four or more syllables have the Teso-Turkana prefix {ɲV-}—still a gender marker in Toposa and Northern Turkana—which has no function in Ik.

(42) *Tone melodies on quadrisyllabic (4) noun roots*

| | | |
|------|-------------|-------------------|
| HHHH | lódíkoró- | ‘scorpion’ |
| HHHL | ɲícwéɲée- | ‘Sugar-bush tree’ |
| HHLH | ɲébébutí- | ‘waterbuck’ |
| HLLL | pélédeke- | ‘tobacco variety’ |
| HLHH | ts’óbulátí- | ‘lip-plug’ |
| HLHL | fírít’sári- | ‘bird sp.’ |

| | | |
|------|-----------|--|
| HLLH | ɲíbalélé- | ‘mushroom sp.’ |
| HLLL | lósuaɲa- | ‘stone anvil’ |
| LHHH | gomóíá- | ‘ <i>Maerua pseudopetalosa</i> tree’ |
| LHHL | kílóríta- | ‘Egyptian thorn tree’ |
| LHLH | lopérení- | ‘ghost’ |
| LHLL | rutúduma- | ‘pigeon’ |
| LLHH | basawúré- | ‘eland’ |
| LLHL | gaɖukúɲu- | ‘Gad’ukuny clan’ |
| LLLH | mozokodí- | ‘ <i>Ormocarpum trichocarpum</i> tree’ |
| LLLL | tɔrɔmɪɲa- | ‘porcupine’ |

On nouns with five syllables, only twenty-five of the possible thirty-two melodies are attested. The missing melodies may be from a statistical gap or a limitation on tonal melodies in the source languages. In (43), note the high concentration of words borrowed from Teso-Turkana as evidenced by the gender prefix {ɲV-} and the locative gender prefixes {na-} and {lo-}:

(43) *Tone melodies on pentasyllabic (5) noun roots*

| | | |
|-------|--------------|-------------------------------|
| HHHHH | lókíloróɲó- | ‘queen bee’ |
| HHHHL | ɲékókótée- | ‘aggregate stone’ |
| HHHLH | ɲósósókátá- | ‘animal hole-trap’ |
| HHHLL | ɲókólíkėti- | ‘tooth-paste (Colgate)’ |
| HHLHH | lótórobétí- | ‘plant species’ |
| HHLHL | ɲéékíékí- | ‘rattle (musical instrument)’ |
| HLLLH | ɲékúraraá- | ‘skin disease’ |
| HLHHL | ɲákalááta- | ‘metal basin’ |
| HLHLH | ɲásanɲaɲoó- | ‘ground-bee species’ |
| HLHLL | ɲónakáɖoo- | ‘avocado’ |
| HLLHH | kílóotóro- | ‘bird species’ |
| HLLHL | kíryooróo- | ‘White-crested helmet shrike’ |
| HLLLL | tíbolokojni- | ‘finger/toe-nail’ |
| LHHHL | lokítóɲí- | ‘hard black stone’ |
| LHHLH | napéélemú- | ‘bird species’ |

| | | |
|-------|-------------|-----------------------|
| LHHLL | lobúrútutu- | ‘bird species’ |
| LHLHL | natsíbilí- | ‘female bushbuck’ |
| LHLLL | kaŋkaali- | ‘Kanyikaal River’ |
| LLHHL | lolatíbóni- | ‘stone granary cover’ |
| LLHLH | logerépoó- | ‘weevil’ |
| LLHLL | loibóroku- | ‘grass species’ |
| LLLHH | tikorotótó- | ‘aloe vera’ |
| LLLHL | tsorokoní- | ‘insect species’ |
| LLLLH | oŋoroðoðó- | ‘cartilage’ |
| LLLLL | lotabuseni- | ‘whirlwind’ |

Lastly, in nouns with six syllables, only twenty-nine of sixty-four possible tone melodies are attested. Nouns of this length are comparatively rare, and some of the melodies only have one representative that has been found.

(44) *Tone melodies on sextisyllabic (6) noun roots*

| | | |
|--------|---------------|---------------------------|
| HHHHLL | ɲásábúpáriji- | ‘sub-parish’ |
| HHHLLH | ɲákááðoŋotí- | ‘cowbell’ |
| HHHLLL | ɲédísíturiki- | ‘district’ |
| HHLHLH | ɲákátíríbaá- | ‘wild fruit tree species’ |
| HHLHL | bílíkereté- | ‘spurfowl’ |
| HHLLLH | ɲákálríkítí- | ‘metal-tipped stick’ |
| HLHHLL | ɲépiskóópii- | ‘bishop’ |
| HLHLLL | ɲédífíʒioni- | ‘military division’ |
| HLLHHH | ɲákaððwáátá- | ‘finger-ring’ |
| HLLHHL | ɲétɔkídé- | ‘sunflower’ |
| HLLHLH | ɲálukutújuú- | ‘caracal’ |
| HLLHLL | ɲémusalábaa- | ‘cross’ |
| HLLLHH | ɲókolokolétí- | ‘wild fruit tree species’ |
| HLLLHL | ɲókɔðɔŋóri- | ‘bird species’ |
| HLLLLL | ɲódomoŋolee- | ‘maize variety’ |
| LHHHLH | loriónómorí- | ‘tobacco variety’ |
| LHHHLL | ɲeúríánete- | ‘animal resting place’ |

| | | |
|--------|---------------|---------------------------------|
| LHHLHL | nabálámorúu- | ‘mouse species’ |
| LHLLH | naúyóηoleé- | ‘animal species’ |
| LLHHHL | kaatíríámu- | ‘Kaatiriam Mountain’ |
| LLHHLH | natokóóηprí- | ‘Natokoong’or River’ |
| LLHLL | ηeturéélaa- | ‘trailer’ |
| LLHLL | penitésiyaa- | ‘penance (Catholic doctrine)’ |
| LLLHHH | boʃokoréetí- | ‘ <i>Cussonia arborea</i> tree’ |
| LLLHHL | dodikokóroo- | ‘yellow-necked lizard species’ |
| LLLHLH | lomaaníkóó- | ‘Lomaaniko River’ |
| LLLHL | ηesokolokée- | ‘shorts’ |
| LLLLH | ηewuruηorokó- | ‘zorilla’ |
| LLLLL | nalemudzofaa- | ‘bird species’ |

3.2.3 Depressor consonants

Besides the underlying H-L tone contrast, another key facet of Ik tone is ‘depressor’ consonants. These consonants are those that behave as if they had L tone. In Africa, they usually comprise voiced obstruents (Yip 2002:157). This is true of Ik, where voiced obstruents /b, d, dz, g, j, z, ʒ/ and the glottal fricative /h/ make up a depressor consonant class. These consonants (hereafter ‘depressors’) depress pitch, causing ripples and cascades between otherwise relatively level pitch peaks on tone-bearing segments. Their effects are widespread, in some cases the pitch perturbations being so great that the tone system has phonologized them.

Phonetic effects of Ik depressors include 1) super-allotonic rises and falls on L tones and 2) allotonic rises and falls on H tones. The great pitch difference between that of a H tone and that of depressor has over time also led to *phonological* effects: 1) special lexical tone melodies, 2) downstep, and 3) high-tone repellence. These effects are all described in this section.

When a depressor is followed by a L tone, it simply creates a mini-rise as the pitch strives toward the syllable peak. And if a L tone is followed by a

depressor, the pitch takes a mini-dive after the syllabic peak. Depressor effects like these are minute, almost imperceptible except with speech analysis software. This is most likely because depressors themselves are associated with low pitch. However, a native speaker trained to whistle tone will produce very slight contour pitches even in these L tone environments. Nonetheless, the effects are so slight they are not even counted as allotonic.

In the following examples, contours are relative to the underlying tone. That is to say, [v̂] is meant to represent a ‘lower-low-lower’ pitch contour, and [ṽ] is meant to represent a ‘low-mid-low’ pitch contour. The notation here is necessarily a bit exaggerated in order to represent the ripples in pitch:

(45) *Depressor effects on L tones*

| | | | |
|-------|--------------------|-----------|-----------|
| LL | baba | [bâbâ] | ‘armpit’ |
| | bubu | [bûbû] | ‘abdomen’ |
| LL(H) | ɲabit ^a | [ɲâbîṭṭâ] | ‘beads’ |
| | gubes | [gûbèṣ] | ‘thigh’ |

But, when a depressor is adjacent to a H-tone bearing segment, the effects are much more dramatic. This is because more of the pitch range is utilized going from a depressor to a high pitch and vice versa. As shown in (39), a H tone following a depressor is realized as a mid-to-high rising contour. This contour is considered allotonic due to its greater perceptibility:

(46) *Depressor effects on following H tones*

| | | | |
|---|------------------|--------|------------|
| H | bóʃ | [bóʃ] | ‘nightjar’ |
| | dóm | [dóm] | ‘pot’ |
| | gúr | [gúr] | ‘heart’ |
| | zít ^a | [zítṭ] | ‘basket’ |

The most dramatic effects, though, happen when a depressor comes between a H and a L tone. Because the pitch produced with a depressor is low or

extra low, a great fall in pitch occurs going from the peak of a H-tone syllable through the depressor and on to the following L tone vowel, as in:

(47) *Depressor effects on preceding H tones*

| H | | | |
|---|--------------------|----------|------------------|
| | dég ^a | [dêǵǵ] | ‘Tamarind seeds’ |
| | káʒw ^a | [kâʒwǵ] | ‘torch, tassle’ |
| | néb ^a | [nêǵǵ] | ‘body’ |
| | ts’úd ^a | [ts’ûǵǵ] | ‘smoke’ |

This kind of effect—a falling contour from high to low or extra-low through a depressor—is one of those that have been phonologized in the system. Consider the fact that in the Ik lexicon, there is not a single instance of two syllables with H tone separated by a depressor. This means that at an underlying level, a H followed by a depressor must then be followed by a L tone. For example, the nouns in (48) all have a HL underlying tone melody:

(48) *Nouns with a HL melody*

| HL | | | |
|----|---------|-----------|------------------|
| | déga- | **dégá- | ‘Tamarind seeds’ |
| | káʒo- | **káʒó- | ‘torch, tassle’ |
| | nébu- | **nébú- | ‘body’ |
| | ts’úde- | **ts’údé- | ‘smoke’ |

Except for the marginal children’s words like *báa*- ‘food’ and *kóo*- ‘water’, only bisyllabic noun roots with depressors show a HL melody. This suggests that the HL melody itself was created by depressors. This may not be tonogenesis *per se*, but it is the genesis of certain tone combinations. The HL melody is also found only with depressors on verbs roots of particular syllabic structures, for example VCVC-. Compare the following roots:

(49) *Tone melodies on VCVC- noun roots*

| HL | | |
|----|-------|---------------------|
| | íban- | ‘go in the evening’ |
| | íbot- | ‘jump’ |
| | ígom- | ‘bark (v)’ |

| | | |
|----|--------|----------------|
| LH | ízid- | ‘speak little’ |
| | íbúr- | ‘replant’ |
| | ijók- | ‘lend’ |
| | ikúts- | ‘ostracize’ |
| | isír- | ‘decorate’ |
| LL | idók- | ‘multiply’ |
| | ilaŋ- | ‘evade’ |
| | imets- | ‘take over’ |
| | itiŋ- | ‘cook’ |

Although the verbs in (49) are only a sample, they illustrate that the HL melody on VCVC- verbal roots is found only with depressor consonants. Other lexical melodies found only with depressors include the following:

(50) *Depressor-only lexical tone melodies*

| | | |
|---------------|--------------|-------------------|
| HLL (verbs) | ígulaj- | ‘to bubble up’ |
| | tíbirdil- | ‘to summersault’ |
| HLLLL (nouns) | tíbolokoŋi- | ‘finger/toe-nail’ |
| | tígaramatsı- | ‘elder child’ |

To summarize, the pitch depression caused by depressor consonants between a H tone and a L tone has been phonologized in the form of certain *lexical* tone melodies. It has also been phonologized as downstep:

At a *post-lexical* level, depressors may occur between two H tones, but when they do, the second H is downstepped. The conditions for this arise from at least two sources: 1) high-tone anticipation (see §3.2.4) and 2) the presence of the anaphoric demonstratives (see §8.2.3). High-tone anticipation is when a tone-bearing unit (TBU) with L tone gets a H tone before a second TBU with H tone, so long as no consonant intervenes, as in:

(51) *Downstep with high-tone anticipation*

| | | | | |
|----------|---|-----------|-------------|-----------------|
| kédié da | → | ké'dié da | [kê'diê dâ] | 'in a nice way' |
| ts'édéc | → | ts'é'dóó | [ts'ê'dóó] | 'from there' |

In these two examples, the depressor /d/ falls between two H tones. In addition to causing a fall on the preceding vowel, the depressor lowers the pitch so much that the following H tone is downstepped (´). Similar effects arise in the presence of the anaphoric demonstratives, as in the following:

(52) *Downstep with anaphoric demonstratives*

| | | | | |
|-------------|---|--------------|--------------|------------------|
| awéé = déé | → | awéé = ´déé | [āwéê d´éé] | 'at that home' |
| ɲótóó = díí | → | ɲótóó = ´díí | [ɲōtōô d´íí] | 'from those men' |

Again, in these two examples, a depressor is found between two H tones, this time at the boundary between two words. The effect is that the fall in pitch caused by the depressor is too great for the second H to recover its full height. And so the depressor instigates downstep of any following H tones. This and other depressor effects reveal an important tonological fact about Ik—its strong intolerance for high pitch (H tone) after a depressor consonant. The phonetic motivation is obvious: The articulatory effort needed to climb out of an extra-low pitch trough to the pitch height prescribed by an underlying H tone is too inconvenient.

Also at the post-lexical level, the need to avoid depressor + H-tone sequences shows up in another way—through high-tone repulsion. When word-level tone assignment or phrase-level tone sandhi places a H tone after a depressor, the H tone is automatically repelled to the preceding TBU. This is illustrated below in verb stems and simple clauses. In the first example, the 2PL subject-agreement marker {-ít(i)} contrasts with the 2SG marker {-íd(i)} in that the latter contains the depressor /d/. The word-level assignment of H tones gets thwarted in the 2SG form because of /d/:

- | | | | |
|------|----------------------------|--|----------------------------|
| (53) | H-HL-HH | | H-HH-HL |
| | fút-úko-ítí-k ^e | | fút-úkó-ídi-k ^e |
| | blow-AND-2PL-SIML | | blow-AND-2SG-SIML |
| | ...as you (pl) blow. | | ...as you (sg) blow. |

In the first place, the verb stem in (53) combines the verb root *fút-* ‘blow’ with the andative directional suffix {-ókɔ(tí)-}. This combination normally yields the tone melody HHL, as it does with the 2PL form above. Adding then the subject-agreement marker, with its H tones, the full stem melody surfaces as HHLHH. In the 2SG form, however, the HH tone sequence on the subject-agreement suffix is repelled by the presence of /d/, bouncing the HH sequence back on TBU. This results in a stem melody of HHHHL.

High-tone repulsion often interacts with high-tone insertion (see §3.2.4). High-tone insertion stipulates that upon a sequence of four L tones across morpheme boundaries, a H tone must be inserted on the third TBU. If no depressor is involved, the H insertion has no obstacle. But if the consonant before the third TBU is a depressor, the inserted H gets repelled back onto the second TBU instead. In this light, compare the following two sentences:

- | | | | | | |
|------|-----|---------------------|---|-----------------------|--|
| (54) | i-a | kuwa-k ^e | → | ia kúwak ^e | $\left[\begin{array}{c} - \quad - \quad - \\ \backslash \end{array} \right]$ |
| | | be-REAL grass-DAT | | | |
| | | It’s in the grass. | | | |
| (55) | i-a | bosi-k ^e | → | íá bosik ^e | $\left[\begin{array}{c} - \quad \backslash \quad - \\ \backslash \end{array} \right]$ |
| | | be-REAL ear-DAT | | | |
| | | It’s in the ear. | | | |

Before leaving the topic of consonant-tone interaction, a comment is in order about the ejectives /k̄/ and /ts’/. While depressor consonants lower pitch significantly, these ejectives raise pitch slightly. It seems that the glottalic release of pressure of an ejective, accompanied by voicing in

following vowels, creates a slight rise in phonetic pitch. In the following examples, the phonetic pitch notation is only approximate:

- (56) *Enia kɔba ntsi.* [- - - - -]
 en-í-a⁺ kɔb-a ntsí-∅
 see-1SG-REAL navel-NOM he-GEN
 I see his navel.

- (57) *Áts'oo ntsa sakamaa inoe.* [- \ - - - - -]
 áts'-ǝ-ɔ nts-a sakámá-a ínó-^e
 eat-3SG-SEQ he-NOM liver-ACC animal-GEN
 And he ate the animal's liver.

3.2.4 Tone processes

The analysis of Ik tone processes presented in this section is preliminary. Ik tone, particularly at the post-lexical and phrasal levels, deserves a book-length treatment of its own. However, this section does present a few insights gained in the course of the grammatical study. Hopefully these insights will act as a springboard for whoever may take up the tonal mantle.

As shown back in §3.2.2, lexical roots in Ik have their own underlying tone melodies. Affixes do too, and these are revealed on an affix by affix basis in the following chapters. But when roots and affixes are put together in word, their tones may change in the local morpho-tonological environment. The present section summarizes some of the known—though surely not all—Ik tone processes, including the ones already mentioned in §3.2.3 that are caused by depressor consonants. Some of these processes have the feeling of being ad hoc, of not reflecting the core characteristics of the Ik tone system. Nonetheless, they represent the knowledge acquired up to this point.

These processes are summarized in the table in (58) below:

(58) *Ik tone processes (T)*

| # | Name | Description |
|----|-----------------------------|---|
| T1 | Downdrift | “After an overt (linked) L at a tone-phrase boundary, the pitch register may be lowered for following tones.” |
| T2 | Downstep | “After 1) a depressor-induced HL fall or 2) a floating L, the pitch register may be lowered for following tones.” |
| T3 | High-tone insertion | “In a sequence of four or more L tones across word boundaries, a H may be inserted on the third TBU.” |
| T4 | High-tone repellence | “When tonal phonology assigns a H to a TBU whose onset is a depressor, the H is repelled leftward one TBU.” |
| T5 | High-tone anticipation | “When a L precedes a H across a morpheme boundary with no consonant intervening, the L changes to a H resulting in a HH sequence.” |
| T6 | High-tone suppression | “In a sequence of two or more Hs across root-suffix(es) boundaries, the Hs may all delink and become floating or disappear entirely.” |
| T7 | Melodic template completion | “A root’s tone melody determines the surface tone of any suffix.” |
| T8 | Replacive grammatical tone | “An affix or paradigm may cause tone changes to a word not explainable in terms of T1-T7.” |

The last ‘process’, replacive grammatical tone (T8), is a catch-all category for tonal changes that take place with certain affixes or in certain verbal paradigms. For example, the plurative I suffix {-íkó-} inexplicably gives a preceding L-toned noun root H tone, e.g. *pado-* → *pád-íkó-* ‘small caves’.

Downdrift (T1), or ‘automatic downstep’, describes the lowering of the pitch register or ‘ceiling’ after an overt L tone. The result is that a H tone after a L tone will be lower in pitch than preceding H tones. Ik downdrift must be qualified in two ways: 1) In order to cause downdrift, the L tone must surface as a low or low-falling pitch, not a mid pitch. This means that an L surfacing as mid pitch cannot cause downdrift. So it is not any L, but a L near a tone phrasal boundary that causes downdrift. And 2), a L tone does not cause downdrift if no H tones precede it. This is by definition, since ‘downdrift’ implies lowering of successive Hs:

- (59) *Sukuta akatika ntsi.*
 súk-út-a⁺ akát-ika-a⁺ ntsí-Ø
 itch-CAUS-REAL nostril-PL-ACC he-GEN
 He’s scratching his nose (pl. in Ik).

In (59), prosody and syntax align to define the relevant tonal phrase as made up of a clause constituent: verb, object NP, genitive NP. Because of this phrasal domain so defined, the realis suffix on the verb surfaces as low pitch, causing downdrift on the following object NP. Then, after the L tones on the subject NP (*akátikaa*) which surface with low pitch before the tone phrase boundary, downdrift lowers the H tone on the genitive NP.

- (60) *Dodetio oja inoe ariikaa edá.*
 dɔd-ét-i-o⁺ ʒj-á ínó-e⁺ arí-íka-a⁺ edá
 show-VEN-3SG-SEQ wound-NOM animal-GEN intestine-PL-ACC only
 The animal’s wound showed only intestines.

Likewise in (60), after each major clause constituent—verb, subject NP, object NP—the downdrift occurs when the preceding constituent ends with a L tone. The head of the subject NP (*ʒjá*) does not cause downdrift in the following genitive modifier because *ʒjá* has no L tone.

When downdrift has been caused by a L tone at a tone phrasal boundary, the first L tone in the next tonal phrase (before any Hs) is at the same basic pitch level as the preceding L tone. But central to this analysis is the claim that the downdrifted L is actually a new mid pitch on a lower pitch register. This goes back to the analysis of underlying tones give in §3.2.1: Any L before a H in the same tone phrase surfaces with mid pitch. To illustrate this, the Downdrift in (59) is given here with a more phonetic notation:

(61) sókúta⁺ akátikaa⁺ ntsí [- - - + - - - - - + - -]

Relative to each downdrifted H tone, the L tones(s) before it bear relatively mid pitch. Only that, because the whole pitch register has been lowered, downdrifted mid pitch is more or less the same height as the preceding L tone responsible for the downdrift in the first place. As shown, then, in (61), this is repeated as many times in the clause as downdrift occurs.

Despite these clear examples, downdrift is not such a hard and fast rule as to be completely predictable. There in fact many counter-examples where downdrift does not happen in what would seem to be applicable circumstances. Consider that, in the following example, neither the L at the end of the verb nor the one at the end of the head of the object NP seem to cause downdrift on any following H tones:

(62) *Irikaini ekwitnia nti.* [- - - - - - - - - -]
 iríká-ini ekw-itíní-a ntí-Ø
 rub-SEQ eye-PL-ACC they-GEN
 And they rubbed their eyes.

The example in (62) and many others like it suggest that prosodically defined tone phrases may vary in terms of the syntactic units they align with. In some cases, like in (59) and (60) above, the tone phrase matches the core clausal constituents. In other cases, like in (62), the tone phrase

matches the entire clause, such that tonal prosody ‘scans’ ahead across syntactic boundaries to find H tones that maintain the mid pitch of all Ls. This observation matches one made earlier, namely that mid pitch acts as a baseline in Ik discourse. All kinds of factors, yet largely unexplored, may affect the linking of the tonal tier to syntactic structure—from pragmatic considerations to discourse structure, semantics, speech rate, emotion, etc.

Downstep (T2), or ‘non-automatic downstep’, is the lowering of the pitch register after an unlinked or ‘floating’ L tone. Ik downstep was already mentioned under §3.2.3 in the discussion of depressor consonants. Those voiced obstruents (excluding /h/ for the moment), act as if they bear L tone. How one handles this depends on one’s theoretical orientation. It could be seen as a L linked to the depressor or floating in association with it instead. Either way, from a descriptive point of view, depressors cause downstep:

- (63) *Toyaa dea ntsi.* [- ˉ \ + _ _ _ -]
 tɔyá-á ʔde-a ntsí-∅
 bleed-REAL foot-NOM he-GEN
 Her foot is bleeding.

- (64) *Iya nda aka na kwats.* [- - \ + _ _ _ -]
 i-a ńʔda aka = na kwáts-∅
 be-REAL with mouth[OBL] = REL.SG small-REAL
 It has a small mouth.

In both (63) and (64), the depressor /d/ lowers the pitch register such that any following H tones are roughly the same height as a mid-pitch L tone before the depressor. But downstep is also found in the absence of depressor consonants. Observe the following instances:

- (65) *Ats'a ηoka okak.* [- - - \ + - -]
 áts'-á ηók-á⁺ oká-k^a
 chew-REAL dog-NOM bone-ACC
 The dog chews the bone.
- (66) *Iya oja kwetee ntsi.* [- - - \ + - - - -]
 i-a ój-á⁺ kweté-é ntsí-Ø
 be-REAL wound-NOM arm-DAT he-GEN
 There is a wound on his arm.

In both of these examples, there is a lowering of pitch register after an overt H tone. From a phonetic perspective, this could be understood as an instance of the cross-linguistic tendency of a falling contour to utilize the full available pitch range (Yip 2002:49): The transition from H to L goes a little lower than previous Ls, so low that following Hs do not fully recover. But from a phonological perspective, whence the L causing downstep? Possible answers seem to be that a) there is a L boundary tone between the subject NP and further arguments or b) that the tonal melody of nouns like *ηókí-* 'dog' and *ójá-* is actually HHL rather than simply HH. With no TBU to dock to, the L in HHL floats and causes downstep on the following TBUs.

High-tone insertion (T3) describes the tonal process of breaking up a sequence of four L tones with a H tone on the third TBU, as for example in:

- (67) *Xeβα seao.*
 ʃεβ-a sea-° → ʃεβα séa° [- - - \]
 fear-REAL blood-ABL
 He fears blood.

- (68) *moo fiyei toimena...*
 mo-o fiye-i toimena-a → fiyei tóimena [-- - -]
 not-SEQ know-3SG COMPL-ACC
 and he did not know that...

In both of these clauses, a L-tone verb is followed by a L-tone argument and so a H tone is inserted on the first TBU of the argument. The L tones in (68) after the inserted H remain mid pitch because it is a continuing sentence. According to some older Ik speakers, high-tone insertion is a more recent tonological development. As such, the examples above are also grammatical without the inserted H tone. It seems likely that floating-H docking on following syllables is being generalized and extended into domains such as these, but this remains to be seen from further investigations.

High-tone repulsion (T4) describes the tonal process in which a H tone assigned to a TBU gets repelled leftward one TBU. This only happens when the onset of the syllable designated for the H is a depressor. In this way, the antinomy between high pitch and depressor consonants has been phonologized. High-tone repulsion is illustrated below in two contexts: 1) when an inserted H gets repelled and 2) when a floating H gets repelled.

First, if an inserted H is assigned to a TBU directly preceded by a depressor, the inserted H is repelled one TBU leftward. In the example below, conditions for high-tone insertion arise, assigning H tone to the first syllable of *badon* ‘dying’. But because the onset of that syllable is /b/, the H tone gets repelled back onto the last syllable of the verb:

- (69) *Xeba badonu.*
 ʃɛb-a bad-onu-Ø → **ʃɛba bádonu
 fear-REAL die-INF-ABL → ʃɛbá badonu [- \ - - \]
 He fears dying.

Second, a floating H may be repelled by a depressor consonant. The subordinating conjunction *na'* = 'if/when' has a floating H. This is deduced from the fact that when a L-tone verb follows it, the first TBU of the verb gets a H tone. But if the onset of the H-bearing TBU is a depressor like /g/, then H gets repelled back to the conjunction. Compare these examples:

- (70) *na* = ɲk-ese... *na* = kók-ɛɛ *ná* = gon-ese
 CONJ = eat-SPS CONJ = close-SPS CONJ = look-SPS
 If ___ is eaten... If ___ is tied... If ___ is looked at...

High-tone anticipation (T5) is a tonal process in which a L-linked TBU directly before a H tone across a morpheme boundary also gets H tone, but only if no consonant intervenes. This is an example of 'bonded spread' or 'tone doubling' which is reportedly common in Africa (Yip 2002:69). In Ik, this process is observed both within and between words, as shown below:

- (71) ...*kaatie*...
 ka-áti-e → káátie [-- --]
 go-3PL-SIML
 ...as they go...

- (72) *díimee*
 dí-íme-e → dí-íme-e [-- --]
 one.SG-DIM.SG-DAT
 to this little one

- (73) *Na atsie*,...
 ná' = ats-i-e → na átsie → ná átsie [-- --]
 CONJ = come-3SG-SIML
 When s/he came,...

High-tone suppression (T6) describes a tonal process in which the distance between tones or pitches is reduced. In Ik, this is already evident from the lexical and phrasal tone suppression that raises L tone to a mid pitch before a H tone. But a kind of ‘double tone suppression’ is also evident in Ik (Hyman 2007:503). After raising L tones to mid pitch before H, the H tone is then delinked. If another H follows the delinked H in the same tonal span, then nothing further happens. But if no other H follows the delinked H, it becomes a floating H at the end of the span (word, phrase, etc.). Double H-tone suppression is most evident in a variety of verb forms.

The sequential (§7.8.1) and optative (§7.7.4) verb paradigms, both partly irregular, exemplify high-tone suppression. This comes out particularly well in the 2PL forms: The 2PL subject-marker {-ítí} gets suppressed to {-iti’}, with its H tones delinked and sent floating at the right-edge boundary, as in:

- (74) *Na ηusitio...*
 na’ = ηus-ítí-o → na ηúsitio’ [- - - -]
 CONJ = grab-2PL-SEQ
 If you (pl.) grab (sth.),...
- (75) *Alake ηusiti...*
 aláké ηus-ítí → aláké ηusiti’ [- - - -]
 then grab-2PL[OPT]
 Then you grabbed...

The chief difficulty with this analysis is that the floating H need not ever relink to any TBU. That is, even if one of these verbs is followed by an object with L tone, the putative floating H does not reappear. Perhaps it is sent to the right edge of the entire tonal phrase, however large it may be. Or perhaps the suppressed and delinked H disappears altogether. If the latter is true, this could mark the emergence of a third underlying tone, namely Mid, since the conditioning environment (floating H) may be being lost.

Another instance of high-tone suppression is found in the infinitive form of verbs with a LH lexical tone melody. In the isolation form of the infinitive (nominative case), transitive verbs with the melody LH, combined with the transitive infinitive suffix {-ésí-}, surface with a M-M-M pitch. That is, the melody of the root (LH) combined with that of a suffix (HH) yield the melody LLL(H) instead of LHH(H) because of high-tone suppression:

(76) *High-tone suppression in transitive infinitives*

| | | | | |
|------------|---|-----------|-----------|--------------|
| aṅír-ésí- | → | aṅires´ | [- - -] | ‘to turn’ |
| itsán-ésí- | → | itsanes´ | [- - -] | ‘to disturb’ |
| tulón-ésí | → | tulonjes´ | [- - -] | ‘to abhor’ |

Melodic template completion (T7) refers to a tonal process in which a lexical tone melody that is greater than the number of TBUs offered by a certain lexeme gets completed or fully linked over a polymorphemic stem. For example, shorter tone melodies like HH, LL, and LH, shown above in (40), can arguably be analyzed as truncated versions of HHL, LLL, and LHH found on trisyllabic nouns. This analysis explored in detail in Schrock 2012a.

The idea behind melodic template completion, then, is that the longer, three-tone melodies determine the tone pattern of a bisyllabic noun root combined with a monosyllabic case suffix. In other words, the case suffixes—all having L tone underlyingly—will take a H or L tone according to a three-place tone melody. Consider the following examples:

(77) *Melodic template completion*

| | | | | | | |
|----|-------|----------|---|-----|--------|---------------|
| HH | ámá- | ‘person’ | → | HHL | ámé-e | ‘of a person’ |
| HL | édi- | ‘name’ | → | HLL | édi-e | ‘of a name’ |
| LL | roḃa- | ‘people’ | → | LLL | roḃe-e | ‘of people’ |
| LH | imá- | ‘child’ | → | LHH | imé-é | ‘of a child’ |

In (77), the genitive suffix {-ε} surfaces with a H or L tone depending on the lexical tone melody of the noun to which it attaches. This type of tone process cannot simply be a case of H-tone or L-tone spreading because the tone of the case suffix need not be the same as the preceding root syllable. In principle, all the lexical melodies presented above in §3.2.2 could be extended by one tone to get the full underlying melody that is only realized on a case-inflected form. Then the melodies for trisyllabic nouns would provide the case-tone templates for the bisyllabic nouns; the quadrisyllabic nouns would provide the template for the trisyllabic nouns, etc.

Although case inflection is used here to exemplify melodic template completion, the process is observed in other areas of the grammar including compound nouns and verb infinitive formation. The factors governing the diachronic formation of these melodic templates are not yet discovered. Most likely, clues will be found in further historical comparative work in East African languages. It has been suggested that a metrical approach to Ik tone assignment may be a fruitful line of research (Mary Pearce, p.c.). There does seem to be some interaction between, for example, syllable weight and tone assignment, but any applicable rules have yet to be discovered.

Pitch-accent, ‘musical stress’, and ‘rule-governed prominence’ seem to be an areal feature of East Africa. For example, in Turkana, “tonal inflection is obligatory regardless of the underlying tone pattern of the noun stem (Dimmendaal 1983:52). Evidence suggests that in wider Nilotic—languages that have had a deep impact in Ik—‘quantitative’ metrical units based on syllable weight or mora-counting interact with tone assignment (Dimmendaal 2012). Despite recent strides in understanding Ik tonology, one still gets the impression that the key to the system lies just out of reach.

3.3.5 Intonation

In addition to lexical and phrasal tone, Ik also uses sentence-level tone or ‘intonation’ to express meaning. Intonation is understood here as the “the use of *suprasegmental* features to convey ‘postlexical’ or *sentence-level* pragmatic meanings in a *linguistically structured* way” (Ladd 1996:6, italics in the original). The suprasegmental feature Ik uses to alter pragmatic meaning is a boundary tone at the right edge of the relevant syntactic unit. Three intonational boundary tones (or lack thereof) create the following three ‘tunes’ (the symbol <%> being borrowed from Ladd 1996:80):

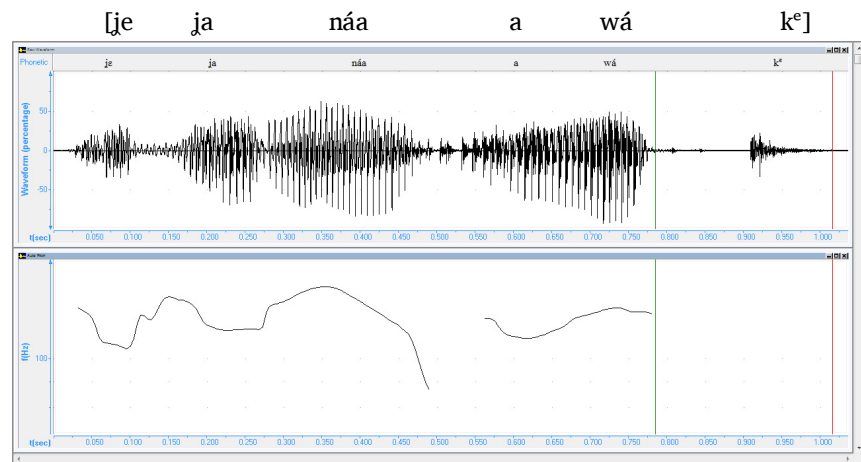
(78) *Ik intonational tunes*

| # | Name | Defining boundary tone |
|---|--------------------|------------------------|
| 1 | Indicative Tune |Ø% |
| 2 | Interrogative Tune |L% |
| 3 | Solicitive Tune |LH% |

The *indicative tune* is the default, unmarked intonational pattern used for declarative statements. This tune is defined by an absence of change on the tone of a clause’s final word. A morpho-syntactic correlate of this tune is that the final morpheme of the sentence will be in its final form. Take for example the two basic statements below, each with their pitch profiles:

(79) *J'eja naa awak.*

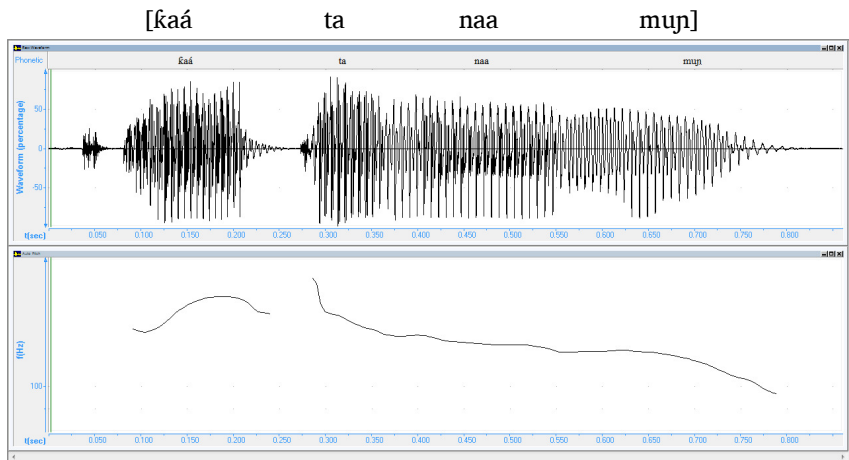
jej-a = náa¹ awá-k^e
 stay-REAL = PST1 home-DAT
 S/he stayed at home.



In this example, the focus is on the final word, *awák^e* ‘at home’. With the indicative tune, this word, declined in the dative case, takes the normal pitch that its tone melody calls for: mid followed by high.

The following sentence gives another example of the indicative tune:

- (80) *Kaata naa muj.*
 ka-át-a = naa muj
 go-3PL-REAL = PST1 all
 They all went.



In (80), apart from the third person plural subject suffix {-át(i)-}, all the morphemes in this sentence have low tones. So here the indicative tune surfaces as a gradual declination of low tones ending on *muŋ* ‘all’.

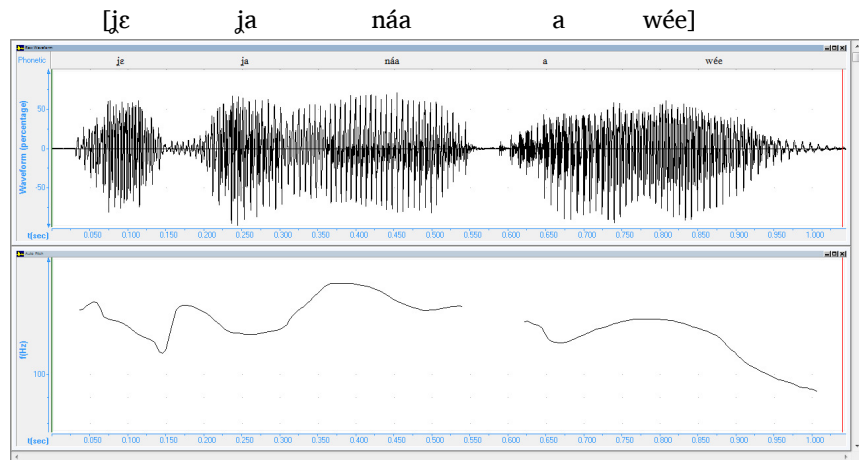
The *interrogative tune* is the intonational pattern used for yes/no questions. This tune is defined by a low boundary tone that replaces any high tone on the final syllable. As a morpho-syntactic correlate of this tune, the final morpheme of the sentence must occur in its non-final form. This morphological open-endedness can be viewed as iconic of the fact that a question is pragmatically open-ended, expecting a response.

(81) *J'eja naa awee?*

jej-a = náá⁺ awé-e (**awé-é)

stay-REAL = PST1 home-DAT

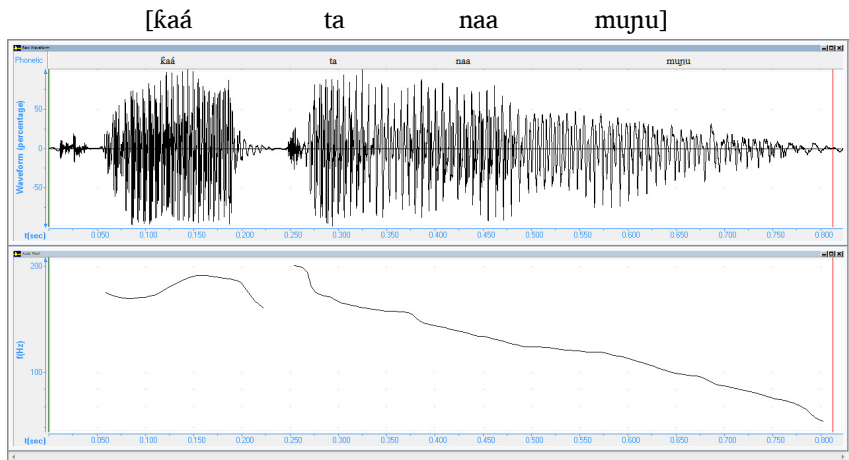
Did s/he stay at home?



The final form of ‘at home’ is *awák^e*, as seen above in (81), while the usual non-final form is *awéé*. However, in questions with the interrogative tune, the low boundary tone replaces the high tone on the dative case suffix {-ɛ}.

On words like *muɲ* ‘all’ that already have a low tone, the interrogative tune’s low boundary tone leads to an extra-low decline at the end:

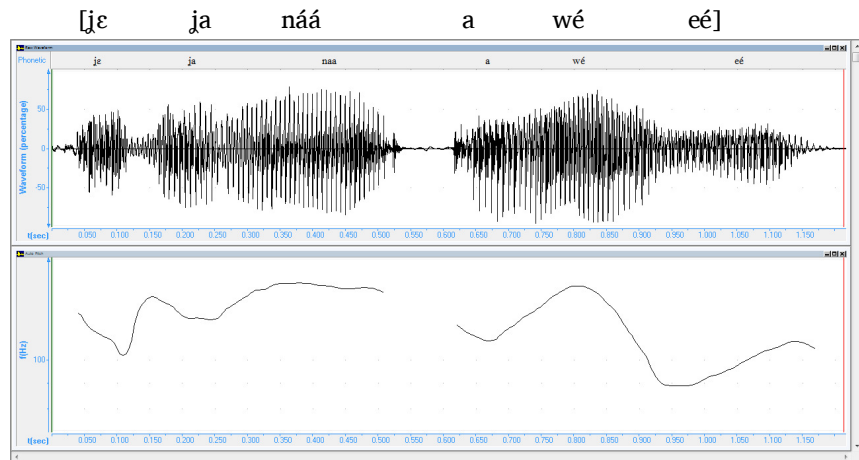
- (82) *Kaata naa muɲu?*
 ka-át-a = naa muɲu
 go-3PL-REAL = PST1 all
 Did they all go?



The third intonational pattern, called the *solicitive tune*, is used to solicit agreement from the hearer. It is often heard in the following contexts: 1) making polite requests or gentle commands, 2) making statements subject to the hearer's approval, and 3) ensuring the hearer's attention. The solicitive tune can apply to both main clauses and subordinate clauses (even ones preceding the main clauses of declarative statements or questions.)

The solicitive tune is marked by a low-rising (LH) boundary tone. Unlike the indicative and interrogative tunes, the final morpheme of a clause can appear in either its non-final or final form. When the final form occurs, vowels normally devoiced surface as voiced so as to link to the low-rising tone to a tone-bearing unit. But because a) the LH boundary tone applies only to the clauses's final vowel and b) contour tones in Ik must link to two phonological TBUs, the final vowel is doubled for the solicitive tune:

- (83) *J'eja naa aweee?*
 jɛj-a = náá awé-eé (awá-keé)
 stay-REAL = PST1 home-DAT
 S/he stayed at home, (okay)?



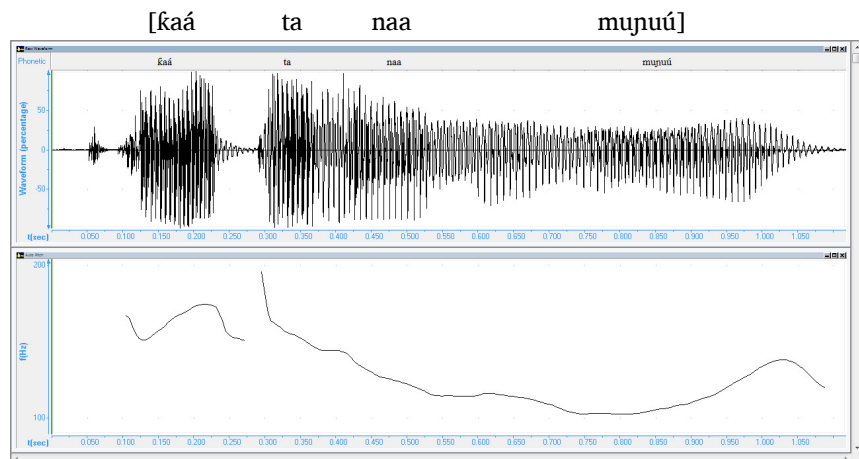
Just as (83) shows the solicitive tune operating on a high-toned morpheme, (84) shows the same tune applying to the low-toned *mujuu* 'all':

(84) *Kaata na mujuu?*

ka-át-a = naa mujuu

go-3PL-REAL = PST1 all

They all went, (okay)?



4 Nouns

As one of language's 'evolutionary primitives' (Heine & Kuteva 2007:59), nouns comprise one of Ik's two large open word classes (the other being verbs). The present chapter begins with an overview of noun roots (§4.1) moving on then to nominal suffixes (§4.2), compounds (§4.3), and several types of onomastics (§4.4.-§4.5). Case marking, a crucial feature of the nominal system, is treated in Chapter 6 on the way to the wider grammar.

In Ik, a noun is any word whose primary function is to be the head of a noun phrase, which in turn functions as an argument of a verb. As the head of a noun phrase, a noun must be inflected for case to show its relation to other words. It may also take other nominal suffixes and may be joined to another noun or pronoun in a compound construction. A second function of an Ik noun is to be the head of the predicate. To fulfil this function, a noun must take the copulative case marker (§6.3.8), which is the functional equivalent of a copula and allows the noun to stand alone as a sentence.

Semantically, the prototypical Ik noun refers to inanimate and animate objects, people, and places—anything in the world that is viewed as an inherent non-event. However, the boundary between things named by nouns and events named by verbs is fuzzy. Many lexical event concepts can become nouns with noun morphology or verbs with verb morphology, e.g.:

(1) *Lexemes ambiguously nominal or verbal*

| | | | |
|--------|------------|---------|-----------|
| botá- | 'migrate' | kódé- | 'cry' |
| cooka- | 'shepherd' | ɔfa- | 'cough' |
| deku- | 'quarrel' | ságo- | 'snare' |
| ɔɔaní- | 'weed' | supa- | 'breathe' |
| epú- | 'sleep' | taatsa- | 'pay' |
| féi- | 'bathe' | tajala- | 'give up' |

| | | | |
|---------|-------------------|---------|------------------|
| fekí- | ‘laugh’ | təkɔba- | ‘farm’ |
| ɪana- | ‘talk’ | təkɔra- | ‘distribute’ |
| ɪkɪra- | ‘write’ | tɔlɔka- | ‘trap’ |
| ɪrɛja- | ‘slash grass’ | tɛwɛa- | ‘broadcast seed’ |
| ɪruɓa- | ‘chew hard foods’ | tóda- | ‘speak’ |
| isira- | ‘decorate’ | tsuwaa- | ‘run’ |
| itsika- | ‘order’ | wáána- | ‘pray’ |
| ɪwara- | ‘plaster’ | waté- | ‘rain’ |
| kaka- | ‘hunt’ | zɛkɔ- | ‘sit/stay’ |

Ik nominal morphology is minimal—four being the maximum number of morphemes a single noun can have (outside of compounds). Compare this to Turkana nouns which may have up to eleven morphemes (Dimmendaal 1983:208)! Any Ik noun in a post-lexical grammatical context consists minimally of a lexical root plus a case marker. Besides the case marker, the only other nominal suffixes are number and possession markers. The order in which these occur is ROOT-(NUMBER)-(POSSESSION)-CASE. Unlike Turkana and Dhaasanac, Ik has no grammatical gender marked on nouns. Ik compensates for its minimal noun inflection by joining nouns and pronouns together in a variety of compounds. Thus, meanings expressed by affixes in other languages are expressed by a compound construction in Ik.

In their basic underlying forms, every Ik nominal root and suffix ends in a vowel, without exception. This final vowel is unpredictable since it can be any of the language’s nine contrastive vowels. Because of this, these final vowels are treated universally as part of the root in Ik. Similar ‘terminal vowels’ in the East Cushitic Dhaasanac are only viewed as part of the stem in some cases where they “are by and large meaningless elements...[maybe] ancient desemantized gender markers” (Tosco 2001:65). And like the Omotic language Dime (Mulugeta 2008), Ik has some nouns whose root-final vowel has two free variants, e.g. *kɔlá~kɔlé-* ‘goat’ and *zɪná~zɪnɔ-* ‘zebra’. Such cases seem to arise along the lines of chronolects and idiolects.

(2) *Nominal root-final vowels*

| | | | | | |
|-------|----------|---------|---------|---------|-------------|
| badi- | ‘giant’ | | | dakú- | ‘wood’ |
| cekí- | ‘woman’ | | | nébu- | ‘body’ |
| kurí- | ‘shade’ | | | ts’úbu- | ‘plant sp.’ |
| aji- | ‘pestle’ | | | damó- | ‘brain’ |
| kóní- | ‘one’ | | | jómó- | ‘soil’ |
| sísí- | ‘mead’ | awá- | ‘home’ | kafu- | ‘thorn’ |
| | | ǰǰfá- | ‘shrew’ | | |
| bóré- | ‘corral’ | tsútsá- | ‘fly’ | baro- | ‘herd’ |
| ǰíǰe- | ‘donkey’ | | | ǰéró- | ‘mouse’ |
| rébe- | ‘millet’ | | | gúró- | ‘heart’ |
| | | | | | |
| gǰné- | ‘stump’ | | | fiyǰǰ- | ‘cattle’ |
| ǰéǰe- | ‘hunger’ | | | kíǰ- | ‘strap’ |
| mése- | ‘beer’ | | | sǰkǰ- | ‘hoof’ |

Root-final vowels like those shown above in (2) are deleted in three environments: 1) with the nominative case suffix {-a}, 2) with the instrumental case suffix {-ǰ}, and 3) with any of the number suffixes. The other six case markers preserve the stem-final vowel (see more in §6.2). This recalls the situation in the South Omotic language Dime, where any suffix beginning with a vowel first subtracts the noun-final vowel (Mulugeta 2008:38, 41). It is noteworthy that all but two Ik nominal suffixes that delete noun-final vowels also begin with a vowel. The two exceptions, the ablative {-ǰ} and the genitive {-ε}, may have lost their initial consonants.

As noted above, any post-lexical noun must have a case suffix. Six out of the eight Ik cases allow the stem-final vowel to persist. Only the nominative and the instrumental (as well as number suffixes) first subtract it. The practical problem is that the citation or isolation form of a noun in Ik takes the nominative case, thereby losing its final vowel. This means that unless a noun is given in one of the six non-subtractive cases, a non-native speaker

cannot guess the final vowel. For this reason, whenever the final vowel of a noun is relevant to a particular point or purpose (for example in Appendix B—Ik root lexicon), an abstract form of the noun is written with a hyphen.

4.1 Noun roots

The underived root of a noun is that basic part that cannot be analyzed into more than one morpheme based on current knowledge of Ik morphology. Most Ik nominal roots are comprised of two to four syllables. However, many Ik nouns that today have to be analyzed as monomorphemic were likely composed of more than one morpheme historically in the languages from which they were inherited or borrowed. These include the many nouns borrowed from Nilotic languages that still bear gender prefixes and are often polysyllabic. In addition to the older, shorter nouns and the newer, longer nouns, a number of partially and fully reduplicated forms are also attested. Each noun root type is examined below, starting with basic roots and then moving on to reduplicated and historically polymorphemic roots.

4.1.1 Basic roots

Basic noun roots in Ik include those that are shorter in length and those whose morphological composition, if there ever was one, is not currently recoverable. This section catalogues and gives examples of the syllable types and tone patterns found in a collection of roughly 1,900 noun roots.

Basic roots with a VV syllable shape are rare (<1%):

| | | |
|-----|---------------|--------------------|
| (3) | VV noun roots | |
| | LH | eí- 'chyme' |
| | LL | ɛoo- 'leather bag' |

Basic roots with a VCV syllable shape are also sparse (1.5%):

(4) VCV noun roots

| | | |
|----|------|---------------------|
| HH | ámá- | ‘person’ |
| | ínó- | ‘animal’ |
| HL | édi- | ‘name’ |
| | ído- | ‘breast’ |
| LH | akó- | ‘inside’ |
| | oní- | ‘abandoned village’ |
| LL | aji- | ‘pestle’ |
| | ɔfa- | ‘cough’ |

Basic roots with a CVV syllable shape make up roughly 1.5% of Ik nouns:

(5) CVV noun roots

| | | |
|----|-------|--------------------|
| HH | máó- | ‘lion’ |
| | séi- | ‘quartz’ |
| LH | cué- | ‘water’ |
| | tsoé- | ‘wild hunting dog’ |
| LL | ɖau- | ‘knife’ |
| | sea- | ‘blood’ |

Basic roots with a CVCV syllable shape are considerably more plentiful (13%), so much so that Tucker was led to claim that “the overwhelming majority of words consist in CVC^v roots...” (1971:343):

(6) CVCV noun roots

| | | |
|----|---------|--------------|
| HH | búré- | ‘dust’ |
| | móɖé- | ‘ground-bee’ |
| HL | dóba- | ‘mud’ |
| | ts’úde- | ‘smoke’ |
| LH | fetí- | ‘sun’ |
| | ɲorá- | ‘cane rat’ |
| LL | ɖíde- | ‘donkey’ |
| | kafu- | ‘thorn’ |

Basic roots with a VCVV syllable shape are also relatively rare (<1%):

(7) VCVV noun roots

| | | |
|-----|-------|----------------------------------|
| HHL | íséé- | 'Ise River' |
| | íwáa- | 'Iwa Place' |
| HLL | ódou- | 'day' |
| | útɔɔ- | 'oil' |
| LHH | aríé- | 'small intestine' |
| | ɔtáí- | 'rainy reason' |
| LHL | ɔlí- | 'grass sp.' |
| | otí- | 'divine mystery' |
| LLH | ekéú- | 'muscle fiber' |
| LLL | anɛɛ- | ' <i>Vigna frutescens</i> plant' |

Basic roots with a VCVCV syllable shape are slightly more numerous than some of the shorter syllable types (3%):

(8) VCVCV noun roots

| | | |
|-----|--------|--------------------------------------|
| HLH | ópusí- | 'Opus Mountain' |
| HLL | ídeme- | 'snake' |
| | óbijɔ- | 'rhinoceros' |
| LHH | akáró- | 'palate' |
| | isérá- | 'jackal' |
| LHL | ewédi- | 'bitter wild tuber' |
| | ɔlíri- | 'female hyrax' |
| LLH | akatí- | 'nose, nostril' |
| | ɪɔakí- | ' <i>Portulaca quadrifida</i> plant' |
| LLL | abɛta- | 'Sitatunga antelope' |
| | oŋori- | 'elephant' |

Basic roots with a CVCVV syllable shape are just a little more numerous than the VCVCV ones (5%):

(9) CVCVV noun roots

| | | |
|-----|---------|---------------------|
| HHL | híkó- | 'chameleon' |
| | rórói- | 'waist' |
| HLH | bíróó- | 'bird sp.' |
| | lópeí- | 'small liver lobe' |
| HLL | kídó- | 'Tchagra bird' |
| | kórar- | 'Wait-a-bit acacia' |
| LHH | ḍukáí- | 'mead residue' |
| | timóí- | 'tail' |
| LHL | girúu- | 'locust' |
| | kuléε- | 'elbow' |
| LLH | mutóú- | 'needle' |
| | tsarió- | 'weaver bird' |
| LLL | demio- | 'Wild olive tree' |
| | serei- | 'big calabash bowl' |

Basic roots with a CVVCV syllable shape are also relatively rare (1%):

(10) CVVCV noun roots

| | | |
|-----|-----------|------------------------|
| HHL | tíírí- | 'Acacia tree sp.' |
| | tsúóra- | 'White-thorn acacia' |
| HLH | míókó- | 'mamba (snake)' |
| | sító- | 'Large-leafed albizia' |
| LHH | gwafts'í- | 'giraffe' |
| | kwaárá- | 'baboon troupe' |
| LHL | keídzo- | 'wild tuber sp.' |
| | leúzo- | 'charcoal' |
| LLH | caalí- | 'hearth-stone' |
| | seekó- | 'broth' |
| LLL | meúra- | 'Superb starling' |

As mentioned, there are many roots with a CVCVCV syllable shape (19%):

(11) CVCVCV noun roots

| | | |
|-----|----------|--------------------------------|
| HHL | cúrúku- | ‘bull’ |
| | tsówíri- | ‘Speckled mousebird’ |
| HLH | mókoló- | ‘hardwood tree sp.’ |
| | tábarí- | ‘pool, puddle’ |
| HLL | ḡókɔŋi- | ‘bank, slope’ |
| | tíkoŋu- | <i>Lantana trifolia</i> shrub’ |
| LHH | dzibéri- | ‘axe’ |
| | mmítá- | ‘wild cat’ |
| LHL | duǎfére- | ‘water beetle’ |
| | terégi- | ‘work’ |
| LLH | buboná- | ‘hot coal’ |
| | tabaní- | ‘wing’ |
| LLL | cemeri- | ‘herb’ |
| | dokira- | ‘old honeycomb’ |

Basic roots with a VCVVCV syllable shape are relatively sparse (1%):

(12) VCVCVV noun roots

| | | |
|------|---------|--------------------------------------|
| HLHL | ílekóo- | ‘plant sp.’ |
| | íwɔlɔɔ- | ‘Iwolo Place’ |
| LHHL | aláláa- | ‘Augur buzzard’ |
| | isókói- | ‘ <i>Euphorbia bussei</i> tree’ |
| LHLL | amózaa- | ‘rain termite’ |
| | idékεε- | ‘airplane (< Swahili <i>ndege</i>)’ |
| LLH | iboboí- | ‘bird sp.’ |
| | irɔrɔí- | <i>Maerua triphylla</i> plant’ |
| LLL | adabia- | ‘plant sp.’ |
| | emusia- | ‘ <i>Euclea schimperi</i> tree’ |

Roots with a VCVCVCV syllable shape are also relatively sparse (1.5%):

(13) VCVCVCV noun roots

| | | |
|------|-----------|------------------------|
| HHLH | ókírotí- | ‘bird sp.’ |
| HLHL | ílegúgu- | ‘insect sp.’ |
| LHHL | obóléni- | ‘hip’ |
| | imánáni- | ‘Castor-oil plant’ |
| LHLH | arágwaní- | ‘moon’ |
| LLHH | asunání- | ‘African pencil cedar’ |
| | eruméní- | ‘spear shaft’ |
| LLLH | aṅarasá- | ‘gravel’ |
| | oṅerepé | ‘Rufous beaked snake’ |
| LLLL | adenesa- | ‘bird sp.’ |
| | íkòlta- | ‘uncovered gourd’ |

Basic roots with a VCVCVCV syllable shape are quite numerous (13%):

(14) CVCVCVCV noun roots

| | | |
|------|-------------|----------------------------------|
| HHHH | másálúká- | ‘mashed white-ants’ |
| | mélékúrá- | ‘wild cowpeas’ |
| HLLL | cúkúǵumu- | ‘male Mountain reedbuck’ |
| | kílíṅta- | ‘bull elephant’ |
| HHLH | sáṅamátí- | ‘sandstone’ |
| | túkuléti- | ‘small round gourd’ |
| HLHL | fírítí-ári- | ‘bird sp.’ |
| HLLH | báritsoní- | ‘small black ant’ |
| LHHL | boṅóréni- | ‘red-brown clay’ |
| | tsarátáni- | ‘cleft’ |
| LHLL | rutúduma- | ‘pigeon’ |
| LLHH | bofókóré- | ‘uncastrated goat’ |
| | malakóri- | ‘ <i>Vigna frutescens</i> plant’ |
| LLHL | gaǵukúṅu- | ‘Gad’ukuny clan’ |
| | porutéle- | ‘Catholic friar’ |
| LLLH | mozokodí- | ‘tree sp.’ |
| LLLL | gomojoji- | ‘ <i>Cyperus distans</i> plant’ |

Only one example of noun root with a VCVCVCVV syllable shape has been found: *adējelio-* ‘*Allophylus* plant sp.’. Those with a VCVCVCVCV syllable type are slightly more numerous (<1%) and exhibit two tone melodies. The other six known members of this syllable group either involve reduplication or are clear cognates shared with Teso-Turkana:

(15) VCVCVCVCV noun roots

| | | |
|-------|------------|------------------|
| LHHHH | okíloróró- | ‘queen bee’ |
| LLLHH | irutuméní- | ‘animal foreleg’ |

Many of the nouns with a CVCVCVCVCV syllable shape (5%) involve reduplication, but those that do not include the following:

(16) CVCVCVCVCV noun roots

| | | |
|-------|--------------|-------------------------|
| HLLLL | tíbolokopi- | ‘fingernail’ |
| | tígaramatsi- | ‘elder child’ |
| LLLHH | lelemukání- | ‘handle-less tool’ |
| | tíkorotótó- | ‘aloe vera’ |
| LLLLL | kimɔɔɔɔɔsa- | ‘tree sp.’ |
| | talalidomo- | ‘Black-tipped mongoose’ |

Finally, basic noun roots with the syllable shape CVCVCVCVCVV include such unanalyzable forms as *bílikereté-* ‘Yellow-necked spurfowl’ and *tsóðitsónoó-* ‘bird species’. But most nouns with this many syllables or more fall into the other categories of nouns to which we now turn.

4.1.2 Partially reduplicated roots

A fair number of Ik nouns were formed by partially or fully reduplicating a CV or CVC base. Partial reduplication is not a productive noun-building strategy in today’s Ik. This is shown, for one, by the fact that non-reduplicated counterparts no longer exist for the reduplicated forms. As an example, though the Ik word *jorijoro-* ‘cricket’ has a cognate *c’ooro* in the

Cushitic language Ts'amakko, there is no current form like **ɟoro* or **ɟooro* in Ik. This suggests that at one time, reduplication may have had a variety of meaning-enhancing functions like diminutivization. This section, then, is simply a comment on the historical origin of some synchronic noun roots.

Ik partial reduplication involves copying the first two segments of a basic CVCV root and placing them before the basic root. So the now archaic (*) formula for partially reduplicating noun roots is as follows:

$$(17) \quad *C_1V_1C_2V_2 \quad \rightarrow \quad *C_1V_1-C_1V_1C_2V_2$$

The words in (18) below exemplify nouns reduplicated in this way:

(18) *Partially reduplicated noun roots*

| | | |
|-------|-----------|------------------------------|
| *H-HL | bóbósa- | 'Terminalia brownii perfume' |
| | fófóta- | 'trail' |
| *H-LL | dódoku- | 'malnutrition' |
| | múmuta- | 'moss sp.' |
| *L-HH | titírí- | 'forked pole' |
| | tsítsíná- | 'dipstick' |
| | kekérá- | 'grasshopper' |
| *L-LH | gogomó- | 'chestbone' |

In other instances, petrified affixes (borrowed from other languages) come a) before the reduplicated segments or b) after the reduplicated base. The proposed frozen affixes are shown in parentheses in the following table:

(19) *Partially reduplicated noun roots with frozen affixes*

| | | |
|-----------|-------------|--|
| *(H)-H-HL | (kí)bíbíta- | 'brown lizard sp.' |
| *(H)-L-HH | (sí)lólójá- | 'Dwarf mongoose' |
| *L-H(LL) | sosób(osi)- | 'Sausage tree (<i>Kigelia africana</i>)' |
| *(L)-L-LH | (kɪ)rarápá- | 'layer of slime' |
| *L-L-(LL) | kukus(ení)- | 'underground storage hole' |

4.1.3 Fully reduplicated roots

Neither is full reduplication a productive noun-building process in today's language. But historically, a fair number of Ik nouns look to have been formed by fully reduplicating a CV or CVC base. The copied segments are placed to the left of the base, and any resulting consonant cluster is broken up with an epenthetic vowel (EV). The default epenthetic vowel in Ik is /ɪ, i/ (as it is in Turkana; Dimmendaal 1983:30), but occasionally the epenthetic vowel is an exact copy of the vowel in the reduplicated base. The epenthetic vowel /ɪ, i/ is subject to vowel backness and roundness assimilation, meaning that /ʊ/ and /u/ are also common variants of this vowel. Lastly, if a petrified prefix is present, it remains at the beginning of the word, such that the copied segments come between it and the root:

- (20) $*(V-)C_1V_1V_2 \rightarrow *(V-)C_1V_1-C_1V_1V_2$
 $*(V-)C_1V_1C_2V_2 \rightarrow *(V-)C_1V_1C_2-I-C_1V_1C_2V_2$

Some examples of full CV(V) reduplication include these below:

(21) *Fully deplicated CV(V) noun roots*

| | | |
|-------|--------|---------------|
| *H-LL | dódóo- | 'sheep' |
| *L-HL | koóko- | 'big gourd' |
| *L-LH | cucué- | 'moist chill' |
| *L-LL | babaa- | 'armpit' |
| | didii- | 'weather' |
| | jejei- | 'leather mat' |

And this next set of nouns exemplifies full CVC(V) reduplication:

(22) *Fully reduplicated CVC(V) noun roots*

| | | |
|------------|------------|---------------------|
| *HL-HL | kárákára- | 'Green wood hoopoe' |
| | náganága- | 'monitor lizard' |
| *(L)-HL-LH | akónikóní- | 'bird sp.' |

| | | |
|------------|------------|-----------------------|
| *LL-LH | dorudurá- | ‘black boring insect’ |
| | sarisarí- | ‘bridge of nose’ |
| | təkətəkó- | ‘snail’ |
| *LL-LL | boliboli- | ‘goiter’ |
| | gafigafi- | ‘lung’ |
| *(L)-LL-LL | orikiriki- | ‘large container’ |

4.1.4 Affixed roots

Like any language, Ik has borrowed vocabulary from neighboring languages over the centuries. In many cases, the morphology on borrowed words eroded and/or was lost completely. But in other cases, the origin of certain frozen affixes on Ik nouns can still be traced to their sources either in living languages or reconstructed ancestor languages. Among these affixes are Teso-Turkana gender prefixes, a Nilo-Saharan ‘definitizer’ prefix, a couple of singulative suffixes found areally in Nilo-Saharan and Afroasiatic, a handful of Cushitic singulatives, a couple of Surmic nominal suffixes, and a few other prefixes whose meaning and origin have yet to be discovered.

Many lexical parallels are found between Ik and Eastern Nilotic languages, particularly of the Teso-Turkana sub-group. These parallels account for up to fifty percent of the Ik nouns on record. Some of the parallels are only established through phonological reconstructions, while many others are evident from the now-frozen Teso-Turkana gender prefixes. Teso-Turkana languages have three gender prefixes in the singular and two in the plural:

(23) *Teso-Turkana gender prefixes*

| Singular | | Plural | |
|----------|-----------|--------|-----------|
| ɲa- | feminine | ɲa- | feminine |
| ɲe/ɲɛ- | masculine | ɲi/ɲɪ- | masculine |
| ɲi/ɲɪ- | neuter | ɲi/ɲɪ- | neuter |

In some lects, like the central dialect of Turkana and Karimojong (e.g. the Dodoth dialect), the initial nasal of the singular prefixes is lost except in certain environments (Dimmendaal 1983:222). But in Northern Turkana and Toposa, all these nasals are retained, just as they are when Ik has borrowed from these languages over the generations. Ik absorbed so many nouns with these gender prefixes that it generalized the morphology into a synchronic marker of borrowing: Any noun borrowed into Ik today is given the prefixal syllable /ɲV-/ at the beginning (see ex. 28 below).

The prevalence of these gender prefixes in the Ik lexicon suggests the following historical scenarios: 1) Ik speakers interacted with and borrowed heavily from the more conservative members of the Teso-Turkana cluster (Toposa, Northern Turkana, Nyangatom?). This would rhyme with the oral tradition that Ik descended from Ethiopia by way of northwestern Kenya and southeastern Sudan. Or 2), Ik, like Toposa and Northern Turkana, retain the older Teso-Turkana prefixes that other members of the group have lost or are losing. Which scenario is more accurate depends, in large part, on the relative chronology of migrations for Teso-Turkana and the Kuliak group.

In any event, all the gender prefixes in (23), except the neuter singular, are attested in the Ik nominal lexicon. Despite the fact that many Ik speakers are bilingual in Ik and a Teso-Turkana language, words containing these gender prefixes are analyzed in this grammar as synchronically monomorphemic. This is because Ik grammar does not mark gender on other nouns, so it makes no sense to treat these prefixes as gender markers.

Below are some examples of the Teso-Turkana masculine singular *ɲe-* and feminine singular *ɲa-* on Ik nouns:

(24) *Ik noun roots with a Teso-Turkana singular gender prefix*

| Masculine | | Feminine | |
|-------------|-----------|------------|---------------|
| ɲébwáli- | 'lake' | ɲábaarátí- | 'wrist-knife' |
| ɲéburuburí- | 'lowland' | ɲaburaí- | 'maize' |

| | | | |
|-----------|-------------|-------------|-----------|
| ɲedɛkɛɛ- | ‘sickness’ | ɲákaasóo- | ‘robe’ |
| ɲetíɲána- | ‘crocodile’ | ɲákápírítí- | ‘whistle’ |
| ɲélélí- | ‘corpse’ | ɲakaú- | ‘bow’ |

And then here are some examples of nouns with the plural gender prefixes:

(25) *Ik noun roots with a Teso-Turkana plural gender prefix*

| Masculine/Neuter | | Feminine | |
|------------------|----------------|-----------|------------------|
| ɲíkísilá- | ‘law’ | ɲakíbókú- | ‘fermented milk’ |
| ɲiléétsi- | ‘shame’ | ɲalépána- | ‘fresh milk’ |
| ɲímúú- | ‘twins’ | ɲátɔɔsaá- | ‘dried meat’ |
| ɲísilí- | ‘silky fibers’ | ɲáturí- | ‘flower’ |
| ɲítsaní- | ‘troubles’ | ɲafábu- | ‘placenta’ |

When one of these gender prefixes attaches to a noun root whose first vowel is /ɔ/ or /o/, the prefix vowel typically assimilates totally to the back vowel. This kind of assimilation also occurs in Dhaasanac where, for example, *ɲekor* ‘mongoose’ surfaces as *ɲɔkɔɔ* (Tosco 2001:29):

(26) *Vowel assimilation of Teso-Turkana gender prefixes on Ik roots*

| | | | |
|-------------|---|-------------|---------------|
| ɲɛkɔkɔɔ- | → | ɲɔkɔkɔɔ- | ‘chicken’ |
| ɲékópɛɛ- | → | ɲókópɛɛ- | ‘valley wall’ |
| ɲemórótoto- | → | ɲomórótoto- | ‘python’ |
| ɲásomáa- | → | ɲósomáa- | ‘education’ |
| ɲétsoróni- | → | ɲótsoróni- | ‘latrine’ |

Beyond the regular gender prefixes described above, Teso-Turkana also has locative forms for its singular gender prefixes. These are *lɔ-* for masculine and neuter and *na-* for feminine. They are common in place names like *Lotim* and *Nacakunet* and personal names like *Lolem* and *Nakiru*. These locative gender prefixes can be traced back to non-locative gender markers in earlier Eastern Nilotic; today they are still found in Lotuxo and Maa. Since the Teso-Turkana gender prefixes are a more recent innovation for

nominative and accusative cases, it seems that Ik absorbed some vocabulary in earlier times of contact with Eastern Nilotic (Dimmendaal, p.c.).

Though many Ik nouns with these older Eastern Nilotic prefixes are clearly borrowings, some may only coincidentally begin with the same sequence of segments (*l-* or *na-*). Without further etymological knowledge, it is not always possible to tell the origin of such nouns. But here are some examples:

(27) *Ik noun roots with Teso-Turkana locative gender prefixes*

| Masculine/neuter | | Feminine | |
|------------------|------------------|-----------|--------------------|
| lobúrúji- | ‘mold’ | nadekwela | ‘watermelon’ |
| lobabalí- | ‘drying rack’ | nadépe- | ‘flea’ |
| lobúkején- | ‘stunted growth’ | nakaribá- | ‘husks’ |
| lkaudé- | ‘weevil’ | nakírórí- | ‘sheath’ |
| lɔɔɔzeté- | ‘black fly’ | nalúlí- | ‘sorghum variety’ |
| lopérení- | ‘ghost’ | namedɔɔ- | ‘back of head’ |
| lotsógoma- | ‘plant sp.’ | naréu- | ‘viper sp.’ |
| loúpalí- | ‘cobra’ | natúku- | ‘group discussion’ |

Despite the fact that the gender prefixes have no current grammatical meaning or function in Ik, they are markers of encyclopedic knowledge. Up until very recent times, knowledge of new, modern technologies and concepts only came to the Ik filtered through their Teso-Turkana neighbors. The table in (28) below presents a list of words borrowed into Ik from English and Swahili through Teso-Turkana, probably in the last 150 years:

(28) *Nouns borrowed into Ik from English or Swahili through Teso-Turkana*

| From English | | From Swahili | |
|--------------|----------|--------------|-----------------------|
| ɲábáa- | ‘bar’ | ɲabááti- | ‘luck’ (< bahati) |
| ɲábákete- | ‘bucket’ | ɲábataá- | ‘duck’ (< bata) |
| ɲájálaá- | ‘jail’ | ɲákalámu- | ‘pen’ (< kalamu) |
| ɲálaíni- | ‘line’ | ɲámakási- | ‘scissors’ (< makasi) |

| | | | | |
|--------------|------------|----------|----------|-------------|
| ᵐááíni- | ‘fine’ | ᵐáámaá- | ‘cotton’ | (<mpama) |
| ᵐéáá- | ‘beer’ | ᵐéáí- | ‘tea’ | (<chai) |
| ᵐéáíᵐturiki- | ‘district’ | ᵐémaá- | ‘tent’ | (<hema) |
| ᵐéáíᵐ- | ‘guitar’ | ᵐéáᵐwée- | ‘pig’ | (<nguruwe) |
| ᵐóᵐokáá- | ‘vehicle’ | ᵐóᵐkarí- | ‘sugar’ | (<sukari) |
| ᵐóáá- | ‘dollar’ | ᵐóáá- | ‘gravy’ | (<mboga) |

Besides the Teso-Turkana gender prefixes, the Ik nominal lexicon also exhibits a several singulative suffixes that have widespread areal parallels. The first pair of singulatives to be discussed have the form *-ita-* and *-iti-* (and their [-ATR] allomorphs *-ita-* and *-iti-*). An obvious parallel to these forms is found in Turkana (Dimmendaal 1983:227, 258), and Ik nouns borrowed from Teso-Turkana retain the singulative in the form of *-iti-*. But there seems to be some free variation between the two forms. For example, the word for ‘kind/type’ in Ik is *bonita-* in the singular, but in the variative plural it becomes *boniti-icíká-* where ***bonita-icíká-* would be expected (§4.3.7). For the {-ita-} form, distant Afroasiatic connection is suggested by the Lowland Cushitic language Afar’s singulative *-ta* (Mahaffy, 36). Whatever their etymology, neither singulative is productive in Ik, and so they are both treated as lexicalized affixes. Based on their respective forms, Ik nouns containing them can be divided into two groups:

(29) *Ik nouns with the frozen singulative suffixes -ita- and -iti-*

| {-ita-} | | {-iti-} | |
|-----------|-----------------------|-----------|------------------|
| agita- | ‘metal bead’ | ᵐííᵐ- | ‘bird sp.’ |
| gíᵐita- | ‘razor’ | íkᵐí- | ‘head-pad’ |
| kásíta- | ‘Hooked-thorn acacia’ | ᵐáááíᵐ- | ‘dawn’ |
| kíᵐíᵐita- | ‘bull elephant’ | ᵐáááᵐᵐíᵐ- | ‘soda ash’ |
| kíᵐᵐíta- | ‘Egyptian thorn tree’ | ᵐéáíᵐíᵐ- | ‘tsetse fly’ |
| loríta- | ‘plant sp.’ | ᵐáááááíᵐ- | ‘long grass sp.’ |
| míᵐíta- | ‘wild cat’ | ᵐóᵐíᵐ- | ‘vein’ |

This singulative is also found on an old, formulaic expression that introduces narratives: *kón-ít-ó ódowi*, analyzed as one-SING-INS day:GEN, or, in translation ‘one day’ or ‘once upon a time’. As the singulative is no longer productive, but presumably once was, this saying must be quite ancient .

A second pair of lexicalized singulatives have the forms *-ata-* and *-ati-* (with its [-ATR] allomorph *-at-*). These reflect the So singulative *-at* which Carlin claims is borrowed from Karimojong (1993:74). Indeed, it is also attested in Turkana as *-át* (Dimmendaal 1983:227). Possible Afroasiatic (Cushitic) parallels include the already mentioned *-ta/-yta* of Afar/Saho and the *-te/-at* of El Molo. Regardless of their provenance, this pair of singulatives is no longer productive in Ik today. Nouns containing them can be divided into two groups based on the form of the singulative:

(30) *Ik nouns with the frozen singulative suffixes -ata- and -ati-*

| {-ata-} | | {-ati-} | |
|-------------|---------------------|-------------|------------------|
| akatátí- | ‘gourd lid’ | akatí- | ‘nostril’ |
| kapurató- | ‘vine sp.’ | botsátí- | ‘chisel, awl’ |
| kwaatá- | ‘frog’ | gwalátí- | ‘lip plug’ |
| lɔkatata- | ‘African wild date’ | kukátí- | ‘young primates’ |
| nalɔɔɔzátá- | ‘desert wilderness’ | ɲelíráítí- | ‘sword’ |
| ɲósóókatá- | ‘hole trap’ | sáɲamátí- | ‘sand stone’ |
| takata- | ‘group prayer’ | ts’úbulátí- | ‘stopper, plug’ |

In addition to roots like those in (30), the singulative *-at-* also shows up in a rather unexpected place—between some roots and the plurative I {-íkó-}. In this environment, it may surface as *-ati-* or the reduced form *-a-*. This occurrence indicates that the singulative was at one time productive in Ik, was then lost, but was partially retained with some nouns and a particular plurative. This is analogous to the plurative II suffix {-ítíní-} which consisted historically of the dingulative *-it-* and the plurative {-iní-}. In the following table, note that for *koróbaiko-* ‘calves’, the singulative allomorph *-a-* blocks vowel harmony from dominant [+ATR] pluralizer {-íkó-}:

(31) *Ik nouns with the frozen singulative -a(t)*

| | | | |
|----------|---|---------------|-----------------|
| bɔnání- | → | bɔnán-á-iko- | ‘orphans’ |
| cúrukú- | → | cúruk-a-iko- | ‘bulls’ |
| kɔrɔ́bɛ- | → | kɔrɔ́b-a-iko- | ‘calves’ |
| lobáa- | → | lobá-át-iko- | ‘grandchildren’ |

Finally, it is interesting that in So, a Kuliak sister language of Ik, *-at* is used to singularize nouns that are cognate in Ik where they have general number. For example, the transnumeral *síts^a* ‘hair’ and *tsúts^a* ‘fly (n.)’ in Ik are cognate with So *sij* and *cuc*, respectively. But unlike in Ik, the So ones can be singularized with *-at*, as in *sij-at* ‘hair (sg.)’ and *cuc-at* ‘fly’ (Carlin 1993:74).

Switching now from Nilo-Saharan to Afroasiatic, a couple of endings on Ik noun roots recall various Singulatives found in Dhaasanac. These include *-(V)c*, *-(V)ɲ*, *-ac*, and *-aɲ* (Tosco 2001:75). The next table shows two groups of Ik noun roots based on the general suffixal pattern of *-(V)ɲ* and *-(V)c*:

(32) *Ik noun roots with frozen Cushitic-like singulatives*

| <i>-(V)ɲ</i> | | <i>-(V)c</i> | |
|--------------|-------------------|--------------|-------------------|
| ɓókɔɲi- | ‘slope, bank’ | bakutsí- | ‘chest’ |
| gaɗúkúɲi- | ‘Gad’ukuny clan’ | baratsó- | ‘morning’ |
| iraɲí- | ‘corn cob pieces’ | buratsi- | ‘Bat-eared fox’ |
| kaɓaɲa- | ‘oblong gourd’ | burukutsi- | ‘knee-cap’ |
| lewɛɲi- | ‘ostrich’ | ɓolokotsi- | ‘oblong gourd’ |
| lósuaɲa- | ‘stone anvil’ | ɗeretsa- | ‘kindling’ |
| lɔɓɛɛɲí- | ‘diseased millet’ | galatsi- | ‘Mt. Galats’ |
| lɔwɪɲí- | ‘small tree-bee’ | iwótsí- | ‘mortar’ |
| nasoroɲí- | ‘large intestine’ | karatsi- | ‘stool’ |
| ɲémúkúɲi- | ‘ant sp.’ | komótsá- | ‘elephant trunk’ |
| saɲaɲí- | ‘person’s name’ | ɲégetsí- | ‘leg hairs’ |
| tɔrɔmɪɲa- | ‘porcupine’ | rúgetsí- | ‘hard protrusion’ |

An alternative pathway for these frozen singulatives into Ik is through Didinga, a Surmic language that borders Ik to the northwest. Didinga has both a ‘rare nominalizer’ *-etf* and a singulative *-otf* (De Jong 2004:150-152). Since even today Surmic languages border Cushitic languages in southwest Ethiopia (not far from the present Ik homeland), the ultimate etymological origin of this type of singulative in Ik is not known. Both language groups have had substantial influence on the development of the Ik language.

Whether from Cushitic or Surmic (or both), what appear to be these singulatives show up in a few other Ik noun roots, but in glottalized form:

- (33) *Ik nouns with a frozen glottalized singulative (-Vts')*
- | | |
|-------------|---|
| dililits'á- | ‘bloodsucking gnat sp.’ |
| dololots'í- | ‘soaked sorghum’ |
| gwaíts'í- | ‘giraffe’ |
| kerets'ú- | ‘ant-hill dirt spread to prevent enemies’ |
| kálíts'i- | ‘jaw’ |
| kuts'ats'i- | ‘gland, lymph node’ |

Another likely historical prefix found on Ik noun roots is *ki-* or *kɪ-*. This frozen prefix may be related to the singulative-like prefix in contemporary Turkana that can be seen in the pair *e-ki-dor̩* ‘door’ versus *ɲi-dor-in* ‘doors’ and that has a potential origin in a Nilo-Saharan ‘definitizer’ (Dimmendaal 1983:252). Other regional parallels include the Proto-Southern-Nilotic deverbative marker **kɪ-* (Rottland 1980) and the Proto-Nilo-Saharan preposition/case marker **kɪ* (Dimmendaal, to appear):

- (34) *Ik nouns with the frozen Nilotic prefix /kɪ-/*
- | | |
|------------|-------------------------------|
| kííbíbita- | ‘lizard sp.’ |
| kɪlɔɔba- | ‘wood dove’ |
| kílootóró- | ‘bird sp.’ |
| kinoroti- | ‘peg’ |
| kíryooróo- | ‘White-crested helmet shrike’ |

Yet another frozen nominal prefix has the form *si-* or *sr-*. Besides in Ik, this ‘pre-Nilotic’ prefix is also attested in Turkana in words like *é-sí-dòḡóróḡ* ‘elbow’ and *é-sí-gìrígírìḡ* ‘baboon crest’ (Dimmendaal 1983:253). The following Ik nouns provide a representative sample:

(35) *Ik nouns with the frozen pre-Nilotic prefix /sI-/*

| | |
|-----------|------------------------|
| sídilée- | ‘turtle’ |
| símíídíí- | ‘tiny thing’ |
| sílólójá- | ‘Dwarf mongoose’ |
| sɪŋílá- | ‘small black ant sp.’ |
| síɔtɔ- | ‘Large-leafed albizia’ |

Finally, three other likely frozen prefixes present themselves in the Ik nominal lexicon. These include /a-/, /o-, and /tI-/. Their source languages and original functions have yet to be discovered, but it seems like they may have been markers of gender or definiteness at some point:

(36) *Ik nouns with frozen prefixes of unknown origin*

| | |
|-------------|------------------------|
| <u>/a-/</u> | |
| abúba- | ‘spider’ |
| agita- | ‘metal bead’ |
| akínó- | ‘Greater kudu’ |
| aḡarasá- | ‘gravel’ |
| asunání- | ‘African pencil cedar’ |
| <u>/-o/</u> | |
| obóléni- | ‘hip’ |
| ódɔka- | ‘gate’ |
| ođómori- | ‘male bushbuck’ |
| okílòḡóró- | ‘queen bee’ |
| oḡerepé- | ‘Rufous beaked snake’ |

| | | | |
|----------|----------------|-------------|-----------------|
| Plural: | roba- ‘people’ | roba = ni | ‘these people’ |
| | | **roba = na | ‘this people’ |
| General: | ínó- ‘animal’ | ínwá = na | ‘this animal’ |
| | | ínwá = ni | ‘these animals’ |

Numeric values like the ones evident in (37) are not always obligatorily marked in the nominal system. Number is commonly marked inflectionally with singulatives or pluratives or grammatically with relative pronouns, demonstratives, and subject-agreement, but it is still optional. For example, without modifiers of any kind, the object *rié-* ‘goat’ in (38) has two interpretations with regard to its grammatical number:

- (38) *Tojolata naa riyek.*
 tɔŋól-át-a = naa rié-k^a
 slaughter-3PL-REAL = PST1 goat-ACC
 a) They slaughtered a goat.
 b) They slaughtered goats.

If the noun in question is the subject, its number is marked with subject-agreement suffixes (3SG being null), but this type of marking is defective. For example, in unmarked main clauses, where the verb comes before the subject, both 3SG and 3PL overt subjects are marked as 3SG (null) on the verb. This is true whether grammatical number is encoded generally (39) or with a plurative suffix (40):

- (39) *Bwaanukotaa inw.*
 buan-ukot-á-á ínw-^a
 disappear-COMP[3SG]-REAL-PRF animal(s)-NOM
 a) The animal has disappeared.
 b) The animals have disappeared.

- (40) *Bwaanukotaa ebitin.*
 buan-ukot-á-á éb-itín-Ø
 disappear-COMP[3SG]-REAL-PRF gun-PL-NOM
 The guns have disappeared.

But if the subject is left implicit (41), or if it is a pronoun (42), then subject-agreement marking must reflect the number of the subject:

- (41) *Bwaanukotak.* *Bwaanukotatak.*
 buan-ukot-á-k^a buan-ukot-át-a-k^a
 disappear-COMP[3SG]-REAL-PRF disappear-COMP-3PL-REAL-PRF
 It has disappeared. They have disappeared.

- (42) *Bwaanukotata nt.*
 buan-ukot-át-a-a ñt-^a
 disappear-COMP-3PL-REAL-PRF they-NOM
 They have disappeared.

Another interesting feature of Ik number-marking on verbs is what Serzisko called the ‘coordinated subject’ (1992:192). A coordinated subject is a singular subject marked as plural on the verb because it is extralinguistically accompanied by one or more other entities. For example in (43) below, the subject of the clause is semantically plural (Teko and his wife), and this is reflected by the plural marking on the verb. But syntactically, the subject is singular (*Tekoa*), the accompaniment of his wife being encoded by the oblique case noun phrase *ń¹da ntsí-cékⁱ*:

- (43) *Kaini Tekoa kedo kon nda ntsicek.*
 ka-ini tekó-a ké¹d-o kɔn-a ń¹da ntsí-cékⁱ
 go-SEQ[3PL] Teko-NOM unit-INS one-REAL with he-wife[OBL]
 And Teko went together with his wife.

The kind of inherent number ambiguity shown in (37) is only an issue with nouns that have a general or neutral numeric value. For most nouns, a bare form (or one with a singulative) implies singularity, while a plurative (or bare plural form opposite a singulative) implies plurality. This is where the language's nominal number-marking inflectional system comes into play.

Ik has a two-term inflectional system for marking number on nouns. At the notional level, this encodes singular and plural. Singular in this system means 'one', and plural means 'more than one'. The two terms—singular and plural—can be mapped on the surface level using three different strategies: 1) a zero-marked, basic singular and a plurative-marked plural, 2) a possessive singulative-marked singular and a possessive plurative-marked plural, or 3) a singulative-marked singular with a basic, zero-marked plural. The table in (44) show how these strategies are mapped out:

(44) *Ik nominal number-marking strategies*

| | Singular | Plural |
|------------|----------|-----------------------|
| Strategy 1 | -∅ | -íkó-/ -ítíní-/ -ika- |
| Strategy 2 | (-edε-) | -mɪ- |
| Strategy 3 | -ŷma- | -∅ |

The plurative {-ika} in Strategy 1 is the only fully productive number-marking nominal suffix in the language. It pluralizes polymoraic roots, and any newly borrowed noun is polymoraic by virtue of its having the frozen prefix *nV*-. By the same token, the other two Strategy 1 pluratives are non-productive, since the nouns they pluralize are in a fixed lexical set. Strategy 2 is semi-productive in that it only applies to semantically specified subsets of nouns. The parentheses around the singular form of Strategy 2 signify that while the plural is always the plural of the singular, the plural forms do not always have a singularized counterpart. Lastly, Strategy 3, while still operative in Teso-Turkana, is also no longer productive in the Ik of today.

These singulatives and pluratives are described in the next several sections. They are shown mostly in their underlying and therefore hyphenated forms to expose their final vowels that may be deleted in the nominative case (isoation form). All the Ik pluratives have parallels in wider Nilotic, for example Turkana. Like in Turkana, all Ik number-marking suffixes delete the final vowel of the nominal stem (Dimmendaal 1983:229-232). By way of introduction, these suffixes are summarized in the following table:

(45) *Ik nominal number-marking suffixes*

| Suffix | Abbrev. | Name | Comments |
|-----------|---------|------------------------|------------------|
| {-íkó-} | PL | Plurative I | [+ATR]-dominant |
| {-ítíní-} | PL | Plurative II | monomoraic stem |
| {-ika-} | PL | Plurative III | polymoraic stem |
| {-inɪ-} | POSS.PL | Possessive plurative | possession |
| {-ɛdɛ-} | POSS.SG | Possessive singulative | possession |
| {-Vma-} | SING | Human singulative | human nouns only |

4.2.1 *Plurative I*

The Ik plurative I {-íkó-} is found pluralizing both monomoraic and polymoraic nominal stems. It is not productive: The nouns it pluralizes belong to a fixed lexical set that, as far as can be observed, does not admit new members. The plurative I seems to be a parallel of the Turkana pluralizer -íyó (Dimmendaal 1983:235), which if true, would suggest that the intervocalic /k/ was retained in Ik and lost in Turkana.

In both languages, these suffixes are dominantly [+ATR]. For Ik, this means that the [+ATR] harmony spreads leftward to the whole stem unless /a/ intervenes. In this case, the /a/ is an instance of the frozen singulative -á(t) (see ex. 31 above). The plurative I causes and undergoes tonal alternations. The tone changes it causes are due to replacive morphological tone, and the changes it undergoes are due to melodic template completion. For example, it changes the tones of wɛla- ‘small opening’ to H in wél-íkwa. And after the

noun *fátára-* with its HHL melody, the suffix surfaces as /-íkó-/. These and several other tone combinations are shown in the following table:

(46) *Plurative I {-iko-} according to tone melody*

| # | Singular | → | Plural | |
|---|-----------|---|---------------|---------------------|
| 1 | HH | → | HH-H | |
| | kóré- | → | kór-íkó- | ‘ladle(s)’ |
| | ɲérá- | → | ɲér-íkó- | ‘mingling stick(s)’ |
| 2 | HL | → | H-LH | |
| | fádo- | → | fád-íkó- | ‘scale(s)’ |
| | wázo- | → | wáz-íkó- | ‘young female(s)’ |
| 3 | LL | → | H-HH | |
| | pádo | → | pád-íkó- | ‘small cave(s)’ |
| | wela- | → | wél-íkó- | ‘small opening(s)’ |
| 4 | LH | → | H-HH | |
| | kólá- | → | kól-íkó- | ‘castrated goat(s)’ |
| | rɔ́á- | → | ró-íkó- | ‘desert(s)’ |
| 5 | HHL | → | HH-(L)LH | |
| | cúríku- | → | cúrík-aikó- | ‘bull(s)’ |
| | fátára- | → | fátár-íkó- | ‘vertical ridge(s)’ |
| 6 | LHL | → | LH-(L)LH | |
| | kɔ́rɔ́bɛ- | → | kɔ́rɔ́b-aikó- | ‘calf(ves)’ |
| | lokúu- | → | lokú-aikó- | ‘drinking gourd(s)’ |
| 7 | LLH | → | LH-HH | |
| | baratsó- | → | baráts-íkó- | ‘morning(s)’ |
| | ɔ́rɔ́rɔ́- | → | orór-íkó- | ‘stream(s)’ |

Since the final vowel of {-íkó-} is non-low, it is susceptible to desyllabification in the nominative case (see §2.4.3 and §6.3.2). For example, this means that in the nominative case the word for ‘bulls’ surfaces as *cúríkaikw^a* and the word for ‘small openings’ as *wélíkw^a*.

4.2.2 Plurative II

The plurative II {-ítíní-} is made up etymologically of the archaic singulative *-it-* and the plurative {-mɪ-}, both of which have parallels in Nilotic languages. But synchronically, this plurative is analyzed as monomorphemic in Ik because the corresponding singular forms do not bear the singulative *-it-*. For example, though the plural of ‘dog’ is *ɲók-ítíní*, the singular is *ɲók^a*, not ***ɲók-ít^a*. At some point in the past, the once-productive singulative attached to the plurative and then later dropped out of usage. This habit of retaining an archaic singulative that only appears with a plurative was also noted in the case of *-a(t)* attaching to {-íkó-} (§4.2.1).

The plurative II suffix is recessive in terms of vowel harmony, making */-ítíní-/* an allomorph on [+ATR] stems. And in terms of tone behavior, {-ítíní-} combines with bisyllabic noun roots to produce the five composite tone melodies shown in (47) below. Like the plurative I, the plurative II both causes and undergoes tonal alternations. The tone changes it causes are due to replacive morphological tone, and the changes it undergoes are due to melodic template completion. For example, it changes the tones of *lára-* ‘tobacco pipe’ to H in *lár-ítíní*. And after the noun *ído-* ‘breast’ with its HL melody, the suffix surfaces as */-ítíní/*. An interesting distinction occurs below between #3 and #4: Although the root melody of the nouns in #4 are LL, they do not take a H tone with the plurative II as they do in #3, presumably because the depressor consonants /b/ and /g/ prevent H-tone docking. But this is excepted by *zót-ítíní* ‘chains’ which has both a H tone in the plural and begins with the depressor consonant /z/:

(47) *Plurative II {-ítíní-} according to tone melody*

| # | Singular | | Plural | |
|---|----------|---|---------------|------------|
| 1 | HH | → | H- HHH | |
| | ɲókí- | → | ɲók-ítíní- | ‘dog(s)’ |
| | ójá- | → | ój-ítíní- | ‘wound(s)’ |
| 2 | HL | → | H- LHH | |

| | | | | |
|---|-------|---|------------|-------------------|
| | ído- | → | íd-itíní- | ‘breast(s)’ |
| | nébu- | → | néb-itíní- | ‘body(ies)’ |
| 3 | LL | → | H-HHH | |
| | lára- | → | lár-ítíní- | ‘tobacco pipe(s)’ |
| | zɔta- | → | zót-ítíní- | ‘chain(s)’ |
| 4 | LL | → | L-LHH | |
| | bosi- | → | bos-itíní- | ‘ear(s)’ |
| | gura- | → | gur-itíní- | ‘Sickle bush(es)’ |
| 5 | LH | → | L-LHH | |
| | aká- | → | ak-itíní- | ‘mouth(s)’ |
| | rukú- | → | ruk-itíní- | ‘hump(s)’ |

Plurative II is one of two Ik pluratives that is selected on the basis of mora-counting as a general principle. This principle stipulates that the pluralized stem have three moras in its isolation form (i.e. in the nominative case). The ‘stem’ in this case is a noun root minus its final vowel, since the final vowel is first subtracted by the plurative suffix. Plurative selection based on mora-counting is attested in wider Nilotic, for example in Dholuo and Turkana. But the mora-counting of Turkana pluratives differs from that of Ik in this regard: The plurative a Turkana nominal stem selects depends on the *input* of pluralization—the singular stem’s (root plus gender prefix) mora count (plus a few other factors; see Dimmendaal 1983:226). But in Ik, it is the *output*, not the input of pluralization that is constrained by the mora count (Maarten Mous, p.c.). In other words, Ik morpho-phonology tries to keep the plural form of shorter noun roots at three moras, no more, no less:

(48) *Mora-counting pluralization in Turkana and Ik*

| Turkana | | Ik | |
|---------|---------------|------------|---------|
| Input | Output | Input | Output |
| 2 moras | CV-CVC-ín | CVC-itín | 3 moras |
| 3 moras | CV-CVVC-à(-o) | CVVC-ik | 3 moras |
| 3 moras | CV-CVCVC-í` | CVCV(C)-ik | 3 moras |

With regard then to the Ik plurative II, it accords with the Turkana plurative *-ín* both in etymology and in producing plural nouns with three moras. What Ik lacks in terms of a mora-supplying gender prefix (that Turkana has), it makes up for by preserving the fossilized singulative *-it* along with *-ín*.

The table below presents a sample nouns with different syllable structures pluralized with *{-ítíní-}*. Recall that the statement about mora-counting applies only to the isolation forms of plural nouns (nominative case, final form). This is because in other cases and contexts, the number of moras a pluralized stem has varies. For example, the non-final ablative case form of ‘dogs’ is *ɲókítíníó*, which has a total of five moras instead of three.

(49) *Plurative II {-ítíní-} according to syllable type*

| | Singular | → | Plural | |
|-------|----------|---|------------|---------------------|
| VCV- | aká- | → | ak-ítíní- | ‘mouth(s)’ |
| | édi- | → | éd-itíní- | ‘name(s)’ |
| | oní- | → | on-ítíní- | ‘abandoned village’ |
| CVV- | ɗau- | → | ɗaw-ítíní- | ‘knife(ves)’ |
| | kíj- | → | kí-ítíní- | ‘strap(s)’ |
| | séí- | → | sé-ítíní- | ‘quartz (pieces)’ |
| CVCV- | baro- | → | bar-ítíní- | ‘herd(s)’ |
| | nébu- | → | néb-itíní- | ‘body(ies)’ |
| | ɲila- | → | ɲíl-ítíní- | ‘gizzard(s)’ |

4.2.3 Plurative III

The plurative III *{-ika-}* is a likely reflex of both the Proto-Southern-Nilotic plurative *-ka* (Rottland 1980) and the Teso-Turkana *-à* (Dimmendaal 1983:235). As a counterpart of *{-ítíní-}*, *{-ika-}* is used to pluralize polysyllabic noun roots (minus final vowel), producing a nominative-case plural form with three moras (see ex. 48 above). Beyond this, it is the required plurative when pluralization yields an output with four or more moras. Since a) most words borrowed into Ik come through Teso-Turkana

and b) many Teso-Turkana words are polymoraic, the plurative III is the plurative of choice for borrowed words and therefore the only fully productive plurative in the Ik language today. The following table offers an overview of the syllable types of nouns that the plurative III pluralizes:

(50) *Plurative III {-ika-} according to syllable type*

| | Singular | → | Plural | |
|---------|-------------|---|----------------|-------------------|
| VCVC | akátí- | → | ákát-ika | ‘nostril(s)’ |
| | itúbá- | → | itúb-íka- | ‘trough(s)’ |
| | ofurí- | → | ofúr-íka- | ‘pouch(es)’ |
| CVCV | góʒou- | → | góʒo-ika- | ‘mist(s)’ |
| | ƙóʒó- | → | ƙóʒó-ika- | ‘calabash(es)’ |
| | mutúú- | → | mutú-íka- | ‘needle(s)’ |
| CVCVC | karatsi- | → | káráts-ika- | ‘stool(s)’ |
| | kesení- | → | késén-ika- | ‘shield(s)’ |
| | tsírímú- | → | tsírím-íka- | ‘metal(s)’ |
| CVCVCV | cíkóroí- | → | cíkóro-ika- | ‘boundary(ies)’ |
| | naséméé- | → | nasémé-ika- | ‘oblong gourd(s)’ |
| | ɲétsúpaá- | → | ɲétsúpa-ika- | ‘bottle(s)’ |
| CVCVCVC | bolíboli- | → | bolíból-ika- | ‘goiter(s)’ |
| | ɲaɲalúra- | → | ɲaɲalúr-íka- | ‘kidneys’ |
| | ts’úbulátí- | → | ts’úbulát-íka- | ‘plug(s)’ |

The plurative III is recessive in terms of vowel harmony, making /-ika-/ an allomorph on [+ATR] stems. In terms of tonal behavior, the plurative III exhibits both melodic template completion and replacive grammatical tone. For example, although the underlying tone of {-ika-} is LL, it becomes LH after a LHH noun, as when *títírí-* ‘forked pole’ → *títíríka-* in the plural. And as an example of replacive grammatical tone, the L-toned noun *cemeri-* ‘herb’ is pluralized with {-ika-} to produce *cémér-íka-*. These and several other plurative III melodies are presented below in (51):

(51) *Plurative III {-ika} according to tone melody*

| # | Singular | → | Plural | |
|----|----------|---|-------------|-------------------------|
| 1 | HHL | → | HH-LL | |
| | ḃóḃúsa- | → | ḃóḃús-ika- | 'Terminalia perfume(s)' |
| | lótḃa- | → | lótḃ-ika- | 'tobacco(s)' |
| 2 | HLH | → | HL-LL | |
| | ḡáturí- | → | ḡátur-ika- | 'flower(s)' |
| | ḡámalí- | → | ḡámal-ika- | 'bullet(s)' |
| 3 | HLL | → | HL-LL | |
| | kúbura- | → | kúbur-ika | 'big container(s)' |
| | gózou- | → | gózou-ika- | 'mist(s)' |
| 4 | LHH | → | LH-HL | |
| | iwótsí- | → | iwóts-íka- | 'mortar(s)' |
| | lókódá- | → | lókód-íka- | 'small granary(ies)' |
| 5 | LHL | → | LH-LL | |
| | tsakúde- | → | tsakúd-ika- | 'firestick(s)' |
| | ḡulé- | → | ḡulé-ika- | 'elbow(s)' |
| 6 | LLH | → | HH-LL | |
| | ḡyókumó- | → | ḡyókúm-ika- | 'neck(s)' |
| | kupukú- | → | kúpúk-ika | 'pestle(s)' |
| 7 | LLH | → | HL-LL | |
| | gubesí- | → | gúbes-ika- | 'thigh(s)' |
| | sugurá- | → | súgur-ika- | 'wind(s)' |
| 8 | LLL | → | LH-HL | |
| | cemeri- | → | cemér-íka | 'herb(s)' |
| | tsoriti- | → | tsorít-íka- | 'vein(s)' |
| 9 | LLL | → | HH-LL | |
| | poroti- | → | pórót-ika- | 'bent stick-tool(s)' |
| | ḡrḡku- | → | ḡrḡk-ika- | 'toy spear(s)' |
| 10 | LLL | → | HL-LL | |
| | bubuu- | → | búbu-ika- | 'belly(ies)' |
| | kabaḡa- | → | kábaḡ-ika- | 'rag(s)' |

Some exceptions occur as to the notion that {-ika-} pluralizes only nouns with more than two syllables in the base form. All the recorded exceptions are listed below. In a few of them, for example *gwasá-* ‘stone’, the semi-vowel /w/ is found, suggesting that in these cases /w/ is counted as one mora when the plurative is selected based on mora-counting. In others like *séda-* ‘garden’ and *hoo-* ‘hut’, the depressor consonants /d/ or /h/ may also be counted as moraic. In others, though, like *kíjá-* ‘land’, there is no synchronic hint as to why it is pluralized as *kíjík* instead of ***kíjítín*.

(52) *Plurative III {-ika} with bisyllabic noun roots*

| Singular | | Plural | |
|----------|---|-----------|-----------------------|
| awá- | → | áw-ika- | ‘home(s)’ |
| gwasá- | → | gwas-ika- | ‘stone(s)’ |
| hoo- | → | ho-ika | ‘hut(s)’ |
| kíjá- | → | kij-ika- | ‘land(s)’ |
| kwará- | → | kwar-ika- | ‘mountain(s)’ |
| kwaza- | → | kwáz-ika- | ‘item(s) of clothing’ |
| kwetá- | → | kwet-ika- | ‘arm(s)’ |
| ríjá- | → | ríj-ika- | ‘forest(s)’ |
| séda- | → | séd-ika- | ‘garden(s)’ |

4.2.4 Suppletive plurals

A handful of Ik plural nouns must be analyzed as suppletive in synchronic Ik grammar because the singular and plural terms are not derived from each other in any productive way. In the first, third, and fourth rows of (53), each term in the pair is unrelated to the other in any recognizable fashion. However, the second and fifth pairs suggest the following explanations: 1) The plural form of *cekí-* ‘woman’—*číkámá*—seems to have been formed historically by a plurative parallel to the Dhaasanac plurative *-ia(a)m* (Tosco 2001:83). And 2) the relationship between *kóróbáá-* ‘thing’ and *kúríbáá-* ‘things’ is a kind of ablaut found elsewhere in the grammar only between the singular demonstrative pronoun *dí-* and the plural *dí-* (see §5.5).

(53) *Ik suppletive plural nouns*

| | | | | |
|-----------|----------|---|-----------|------------|
| ámá- | ‘person’ | → | roba- | ‘people’ |
| cekí- | ‘woman’ | → | cikámá- | ‘women’ |
| ɛakwá- | ‘man’ | → | ɲɔtɔ- | ‘men’ |
| imá- | ‘child’ | → | wicé- | ‘children’ |
| kóróbádi- | ‘thing’ | → | kúrúbádi- | ‘things’ |

4.2.5 *Possessive plurative*

The Ik possessive plurative {-mɪ-} may be a parallel of the Teso-Turkana plurative *-in* (Dimmendaal 1983:225). It is the plurative operating under Strategy 2 introduced in (44) above, with {-ɛɛ-} as its singulative counterpart (see next section). The possessive plurative fuses plurality and possession into one morpheme. As a plurative, {-mɪ-} pluralizes the stem to which it attaches, not the implied possessing entity. That entity can be singular or plural. For example, the word *ak-m* can mean either a) ‘its den entrances’ or b) ‘their den entrances’. And since {-mɪ-} is a marker of possession, *ak-m* cannot simply mean ‘den entrances’ but rather ‘den entrances’ associated with some person, or in this case, some animal.

Although it connotes plurality, {-mɪ-} alone cannot pluralize just any noun. Nouns that are pluralized by {-ika} must retain that suffix before the possessive plurative is added. For example, the word meaning ‘its branches’ must appear as *kwet-ik-m* not ***kwet-m*. But nouns that are pluralized with {-ítíní-} must first drop that suffix before the possessive plurative is added. This seems to stem from a prohibition against having the morpheme {-mɪ-} occurring twice in the same word. For example, the word meaning ‘their den entrances’ must appear as *ak-m* rather than ***ak-itín-ín*.

The possessive plurative is only semi-productive in that it pluralizes nouns restricted to certain semantically specified sets. These include schemas of inalienable possession like 1) whole-part relationships (e.g. body parts, 2)

kinship (blood and marriage relations), and 3) associated persons or things. Examples of {-ini-} encoding a whole-part relationship include:

(54) Possessive plurative and a whole-part relationship

| | |
|--------|--------------------------------|
| ak-in | ‘its/their openings’ |
| ekw-in | ‘its/their seeds (lit. ‘eyes’) |
| ik-in | ‘their heads’ |
| jír-ín | ‘its/their remainders’ |
| kwa-in | ‘its/their edges’ |

And examples of {-inɪ-} encoding kinship relations include:

(55) Possessive plurative and kinship relations

| | |
|-----------|--------------------------|
| abáŋ-ín | ‘my paternal uncles’ |
| momó-ín | ‘my maternal uncles’ |
| ŋgó-ím-ín | ‘our siblings’ |
| táta-ín | ‘my paternal aunts’ |
| wik-in | ‘his/her/their children’ |

And lastly, below are some examples of {-inɪ-} encoding associated persons. When the possessive plurative is used to pluralize terms of associated people, it is usually translated as ‘those of X’ in Ugandan colloquial English, since there is no British or American equivalent. Other possible translation options include ‘X’s people’ or ‘those associated with X’:

(56) Possessive plurative and associated persons

| | |
|-----------|--------------------|
| Ámba-ín | ‘those of Amber’ |
| Lomerí-ín | ‘those of Lomeri’ |
| Lotsul-ín | ‘those of Lochul’ |
| Nacwéŋ-ín | ‘those of Nacweny’ |
| Tekó-ín | ‘those of Teko’ |

On the side of vowel harmony, the possessive plural is recessive, making /-ini-/ an allomorph on [+ATR] stems. The tone melodies it produces with noun stems are summarized in (57):

(57) *Possessive plural {-mɪ-} according to tone melody*

| # | Singular | | Plural | |
|---|----------|---|------------|--------------------------|
| 1 | LH | → | L-LL | |
| | iká- | → | ik-ini- | ‘their heads’ |
| | wicé- | → | wik-ini- | ‘his/her/their children’ |
| 2 | LL | → | H-HL | |
| | basa- | → | bás-íni- | ‘its/their rays/spots’ |
| | sowa- | → | sów-íni- | ‘its/their barbs’ |
| 3 | LHL | → | LH-LL | |
| | leúzo- | → | leúz-ini- | ‘its/their charcoal’ |
| 4 | LHL | → | LH-HH | |
| | abáŋɪ- | → | abáŋ-íni- | ‘my fathers’ |
| | tekóo- | → | tekó-íni- | ‘those of Teko’ |
| 5 | LLH | → | HL-LL | |
| | kabasá- | → | kábas-ini- | ‘its/their flour’ |
| 6 | HLL | → | HL-HH | |
| | tátaa- | → | táta-íni- | ‘my paternal aunts’ |

4.2.6 Possessive singulative

The possessive singulative {-eɗɛ-} has Cushitic parallels in Dhaasanac *-íet*, Somali *eed*, and Somali/Arbore *-et'*—all of which are related to possession (Tosco 2001:97). Like its plurative counterpart, the possessive singulative fuses singularity and possession into one morpheme. Its singularizes the stem to which it attaches and encodes the notion that the stem is associated with some entity. That entity may be singular or plural. For example, the word *ak-ed^a* can mean either a) ‘its den entrance’ or b) ‘their den entrance’.

Also like the possessive plurative, {-ede-} is used to express a) whole-part relationships and b) relationships of association. Kinship relations are not as commonly encoded by {-ede-} as they are with {-ini}, but some forms are found, for example *dzak-ed^a* ‘small child’ and *jágw-ed^a* ‘his/her/their daughter’. In the whole-part semantic schema, the {-ede-} is often used in relational nouns (§4.3.8), for example in *gwaríéda ho^e* ‘the top of the house’.

(58) *Possessive singulative and semantic schemas*

| Whole-Part | |
|----------------------------------|---|
| ák ^w -éd ^a | ‘its inner part’ |
| de-ed ^a | ‘its base (lit. ‘foot’) |
| ik-ed ^a | ‘its head’ |
| kan-ed ^a | ‘its back (part)’ |
| káts-éd ^a | ‘its front part’ |
| Association | |
| ám-éd ^a | ‘its/their owner’ |
| kíj-éd ^a | ‘his/her/their land (i.e. nationality)’ |
| legé-ed ^a | ‘his/her madness (mental illness)’ |
| mucé-éd ^a | ‘its/their trail (animal tracks)’ |
| taṅé-éd ^a | ‘its/their companion’ |

The possessive singulative is recessive in terms of vowel harmony, making /-ede-/ an allomorph on a [+ATR] stem. Tonally, it undergoes melodic template completion, for example when its LL melody changes to HL in *ák^w-éde-* ‘inside it’. It may also replace tones, as in *nákáf-ede-* ‘its point’:

(59) *Possessive singulative {-ede} according to tone melody*

| # | Singular | | Plural | |
|---|--------------------|---|----------|----------------------|
| 1 | HH | → | H-HL | |
| | kíj ^a - | → | kíj-éde- | ‘his/her/their land’ |
| 2 | HL | → | H-LL | |
| | óza- | → | óz-ede- | ‘its bottom (part)’ |

| | | | | |
|----|---------|---|------------|--------------------------------|
| 3 | LH | → | L-LL | |
| | dέá- | → | dε-εde- | ‘its base’ |
| | kaná- | → | kan-ede- | ‘its back (part)’ |
| 4 | LH | → | H-HL | |
| | akó- | → | ákʷ-édε- | ‘its inside (part)’ |
| 5 | LHL | → | LH-LL | |
| | gwarí- | → | gwarí-éde- | ‘its top (part)’ |
| | kɔ́fɔ- | → | kɔ́fɔ-ede- | ‘its calabash (first harvest)’ |
| 6 | LLH | → | LH-HL | |
| | muceé- | → | mucé-éde | ‘its trail’ |
| 7 | LLH | → | HH-LL | |
| | nakafú- | → | nákáf-ede- | ‘its point (lit. ‘tongue’) |
| 8 | LHH | → | LL-HL | |
| | morókú- | → | morok-éde- | ‘its throat (gun barrel)’ |
| 9 | LHH | → | | |
| | ɲabéri- | → | ɲáber-ede- | ‘its side (lit. ‘rib’) |
| 10 | LL | → | H-HL | |
| | ǰír- | → | ǰír-éde- | ‘its remainder’ |
| 11 | LL | → | L-LL | |
| | waǰ- | → | waǰ-ede- | ‘its beginning point’ |
| | bíba- | → | bíb-ede- | ‘its egg-yolk’ |

4.2.7 Human singulative

The second singulative to be discussed is {-Vma-} and is called the ‘human singulative’ because it is found only with nouns referring to humans (Heine & König 1996:20). It seems to be related etymologically to the agentive (§4.3.4) and the patientive suffix (§7.2.4), both of which likely originate in the noun root *ámá-* ‘person’. The first vowel in {-Vma-} is usually /a/ but can also be /ɔ/ when immediately preceded by /ɔ/. The human singulative singularizes bare plural nouns like these four in (60):

(60) *Human singulative {-Vma-}*

| Plural | | | Singular | |
|------------|-------------|---|---------------|-------------|
| jáká- | ‘elders’ | → | ják-áma- | ‘elder’ |
| kéa- | ‘soldiers’ | → | ké-ama- | ‘soldier’ |
| lɔŋótá- | ‘enemies’ | → | lɔŋót-óma- | ‘enemy’ |
| ŋímókókaá- | ‘young men’ | → | ŋímókóká-áma- | ‘young men’ |

Because underived plural counterparts exist for the singularized forms in (60), the human singulative is treated as a synchronic morpheme. However, *-Vma-* sequences like this suffix are found on a number of nouns in the Ik for which basic plural forms have not been found. It seems probable, then, that this singulative has also been lexicalized in nouns like the following:

(61) *{-Vma-} as a frozen suffix*

| | |
|------------|-----------------------------------|
| lɔtsóɔma- | ‘grass sp.’ |
| ɲékútama- | ‘leather oil container’ |
| ɲéɲamá- | ‘cartilage’ |
| rutúduma- | ‘pigeon’ |
| sakámá- | ‘liver’ |
| tatanáma- | ‘what’s-his-name’ |
| ts’ókómá- | ‘ <i>Sclerocarya birrea</i> tree’ |
| ts’úɔramá- | ‘medicinal tree sp.’ |
| ugwamá- | ‘sibling-in-law’ |

4.2.8 *Non-countable mass nouns*

A further subset of Ik nouns are singular in form but lexically specified as plural. They are interpreted as plural by any plural modifiers that may accompany them. These are non-countable mass nouns that include liquids, powders, and other particulate elements. Some of the more commonly heard non-countable mass nouns include the following, where the plural demonstrative {=ni} indicates that the grammar treats them as plural:

(62) Noun-countable mass nouns

| | | Plural { = ni } | Sing. { = na } | |
|---------|---------|-----------------|----------------|--------------|
| búré- | ‘dust’ | búra = ni | **búra = na | ‘this dust’ |
| cué- | ‘water’ | cua = ni | **cua = na | ‘this water’ |
| ído- | ‘milk’ | ídwá = ni | **ídwá = na | ‘this milk’ |
| kabasá- | ‘flour’ | kabasa = ni | **kabasa = na | ‘this flour’ |
| mesε- | ‘beer’ | mesa = ni | **mesa = na | ‘this beer’ |
| sea- | ‘blood’ | sea = ni | **sea = na | ‘this blood’ |
| ts’úde- | ‘smoke’ | ts’úda = ni | **ts’úda = na | ‘this smoke’ |

4.2.9 General number nouns

Lastly, many Ik nouns naming things in the natural world, like plants, birds, and animals, fall under the category of general number nouns. That is, they are not specified for a numeric value in the lexicon. They can be used either as singular or plural and then take the appropriate modifiers for either number. In the following data set, three representative general number nouns are given with both singular and plural non-past demonstratives:

(63) General number nouns

| | |
|------------|----------------------------|
| áts’á = na | ‘this Sycamore fig tree’ |
| áts’á = ni | ‘these Sycamore fig trees’ |
| bíba = na | ‘this egg’ |
| bíba = ni | ‘these eggs’ |
| gwaa = na | ‘this bird’ |
| gwaa = ni | ‘these birds’ |

Such number neutrality on nouns is characteristic of Cushitic languages (Mous 2012:361) and may reflect their ancient influence on Ik.

4.3 Compounds

Besides the number-marking suffixes described in §4.2 and the case suffixes described in §6.2, Ik has no other nominal affixes in the strict sense. The grammar compensates for this relative dearth of nominal morphology by making extensive use of compounds. The analytical division between suffixes and the second (or final of three) term in a compound (N₂) is made on the basis of the following points: 1) A suffix subtracts the stem-final vowel, while the N₂ does not. 2) A suffix may (and often does) cause tonal changes on the stem, while the N₂ never does. An exception to the suffix-N₂ distinction is found in those case suffixes that preserve the root-final vowel, thereby violating point (1) above. However, those same case suffixes do not cause tonal changes on the root (see §6.2). As discussed in §6.2.2, the case suffixes may in fact be eroded N₂ postpositions, now representing perhaps an intermediary point between an N₂ and a suffix.

And so the division drawn in this chapter on nouns between suffixed nouns (§4.2) and compounds (§4.3) is structural rather than semantic. Some semantic notions straddle the suffix-N₂ division. For example, plurality is encoded both by the plurative suffixes described in §4.2 and the plurative compound constructions described in this section. The semantic notions of diminutiveness and agentiveness, as two further examples, are encoded by compounds whose N₂ are the words for ‘child/children’ and ‘person/ik’, respectively. But it is difficult to tell whether and to what degree the diminutive ‘child’ is being grammaticalized since it also exists as a free lexeme on its own. That is why, instead of treating the diminutive as a suffix on the basis of possible grammaticalization, it and other constructions like it are all handled in this chapter devoted to compounds, formally defined.

4.3.1 *Formal properties*

As a noun-building strategy, Ik compounding involves joining two or more (pro)nominal elements together in an associative construction with special formal and semantic characteristics. The formal characteristics include the

following: 1) a phonological word profile with inter-nominal vowel harmony, 2) a tone melody applying over the whole compound rather than its individual elements, 2) a reversed word order—modifier before head—where head before modifier is the norm elsewhere, and 3) a unique case marking whereby the first noun (N_1) take the oblique case and the second noun (N_2) takes whatever case the syntax requires for the whole compound. These formal features show that the construction cannot be called mere ‘juxtaposition’ as it has been in the literature (e.g. Heine & König 1996:35).

The first formal property of compounds to be discussed is vowel harmony. A compound comprises a phonological word which, by definition, allows a degree of vowel harmony (see §3.1.7). The domain of vowel harmony in Ik compounds is across the boundary between N_1 and N_2 . If the first segment of N_2 is the [+ATR] vowel /i/, then it can harmonize the last vowel (if CV-) or the last two vowels (if CVV-) of the N_1 . This is a surface level condition and so is not represented elsewhere in the grammar unless particularly relevant:

(64) *Vowel harmony in compounds*

| Lexical | Post-lexical | |
|-------------------------|---------------|---------------|
| ʒítíní-wík ^a | [ʒítíní-wíkə] | ‘small sores’ |
| kɔfɔ-im | [k’ɔfó-îm] | ‘small gourd’ |
| ɲókəkɔrɔ-ím | [ɲókəkɔrɔ-îm] | ‘chick’ |

Secondly, when two (pro)nominal elements are linked up in a compound, the compound as a whole takes on its own tone melody. Compound-induced tone changes are an instance of melodic template completion: A compound’s melody is determined by the tone melody of the N_1 and the changes its effects on the tone of the N_2 . Some of the different composite melodies that arise in compounds are exemplified in the following tables.

First, when the N_1 is a bisyllabic noun with a HH melody, any bisyllabic nouns it takes as its N_2 will have a LL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a HH-LL tonal template:

(65) *Compound tone melodies with a HH N₁ melody*

| N ₁ | N ₂ | | Compound |
|--------------------|-------------------|---|-------------------------|
| HH | HH | → | HH-LL |
| ínó- 'animal' | síts'á- 'hair' | → | ínó-síts'a- 'fur' |
| ηókí- 'dog' | tsútsá- 'fly' | → | ηókí-tsutsa- 'dog-fly' |
| HH | LH | → | HH-LL |
| kíjǎ- 'earth' | imá- 'child' | → | kíjǎ-ima- 'fairy' |
| ηókí- 'dog' | ets'í- 'feces' | → | ηókí-ets'i- 'ear-wax' |
| HH | LL | → | HH-LL |
| ínó- 'animal' | kwaza- 'clothing' | → | ínó-kwaza- 'leather' |
| dǎnjǎ- 'white-ant' | kitsa- 'heap' | → | dǎnjǎ-kitsa- 'ant-hill' |

Second, when the N₁ is a bisyllabic noun with a LH melody, any bisyllabic nouns it takes as its N₂ will also have a HL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a LH-HL tonal template:

(66) *Compound tone melodies with a LH N₁ melody*

| N ₁ | N ₂ | | Compound |
|----------------|----------------|---|-------------------------|
| LH | HH | → | LH-HL |
| aká- 'mouth' | ámá- 'person' | → | aká-áma- 'talker' |
| ekú- 'eye' | síts'á- 'hair' | → | ekú-síts'a- 'eyelash' |
| LH | LH | → | LH-HL |
| dakú- 'tree' | kwetá- 'arm' | → | dakú-kwéta- 'branch' |
| fetí- 'sun' | ekú- 'eye' | → | fetí-éku- 'East' |
| LH | LL | → | LH-HL |
| dikwá- 'dance' | hoo- 'house' | → | dikwá-hóo- 'dance hall' |
| icé- 'Ik' | hoo- 'house' | → | icé-hóo- 'Ik house' |

Third, when the N₁ is a bisyllabic noun with a LL melody, any bisyllabic nouns it takes as its N₂ will also have a LL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a LL-LL tonal template:

(67) *Compound tone melodies with a LL N₁ melody*

| N ₁ | N ₂ | | Compound |
|----------------|-----------------|---|--------------------------|
| LL | HH | → | LL-LL |
| díde- ‘donkey’ | ɲámá- ‘sorghum’ | → | díde-ɲama- ‘sorgh. var.’ |
| sea- ‘blood’ | ámá- ‘person’ | → | sea-ama- ‘murderer’ |
| LL | LH | → | LL-LL |
| díde- ‘donkey’ | kwatsí- ‘urine’ | → | díde-kwatsi- ‘beer’ |
| bosi- ‘ear’ | ɔká- ‘bone’ | → | bosi-ɔka- ‘ear-bone’ |
| LL | LL | → | LL-LL |
| fiyɔɔ- ‘cow’ | baro- ‘herd’ | → | fiyɔɔ-baro- ‘cow herd’ |
| dáda- ‘honey’ | ɛoo- ‘bag’ | → | dáda-ɛoo- ‘honey bag’ |

Lastly, when the N₁ is a bisyllabic noun with a HL(L) melody, any bisyllabic nouns it takes as its N₂ will have a LL melody, regardless of its input melody (HH, LH, LL, etc.). This is evidence of a HL-LL tonal template:

(68) *Compound tone melodies with a HL(L) N₁ melody*

| N ₁ | N ₂ | | Compound |
|----------------|----------------|---|---------------------------|
| HLL | HH | → | HL-LL |
| dódoo- ‘sheep’ | síts’á- ‘hair’ | → | dódoo-sits’a- ‘wool’ |
| HLL | LH | → | HL-LL |
| dódoo- ‘sheep’ | imá- ‘child’ | → | dódoo-ima- |
| HLL | LL | → | HL-LL |
| dódoo- ‘sheep’ | kwaza- ‘cloth’ | → | dódoo-kwaza- ‘wool cloth’ |

The data shown above are only representative of a vast array of melodic combinations found in compounds. For a more detailed (but ultimately problematic) discussion of compound tone changes, see Schrock 2011a.

Moving on to compound structure: Compounds reverse the normal noun phrase word order in which modifiers follow the heads they modify. In compounds, the modifier appears as N₁ followed by the head as the N₂.

Take the compound in (69), for instance, where the noun *dakú-* ‘tree’ is used as the modifying N_1 . Then compare the word order of the compound with that of a normal noun phrase having the same meaning:

(69) *Compound versus noun phrase*

| | |
|-----------------------------|----------------------------|
| $dakú_{MOD}$ - $ḡól_{HEAD}$ | $ḡól_{HEAD}$ $dakwí_{MOD}$ |
| tree-shin:NOM | shin:NOM tree:GEN |
| ‘tree trunk’ | ‘trunk of the tree’ |

As a third structural feature, compounds involve a special case marking: The N_1 takes the oblique case while the N_2 takes whatever case the syntax requires for the whole construction. In the oblique case, the form of the N_1 is usually an exact representation of its underlying lexical form. An exception to this statement is that a noun ending in a VV sequence will lose its final vowel when joined to another noun in a compound. In the following examples, the noun *bubuu-* ‘belly’ is compounded with *akó-* ‘interior’. Observe that the final vowel of *bubuu-* is lost and that only the case of the N_2 , *akó-*, changes with different clausal argument structures:

(70) *Doda bubuakw.*

| | |
|-------------------------|-------------------------|
| $dód$ - a | $bubu$ - akw - a |
| hurt-REAL | belly[OBL]-interior-NOM |
| (My) inner belly hurts. | |

(71) *Iya bubuakok.*

| | |
|--------------------------|-------------------------|
| i - $á$ | $bubu$ - $akó$ - k^e |
| be-REAL | belly[OBL]-interior-DAT |
| ‘It’s inside the belly.’ | |

As a fourth structural feature, almost all Ik compounds are endocentric: The N_2 is always in the same grammatical category as the compound as a whole. This is true of its word class (nominal) as well as its syntactic function. That is, the morpho-syntactic function of the N_2 in a compound is always the

same as that of the whole compound. The N_1 , however, can be a pronoun, noun, or even a verb (in a special form), for example:

(72) *Word class of compound N_1*

| | | |
|---------|-------------|--------------------------------|
| Pronoun | jíci-kulé | ‘my elbow’ |
| Noun | tsórá-kóle | ‘baboon’s elbow’ |
| Verb | takani-kulé | ‘Appearing-Elbow (place name)’ |

Two exceptional exocentric compounds are *ámá-ze* ‘big person (i.e. one in charge)’ and *roba-zeík* ‘big people (ones in charge)’. The N_2 of these compounds is the verb *ze-* ‘be big’; the *-ik* in *zeík* is the adjectival plural suffix (§7.10.5). These lexical compounds are so rare it is believed they are calques of the Teso-Turkana ‘positioner’ nouns *ékápólónj* ‘big person’ and *ηíkápólók* ‘big people’ (e.g. in Dimmendaal 1983:274-276). The Ik calque of *éká-pól-ónj* ‘big person’ has another instantiation as *ámá-ze-ám*, a tri-nominal compound with the structure PERSON-BIG-PERSON. This seems to be an even more direct, structurally identical, calque of the Teso-Turkana equivalent.

As a fifth structural feature, each term in an Ik compound can be pluralized. Semantics, though, may restrict which nouns this may apply to. For example, there are no recorded examples of a plural N_1 modifying a singular N_2 . Otherwise, the first, second, or both compounded nouns are pluralized with the same pluratives they have in non-compounded environments:

(73) *Pluralization of compound nouns*

| | | |
|---------|-------------------------------|-------------------------|
| SG-SG | dakú-kwét ^a | ‘branch (tree-arm)’ |
| SG-PL | dakú-kwétík ^a | ‘branches (tree-arms)’ |
| PL-PL | dakwitíní-kwétík ^a | ‘branches (trees-arms)’ |
| **PL-SG | **dakwitíní-kwét ^a | ‘branch (trees-arm)’ |

4.3.2 *Semantic properties*

Compounds also have special semantic properties. The combined meaning of the two compounded elements is either 1) more specific or 2) completely different than the meanings of the individual constituents. For example, the compound *icé-ám* ‘Ik person’ narrows the reference of the compound head *ám* ‘person’. And the fact that the compound *fadí-gur* ‘bitter-heart’ refers to a type of pungent grass species is not automatically known from the meanings of the two component parts.

These semantic properties predispose Ik compounds to further semantic developments. For example, their ability to narrow the reference of the compound head has led to the (partial?) grammaticalization of *imá-* ‘child’ and *wicé-* ‘children’ into diminutive markers (§4.3.3), as well as the grammaticalization of *ámá-* ‘person’ and *icé-* ‘Ik/people’ into agentive markers (§4.3.4). And with a subset of compound heads, compounding has also led to several locative expressions used as general place names, to the gender specification of birds and animals, and to whole-part relationships including body parts and their semantic extension as relational nouns.

A limited subset of compound heads with locative meanings is used for general place names. These nouns, like *akó-* ‘interior’, *awá-* ‘home/place’, and *hoo-* ‘hut’, function like postpositions or even incipient case markers (indeed some Ik case markers may have arisen from compound heads or postpositions; see §6.4). Examples include the following:

(74) *Compound common place names*

| | | |
|--------------------------------|-----------------|--------------------------|
| <i>aṅarasá-ákw^a</i> | ‘gravelly area’ | (lit. ‘gravel-interior’) |
| <i>awá-ákw^a</i> | ‘compound/yard’ | (lit. ‘home-interior’) |
| <i>dzígw-aw^a</i> | ‘market’ | (lit. ‘commerce-home’) |
| <i>gírésí-aw^a</i> | ‘storage place’ | (lit. ‘storing-home’) |
| <i>wáána-ho</i> | ‘church’ | (lit. ‘prayer-hut’) |

Another subset of compound heads act to specify the gender of birds and animals. These include words like *cikó-* ‘male’, *ɲwáá-* ‘female’, and others:

(75) *Compound gender specifications*

| | | |
|-------------------------------|-----------------------|----------------------------|
| <i>díde-cúrúk^a</i> | ‘male donkey’ | (lit. ‘donkey-bull’) |
| <i>díde-ɲwa</i> | ‘female donkey’ | (lit. ‘donkey-female’) |
| <i>díde-waz</i> | ‘young female donkey’ | (lit. ‘donkey-young fem.’) |
| <i>ɲókí-cikw^a</i> | ‘male dog’ | (lit. ‘dog-male’) |
| <i>ɲókí-ɲwa</i> | ‘female dog’ | (lit. ‘dog-female’) |

Single body part terms can be combined with other body part terms or other nouns to create compounds with more specific anatomical references:

(76) *Compound anatomical specifications*

| | | |
|------------------------------|--------------------|----------------------|
| <i>aká-kwáǎ^a</i> | ‘lip’ | (lit. ‘mouth-tooth’) |
| <i>deá-mórók^a</i> | ‘ankle’ | (lit. ‘leg-throat’) |
| <i>ekú-síts^a</i> | ‘eyelash, eyebrow’ | (lit. ‘eye-hair’) |
| <i>gubesí-ǵk^a</i> | ‘thighbone’ | (lit. ‘thigh-bone’) |
| <i>sea-mucé</i> | ‘blood vessel’ | (lit. ‘blood-path’) |

Some body part terms are also used extensively in compounds as whole-part locative expressions often called ‘relational nouns’ (e.g. in König 2002:73-75). These relational nouns are dealt with further below in §4.3.8.

The ability of compounds to express meanings greater or different than that of the sum of their parts has made possible 1) creative coinages for newly-encountered technologies, 2) the lexicalization of names for things like plants and animals, and 3) colorful idiomaticization.

As a productive word-building strategy, compounding is often used to coin new terms for new technology. For example, a tripod is called *leweɲí-de* ‘ostrich-foot’ due to its three-pronged structure. A small vehicle is colloquially called *kae-im* or ‘little tortoise’. And several modern tools like

pliers and prongs are given the colorful title *tilokotsi-ak*^a ‘hornbill-beak’. In a reverse process, sometimes newly borrowed words replace older compounds, for example *námáket*^a ‘market’ in place of *dzígw-aw*^a.

A fair number of plant and place names are made up of compounds. Though these compounds have been lexicalized, presumably in the past they were coinages with meanings referencing the meanings of each of the two compounded elements. Some examples include:

(77) *Compound plant names*

| | | |
|---------------------------|------------------------------|--------------------------|
| befá-cémér | ‘ <i>Cissus rhodesiae</i> ’ | (lit. ‘puff adder-herb’) |
| díde-ɲam | ‘sorghum var.’ | (lit. ‘donkey-sorghum’) |
| fadī-gur | ‘ <i>Fadigura</i> ’ | (lit. ‘bitter-heart’) |
| gasara-kwats ^a | ‘ <i>Plectranthus</i> sp.’ | (lit. ‘buffalo-urine’) |
| kulabá-kák ^a | ‘ <i>Fuerstia africana</i> ’ | (lit. ‘bushbuck-leaf’) |

(78) *Compound place names*

| | | |
|-----------------------|----------------------|----------------------------|
| caalí-ím | ‘Little Hearthstone’ | (lit. ‘hearthstone-child’) |
| icé-kíj ^a | ‘Ikland’ | (lit. ‘Ik-land’) |
| lera-akw ^a | ‘Among White Thorns’ | (lit. ‘Whitethorn-inside’) |
| oɲori-aw ^a | ‘Elephant Place’ | (lit. ‘elephant-home’) |
| takani-fulé | ‘Appearing Elbow’ | (lit. ‘appears-elbow’) |

Lastly, some compounds take on the status as idioms once they are repeatedly used in creative, colorful ways. Here are a few examples:

(79) *Compound idioms*

| | | |
|-------------------------|--------------------|------------------------|
| dóba-am | ‘Turkana person’ | (lit. ‘mud-person’) |
| díde-kwats ^a | ‘beer’ | (lit. ‘donkey-piss’) |
| kae-taká’ | ‘rubber tire shoe’ | (lit. ‘tortoise-shoe’) |
| lokú-ák ^a | ‘beer drinking’ | (lit. ‘gourd-mouth’) |
| loukú-éts ^a | ‘ancestor’ | (lit. ‘predator-shit’) |

4.3.3 Diminutive

The nouns *imá-* ‘child’ and *wicé-* ‘children’ may convey the notion of diminutiveness when acting as the head (N₂) of a compound. But the degree to which these nouns have been grammaticalized as diminutive suffixes is difficult to ascertain. They can have both a grammaticalized diminutive sense, as in *ḡókí-im* ‘puppy (dog-child)’ or a normal lexical sense, as in *edé-im* ‘my brother’s child’—not ‘my little brother’. Examples of the semi-grammaticalized usage of these suffixes include the following:

(80) *Diminutive entities*

| Singular | Plural | |
|------------|----------------|---------------------|
| baro-ima- | báritíní-wicé- | ‘small herd(s)’ |
| emútí-íma- | emútíka-wicé- | ‘little story(ies)’ |
| ké’dí-íma- | — | ‘a little bit’ |
| ƙófó-ima- | ƙófóika-wicé- | ‘small gourd(s)’ |
| ájá-ima- | ájítíní-wicé- | ‘small sore(s)’ |

When compounded with terms for birds and animals, *imá-* ‘child’ or *wicé-* ‘children’ convey a sense somewhere between grammatical dimunitiveness and the lexical meaning of young offspring:

(81) *Diminutive animals*

| Singular | Plural | |
|---------------|----------------|------------------|
| boroku-ima- | boroku-wicé- | ‘bush-piglet(s)’ |
| díde-ima- | díde-wicé- | ‘donkey colt(s)’ |
| dódo-ima- | dódo-wicé- | ‘lamb(s)’ |
| ḡókóƙóró-íma- | ḡókóƙóró-wicé- | ‘chick(s)’ |
| ḡókí-ima- | ḡókítíní-wicé- | ‘puppy(ies)’ |

Some compounds containing *imá-* ‘child’ or *wicé-* ‘children’ as their head have been lexicalized as names for types of people or spirits, for example:

(82) *Diminutive animate beings*

| | | |
|-----------|----------------|-------------------------|
| dúné-im | ‘old woman’ | (lit. ‘age-child’) |
| ídeme-im | ‘earth-worm’ | (lit. ‘snake-child’) |
| kíjǎ-im | ‘forest fairy’ | (lit. ‘earth-child’) |
| pedéké-ím | ‘evil spirit’ | (lit. ‘sickness-child’) |

4.3.4 *Agentive*

Like the diminutive, the agentive compound involves a pair of lexical nouns that seem to be on the way to being grammaticalized as agentive suffixes. These are *ámá-* ‘person’ for singular and *icé-* ‘Ik’ for plural. As an analogy with the diminutive, one might expect the plural agentive to be the lexical plural of ‘person’, which is *roba-* ‘people’, but it is not. That *icé-* is also the Ik’s name for themselves suggests that it may have once had a more general meaning like ‘people’. Heine has made the plausible suggestion that the agentive *icé-* is derived from the diminutive *wicé-* (Heine & König 1996:20). While in Dime and Sheko, both Omotic languages not so far from Ik, the agentive is derived from a form of the word for ‘father’ (Mulugeta 2008:59).

‘Agentive’ is used here in a broad sense, not just for the semantic role of ‘agent’ but for anyone characterized by the reference of the N₁. The equivalent of the Ik agentive in Turkana is called a ‘positioner noun’ and is divided up into such categories as ‘agentive’, ‘processor’, and ‘essive’ (Dimmendaal 1983:274), but this is not done here. In its most basic conception, the Ik agentive means ‘the X person’ or ‘the X-people’. It can also be translated as ‘the person/people who X’ or ‘X-er(s)’, depending on the compound’s N₁, which can be a noun or a nominalized verb. So the agentive, broadly defined, covers a range of nuances like 1) a person doing an action, 2) a person characterized by a state, 3) a person characterized by a thing, and 4) a person belonging to a group, particularly an ethnic group.

The N₁ of an agentive compound can be a noun or nominalized verb. The following are examples of agentives with nouns as the N₁:

(83) *Agentives with a nominal N₁*

| Singular | Plural | |
|-------------|-------------|----------------|
| cooka-ama- | cooka-icé | 'shepherd(s)' |
| dɛá-áma- | dɛá-ícé- | 'messenger(s)' |
| dzú-áma- | dzú-íce- | 'thief(ves)' |
| ésá-ama- | ésá-ice- | 'drunkard(s)' |
| ƙaƙa-ama- | ƙaƙa-icé- | 'hunter(s)' |
| tɔkɔba-ama- | tɔkɔba-icé- | 'farmer(s)' |

But in the majority of agentive compounds, the N₁ is a nominalized verb, either transitive or intransitive. In principle, there is no restriction on the number of affixes found on such N₁ verbs. For many deverbal agentives, the best English translation usually involves the suffix *-er(s)*:

(84) *Agentives with a deverbal N₁*

| Singular | Plural | |
|----------------|----------------|----------------|
| asínítoni-ama- | asínítoni-icé- | 'dreamer(s)' |
| búkóni-ama- | búkóni-icé | 'adulterer(s)' |
| iritsésí-ama- | iritsésí-icé | 'keeper(s)' |
| iwóróni-ama- | iwóróni-icé- | 'wanderer(s)' |
| túbési-ama- | túbési-icé | 'follower(s)' |

For other intransitive verbs acting as N₁, especially adjectival ones, the best translation into English often involves adjective modifiers e.g.:

(85) *Agentives with an intransitive/adjectival deverbal N₁*

| Singular | Plural | |
|-----------------|-----------------|-------------------|
| baroni-ama- | baroni-icé- | 'rich person(s)' |
| botibotosí-áma- | botibotosí-ícé- | 'migrant(s)' |
| budámóni-ama- | budámóni-icé- | 'black person(s)' |
| ƒets'oni-ama- | ƒets'oni-icé- | 'white person(s)' |
| zeoni-ama- | zeoni-icé- | 'big person(s)' |

Many Ik ethnonyms for other groups are composed of agentive compounds:

(85) *Agentives as ethnonyms*

| Singular | Plural | |
|-------------|-------------|----------------|
| Allá-áma- | Allá-íce- | 'Muslim(s)' |
| Gwágwa-ama- | Gwágwa-íce- | 'Dodoth(s)' |
| H'ɣɔ-ama- | H'ɣɔ-íce- | 'foreigner(s)' |
| Icé-áma- | (Icé-) | 'Ik(s)' |
| Pakó-áma- | Pakó-íce- | 'Turkana(s)' |

4.3.5 *Pronominal*

Compounds are also made with pronouns serving as N₁, N₂, or both. These pronominal compounds include the personal possessive (§5.1.2), the emphatic (§5.1.3), and the impersonal possessum (§5.2):

(86) *Pronominal compounds*

| | | | |
|----------------------|------------|-------------|----------|
| Personal possessive | jíci-rago- | I[OBL]-ox | 'my ox' |
| Emphatic | jíci-nebu- | I[OBL]-body | 'myself' |
| Impersonal possessum | ɲj-éńí- | I-PSSM | 'mine' |

4.3.6 *Internal plurative*

The internal plurative *-ajíká-* is a complex compound N₂ composed of the unknown root *aj-* and the plurative III {-ika-}. Because of its function as a plurative, a tempting analysis is to treat it as a suffix. However, because a) it does not delete the stem-final vowel, and b) it does not change the stem tone melody, it must be viewed as the N₂ of a compound construction.

The internal plurative expresses the meaning 'the interior of more than one X'. The root *aj-* has not been identified as an independent noun. But both form and meaning suggest a connection with the noun *akó-* 'inside/interior', which when pluralized (*akwíní-*) and used in compounds, has a similar

meaning as the internal plurative. The internal plurative is not often used, but three examples of it are given below:

(87) *Internal plurative compounds*

| Plural | | | Internal Pl. | |
|---------------------|-----------|---|----------------|--------------------|
| áw-ík ^a | 'homes' | → | áw-íka-ajíká- | 'in/among homes' |
| ríj-ík ^a | 'forests' | → | ríj-íka-ajíká- | 'in/among forests' |
| séd-ík ^a | 'gardens' | → | séd-ika-ajíká- | 'in/among gardens' |

4.3.7 *Variative plurative*

The variative plurative *-icíká-* is also a complex N₂ possibly composed of the sequence *-ic-* and the plurative III {-ika-}. Like the internal plurative, it may be tempting to view this N₂ as a suffix instead, but it does not a) subtract the stem-final vowel nor b) altern the stem tone melody. So for those reasons, it is analyzed here as (semi-) grammaticalized N₂.

The variative plurative expresses the meaning 'kinds of X' or 'various X'. Structurally, it seems to be either a) a reduplication of the plurative III {-ika-} or b) a combination of the diminutive/agentive (*w*)icé- and the plurative III {-ika-}. Regardless of its etymology, *-icíká-* is often used to pluralize nouns not normally (re-)pluralizeable, for example 1) general number nouns, 2) nouns not pluralizeable with any other plurative, 3) inherently plural nouns, 4) nominalized verbs, 5) and pluralized nouns.

(88) *Variative plurative with general number nouns*

| | | | | |
|------------------|-------------|---|------------|------------------------------|
| gwa | 'bird(s)' | → | gwa-icíká- | 'various (kinds of) birds' |
| ínw ^a | 'animal(s)' | → | ínó-icíká- | 'various (kinds of) animals' |

(89) *Variative plurative with otherwise non-pluralized nouns*

| | | | | |
|--------------------|-----------|---|---------------|------------------------|
| cem | 'fight' | → | cemá-ícíka- | 'various fights (war)' |
| didi | 'weather' | → | dídi-icíká- | 'kinds of weather' |
| nakuj ^a | 'God' | → | nakují-ícíka- | '(various) gods' |

(90) *Variative plurative with inherently plural nouns*

| | | | | |
|-----|----------|---|-------------|--------------------------|
| men | 'issues' | → | mená-ícíka- | 'various issues' |
| se | 'blood' | → | sea-icíká- | 'various types of blood' |

(91) *Variative plurative with nominalized verbs*

| | | | | |
|-----------|------------|---|-------------------|-----------------|
| đod-et-és | 'to point' | → | đod-et-ésí-icíká- | 'announcements' |
| wet-és | 'to drink' | → | wet-ésí-icíká- | 'beverages' |

Lastly, the variative plurative can add a variative meaning to nouns already pluralized with another plurative. (92) gives the only recorded example:

(92) *Variative plurative with already pluralized nouns*

| | |
|-------------------|----------------------------|
| dakú- | 'tree' |
| dakw-ítíńí- | 'trees' |
| dakw-ítíńí-icíká- | 'various (kinds of) trees' |

4.3.8 *Relational nouns*

A number of Ik body-part terms are used in whole-part expressions as 'relational' nouns (König 2002:73-75). These nouns are found in two morpho-syntactic positions: 1) as the N₂ of a compound (hence their being treated in this section on compounds) and 2) as a noun phrase head with a) the possessive singulative and b) a genitive modifier (which may be implied). Though synchronically they still function as full nouns (that can take any of the eight morphological cases), the relational nouns exhibit a very 'preposition-like' function, particularly as the noun phrase head. The following two tables compare singular and plural relational nouns:

(93) *Relational nouns, singular and plural*

| 'tooth' | | Relational sense |
|------------|---------------|--------------------|
| Lexical | kwaǎá- | 'edge' |
| As N2 | mucé-kwáǎa- | 'path-edge' |
| As NP head | kwe-eda mucéé | 'edge of the path' |

| | | |
|------------|---------------|---------------------|
| ‘teeth’ | | |
| Lexical | kwa-ítíní- | ‘edges’ |
| As N2 | mucé-kwá-íní- | ‘path-edges’ |
| As NP head | kwa-ina muceé | ‘edges of the path’ |

(94) presents a full list of the known body-part relational nouns:

(94) *Body-part relational nouns*

| | Lexical meaning | Relational meaning |
|----------|------------------|---------------------|
| aká- | ‘mouth’ | ‘opening, entrance’ |
| akatí- | ‘nose’ | ‘stem, handle’ |
| akó- | ‘head?’ | ‘inside’ |
| bakutsí- | ‘chest’ | ‘front side’ |
| bubuu- | ‘belly, abdomen’ | ‘under, below’ |
| ḃólé- | ‘shin’ | ‘trunk, column’ |
| déá- | ‘foot, leg’ | ‘base, foot’ |
| ekú- | ‘eye’ | ‘point, center’ |
| éba- | ‘horn’ | ‘long, thin tool’ |
| gúró- | ‘heart’ | ‘core, essence’ |
| gwaríi- | ‘?’ | ‘top, above’ |
| iká- | ‘head’ | ‘top, head’ |
| kaná- | ‘back’ | ‘back’ |
| komosí- | ‘buttock’ | ‘back part’ |
| kwaěá- | ‘tooth’ | ‘edge, side’ |
| kwaní- | ‘penis’ | ‘sharp part’ |
| kwetá- | ‘hand, arm’ | ‘branch, appendage’ |
| koléé- | ‘elbow’ | ‘bent, curved part’ |
| morókú- | ‘throat’ | ‘narrow part’ |
| ḡabéri- | ‘rib’ | ‘side’ |
| oká- | ‘bone’ | ‘hard part, shell’ |
| óza- | ‘bottom (pubic)’ | ‘back, bottom’ |
| sokó- | ‘hoof’ | ‘base, root’ |

For the word *gwarí*- ‘top’, with its common variant *gwaría*-, no original lexical meaning has been recovered. It has been lexicalized in the term *didi-gwarí* ‘weather-top’, an important cultural concept meaning ‘sky, heaven’ or ‘God’. And the only known possible lexical meaning for the commonly used relational noun *ákó*- ‘inside’ comes from Gumuz word *-(á)k’w(á)* ‘head’.

In principle, the terms listed in (94) are productive, but in practice, many of them have set up into lexicalized expressions like the following. Herein lies the main source—apart from borrowing—of Ik lexical nominal enrichment:

(95) *Relational compounds*

| | |
|-----------------|-------------------------------------|
| arágwané-éku- | ‘full moon’ |
| bubu-ákó- | ‘inner abdomen’ |
| dakú-sóko- | ‘tree root’ |
| dánjá-aka- | ‘opening to white-ant hill’ |
| dodí-eku- | ‘cervix’ |
| dómó-ɔza- | ‘bottom of a pot’ |
| fátára-bakutsí- | ‘front side of the vertical ridge’ |
| fetí-éku- | ‘east’ |
| gido-ɔka- | ‘sky’ |
| iwótsí-ɔza- | ‘bottom of a mortar’ |
| kaideí-ákátí- | ‘pumpkin stem’ |
| kuḅa-gwarí- | ‘hilltop’ |
| kwará-dɛa- | ‘base of a mountain’ |
| kwará-gwarí- | ‘moutaintop’ |
| kwaré-éku- | ‘saddle between two mountain peaks’ |
| óde-eku- | ‘river ford’ |
| simá-ákátí- | ‘knot’ |
| tabá-dɛa- | ‘base of a rock’ |
| tóde-eku- | ‘word’ |
| ts’adí-áka- | ‘flame’ |
| ts’adí-éku- | ‘fireplace, nuclear family’ |
| wídze-eku- | ‘dusk, late evening’ |

4.4 Kinship terms

Kinship terms in Ik are affected by the structure of kinship relations. For example, Ik kinship relations are patrilocal: New wives are brought in from outside a man's clan to his parents' home area. They are also patrilineal: All one's relatives are understood in relation to one's father and paternal uncles. For instance, the term *abáŋi-* meaning 'my father' applies not only to one's birth father but also to any of the his brothers. So one may essentially have more than one 'father'. But the brother of one's birth mother is referred to as *momóo-* or 'uncle' rather than 'father'.

A second feature of the Ik kinship terminology is that it is based on reference to person (i.e. 1st, 2nd, and 3rd person). The term needed to refer to a particular relative depends on whether it is the relative of the speaker, the addressee, or a third-person non-speech-act participant. For example, if the speaker names her father, she will call him *abáŋ* 'my father', but if she names her addressee's father, she will say *bábo* 'your father'. And if she refers to someone else's father, she will say *babat*^a 'his/her father'.

Morphologically, Ik kinship terms exhibit a couple of notable features. First, many of them are made up of compounds. They may join two nouns, as in *momó-cek*^a 'maternal aunt (lit. 'uncle-wife')' or *totó-im* 'maternal cousin (lit. 'maternal aunt's child')'. Others may join a pronoun and a noun, as in *ŋgó-ím* 'younger sibling (lit. 'our child')' or *bi-emetá* 'your in-law'. Secondly, in the Ik person-based kinship reference system, one can find traces of archaic person-marking morphology that has been completely lost in the rest of the grammar. Compare the following forms:

(96) *Archaic possessive suffixes on kinship terms*

| Person | 'father' | 'mother' | 'grandmother' |
|--------|----------|----------|---------------|
| 1SG | abáŋi- | yáŋi- | dadáŋi- |
| 2SG | báboo- | ŋóo- | dádoo- |
| 3SG | babatí- | ŋwaatí- | dadatí- |

That the forms in (96) retain old possessive suffixes is most clearly seen in the words for ‘father’ and ‘grandmother’. These suffixes are **-áŋi-* for first person, **(o)o-* for second, and **-atí-* for third person (which may come from an old singulative; see (28) above)—all singular. With this in mind, these kinship terms can be re-analyzed as follows in order to highlight their historical morphology (which has now been lexicalized):

(97) *Archaic possessive suffixes in analysis*

| Person | ‘father’ | ‘mother’ | ‘grandmother’ |
|--------|-------------|----------|---------------|
| 1SG | (*b)ab-áŋi- | y-áŋi- | dad-áŋi- |
| 2SG | báb-oo- | ŋó-o- | dád-oo- |
| 3SG | bab-atí- | ŋw-aatí- | dad-atí- |

The old root **bab*, meaning ‘father’, presumably lost its initial /b/ in the first-person reference at some point in time. In the case of ‘mother’, it seems that based on the second and third-person reference, the old root is **ŋo*. For second person, the possessive suffix *-(o)o-* is shortened, possibly due to Ik’s dislike for sequences of three vowels. And for third person, the root desyllabifies and causes compensatory lengthening on the suffix. When it comes to the first person, it is not clear how **ŋo* could be related to **y*.

The old possessive prefixes shown in (96) are found elsewhere in the kinship terminology but in an even more eroded form. Often the second and third-person suffixes are the only ones remaining:

(98) *Archaic possessive suffixes on other kinship terms*

| Person | ‘brother’ | ‘sister’ | ‘grandfather’ |
|--------|-----------|----------|---------------|
| 1SG | (edéé-) | ye-áa- | bob-áa- |
| 2SG | lé-ó- | yá-óo- | bób-oo- |
| 3SG | le-atí | ye-atí | bob-atí- |

Before the loss of lateral fricatives in Ik, the root for ‘brother’ used to be **ɬ*- (Heine & König 1996:17). And if there ever was a proto-form **le-áŋi-* for ‘my brother’, it has been replaced by the unrelated *ɛdɛɛ-*. Elsewhere in (98), the first-person suffix *-áŋi-* has lost its velar nasal, giving rise to the variant *-áa*.

The following table presents a set of kinship terms including the ones shown in (96) and (98). These terms are from the point of view of *Ego* or ‘I’—that is, the first person. Second and third-person forms can be extrapolated from these. Moreover, they are all listed in the lexicon in Appendix B. To change person, either the archaic (frozen) possessive suffixes can be changed (as when going from *bobá* ‘my grandfather’ to *bóbo* ‘your grandfather’) or the N₁ pronouns in compounds (as in *ŋíci-cek^a* ‘my wife’ to *ntsí-cék^a* ‘his wife’). The literal meaning of compounded terms is also given when known:

(99) *Ik kinship terms from Ego’s (1SG) point-of-view*

| Term | Natural sense | Literal sense |
|--------------|--|---------------|
| abáŋi- | ‘my father’ | |
| bobáa- | ‘my grandfather, ancestor’ | |
| dadáŋi- | ‘my grandmother’ | |
| ŋíci-emetáa- | ‘my parent-in-law’ | I-? |
| ɛdɛɛ- | 1) ‘my older brother 2) ‘my older paternal cousin’ | |
| ɛdɛ-ceki- | ‘my older brother’s wife’ | brother-wife |
| imá-céki- | ‘my son’s wife’ | child-wife |
| momóo- | 1) ‘my maternal uncle’ 2) ‘son of my sister’ | |
| momó-ceki- | ‘my maternal uncle’s wife’ | uncle-wife |
| momó-ima- | ‘my maternal cousin’ | uncle-child |
| ŋíci-ɣání- | 1) ‘my husband’s other wife’ 2) ‘my husband’s brother’s wife’ | |
| ŋíci-namúí- | 1) ‘my husband’s sister’ 2) ‘my brother’s wife’ | I-? |
| ŋíc-ugwámá- | ‘my sibling-in-law’ | I-? |

| | | |
|-------------|------------------------------|------------|
| jíci-ceki- | ‘my wife’ | I-woman |
| ɲci-ɛakwa- | ‘my husband’ | I-man |
| jíci-ima- | ‘my child’ | I-child |
| ɲgó-íma- | ‘my younger sibling’ | we-child |
| tátaa- | ‘my paternal aunt’ | |
| táta-ɛakwa- | ‘my paternal aunt’s husband’ | aunt-man |
| táta-ima- | ‘my paternal aunt’s child’ | aunt-child |
| totóo- | ‘my maternal aunt’ | |
| totó-ɛakwa- | ‘my maternal aunt’s husband’ | aunt-man |
| totó-íma- | ‘my maternal aunt’s child’ | aunt-child |
| yáɲ- | ‘my mother’ | |
| yeáa- | ‘my sister’ | |

Ik kinship terms function grammatically as any other noun in the language. They inflect for all eight cases and can be modified and pluralized to a limited extent. A variety of pluralization strategies are used for kinship terms, depending on their morphological structure, semantics, etc., as in:

(100) *Pluralization strategies for kinship terms*

| Strategy | Singular | | Plural |
|--------------------------|----------|------------------|--------------------------|
| Plurative I | namúí | ‘brother’s wife’ | namú-át-ikw ^a |
| Possessive Plurative | abáɲ | ‘my father’ | abáɲ-ín |
| Pluralize N ₂ | jíci-im | ‘my child’ | jíci-wik ^a |

Finally, when one wants to express the relation of a relative to more than one person (e.g. 1PL or 2PL)—and if the relevant term is one from above that takes the archaic possessive suffixes—then the 3SG form of the term is used. This is observed, for example, in *ɲjíní-leat^a* ‘our (inc.) brother’ and *biti-babát^a* ‘your (pl.) father’. The reason for this has yet to be discovered.

4.5 Proper Nouns

In addition to all the common nouns that have been the major topic of this chapter so far, Ik also has a full range of proper nouns. These include names for specific people, tribes, and places—entities in the world that have a unique reference. Proper nouns as names are discussed in the following sections: §4.5.1 on onomastics (people names), §4.5.2 on ethnonyms (tribal names), and §4.5.3 on toponyms (place names).

For the most part, Ik proper nouns function grammatically just like common nouns. They can function as a clause's core or peripheral argument, and they inflect for all of the eight cases. But they also differ grammatically from common nouns. For example, proper names for people cannot be pluralized:

- (101) *ηorok*^a ***ηόρόκικ*^a
 Ngorok **Ngoroks

Due to the fact that Ik relative clauses are only the restrictive type, proper nouns can only be modified by relative clauses if it is very clear from the context that two or more entities/persons with the same name are involved:

- (102) *Nteenoo ηorokui?* *ηoroka na zikib.*
 ńté-énó-ɔ ηorokwí-∅ ηorok-a = na zikíḃ-∅
 which-PSSM-COP ηorok-GEN ηorok-NOM = REL.SG tall-REAL
 Which Ngorok? The Ngorok who is tall.

And though they can be modified by a possessor in the genitive case, the possessum and possessor must be separated by a relative pronoun:

- (103) *ηoroka na ŋci.* ***ηoroka ŋci.*
 ηorok-a = na ŋci-∅ **ηorok-a ŋci-∅
 ηorok-NOM = REL.SG I-GEN **ηorok-NOM I-GEN
 The Ngorok who is mine. **My Ngorok.

4.5.1 Onomastics

Most Ik people nowadays have three or four names each. They will have an Ik name, a Christian ('baptismal') name, and a nickname called *éda awáé* 'house name'. In addition, most men have a *rágw-ed^a* 'bull name' that goes along with their bull songs. Beyond this, many people seem to have several secret names that only their friends or in-members of the community know.

When filling out official forms or introducing themselves to outsiders, Ik people typically give two names: 1) an Ik name, and 2) a Christian name. The Ik names are the main topic of this section. Christian names are taken at birth or at baptism in the Roman Catholic or Anglican churches. They include names like Philip, Daniel, Peter, Simon, and Hillary for boys and men, and Cecilia, Maria, Esther, Rose, and Veronica for girls and women.

Bull names are totems chosen by young men for a bull whose color patterns they admire. This cultural practice is in line with that of the Teso-Turkana and may have been borrowed from them. Though the Ik no longer keep livestock, men still take bull names and sing their bull songs. Bull names usually consist of the Teso-Turkana word *apá* 'father' plus one or more words describing the color and patterns of a particular bull. Most bull names, even for the Ik, are actually Teso-Turkana names, like *Apá Lɔpusikira* 'the father of the striped bull' and *Apá Lokiryon* 'the father of the black bull'. A few other bull-names heard among the Ik are listed here below. For more on this topic, see Dimmendaal (1983:300-302).

(104) *Some Ik (Teso-Turkana) bull-names*

| | |
|----------------------------|------------------------|
| Apá Kapélibok ^o | Apá Lolúk ^u |
| Apá Komólɪɲaɲ | Apá Lomaruko |
| Apá Lɔkamutɔ | Apá Lomerí |
| Apá Lokwáj | Apá Lɔɔɲór |

Besides bull names, many other Ik names are Teso-Turkana in origin. This is evident from the Teso-Turkana gender prefixes *na-* for feminine gender and *lo-* for masculine (see Dimmendaal 1983:215), which are not productive morphemes in present-day Ik (see also §4.1.4). These names are formed with the prefix plus some feature in the environment that indicates what time of year or during what event the person bearing the name was born. For example, Lokiru (*lo* + *akiru* ‘rain’) was born during the rainy season. (105) provides a sampling of Ik people names with Teso-Turkana origins:

(105) *Some Ik (Teso-Turkana) personal names*

| Masculine | Root meaning | Feminine | Root meaning |
|-----------|--------------|----------|---------------|
| Locápu- | ‘Weeding’ | Nákíruu- | ‘Rain’ |
| Locómo- | ‘Baboon’ | Nakɔŋú- | ‘Eye’ |
| Lokwaŋá- | ‘White’ | Namóɪ- | ‘Enemies’ |
| Lolému- | ‘Harvest’ | Námɔŋɔ- | ‘Ox’ |
| Lómúria- | ‘Star Grass’ | Nájólii- | ‘White Patch’ |
| Lopáa- | ‘Grass’ | Nápíyoo- | ‘Defeat’ |
| Lopéyókó- | ‘Guest’ | Naróto- | ‘Road’ |

A few other Ik names appear with the Teso-Turkana ‘associative linker’ *ka-* (Dimmendaal 1983:302), for example, *Kalmapúsi-* and *Kalɔyáŋɪ-*. And still others are Teso-Turkana parallels but have distinctively Ik phonology. For example, the phoneme /tʃ/ in Teso-Turkana names (written as <ch>) usually (but not obligatorily) appears as /ts/ in corresponding Ik names:

(106) *Teso-Turkana names with adapted phonology*

| Teso-Turkana | Ik |
|--------------|--------------------|
| Achok | Atsóko-/Acóko- |
| Machu | Matsúu-/Macúu- |
| Nachem | Natsíámu-/Nacíámu- |
| Chila | Tsiláa-/Ciláa- |

Finally, the following smattering of Ik people names contains some with Teso-Turkana parallels and some with unknown origins:

(107) *Some other Ik personal names*

| | | | |
|---------|----------|-------------|-----------|
| Aríkóo- | Ilókóli- | Maarukó- | Pulokóli- |
| Cegemú- | Kinimée- | Modinjí- | Sañanjí- |
| Dakái- | Kocíi- | ǀNakaleesí- | Sírée- |
| Erupeé- | Kusému- | ǀNeletsaá- | Tekóo- |
| Gutíi- | Lemúu- | Peléní- | Títoo- |

4.5.2 *Ethnonyms*

The Ik language does not have a word that means ‘tribe’ specifically, except now for *ǀákabiláa-* which was borrowed from Swahili *kabila* ‘tribe’. Other words for this domain include *asaka-* ‘clan’ (also ‘door’) and *roba-icíká-* ‘kinds of people’ or ‘various peoples’. This lack of a generic word for ‘tribe’ is made up for by a versatile system of tribal names (ethnonyms).

Ik uses three morphological strategies for forming ethnonyms: 1) the Ik way, 2) the Teso-Turkana way, and 3) a hybrid Ik/Teso-Turkana way. The genuinely Ik way of making ethnonyms is to take a word characteristic of a certain ethnic group and make an agentive compound out of it.

So for instance, the Jie, a Karimojong sub-tribe to the southeast of the Ik, are called the *Fetí-ík^a* because they are from the East, where the sun comes up (*fetí-* means ‘sun’ and *fetí-éku-* ‘sun-eye’ means ‘east’). The Turkana, the tribe to the northeast of the Ik are called the *Pakó-ík^a* after *pakó-* ‘cave’ probably because the word *eturkan* means ‘cave’ in the Turkana language. Lastly, the Napore, who live in the mountains west of the Ik, are called the *Tǀbǀnjǀ-ík^a* after *tǀbǀnjǀ-* ‘maize mush’ because of all the food they have:

(108) *Ik agentive compound ethnonyms*

| | | |
|----------------|------------------|-------------------|
| Fetí-áma- | 'Jie person' | sun-person |
| Fetí-íce- | 'Jie people' | sun-people |
| Icé-áma- | 'Ik person' | Ik-person |
| Icé- | 'Ik people' | Ik-people |
| Pakó-áma- | 'Turkana person' | cave-person |
| Pakó-íce- | 'Turkana people' | cave-people |
| Tɔ̀bɔ̀ŋɔ̀-áma- | 'Napore person' | maize mush-person |
| Tɔ̀bɔ̀ŋɔ̀-íce- | 'Napore people' | maize mush-people |

A second way Ik has created ethnonyms is to borrow them directly from Teso-Turkana. These ethnonyms retain the plural grammatical gender prefix *ŋi-* that is a productive morphological marker in Teso-Turkana (but is no longer in Ik, if it ever was; see §4.1.4), as in the following:

(109) *Ik ethnonyms with a Teso-Turkana plural gender prefix*

| | |
|-------------|-----------|
| ŋídiŋaá- | 'Didinga' |
| ŋímaďi- | 'Ma'di' |
| ŋítépesí- | 'Tepeth' |
| ŋíbókɔ̀raá- | 'Bokora' |

The third way Ik has formed ethnonyms is to combine the Ik use of agentive compound with the Teso-Turkana plural forms, as in:

(110) *Ik agentive ethnonyms with a Teso-Turkana plural gender prefix*

| | |
|----------------|-----------------|
| ŋíjaluwói-íce- | 'Luo people' |
| ŋíkátsolí-íce- | 'Acholi people' |
| ŋímeniní-íce- | 'Mening people' |
| ŋimólói-íce- | 'Elmolo people' |

4.5.3 Toponyms

Ik place names (toponyms) can be divided up between those that have Teso-Turkana origins and those that have an Ik origin. Those borrowed from Teso-Turkana are known by their lexicalized locative prefixes (see §4.1.4). Many original Ik place names are formed by compounds (see §4.3), while others consist of a single word or simple phrase. These place names may refer to areas, rivers, mountains, or other geographical features.

Most toponyms borrowed into Ik from Teso-Turkana languages consist of the lexicalized Teso-Turkana locative prefixes or associative marker plus a noun or verb that characterizes the named place in some way. For example, a volcanic plug in Kaabong District called *Locom*, ‘Baboon Place’, is made up of the masculine/neuter locative prefix *lo-* plus the noun root *-com* meaning ‘baboon’. (111) presents a sampling of this type of Ik place name:

(111) *Ik toponyms with Teso-Turkana origins*

| Masculine/neuter | Feminine | Associative |
|------------------|--------------|-------------|
| Locótoó- | Náápṛṇṇṇó- | Kaikóḃaa- |
| Loodói- | Nacákúneti- | Kámíóno- |
| Lóúsúnaa- | Nakalelé- | Kanaróo- |
| Lɔcárákwatí- | Naayakínṇṇl- | Kapalúu- |
| Ləkító- | Narúkyepí- | Kasilee- |

Mountain names borrowed from Teso-Turkana are often formed with the root *-moru* ‘mountain/rock’ used in a compound with another root, as in:

(112) *Ik mountain names from Teso-Turkana*

| | |
|----------------|--------------------|
| Moru-aṇákinéi- | ‘Goat Mountain’ |
| Morú-atapá- | ‘Bread Mountain’ |
| Morú-érisá- | ‘Leopard Mountain’ |
| Moru-koyaní- | ‘Tall Mountain’ |
| Morú-ṇṇṇá- | ‘Revenge Mountain’ |

The Ik use Teso-Turkana place names for several possible reasons. First, some places, like Kaabong or Kasile, are far enough outside the Ik homeland not to warrant a name other than the Teso-Turkana name. Second, while interacting with Teso-Turkana neighbours, perhaps the Ik found it easier to use the more widely known toponyms. And third, though this would contradict some versions of Ik history in the literature, the Ik may have settled in their current homeland after the Teso-Turkana tribes had arrived and given names to the landscape (see Schrock 2009).

A fair number of Ik place names are made of compounds. For some, the compound N_2 is a general locative noun like *aká*- ‘mouth’, *akó*- ‘inside’, *awá*- ‘place/home’, or *kjá*- ‘land’, as in:

(113) *Ik compound toponyms with general locative N_2*

| | |
|---------------|-----------------------------|
| Borotsa-aka- | ‘Borotsa Mouth’ |
| Icé-kjá- | ‘Ik Land’ |
| Isókói-akó- | ‘In the Euphorbia’ |
| Lera-akó- | ‘In the White-Thorn Acacia’ |
| Lotókíka-awa- | ‘Rain-Shelter Place’ |
| Oŋori-awa- | ‘Elephant Place’ |
| Tsutsuka-awa- | ‘Tanning Place’ |

Other place names consisting of compounds involve an N_2 with more specific locative reference, as in:

(114) *Ik compound toponyms with more specific N_2*

| | |
|------------------|-----------------------|
| Kakútá-kuríi- | ‘Kakuta Shade’ |
| Kwarika-bubúíka- | ‘Lower Mountainsides’ |
| Kurá-hoó- | ‘Kura House’ |
| Mileti-sabáa- | ‘Mileti River’ |
| Órí-ḥoo- | ‘Ori’s Escarpment’ |
| Séítíní-kokóró- | ‘White Quartz Ridge’ |
| Tiritiri-kwái- | ‘Tiritiri Edge’ |

And still other places names consist of compounds that join two non-locative nouns, such as the ones in (115). Not all the meanings are known:

(115) *Other Ik compound toponyms*

| | |
|----------------|-------------------------|
| Dumáná-mériſi- | ‘Spotted <i>Duman</i> ’ |
| Dúné-morókú- | ‘ <i>Dune</i> Throat’ |
| Kae-híkóó- | ‘Tortoise Chameleon’ |
| Nera-dzoga- | ‘Girls Tree (sp.)’ |
| Turkware-ekú- | ‘Turkwara Eye’ |

Some place names have stories associated with them, for example, the name *Takani-kuléε-* from the verb *takán-* ‘be visible’ and *kuléε-* ‘elbow’. The story goes that at this place, an old woman tried to hide from enemies who were attacking her neighbourhood. But at the place where she hid, her elbow was visible, and the enemies spotted her because of that.

The Ik equivalent of the Teso-Turkana mountain names beginning with the root *-moru* are formed with the Ik roots *gwasá-* ‘rock’, *kokoró-* ‘ridge’, *kuḅa-* ‘hill’ or *kwará-* ‘mountain’. Such names include the following:

(116) *Ik mountain names*

| | |
|-----------------|-----------------------|
| Irika-kokoró- | ‘ <i>Irika</i> Ridge’ |
| Kḵpa-kwara- | ‘Vulture Mountain’ |
| Mḵkḵḵ-gwasa- | ‘Rock-Pool Stone’ |
| Palúu-kuḅa- | ‘Palu’s Hill’ |
| Segeří-kwára- | ‘Tree (sp.) Mountain’ |
| Séítíní-kokoró- | ‘White Quartz Ridge’ |
| Tabá-kókóró- | ‘Boulder Ridge’ |

Finally, many Ik place names are simply single words. For some of them, their meanings are still recoverable, while for others, they are not:

(117) *Single-word Ik toponyms*

| | |
|--------------------|---------------------------|
| Aṅatári- | ‘Ang’atar’ |
| Burukáí- | ‘Kenya’ |
| Cerúbe- | ‘Cherub’ |
| Cucueika- | ‘Damp Chills’ |
| Dódofa- | ‘Dodof’ |
| Dasoko- | ‘Uganda (lit. ‘flatness’) |
| Dómoko- | ‘D’omok’ |
| Galatsı- | ‘Galats’ |
| Íséε- | ‘Ise’ |
| Íwóló- | ‘Iwolo’ |
| Kétéla- | ‘Ketel’ |
| Laatsoó- | ‘Laatso’ |
| Mukei- | ‘Muk’e’ |
| Nofo- | ‘Nof’ |
| Oṅórıza- | ‘Ong’oriz’ |
| Pudápúda- | ‘Pud’apud’ |
| Seketé- | ‘Seket’ |
| Sikák ^e | ‘In-the-Dew’ |
| Tsígaka- | ‘Tsigak’ |
| Wúsé- | ‘Wus’ |

5 Pronouns

The term ‘pronoun’ is used here rather loosely. This chapter describes words and affixes that truly represent missing or implied nouns. But it also includes certain nouns and affixes that have meanings like the pronouns in other languages (e.g. English). In some cases, it is not easy to tell whether a particular item is a grammatical word with a pronominal function or a full lexical noun with a pronoun-like meaning. For example, *saí-* means ‘some more’ or ‘some other’, although it inflects fully for case and can take a nominal complement as in *saa róba^e* ‘some other people’. So is it a noun or a pronoun? The goal of this chapter is to describe anything identified as either a pronoun or noun with pronominal meanings or functions.

Ik pronominals comprise a) independent words, b) words found only in compounds, c) clitics, and d) suffixes. All pronominals inflect for case, except for relative pronouns, clitics and verbal suffixes. Some of the pronominals are invariable in terms of grammatical number, while others have suppletive plurals or can be pluralized with one of the language’s pluratives. When it comes to personal pronouns, Ik is a pro-drop language, requiring minimally only bound pronominal subject-agreement suffixes.

5.1 Personal pronouns

The Ik personal pronominal system has a 1/2/3 personal reference. Each grammatical person can be either singular or plural. Like the neighboring Teso-Turkana languages, Ik makes a distinction between first person plural exclusive (excluding the addressee) and first person plural inclusive (including the addressee). But unlike in the Teso-Turkana languages, grammatical gender is not reflected in any part of the Ik pronominal system. Lastly, Ik has both free personal pronouns and bound pronominal suffixes on verbs. Both types are described in the following two sections.

5.1.1 Free personal pronouns

The Ik free personal pronouns are free grammatical words. The hyphenated forms in (1) signify not prefixation but rather roots in need of case suffixes:

(1) *Ik free personal pronouns*

| | |
|---------|--------|
| 1SG | ǰci- |
| 2SG | bi- |
| 3SG | ntsi- |
| 1PL.EXC | ŋgó- |
| 1PL.INC | ɲǰíni- |
| 2PL | biti- |
| 3PL | ńti- |

Case suffixation produces the inflectional variety shown in the next table. (2) presents a non-final form case paradigm for all seven free personal pronouns. The nominative and instrumental case forms for 1SG reflect the morpho-phonological de-affrication described in §2.5.2. And in the ablative and copulative cases, there is some variation in the degree to which the pronoun-final /i/ assimilates to the case suffix consisting of /o/ (§2.5.4):

(2) *Case paradigm for Ik free personal pronouns*

| | 1SG | 2SG | 3SG | 1PL.EXC | 1PL.INC | 2PL | 3PL |
|-----|-------|------|--------|---------|---------|--------|-------|
| OBL | ǰci | bi | ntsi | ŋgo | ɲǰíni | biti | ńti |
| NOM | ǰk-a | bi-a | nts-a | ŋgw-a | ɲǰín-a | bit-a | ńt-a |
| INS | ǰk-o | bu-o | nts-o | ŋg-o | ɲǰín-o | bit-o | ńt-o |
| ABL | ǰcu-o | bu-o | ntsú-ó | ŋgó-ó | ɲǰíni-o | bitu-o | ńtú-o |
| GEN | ǰci-e | bi-e | ntsi-é | ŋgó-é | ɲǰíni-e | biti-e | ńti-e |
| ACC | ǰci-a | bi-a | ntsi-á | ŋgó-á | ɲǰíni-a | biti-a | ńti-a |
| DAT | ǰci-e | bi-e | ntsi-é | ŋgó-é | ɲǰíni-e | biti-e | ńti-e |
| COP | ǰcu-o | bu-o | ntsú-ó | ŋgó-ó | ɲǰíni-o | bitu-o | ńtú-o |

In terms of internal reconstruction, there appears to be a morphological relationship between the first person free pronouns: the singular *ǰici-* ‘I’, and the plural *ŋgó-* and *ǰǰíní-* ‘we’. It looks like the 1_{PL.INC} *ǰǰíní-* is a pluralization of the first person singular *ǰici-*. Recall from §4.2.5 that the possessive plurative {-*ini*} may be used to pluralize a possessed or associated person or object. In light of this, the 1_{PL.INC} *ǰǰíní-* can be analyzed as *ǰic + mu-* → *ǰic-íní-* → *ǰǰíní-*. The change in voicing from /c/ to /j/ is seen in modern Ik in another pronominal form: *ǰj-éńí-* ‘mine’, where *-éńí-* is an impersonal possessum marker (§5.2). Semantically, the first person plural inclusive pronoun may have grammaticalized from a word meaning something like ‘my Xs’ or ‘those associated with me’, i.e., including you the addressee(s).

Second, there also seems to be a morphological relationship between the first person plural exclusive *ŋgó-* and both *ǰici-* and *ǰǰíní-*. While the link between *ǰici-* and *ǰǰíní-* hinges on the voicing alternation /c/~/j/, a link between *ǰǰíní-* and *ŋgó-* is suggested by the de-affrication described in §2.5.2. In short, affricates tend to surface as stops before the vowels /a/ or /ɔ, o/, and /j/~/g/ is a well-attested example. So the pronoun *ǰǰíní-* could alternatively be a pluralization of *ŋgó-*, where *ǰj-* is the underlying morpheme, hardened to *ǰg-* before /o/. So although the evolutionary direction taken by these three first-person pronouns cannot yet be determined, it seems that a proto-morpheme **ǰj/ǰc/ŋg* underlies them all.

Then, in terms of areal and possibly genetic parallels, the 1_{SG} pronoun *ǰici-* recalls the 1_{SG} possessive *cú* of Dhaasanac (Tosco 2001:64), and in its nominative form (*ǰk-*) the Eastern Semitic *anaku* and East Cushitic *ani/anu*. Tucker even suggested a link between Ik pronouns and ‘Erythraic’, using Middle Egyptian as a reference point (1967b:675). The Ik 1_{PL.EXC} *ŋgó-* closely resembles the 1_{PL.INC} *ŋwóní* of Turkana (Dimmendaal 1983:207). Although these two pronouns differ in clusivity, their relationship looks promising. Otherwise, the Ik free pronouns most closely resemble those of the other Kuliak languages, as shown below (in comparison with Turkana):

(3) *Kuliak free personal pronouns*

| | | Carlin 1993 | Heine 1975a | Dimm. 1983 |
|---------|--------|-------------|-------------|------------|
| | Ik | So | Nyang'í | Turkana |
| 1SG | ǰci- | aya | ay | áyóŋ |
| 2SG | bi- | bia | bi | íyóŋ |
| 3SG | ntsí- | ica | ikiet | ŋesí |
| 1PL.EXC | ŋgó- | isia | mis | suá |
| 1PL.INC | ŋǰíní- | inia | gin | ŋwɔní |
| 2PL | biti- | bita | biyô | eesí |
| 3PL | ńtí- | itia | ít | kecí |

Isomorphy among Kuliak free pronouns is indicated with encircling in (3). The paradigm shows significant unity among the Kuliak languages, but some marked influence from Teso-Turkana, particularly in 1SG and 1PL.EXC.

Syntactically, the free personal pronouns behave like full nouns. Their ability to inflect for case allows them to replace any noun operating as any clausal argument. As shown below, they can even be modified by demonstratives (3) and relative clauses (4):

(3) *Kamie njinie nüi...*

kám-í-e ǰǰíní-e = níí
 like-3SG-SIML we.INC-GEN = DEM.PL
 Like we here (for example)...

(4) *Bitá ni mudúkanaakit...*

bit-a = ni múdúk-án-aak-ít-^a
 you.PL-NOM = REL.PL blind-STAT-DISTR-2PL-REAL
 You who are blind,...

Ik is a pro-drop language, so the free personal pronouns are not required if their referent is a subject or object. They can be used in addition to the pronominal subject-agreement suffixes if more emphasis is needed.

5.1.2 Personal possessive pronouns

Ik has no other personal possessive pronouns than those presented in (1). Possession is expressed in two ways through those personal pronouns: 1) The first way is to mark possession by putting the pronoun (PRO) in the genitive case as an NP modifier, following the possessum NP head. 2) The second way is to put the pronoun in the oblique case as the first element in a possessive compound. Both ways are illustrated below. No semantic difference is known to exist between the two, though pragmatic, discursive or rhythmic preferences may lead a speaker to choose one over the other.

(5) *Pronominal possessive strategies*

| #1 | #2 | |
|---------------------------|-------------------------|-----------------|
| OX PRO-GEN | PRO[OBL]-OX | |
| rágwa jci- ^e | jíci-ragw ^a | ‘my ox’ |
| rágwa bi- ^e | bi-rágw ^a | ‘your (sg.) ox’ |
| rágwa ntsí- ^e | ntsí-ragw ^a | ‘his/her ox’ |
| rágwa ngó- ^e | ngó-rágw ^a | ‘our (exc.) ox’ |
| rágwa jjíńí- ^e | jjíńí-ragw ^a | ‘our (inc.) ox’ |
| rágwa biti- ^e | biti-ragw ^a | ‘your (pl.)’ |
| rágwa ńtí- ^e | ńtí-ragw ^a | ‘their ox’ |

5.1.3 Emphatic pronominal compound

An emphatic pronominal compound can be formed by combining any of the personal pronouns with the words *nébu-* ‘body’ or *nébitíńí-* ‘bodies’. Such compounds draw special emphasis to the person referenced by the pronoun. Although these compounds are glossed in English as ‘-self/selves’, they do not have a reflexive meaning. Reflexivity in Ik is expressed by the pronoun *así-* which is covered below in §5.7. The paradigm of emphatic pronominal compounds for all person and numbers is presented in (6):

(6) *Emphatic pronominal compounds*

| | |
|------------------|-------------------|
| jíci-nebu- | ‘myself’ |
| bi-nébu- | ‘yourself’ |
| ntsí-nébu- | ‘his/herself’ |
| ngó-néb-itíní- | ‘ourselves (EXC)’ |
| njíní-neb-itíní- | ‘ourselves (INC)’ |
| biti-neb-itíní- | ‘yourselves’ |
| ńtí-neb-itíní- | ‘themselves’ |

In the following example, the Emphatic compound *jíci-neb^o* ‘with my body’ emphasizes the fact that it is ‘I’ who am going, not you, or anyone else. The context may be that the addressee or someone else had refused to go:

(7) *Keesia ncineb.*

ke-es-í-á jíci-neb-^o
 go-INT-1SG-REAL I[OBL]-body-INS
 I will go myself (with my own body)!

Although usually formed with personal pronouns, emphatic compounds may also involve full nouns. In the following example, the compound *roba-nebitíní* ‘people themselves (people-bodies)’ adds a certain degree of finality and/or concreteness to the fact of people dying:

(8) *Nakwaa riyee nda robanebitini ts’eatik.*

nakwa-a rié-é ńda roba-neb-itíní ts’é-áti-k^e
 even-NOM goats-GEN and people-body-PL[OBL] die[PL]-3PL-SIML
 Even goats...and people themselves dying.

5.1.4 *Bound personal pronouns*

The Ik bound personal pronouns are verbal suffixes. For this reason, they are also treated under §7.4, where their verbal properties are discussed. They have the same person and number distinctions as their free

counterparts. They are viewed as suffixes because 1) they cannot stand alone as a word, and 2) they can be preceded or followed by other verbal suffixes (unlike most clitics). Their grammatical function is to cross-reference the subject of the clause. (9) presents the Ik bound personal pronouns in the unmarked [-ATR] and marked [+ATR] allomorphs:

(8) *Ik bound pronominal suffixes*

| | [-ATR] | [+ATR] |
|---------|--------|--------|
| 1SG | -íí | -íí |
| 2SG | -ídi | -ídi |
| 3SG | -i | -i |
| 1PL.EXC | -ímí | -ímí |
| 1PL.INC | -ísíni | -ísíni |
| 2PL | -ítí | -ítí |
| 3PL | -áti | — |

A few comments are in order for the forms in (8). First, the 2SG pronominal suffix {-ídi} has the tone melody HL due to the presence of the depressor consonant /d/. Depending on the verb stem it attaches to, it can surface as LL but never as HH. Along the same lines, the 3PL suffix {-áti-} also has a HL tone melody. It can surface as LL but never as HH. Although it does not contain a depressor consonant currently, it seems quite likely that the /t/ in {-áti-} has developed historically from /d/ as in *-ádi. This cannot be proven, but such a development would help explain the HL tone melody. The 3PL suffix is also dominantly [+ATR] as described back in §3.1.3.

As is common cross-linguistically, the Ik bound pronominal suffixes are probably eroded forms of (at least some of) the free forms shown in (1). The devolution of *íci-* to {-íí}, for example, may have involved the reinterpretation of /ɲ/ as the high front vowel /i/ leading to [íci]. (In this vein, compare the Ik free form *ntsí-* ‘he/she/it’ to the So oblique 3SG pronominal *ici-* (Carlin 1993:79)). The loss of /c/ from *íci-* could then have happened as a result of a process similar to the ‘/c/ to [i]’ variation found in

So (McKinney 2009). This would have then created a form like [íi] which then could have become [-íí]. The change in [ATR] in this speculative scenario, if true, would have to be explained by other means.

Secondly, the correlation between the 2_{PL} free form *biti-* and the bound form {-ítí} is suggestive, apart from the problem of tone difference. If the bound pronoun is an eroded remnant of the free form, then this would reflect an historical ‘/b/-drop’ sound change (**biti* → *-iti*) that must have affect the 2_{SG} form as well (**bi(d)i* → *-idi*). The latter postulation, of course, requires positing a lost /d/ as well as a lost /b/ for the 2_{SG} pronoun. Historical /b/-dropping is elsewhere attested among archaic kinship terms (see §4.4.).

The current shape of the 1_{PL.EXC} pronominal {-ímí} bears noteworthy resemblance to the Nyang’ía 1_{PL.EXC} pronoun *mis* (Heine 1975a), the loss of /s/ notwithstanding. And in the case of the Ik 1_{PL.INC} pronominal {-ísíní}, a simple change of /j/ to /s/ could have produced it from the free form *njíní-* (with changes in tone and [ATR]). The plausibility of these proposals will have to be judged as further comparative evidence comes to light.

5.2 Impersonal possessum pronoun

In addition to the personal possessive pronouns shown above in (5), Ik also has a pronoun that expresses possession without reference to grammatical person. This impersonal possessum pronoun (PSSM) has the form *-ení-* (no plural). It occurs as the second element (N₂) of a compound, where the N₁ is the possessing entity. The pronoun itself is used to reference a possessum that may or may not also be explicitly mentioned, as in *bi-en* ‘yours’ versus *bi-ena awáé* ‘your home’. If the possessum is explicitly mentioned, as in *bi-ena awáé* ‘your home’, it comes after impersonal possessive compound and takes the genitive case (as in ‘you-PSSM home-GEN’).

In combination with a personal pronoun, the impersonal possessum is roughly equivalent in translation to the independent English possessive pronouns, like ‘mine’, ‘yours’, ‘its’, as in:

(9) *Ik impersonal possessum pronoun*

| | |
|------------|----------------|
| ɲj-éńí- | ‘mine’ |
| bi-éńí- | ‘yours (sg.)’ |
| nts-éńí- | ‘his/hers/its’ |
| ɲgó-éńí- | ‘ours (exc.)’ |
| ɲjíní-ɛńí- | ‘ours (inc.)’ |
| biti-éńí- | ‘yours (pl.)’ |
| ńtí-ɛńí- | ‘theirs’ |

The tone of *-éńí-* changes according to the melody of the compound’s N_1 . But because it is in a compound, the dominant [+ATR] value of the N_1 does not spread across the morpheme boundary. The impersonal possessum is analyzed as an N_2 instead of a suffix because, as a general rule: a) It does not alter the tone of the N_1 , b) it does not delete the final vowel of the N_1 , and c) is it not harmonized for [ATR] by the N_1 . Nevertheless, it remains somewhat of a hybrid between suffix and N_2 in that: a) It accompanies a tone change of the N_1 in the case of the 1SG (*ǰíci-* → *ɲj’-*) and b) it deletes the final vowel of the 1SG and 3SG N_2 pronouns (*ǰíci-* → *ɲj’-* and *ntsí-* → *nts’-*).

The impersonal possessum pronominal also combines with full nouns, as in:

(10) *Impersonal possessum with nouns/nominalized verbs*

| | |
|-------------|--------------------------------------|
| aǰ-oni-éńí- | the third time (lit. ‘to be three’s) |
| cikámá-éńí- | the womens’ |
| icé-éńí- | the Iks’ (language, customs, etc. |
| ɲɔ́-éńí- | the mens’ |
| wicé-éńí- | the children’s |

5.3 Indefinite pronouns

Ik has eight indefinite pronouns, listed in (11). But most of the indefinite pronouns are bimorphemic or compounds. The first four in the table are formed on the basis of *kɔní-* ‘some, another’ which is related to the verb *kɔn-* ‘be one’. The next three are based on *kíní-* ‘some (pl.)’, the plural counterpart to *kɔní-*. The last pronoun in the table (*saí-*) is the only free form apart from *kɔní-*. All these indefinite pronouns can a) be fully inflected for case, and b) some can occur with or without explicit nominal complements.

(11) *Ik indefinite pronouns*

| | | |
|--------------------|-------------------------|----------------|
| <i>kɔní-</i> | ‘some, another’ | |
| <i>kɔ́n-áí-</i> | ‘somewhere’ | (some-side) |
| <i>kɔ́n-óma-</i> | ‘somebody (strange)’ | (some-SING) |
| <i>kɔ́ní-éńí-</i> | ‘a, some (sg.)’ | (some-PSSM) |
| <i>kíní-éńí-</i> | ‘some (pl.)’ | (some.PL-PSSM) |
| <i>kíní-ména-</i> | ‘some (strange) issues’ | (some-issues) |
| <i>kíní-roɔ́a-</i> | ‘some (strange) people’ | (some-people) |
| <i>saí-</i> | ‘some more, some other’ | |

The indefinite notion of ‘any’ is conveyed in Ik with the invariable quantifier *myɔu*, as in *ódowa myɔu* ‘any day’.

Four of the eight pronouns listed in (11) can occur with or without a nominal complement. These are *kɔní-*, *kɔ́ní-éńí-*, *kíní-éńí-*, and *saí-*. The other four do not take complements because, as compounds, they already contain a head and modifier (with the exception of *kɔ́n-óma-*, which because of its morphological structure, must be analyzed as a singulative form):

(12) *Atsaa kon.*

ats-á-á kɔn-∅
 come-REAL-PRF one-NOM
 Another has come.

- (13) *Atsa kona amae.*
 ats-á-á kɔn-a ámá-^e
 come-REAL-PRF one-NOM person-GEN
 Another person has come.
- (14) *Bedá koneenik.*
 béd-á kóní-éní-k^a
 want-REAL one-PSSM-ACC
 She wants some(thing).
- (15) *Bedá koneenia kwazae.*
 béd-á kóní-éní-a kwaza-^e
 want-REAL one-PSSM-ACC clothing-GEN
 She wants some (piece of) clothing.
- (16) *Atsaa sa.*
 ats-á-á sa-∅
 come-REAL-PRF some.others-NOM
 Some others have come.
- (17) *Atsaa saa robae.*
 ats-á-á sa-a roba-^e
 come-REAL-PRF some.others-NOM people-GEN
 Some other people have come.

The pronouns *kón-óma-* ‘somebody’, *kíní-mena-* ‘some issues’, and *kíní-roba-* ‘somebodies’ are not equivalent in meaning to their English glosses. They denote a referent that is unknown and often malevolent—strangers and strange things. The English ‘somebody’ is usually rendered in Ik just as *ám* ‘person’ or *kóné-éna ámá^e* ‘some person’. Examples of the strangeness nuance of these indefinite pronominal compounds include the following two:

- (18) *Kawa konoma rijaa ntia, roba?*
 kaw-a kón-óm-a ríjǎ-a ntía róba
 cut-REAL some-SING-NOM forest-ACC how people[OBL]
 Is some unknown person cutting the forest like that, folks?

This second example, taken from Text 5 in Appendix A, comes from an animal fable where a sick lion is eating the animals that go to visit him. Witnessing the carnage, a rabbit on the outside thinks to himself:

- (19) *Iya kinimena itiyooa pakwaako.*
 i-a kíní-men-a itiyá-ós-á pakó-áko-∅
 be-REAL some-issues-NOM do-PASS-REAL cave-inside-ABL
 There are some strange things being done inside the cave.

5.4 Interrogative pronouns

Ik makes use of five interrogative pronouns that all inflect fully for case:

- (20) *Ik interrogative pronouns*

| | |
|-----------|----------------|
| isi- | ‘what?’ |
| ńt-/ndaí- | ‘where?’ |
| ndo- | ‘who?’ |
| ńté-éńí- | ‘which (sg.)?’ |
| ńtí-éńí- | ‘which (pl.)?’ |

Apart from *isi-*, these interrogative pronouns all are built on a proto-interrogative particle like **nd(V)-* or **nt(V)-*. This particle combined historically with a variety of other morphemes to produce the interrogative pronouns of today. For example, the word *ndaí-* ‘where’ combines **ndV-* with the nominal root *al-* ‘side’. And *ńté-éńí-* ‘which (sg.)’ and *ńtí-éńí-* ‘which (pl.)’ combine the particle with the impersonal possessum pronominal.

Two interrogative concepts are conspicuously absent from (20): ‘when?’ and ‘why?’. As Serzisko observed (1992:200), the word translated into Ik as ‘when?’ (*ńt-ódo-o*) is a combination of the proto-interrogative **ntV-* with the nominal root *ódou-* ‘day’ in the instrumental case. This is in itself a shorter version of the phrase *ńt-énó ódoue* ‘on which day’. Actually, when translated into Ik, the word ‘when’ must be specified for the intended time span, as in ‘which day?’ (*ńt-énó ódoue*), ‘which hour?’ (*ńt-énó ńásáatí*), etc.

As for the concept ‘why?’, it is expressed through the word *isi-* ‘what’ in the dative case (for what?) or ablative case (from what?). It is often combined with the impersonal possessum particle, as in *isi-ení-k^e*. When left-dislocated as in (21), *isi-* ‘what’ leaves a trace in the form of the dummy pronoun (DP) which marks the movement of a non-core argument. As a non-core argument, *isi-* could signify purpose (dative) or cause (ablative):

- (21) *Isio naa moo wicea kodati*
isi-o = náa mo-o wicé-á kódf-áti
 what-COP = PST1 not-SEQ:DP children-ACC cry-3PL
 Why did the children not cry?

- (22) *Biraa kida atsa biyak. Isienik?*
biraa kí = df-a ats-a biá-k^e isi-ení-k^e
 lack-REAL DEF = one-NOM come-REAL outside-DAT what-PSSM-DAT
 Not a one comes back out. Why?

The normal position for these interrogative pronouns is in a left-dislocated, clause-initial slot where they take the copulative case. But they may also occur in the slot where their referent would appear. (23)-(26) exemplify this flexibility. Note once again that when a fronted pronoun presents a non-core argument, as in (24), the dummy pronoun must mark its absence:

- (23) *Isio befid?*
 isi-o béd-íd-Ø
 what-COP want-2SG-REAL
 What do you want?
- (24) *Bedida is?*
 béd-íd-a is-Ø
 want-2SG-REAL what-NOM
 You want what?
- (25) *Ndayoo keesidad?*
 ndai-ó ke-es-íd-a = d^e
 where-COP go-INT-2SG-REAL = DP
 Where are you going?
- (26) *Keesida ndaik?*
 ke-es-íd-a ndai-k^e
 go-INT-2SG-REAL where-DAT
 You are going where?

The pronouns *isi-* ‘what’, *ńté-éní-* ‘which (sg.)’, and *ńtí-éní-* ‘which (pl.)’ all can occur alone or with nominal complements, as in (27)-(30) below:

- (27) *Isiemutio iy?*
 isi-emúttí-o i-^a
 what-story-COP be-REAL
 What news is there?
- (28) *Isiicoo dan?*
 isi-icó-ó d-a = n
 what-AGT.PL-COP PRO.PL-NOM = DEM.PL
 What (kind of) people are these?

- (29) *Nteenoo amee da?*
 ńtí-énó-ɔ́ ámé-e d̥-a
 which-PSSM-COP person-GEN PRO.SG-NOM
 Which person is this?
- (30) *Ntienoo robee da?*
 ńtí-énó-ɔ́ roḃé-é d̥-a
 which[PL]-PSSM-COP people-GEN PRO.PL-NOM
 Which people are these?

Only *ndo-* can be pluralized and is done so as *ndo-íní-* ‘who (pl.)?’:

- (31) *Ndoo kidaa?*
 ndo-o ki = d̥á-á
 who-COP DIST = PRO.SG-NOM
 Who is that?
- (32) *Ndoinio kidaa?*
 ndo-íní-o ki = d̥á-á
 who-COP DIST = PRO.PL-NOM
 Who are those?

In the ablative case, the pronoun *ndaí-* ‘where?’ takes the unexpected form *n̄d̄éé* ‘from where?’. The historical changes that yielded *n̄d̄éé* as the ablative form of *ndaí-* are not really understood. A form closer to what one would expect—*ndóó*—is instead used in the sense of ‘what about’, as in *ndóó ŋk^a* ‘what about me?’. The following two sentences illustrate the suppletive form *n̄d̄éé* compared with the normal left-dislocated form of *ndaí-* ‘where?’:

- (33) *Atsida ndee?*
 ats-íd-a n̄d̄éé
 come-2SG-REAL where.ABL
 You’re coming from where?

- (34) *Ndayoo atsidad?*
 ndaí-ó ats-íd-a = d^e
 where-COP come-2SG-REAL = DP
 From where are you coming?

When the question ‘Where?’ is asked in isolation, the interrogative pronoun *ńt-* is used instead of *ndaí-*, in its nominative case form as *ńt-á*. For example, if someone yells *ntsúó kídá* ‘There it is!’, a questioning reply would be *ńtá* ‘Where?’ rather than *ndaík^e* ‘where:DAT?’.

5.5 Demonstrative pronouns

Ik has a suite of demonstrative pronouns based on the forms *dí-* for singular and *dí-* for plural. The only phonological difference between them is their [ATR] value. This is one of the rare instances in the language when contrast is made strictly with [ATR]. And based on their underlying forms, the tone melody posited for these pronouns is LH. But, high-tone anticipation changes this to HH in five out of the eight cases. Combined with a proclitic and tone changes, the demonstrative pronouns have three deictic points of reference: proximal, medial, and distal. The table in (35) presents the full case paradigm for the singular demonstrative *dí-*:

- (35) *Ik singular demonstrative pronouns*

| | Proximal | Medial | Distal |
|-----|----------|-----------|-----------|
| OBL | dí´ | kɪ = dí | kɪ = dí´ |
| NOM | d-á´ | kɪ = d-á | kɪ = d-á´ |
| INS | d-ɔ´ | kɪ = d-ɔ | kɪ = d-ɔ´ |
| ABL | dɔ-ɔ | kɪ = dɔ-ɔ | kɪ = dɔ-ɔ |
| GEN | dé-é | kɪ = dé-é | kɪ = dé-é |
| ACC | dí-á | kɪ = dí-á | kɪ = dí-á |
| DAT | dé-é | kɪ = dé-é | kɪ = dé-é |
| COP | dɔ-ɔ | kɪ = dɔ-ɔ | kɪ = dɔ-ɔ |

The trait distinguishing the medial and distal forms of *dí'* is tone: Medial forms have a LH melody in the nominative, instrumental, and oblique cases, while the distal forms have LL instead. Both medial and distal forms have the singular distal demonstrative *kɛ* attached as a proclitic. In this unstressed position, the vowel /ɛ/ changed to /ɪ/. (35) also exhibits vowel assimilatory processes at work, for example *dí-ɔ́* → *dí-ɔ́* and *dí-é* → *dé-é*.

The next table presents the case paradigm for the plural demonstrative pronoun *dí'* in its proximal, medial, and distal forms:

(36) *Ik plural demonstrative pronouns*

| | Proximal | Medial | Distal |
|-----|----------|-----------|------------|
| NOM | dí-a' | ki = dí-á | ki = dí-a' |
| INS | dí-o' | ki = dí-ó | ki = dí-o' |
| ABL | dí-ó | ki = dí-ó | ki = dí-ó |
| GEN | dí-é | ki = dí-é | ki = dí-é |
| ACC | dí-á | ki = dí-á | ki = dí-á |
| DAT | dí-é | ki = dí-é | ki = dí-é |
| COP | dí-ó | ki = dí-ó | ki = dí-ó |
| OBL | dí' | ki = dí' | ki = dí' |

As with the singular demonstrative pronoun, the medial and distal forms of the plural *dí'* are distinguished on the basis of tone alone. And they are also built off the proximal base by adding the plural distal demonstrative *ki* as a proclitic. The paradigm in (36) also shows partial vowel assimilation in the ablative and copulative cases, when *dí-ó* becomes *dí-ó* for both.

The demonstrative pronouns can stand alone, without determiners, as in:

(37) *J'eja bee kida jii.*

jej-á = 'bee ki = dí-á = jii
 stay-REAL = PST2 MED = one-NOM = also
 That one also stayed yesterday.

- (38) *Epukoituo kidío.*
 ep-úkó-itu-o ki = dí-ó
 sleep-COMP-2PL-SEQ DIST/MED = ones-ABL
 And then you sleep in those (ones, i.e. 'huts').

But they are often also modified by various spatial determiners such as the singular proximal demonstrative = *na* and plural distal = *ki* (§8.2.1):

- (39) *Xeba doo na.*
 ʃɛb-a dɔ́-ɔ́ = na
 fear-REAL one-ABL = DEM.SG
 She's afraid of this (one).

- (40) *Bedia kida ki.*
 bédí-í-a ki = d-a = ki
 want-1SG-REAL DIST = ones-NOM = DIST.DEM.PL
 I want those (ones).

If the demonstrative pronouns are modified by a relative clause, the usual relative pronouns (see §5.4) are not used. This may be due to a prohibition against two pronouns occurring one after another, for example:

- (41) *Mita di zea akwedoo ngoe.*
 mit-á dí ze-a ákw-édɔ-ɔ ngó-^e
 be-REAL one[OBL] big-REAL inside-PSSR.SG-ABL we.EXC-GEN
 It's the important one from among us.

Normally, in a sentence like (41), a singular relative pronoun like *na* would be required between *dí* and *zea*, as in *ámá na ze* 'person who (is) big'.

Ik has another demonstrative pronoun, *kidíásáí-*, which is a combination of three elements: 1) the distal plural demonstrative *ki*, 2) the plural demonstrative pronoun in the accusative case (*díá*), and 3) the indefinite

pronoun *saí-*. As with the distal demonstrative pronouns listed in (36), the distal demonstrative *ki* is analyzed here as a proclitic. By contrast, the combination of *díá* and *saí-* can be treated as a sort of compound.

As mentioned in §5.3, the pronoun *saí-* has the indefinite sense of ‘some others’. However, when it comes to *kidíásái-*, the distal demonstrative *ki* (which is inherently definite) has the effect of making this complex pronoun more definite. This accords well with the cross-linguistically attested grammaticalization of a demonstrative to a definite marker (Heine & Kuteva 2007:88). And so a reasonable gloss of *kidíásái-* seems to be ‘the others’:

- (42) *Taboletini kidiasaik.*
 taból-ét-ini ki = díásái-k^e
 celebrate-VEN-SEQ the = others-DAT
 And they celebrated to (i.e. in front of) the others.

- (43) *Na kidiasayaa iwatie pakalooa,...*
 na = ki = díásái-á iw-áti-e pakalo-áá
 CONJ = the = others-ACC hit-3PL-SIML alarm-ACC
 When the others sounded the alarm,...

5.6 Relative pronouns

The Ik relative pronouns are identical in form to the non-final demonstratives (see §8.2). Since demonstratives have a more basic and non-recursive function than relative pronouns, it is assumed that the Ik relative pronouns are a grammaticalization of the demonstratives (cf. Heine & Kuteva 2007:89). One possible chain of grammaticalization for Ik relative pronouns is shown in (44), where there is evolution going from simple noun phrase to stative relative clause to transitive relative clause:

(44) *Grammaticalization from demonstratives → relative pronouns*

| | |
|--------------------------------------|-------------------------|
| ámá = na | ‘this person’ |
| ámá = na maráj | ‘person who (is) good’ |
| ▼ áamá = na bédá ηkákák ^a | ‘person who wants food’ |

Ik relative pronouns are analyzed as enclitics attaching to the main clause argument they are relativizing. This analysis is based on the lexical (§3.1.6) and the post-lexical (§3.1.7) vowel harmony that occurs between the relativized argument and the relative pronoun. More specifically, a lexically [+ATR] relativized argument spreads harmony to the singular remote past relative pronouns =nɔɔ, as in *ámoo = noo badukot^a* ‘the person who died’. Then, at the post-lexical level, all the plural relative pronouns harmonize the last phonetic syllable of the preceding word if [-ATR], for example when *mɛsɛɛ = ni ɓar* ‘the beer that is sour’ surfaces as [mɛsɛɛ = ni ɓar].

The Ik relative pronouns not only introduce relative clauses but also fill the slot of the common argument (CA) shared by the main clause and relative clause. They convey the grammatical number of the CA as well as the tense of the relative clause. Tensed relative pronouns may be rare but are not unheard of (Dixon 2010:346). It is no accident that the recent past and remote past demonstratives and relative pronouns are identical in form to the recent and remote past tense clitics (see §7.10.1 and §8.2.2).

The relative pronouns are presented in (45):

(45) *Ik relative pronouns*

| | Singular | Plural |
|--------------|----------|--------|
| Non-past | =na | =ni |
| Recent past | =náa | =níi |
| Removed past | =sɪna | =sini |
| Remote past | =nɔɔ | =nuu |

As (45) shows, the relative pronouns express the grammatical number of their referent, as well as the tense of the relative clause. Besides a general non-past, the pronouns also flesh out the whole three-term past tense system: recent, removed, and remote past. This system of tensed relative pronouns allows the grammar to communicate nuances like the following:

(46) *Tensed relative clauses*

| | |
|--------------------------------|---|
| ámá na tóda zuk ^u | ‘person who talks a lot (now or generally)’ |
| ámá náa tóda zuk ^u | ‘person who talked a lot (earlier today)’ |
| ámá sina tóda zuk ^u | ‘person who talked a lot (yesterday)’ |
| ámá noo tóda zuk ^u | ‘person who talked a lot (a while ago)’ |

In a synchronic description of these relative pronouns, it does little good to analyze them further morphologically. And it is not known whether Ik speakers think of them as including more than one unit of meaning. Nevertheless, at least historically, relative pronouns (singular and plural) at three of the four tense levels do contain more than one morpheme.

To begin with a some background information, consider the non-final and final forms of Ik singular and plural tensed demonstratives (cf. §8.2.1):

(47) *Ik tensed demonstratives*

| | SG | | PL | |
|--------------|-------|-------------------|-------|-------------------|
| | NF | FF | NF | FF |
| Non-past | na | n(a) | ni | n(i) |
| Recent past | ná-a | ná-k ^a | ní-i | ní-k ⁱ |
| Removed past | si-na | si-n | si-ni | si-n |
| Remote past | nɔ-ɔ | nɔ-k ^ɔ | nu-u | nu-k ^u |

Note from (47) that the non-final forms for both singular and plural are identical to the relative pronouns in (45) above. Also note that the element *na* (*nɔ* with vowel assimilation) in the non-past tense forms a base for all the

other tenses in the singular, just as *ni* (or *nu*) does in the plural. In the final forms of singular recent and remote past, the *-k^a* and *-k^o* remind one of the accusative and copulative case suffixes, respectively. Looking at the basic elements *na/nɔ* in the singular and *ni/nu* in the plural, along with what appear to be grammaticalizations of case suffixes (§6.4.2), it seems likely that the tensed demonstratives involve more than one morpheme.

In light of this, the following analysis of the relative pronouns should prove more useful for someone undertaking historical-comparative research. See §8.2.1 for further comments on the morphological makeup of these forms:

(48) *Ik relative pronouns in diachronic analysis*

| | Singular | Plural |
|--------------|----------|--------|
| Non-past | na | ni |
| Recent past | ná-a | ní-i |
| Removed past | sɪ-na | si-ni |
| Remote past | nɔ-ɔ | nu-u |

5.7 Reflexive pronoun

Ik expresses reflexivity with the special free pronoun *así-* which is undoubtedly related the So word *as* ‘body’ (cf. the Ik word for body, *nébu-*). This form has been analyzed as a verbal particle (Heine & König 1996:47), but the fact that it inflects for case discounts this view. The Ik reflexive pronoun is ‘informative’ in that it communicates the grammatical number (but not person) of its ‘controller’ (Dixon 2012:154). Its controller can be of any grammatical person (1-2-3). If the controller is plural, then the pronoun reflects this by being pluralized with the plurative III {-ika}. Being a free pronoun, the reflexive is inflected for all cases in the singular and plural:

(49) *Case inflection of the Ik reflexive pronoun*

| | así- (sg.) | | ás-íka- (pl.) | |
|-----|------------|--------------------|---------------|-----------------------|
| | NF | FF | NF | FF |
| NOM | as-a | as- ^a | ás-ík-a | ás-ík- ^a |
| INS | as-ɔ | as- ^ɔ | ás-ík-ɔ | ás-ík- ^ɔ |
| ABL | asú-ɔ | asú- ^ɔ | ás-ík-ɔ | ás-íka- ^ɔ |
| GEN | así-é | así- ^é | ás-íkε-ε | ás-íka- ^é |
| ACC | así-á | así-k ^a | ás-íka-a | ás-íka-k ^a |
| DAT | así-é | así-k ^é | ás-íkε-ε | ás-íka-k ^é |
| COP | asú-ɔ | asú-k ^ɔ | ás-ík-ɔ | ás-íka-k ^ɔ |
| OBL | asi | as ⁱ | ás-íka | ás-ík ^a |

In a reflexive transitive clause, the controller and the reflexive pronoun are co-referential semantically. At the surface level, the controller is encoded as an agent (A) in the nominative case, while the reflexive can be an object or peripheral argument, depending on the verb. Then the O is encoded by the reflexive pronoun *así*. It always follows the verb and any overt subject in the clause but may be followed itself by peripheral arguments or adverbs:

(50) *Iṅadaiḱotoo ntsa asik.*

ṅádá-íḱót-ɔ-ɔ nts-a así-k^a
 put.aside-AND-3SG-SEQ he-NOM self-ACC
 And he put himself aside.

(51) *Eja kawukoida asa nemeleku.*

εḱ-á kaw-ukó-íd-a as-a ṅémelekú-∅
 not-REAL cut-AND-2SG-REAL self-NOM hoe-INS
 Don't cut yourself with the hoe.

(52) *Iturata asikak.*

itúr-út-át-a ás-íka-k^a
 praise-CAUS-3PL-REAL self-PL-ACC
 They praise themselves.

As seen in these examples, any transitive verb can be given a reflexive meaning with this pronoun. To show this lexically, the following verb pairs are given in the infinitive with the reflexive object in the genitive:

(53) *Non-reflexive and reflexive verb pairs*

| | |
|---------------|-----------------------------|
| balés | 'to ignore' |
| balésá así | 'to ignore oneself' |
| daitetés | 'to make to look nice' |
| daitetésá así | 'to make oneself look nice' |
| ɖɔtsetés | 'to join' |
| ɖɔtsetésá así | 'to join oneself' |
| hodetés | 'to free' |
| hodetésá así | 'to free oneself' |
| irritsés | 'to take care' |
| irritsésá así | 'to take care of oneself' |

5.8 Distributive pronouns

Ik has two distributive pronouns, the free pronoun *ɲana-* and the bound pronoun *ké-*. The first, *ɲana-*, can be roughly glossed as 'each one', while the second can be glossed as 'each' since it must take a nominal complement. The pronoun *ké-* is odd in that it behaves like a nominal prefix (which present-day Ik does not have) or a proclitic. But since it can change the tone on the nominal complement, it is treated here as a reduced noun functioning as the N₁ of special nominal compound, glossed as 'each X'. Examples of both distributive pronouns include the following few sentences:

(54) *Kayuo ŋana nayee yeati.*

ka-i-o ŋan-a naí-é yeatí-^e
 go-3SG-SEQ each-NOM place-DAT his.sibling-GEN
 Each one should go to his brother/sister.

(55) *Atsa noo kejana ngwee itsumuk.*

ats-a = noo ké-ŋán-a ŋgó-é itsum-u-kʔ
 come-REAL = PST3 each-each.one-NOM we.PL.EXC-GEN pierce-3SG-SEQ
 Each one of us came and took a stab (at a bull).

(56) *Keesa keama muju ikiraakok.*

ke-es-á ké-ám-a muju íkíra-akɔ-k^e
 go-INT-REAL each-person-NOM all writing-inside-DAT
 Each and every person will go for the census.

(57) *Keeakwaa tirie ntsenia bisae.*

ké-ɛakw-aa tír-í-e nts-éní-a bisá-^e
 each-man-ACC hold-3SG-SIML his-PSSM-ACC spear-GEN
 Each man holding his own spear.

5.9 Cohortative pronouns

The Ik cohortative pronouns are complex: *taŋé-éde-* in the singular and *taŋá-ík-m-* in the plural. They consist of the root *taŋá-* plus the singular and plural possessive suffixes (§4.2.5-4.2.6). The root *taŋá-* does not occur alone anywhere else in the language. This pronoun is called ‘cohortative’ because it refers to any other member of some group, or even just a pair. As such, the best single gloss for it in English would be ‘co-’ or ‘cohort’, although that obviously does not fit all contexts. Better glosses may be ‘colleague’, ‘agemate’, ‘mate’, ‘sibling’, etc. depending on circumstances.

The two sentences below illustrate the use of the cohortative pronouns:

- (58) *Isio minidee ijitiesia tarjeede?*
 isi-o mín-íd-ε=ε ijít-i-esí-a tarjé-édε-Ø
 what-COP love-2SG-REAL = DP imitate-PLUR-INF-ACC cohort-PSSR-GEN
 Why do you love to imitate your sister (i.e. co-child)?
- (59) *Atsuo tarjakin.*
 ats-u-o tarjá-ík-in-Ø
 come-3SG-SEQ cohort-PL-PSSR.PL-NOM
 And their relatives (i.e. co-people) came.

5.10 Dummy pronoun

Ik uses the pronominal enclitic =ʼdε to stand in as a ‘dummy’ for a peripheral argument that is missing from its expected place in a clause. Heine was the first to identify this morpheme and give it its current label (1983:§2.3.5). In form and function, the dummy pronoun (DP) largely coincides with the Turkana subjunctive marker -rè (Dimmendaal 1983:189), though other parallels have been found in Cushitic and Omotic (see §7.5). The dummy pronoun is underlyingly [-ATR] but is harmonized by [+ATR] stems. Its floating H tone is posited on the basis of the tone changes it causes on the preceding stem. The floating H may be a lexicalization of high-tone insertion meant to counteract the effects of the depressor /d/.

The dummy pronoun (DP) attaches to the end of verbs and is analyzed as a clitic rather than a suffix because it always comes last, regardless of preceding verbal suffixes. But in any case, it could just as well be treated as a suffix without any problems. Because it attaches to verbs, the dummy pronoun is also discussed ahead in §7.5. This enclitic can be difficult to recognize because its non-final form /=ʼε/ is highly susceptible to vowel harmony and assimilation. Two of its many allomorphs are shown below:

(60) *Atsinii kot.*

ats-iní = i = kot^o

come-SEQ = DP = then

Then they came with it.

(61) *Cemetukoo roba wuo wuo wuo...*

cém-ét-u-kó = ɔ roβ-a wúó wúó wúó

fight-INCH-3SG-SEQ = DP people-NOM IDEO IDEO IDEO

And people started (saying) woo, woo, woo...

The dummy pronoun refers anaphorically back to a non-core argument mentioned earlier in the discourse, either in the same clause or in one or more clauses earlier. Heine & König state that the DP marks any missing verbal complement (1996:53), but my data show that it only marks *non-core* arguments. Moreover, a ‘core argument’ in Ik is defined in this grammar as an argument that does not leave behind the DP upon syntactic movement.

Speakers may use the DP to avoid having to repeat an understood argument, or the syntax may simply require it when an argument has been fronted for syntactic reasons. In examples (62) and (64) below, there are simple clauses with a peripheral locative (*sédak^e*) and a comitative argument (*dado nci*). In (63) and (65), note how the DP is used to fill in for the missing argument:

(62) *Nta kaiii sedak.*

ńt-á ka-í-íí séda-k^e

not-REAL go-PLUR-1SG garden-DAT

I don’t go to the garden regularly.

(63) *Nta kaiiid.*

ńt-á ka-í-íí = d^e

not-REAL g go-PLUR-1SG = DP

I don’t go (there, i.e. the garden) regularly.

- (64) *Kaataa dafo nci.*
 ká-át-a-a dafo-o nci-Ø
 go-3PL-REAL-PRF honey-INS I-GEN
 They have gone with my honey.

- (65) *Kaatakad.*
 ká-át-a-ka = d^e
 go-3PL-REAL-PRF = DP
 They have gone (with it, i.e. the honey).

But there are also instances where the syntax of subordinate clauses rearranges the usual order of clausal constituents. Temporal subordinate clauses in Ik have the form of a relative clause (§9.9.1), and Ik time expressions are often encoded in the instrumental case (i.e. as a non-core argument). These two factors combined mean that a temporal subordinate clause without an overt time word marks its verb with the DP. This is because the syntax is interpreting the temporal conjunction as a relative pronoun whose common argument is peripheral argument that in fact does not exist. So in the following two examples, the DP is present on the verb to show that the missing argument—a time expression—is accounted for:

- (66) *Noo kwatsiad,...*
 noo kwáts-í-á = d^e
 CONJ.PST3 small-1SG-REAL = DP
 When I was small,...

- (67) *Sina iyanee Kamionok,...*
 si-na i-an-é = e kámíóno-k^e
 CONJ.PST2 be-IPS-REAL = DP Kamion-DAT
 When people were in Kamion yesterday,...

Likewise, if the common argument (CA) or head of a normal relative clause is a peripheral argument in the relative clause, then the dummy pronoun

must be attached to the verb. This is because the relative pronoun representing the CA of the relative clause comes before the verb in Ik, meaning it has been fronted from what would be its normal position after the verb. This fulfills the requirements for the use of the dummy pronoun:

(68) *Duo nuu didia watađ.*

đu-ó = nuu didi-a wat-á = d^e
 PRO.PL-COP = REL.PL.PST3 weather-ACC rain-REAL = DP

It's the ones (i.e. reasons) which it rained for.
 'That's why it rained.'

(69) *Ođoiciko ni atsimad.*

ódo-icík-ó = ni ats-í-ím-a = d^e
 day-PL-INS = REL.PL come-PLUR-1PL.EXC-REAL = DP

During the days which we usually come on.
 'The days when we usually come.'

(70) *Da nuu biraad, mayuode emuti dee.*

đ-a = nu-u birá-á = d^e |
 ones-NOM = REL.PL-PST3 lack-REAL = DP

Those it was missing from,

ma-íó = 'de emuti = 'dée
 give-IMP.PL = DP story[OBL] = ANPH.SG
 give them that story!

In (68), the CA of the main clause (a copular cleft construction) and the relative clause is the cause or reason for rain. Since it is left-dislocated out of the relative clause, it is marked with the DP. In (69), the CA of main and relative clauses is a time expression. In (70), the DP is used twice: 1) First, it marks the source object of the verb *biraad* 'it lacks' that has been fronted (things lack *from* in Ik), and 2) second, it marks the recipient object of the imperative verb *maíó* 'give (pl.)' that is in the previous clause (*da = nuu*).

6 Case

The description of Ik ‘case’ is placed here between nouns and verbs because as a meta-categorial system, it applies to both these major word classes. Case is the backbone of Ik grammar. It permeates nearly every grammatical subsystem, such that a good grasp of it is key to knowing the language. Thus, beyond giving an overview of the case system (§6.1), this chapter’s aim is to lay out the details of case in the nominal system (§6.2-6.3) and grammaticalized ‘case’ in other systems, particularly that of verbs (§6.4).

As far as case languages in Africa go, Ik is a magnificent specimen. The following artificially elicited (but fully grammatical) sentence illustrates this by making use of all eight morphological cases: Nominative¹, Copulative², Accusative³, Ablative⁴, Dative⁵, Genitive⁶, Instrumental⁷, and Oblique⁸:

(1) *Benia ntsa amoo noo cea inwaa*

beni-a nts-a ámó-o = noo ce-a ínó-a
not.be-REAL he-NOM¹ person-COP² = REL.SG.PST³ kill-real animal-ACC³
He is not the person who killed the animal

ríjaakoo sedee ntsie biso nda nc.

ríjǎ-akɔ-ɔ séde-e ntsí-é bis-ɔ nda ɲcⁱ
forest-inside-ABL⁴ garden-DAT⁵ he-GEN⁶ spear-INS⁷ with I[OBL]⁸
from the forest in his garden with a spear with me.

A complex sentence like this one embodies the language’s full-fledged morphological case-marking system. In addition to word order and connectives like *nda* ‘with’, Ik uses this case system to mark grammatical relations and encode semantic roles in an integral and efficient manner.

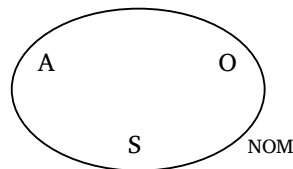
6.1 Case overview

“The case marking typology of a language is surely its most central typological parameter, since almost all other parts of the grammar must interact with it.”—Talmy Givón, quoted by Serzisko (1992:50)

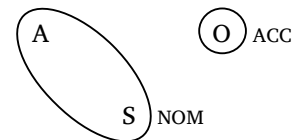
All Ik nominals must be inflected for case, and formal parallels of nominal case markers are found in other diverse parts of the grammar. Due to its grammatical centrality, the Ik case system has already been the subject of several works (e.g. Heine 1990, König 2002, König 2008, and Schrock 2014). As König defines it, “a case system is an inflexional system of marking nouns or noun phrases for the type of relationship they bear to their heads... expressed by affixes, tone, accent shift, or root reduction...” (2008:5). Out of the above list, Ik uses a combination of affixes and stem reduction to encode case relations. The affixes are suffixes, and stem reduction means the stem-final vowel is deleted before some case suffixes.

Ik employs eight cases to encode grammatical relations between verbs and their arguments, or between arguments and modifiers (genitive). In König’s African case typology, Ik is a *Type 2 split-accusative* system in which both the nominative and accusative cases are marked (2008:10). It is ‘accusative’ in that when core clausal arguments are marked differently from each other, S and A take the nominative case, while O takes the accusative case. And it is ‘split’ in that this accusativity only occurs when the subject (A) is third person. The objects (O) of first and second person subjects (A/S) take the nominative case. And when a subject (A/S) is preposed before the verb, for example in most types of subordinate clauses, it also takes the accusative.

(2) *1/2 person subjects*



3 person subjects



Blake defines case as a typical system of “marking the relationship of a noun to a verb at the clause level or of a noun to a preposition, postposition or another noun at the phrase level” (1994:1). True to this definition, Ik case encodes the grammatical relations between a verb and its core arguments and any non-core arguments. And though in Ik the genitive case can mark arguments for some verbs, its main function is to mark the relationship between a noun phrase and a possessive nominal modifier.

A ‘core argument’ in Ik is generally defined as any verbal argument that cannot be represented by the dummy pronoun (§5.10). Normally such arguments are encoded with the nominative, accusative, or copulative cases, but as explained below, various complications occur. And as its label suggests, the ‘oblique’ case straddles the simple divide between ‘core’ and ‘non-core’ cases: It actually encodes all core arguments in imperative and optative clauses, as well as a variety of peripheral argument roles in other types of clauses, but it cannot be represented by the dummy pronoun. The basic case-marking scheme for clausal arguments in Ik is presented in (3):

(3) *Basic case-marking scheme on clausal arguments*

| | |
|----------|---------------------------|
| Core | NOM, ACC, COP, (OBL) |
| Non-core | INS, ABL, DAT, GEN, (OBL) |

Subjects (A/S) of indicative clauses always bear the nominative case suffix:

(4) *Epa ηok.*

ep-a ηók-^a_s
 sleep[3SG]-REAL dog-NOM
 The dog is sleeping.

(5) *Ats’a ηoka okak.*

áts’-á ηók-á_A oká-k^a
 gnaw[3SG]-REAL dog-NOM bone-ACC
 The dog is gnawing a bone.

Subjects (A/S) of conditional/hypothetical subordinate clauses with a sequential verb form are also marked with the nominative case. (This is because the syntax is interpreting the conjunction *na* as filling the verbal slot; indeed it can be followed by both tense and adverbial enclitics as any typical verb would. For more on subordinate clause syntax, see §9.9):

(6) *Na bia iryameiduo kaudzoe,...*

na = bi-a_S iryám-é-idu-o kaúdzó-e
 CONJ = you.SG-NOM get-VEN-2SG-SEQ money-DAT
 If you come across money,...

(7) *Na feta nketoo bia,...*

na = fet-a_A ηk-ét-ɔ-ɔ bi-a
 CONJ = sun-NOM eat-INCH-3SG-SEQ you.SG-ACC
 If you get thirsty,... (lit. 'If the sun starts eating you,...')

But subjects (A/S) of all other types of subordinate clauses take the accusative case. In such clauses, the constituent order is SV/AVO, a deviation from the language's unmarked VS/VAO order. For yet unknown reasons, Ik syntax marks preverbal subjects (with the above exceptions of sequential subordinate clauses) with the accusative case, as in:

(8) *Noo ncia kwatsiyaad,...*

noo jíci-a_S kwáts-í-í-a = d^e
 CONJ.PST3 I-ACC small-PLUR-1SG-REAL = DP
 When I was small,...

(9) *Naa ojoria wetetie koinia,...*

náa oɲori-a_A wét-ét-i-e kóiná-a
 CONJ elephant-ACC drink-VEN-3SG-SIML scent-ACC
 When the elephant catches the scent,...

However, the subjects (A/S)—or ‘vocatives’ if one prefers—of imperative and optative clauses take the oblique case:

- (10) *Kae bi dɛmus!*
 ka-é bi_s dɛmus
 go-IMP.SG you.SG[OBL] quickly
 You go quickly!

- (11) *Gokaaketano njin!*
 gok-aak-ét-ano njín_s
 seated-DISTR-INCH-OPT we.INC[OBL]
 Let us be seated!

The direct object (O) of a transitive clause in the indicative mood, with a first or second person subject, also takes the nominative case:

- (12) *Ats'úkɔt-ím-á = naa ηur^{-a}_o.*
 áts'-úkɔt-ím-á = naa ηur^{-a}_o
 eat-COMP-1PL.EXC-REAL = PST1 cane.rat-NOM
 We ate the cane rat up.

- (13) *Rebida nk.*
 réb-id-a ηk^{-a}_o
 deny-2SG-REAL I-NOM
 You're denying me (i.e. withholding sth. from me).

But the direct object (O) of 1) any clause with a third-person subject or 2) any transitive subordinate clause takes the accusative case:

- (14) *Ats'a kweta ncik.*
 áts'-á kwet-a jíci-k^a_o
 eat[3SG]-REAL arm-NOM I-ACC
 My arm is hurting me.

- (15) *Isio rebidee ncik?*
 isi-o [réb-id-e = e ɲci-k^a_O]_{SUBORD}
 what-COP deny-2SG-REAL = DP I-ACC
 Why are you denying me?

Direct objects (O) of imperative or optative clauses take the oblique case:

- (16) *Dukwee mese ni jakak.*
 d-ufo-e mese_O = ni jáká-k^e
 take-AND-IMP.SG beer[OBL] = DEM.PL elders-DAT
 Take this beer to the elders.

- (17) *Ogoe ziiḱoti riy.*
 ógo-e zí-íḱot-I ri_O
 let-IMP.SG tie-COMP-3SG[OPT] goat[OBL]
 Let him tie up the goat.

The subject of a copula clause (CS) is also marked with the nominative case. For a full list of examples, see §10.4. And the complement of a copula-of-identity clause (CC) is marked with the oblique case:

- (18) *Mitima ngwa ɲot.*
 mit-ím-á ɲgw-a_{CS} ɲot²_{CC}
 be-1PL.EXC-REAL we.EXC-NOM men[OBL]
 We are men.

Lastly, in copula clauses, the copula subjects (CS) are marked with the nominative and the copula complements (CC) with the copulative case:

- (19) *J'akamoo nk.*
 ják-ámo-o_{CC} ɲk^a_{CS}
 elders-SING-COP I-NOM
 'An elder am I.'

Thus are the core clausal arguments marked with case in Ik. When it comes to non-core (peripheral) arguments, their relations to the verb are encoded by five different cases (including the oblique). A representative example for each non-core case is provided in the next sentences, with an indication of some of the prototypical semantic roles they express. More detailed treatments of each non-core (and core) cases follow in the sections below.

- (20) Oblique: *Cemata waako nda fek.*
 cem-át-a wáák-o nda fekⁱ_{ADDITION}
 fight-3PL-REAL play-INS and laughing[OBL]
 They are playing and laughing.
- (21) Instrumental: *Dalute ηoki sew.*
 dalút-e ηókí sEW-³_{INSTRUMENT}
 hit-IMP.SG dog[OBL] stick-INS
 Hit the dog with a stick.
- (22) Ablative: *Atsima awao.*
 ats-ím-á awá-^o_{SOURCE}
 come-1PL.EXC-REAL home-ABL
 We're coming from home.
- (23) Genitive: *Beda dawaa ntsi.*
 béd-á dɔu-a ntsí-∅_{POSSESSION}
 want[3SG]-REAL knife-ACC s/he-GEN
 He's looking for his knife.
- (24) Dative: *Meesia bitik.*
 me-es-í-á bití-k^e_{RECIPIENT}
 give-INT-1SG-REAL you.PL-DAT
 I will give (it) to you.

The following table presents a grammatical summary of the eight cases:

(25) *Ik case summary*

| Case | Grammatical relation(s) | Semantic role(s) |
|------|--|---|
| NOM | 1) Subject (A/S) of indicative main clauses and sequential subordinate clauses 2) Object of indicative clauses with 1-2 person subjects | Agent Donor Speaker Cogitator Perceiver Experiencer Theme Patient (passive) Patient Stimulus Complement |
| INS | Non-core argument | Instrument Path Manner Comitative Time Progressive |
| ABL | Non-core argument | Source Location Cause Stimulus |
| GEN | 1) Modifier of noun phrase head 2) Complement of similitive clause | Possession Stimulus |
| DAT | Non-core argument | Recipient Beneficiary... |

| | | |
|-----|---|--|
| | | Location Goal Purpose |
| ACC | 1) Object of indicative transitive clauses with 3SG or 3PL subjects 2) Subject (A/S) of all but sequential subordinate clauses | Patient Stimulus Complement (Same as NOM) |
| COP | 1) Complement of Identity copula clauses | Identity |
| OBL | 1) Non-core argument 2) Complement of quotative clause 3) Complement of Identity copula clause 3) Subject of imperative and optative clauses 4) Object of imperative and optative clauses | Addition Message Thought Identity (Same as NOM) (Same as ACC) |

6.2 Case suffixes

Ik case morphemes are suffixes that consist of a single vowel (-V), a -CV sequence, or a zero realization (\emptyset). These morphemes are analyzed as suffixes rather than clitics because they always attach directly to the head and not the edge of the noun phrase. And they are analyzed as suffixes rather than postpositions or compound N₂s because a) they are highly eroded and b) cannot take any suffixes themselves.

The case suffixes have L tone but undergo tone changes coming from the stem to which they attach. Though there are eight cases, only six are distinct suffixes. Two other case suffixes (the instrumental and the ablative) are identical in form but differ in whether they subtract the stem-final vowel. This difference creates the seventh case marker. Finally, an eighth case (the oblique) is zero-marked. The eight case suffixes are given in (26):

(26) *Ik case suffixes*

| Case | Abbreviation | Case suffix | Stem reduction |
|--------------|--------------|---------------|----------------|
| Nominative | NOM | -a | Yes |
| Instrumental | INS | -ɔ | Yes |
| Ablative | ABL | -ɔ | No |
| Genitive | GEN | -e | No |
| Dative | DAT | -ke | No |
| Accusative | ACC | -ka | No |
| Copulative | COP | -kɔ | No |
| Oblique | OBL | - \emptyset | No |

6.2.1 Case allomorphy

The Ik case suffixes undergo intricate morphophonological variations that have confounded earlier attempts to analyze and describe the case system as a whole. From Crazzolara 1967 all the way to Schrock 2014, the literature reveals a progressing understanding of Ik case. Some of these tricky morphophonological variations include pre-pause devoicing (§2.3.1), inter-

vocalic consonant deletion (§2.9.3), vowel assimilation (§2.9.4), and vowel harmony (§3.1). A good way to become familiar with the variations is to look at the case declensions of several nouns, starting with *ἡόκί-* ‘dog’:

(27) *Case inflection of ἡόκί- ‘dog’*

| Case | Non-final (/___...#) | Final (/___#) |
|------|----------------------|---------------------|
| NOM | ἡόκ-ά | ἡόκ- ^a |
| INS | ἡόκ-ό | ἡόκ- ^o |
| ABL | ἡόκú-ο | ἡόκú-∅ |
| GEN | ἡόκί-ε | ἡόκί-∅ |
| DAT | ἡόκί-ε | ἡόκί-k ^e |
| ACC | ἡόκί-α | ἡόκί-k ^a |
| COP | ἡόκú-ο | ἡόκú-k ^o |
| OBL | ἡόκί | ἡόκ ⁱ |

As shown in (27), 1k case suffixes have non-final and final forms. This division entails different things for different groups of case suffixes. First, all suffixes undergo devoicing in final, pre-pause environments (§2.3.1). Suffixes that consist of vowels only (NOM, INS, ABL, GEN) are devoiced or deleted, depending on the preceding consonant or vowel (see §2.3.1). For suffixes that consist of a -CV sequence (DAT, ACC, COP), their final vowel is also devoiced or deleted under the same conditions. For the one case that is zero-marked (OBL), the final vowel of the noun root or stem is devoiced. Second, all the suffixes that contain the segment /k/ (DAT, ACC, COP) lose the /k/ in their non-final forms. This deletion of /k/ is part of a larger, language-wide tendency to delete consonants in non-final positions (§2.9.3).

All case suffixes undergo vowel harmony (§3.5). Though the underlying forms of the case suffixes are posited as [-ATR], all the suffixes but NOM in (27) are [+ATR] because they have been harmonized by the [+ATR] *ἡόκί-* ‘dog’. Also, when a case suffix involving back vowels /ɔ, o/ follows a root with a high front vowel /ɪ, i/, the high front vowel is backed to /ʊ, u/. Vowel harmony and assimilation occur whether a /k/ intervenes or not.

Another variation—total vowel assimilation—occurs when a [-ATR] noun ending in /a/, like *ɲurá*- ‘cane rat’, is inflected for all eight cases:

(28) *Case inflection of ɲurá- ‘cane rat’*

| Case | Non-final (/___...#) | Final (/___#) |
|------|----------------------|---------------------|
| NOM | ɲur-a | ɲur-∅ |
| INS | ɲur-ɔ | ɲur- ^ɔ |
| ABL | ɲurɔ-ɔ | ɲurá- ^ɔ |
| GEN | ɲuré-é | ɲurá- ^é |
| DAT | ɲuré-é | ɲurá-k ^é |
| ACC | ɲurá-á | ɲurá-k ^a |
| COP | ɲurɔ-ɔ | ɲurá-k ^ɔ |
| OBL | ɲura | ɲur |

The data in (28) show how the non-final forms of the ablative, genitive, dative, and copulative cases totally assimilate the root-final /a/ of *ɲurá*-. Total assimilation of this type is widespread in the language (§2.9.4) and is an important key to unlocking the case system as a whole.

Finally, the [+ATR] noun *dakú*- ‘tree’, when inflected for all the cases, brings out a few more morphophonological variations, as discussed below:

(29) *Case inflection of dakú- ‘tree’*

| Case | Non-final (/___...#) | Final (/___#) |
|------|----------------------|------------------------------|
| NOM | dakw-a | dakw- ^a |
| INS | dak-o | dak- ^o |
| ABL | dakú-ó (dakw-óó) | dakú-∅ |
| GEN | dakú-é (dakw-éé) | dakú- ⁱ (dakwí-∅) |
| DAT | dakú-é (dakw-éé) | dakú-k ^é |
| ACC | dakú-á (dakw-áá) | dakú-k ^a |
| COP | dakú-ó (dakw-óó) | dakú-k ^o |
| OBL | daku | dak ^u |

One thing to note from (29) is that in the nominative case, the root *dakú-* ‘tree’ does not surface **dak-a/dak-^a* ‘tree-NOM’. This goes against what is normally expected from stem reduction. In fact, a small number of nouns ending in a back vowel retain them as the semi-vowel /w/. To see a list of other such exceptions to the rule, skip ahead to §6.3.1 on the nominative.

A second thing to note is that in the five cases that involve the full underlying noun root and a suffix consisting of a vowel only, a root-final back vowel may be optionally desyllabified to /w/ (§2.4.2). When this happens, the back vowel gives up its mora to the following case suffix, which results in the compensatory lengthening of that suffix.

Lastly, in the final form of the genitive case, when the genitive case suffix {-ε,e} follows a high back vowel, the high back vowel may raise it to /i, i/.

6.2.2 Case origins

The precise origin of the Ik case suffixes is not known, but a clue may come from how they affix to nominal stems. As noted earlier, the case suffixes can be grouped according to their suffixation ‘strategy’—subtracting or preserving the stem-final vowel. These different suffixation strategies may point to two different origins for the suffixes. Ik syllable structure does not allow consonant clusters, so those case suffixes that begin with /k/ (accusative {-ka}, dative {-kε}, and copulative {-kɔ}) require the stem-final vowel to remain to prevent a CC sequence. It seems likely, then, that the ablative {-ɔ} and genitive {-ε} may have once contained a consonant as well, since they preserve the stem-final vowel. The nominative {-a} and instrumental {-ɔ} suffixes, though, seem to have originated as single vowels since they do not require the stem-final vowel to break up a CC sequence.

In terms of ultimate origin, according to Heine & Kuteva, there are three known pathways for the evolution of case markers (2007:62, 75, 91):

(30) *Evolutionary pathways for case markers*

| | |
|---|-----------------------------------|
| 1 | Noun > (adposition) > case marker |
| 2 | Verb > case marker |
| 3 | Adposition > case marker |

As a working hypothesis, Ik case markers may have originated from N_1 - N_2 compounds where the N_2 first desemanticized slightly to become an adposition. The adposition (postposition) then desemanticized further and eroded phonetically to become the language's present-day case morphemes. Even today, compounding is the language's primary nominal word-building mechanism (see §4.3.). Lexical compounds join nouns to nouns, as in:

(31) *Lexical compounds*

| | | |
|-----------------------|---------------------------------|----------------------|
| befá-cémér | ' <i>Cissus rhodesiae</i> herb' | (puff adder-herb) |
| aká-kwá' | 'lip' | (mouth-edge) |
| díde-ŋwa | 'female donkey' | (donkey-female) |
| lera-akw ^a | 'White-Thorn place' | (White Thorn-inside) |
| wáána-ho | 'church' | (prayer-hut) |

In principle, any noun in the language can be a compound's N_2 (though not all will be semantically acceptable), but a smaller subset of nouns are more productive and seem to be in the process of shifting from the status of full nouns to nominal adpositions or even suffixes. They include the following:

(32) *Grammaticalizing compound N_{2s}*

| | | | |
|-------|---------------|---|-----------------------------|
| akó- | 'interior' | > | Inessive case suffix? |
| ámá- | 'person' | > | Agentive singular suffix? |
| icé- | '(Ik) people' | > | Agentive plural suffix? |
| imá- | 'child' | > | Diminutive singular suffix? |
| wicé- | 'children' | > | Diminutive plural suffix? |

The nominals in (32), while today still full nouns in their own right, also function in compounds with semi-grammatical functions. It looks like a slow

transition from noun to adposition or inflectional morpheme is currently underway. Admittedly a matter of speculation, this idea is given just as a possible scenario for how Ik case suffixes developed. And unfortunately, it is not known whether any of the Ik case suffixes could be tied to any nouns with full lexical status synchronically; these have yet to be identified.

In terms of areal parallels for the Ik case system, the closest place to look is Teso-Turkana. Dimmendaal's description of the Turkana case system reveals a few similarities with Ik but also substantial differences (1983:66-67). With six cases (absolutive, nominative, genitive, instrumental, locative, and vocative), Turkana has almost as many as Ik. But a crucial difference is that Turkana cases are marked with tone rather than affixes. Also, while Ik is both a marked nominative *and* marked accusative language, Turkana is only a marked nominative language: Direct objects, indirect objects, and a noun's citation form are all unmarked as absolutive. But post-verbal clauses subjects take the tonally marked nominative case. So if Teso-Turkana had influence on the development of the Ik case system, it was through syntax only and not morphology. Tone plays no role at all in Ik case marking.

As a putative close relative of Ik, the Kuliak So exhibits substantial morphological decay of an older Kuliak case system that Ik has more fully retained (Carlin 1993:90-93). The table in (33) presents the author's analysis of the current overlap between the case systems in both languages. Namely, the So 'goal' case morpheme *-Vk* is a relic of the Ik dative case morpheme {-kε} but has taken only some of its semantic roles (goal and recipient). The Location role of the Ik dative case has been assumed by the So 'locative' case *-a/o*. But this case now also shares roles handled by the Ik ablative case {-ɔ} (e.g. location) and in one of its allomorphs shares the form as well. The So 'circumstantial' case seems to take its current form (*-uk*) from the Ik copulative case, which, in combination with a verb-final vowel often looks like *-uk*². The So circumstantial case shares the semantic roles of instrument and cause with the Ik ablative case:

(33) *Comparison of Ik and So case suffixes*

| Ik | | So | |
|-----|-----|-------|------------------|
| OBL | -∅ | | |
| NOM | -a | | |
| DAT | -kε | } -Vk | ‘Goal’ |
| | | | |
| ABL | -ɔ | } -ok | ‘Circumstantial’ |
| INS | -ɔ | | |
| COP | -kɔ | | |
| ACC | -ka | | |
| GEN | -ε | | |

6.3 Case on nouns

The present section presents details of each of the eight cases as they apply to their function in the nominal system. Formal parallels to case suffixes and their functions in other grammatical subsystems are treated in §6.4.

6.3.1 Oblique

The oblique case is the only zero-marked (∅) case in Ik. As such, it segmentally mirrors a noun’s basic underlying lexical form. But in their non-final forms, nouns with a tone melody LH surface as LL. That is, tone may minorly distinguish the oblique case from the lexical base of some nouns. In the oblique case, stem-final vowels are devoiced or deleted before a pause. The paradigm for oblique, as well as those for the other cases, show nine nouns each ending with one of the language’s nine contrastive vowels:

(34) *Oblique case paradigm*

| Basic form[OBL] | Non-final | Final | Gloss |
|-----------------|-----------|------------------|--------------|
| ɲókí-∅ | ɲókí | ɲók ⁱ | ‘dog’ |
| sísí-∅ | sísí | sís | ‘honey-beer’ |

| | | | |
|--------|------|------------------|------------|
| bóré-Ø | bóré | bór | 'corral' |
| ɲɛkɛ-Ø | ɲɛkɛ | ɲɛk ^ɛ | 'hunger' |
| ɲɔrá-Ø | ɲɔra | ɲɔr | 'cane rat' |
| zɪɲ-Ø | zɪɲ | zɪɲ | 'zebra' |
| déró-Ø | déró | dér | 'rat' |
| kafu-Ø | kafu | kaf ^u | 'thorn' |
| dakú-Ø | daku | dak ^u | 'tree' |

Despite the near identity of a noun's basic form and oblique case form, the Oblique must be maintained as a proper case of its own. This is because it is required for specific, unique grammatical relations and semantic roles.

The Ik oblique case marks out the following seven grammatical functions:

(35) *Oblique case grammatical functions*

| | |
|---|---|
| 1 | The subject of imperative and optative clauses. |
| 2 | The object of imperative and optative clauses. |
| 3 | The complement of identity copula clauses. |
| 4 | The first element in a nominal compound. |
| 5 | The nominal complement of a quotative clause. |
| 6 | A vocative. |
| 7 | A noun after a preposition |

The first function of the oblique case—marking the subject (A/S) of an imperative or optative clause—is illustrated in the two following examples:

(36) *Kae bi awak.*

| | | |
|--------------|-----------------|--------------------|
| ka-é | bi _ɔ | awá-k ^ɛ |
| go-IMP.SG | you.sg[OBL] | home-DAT |
| You go home! | | |

- (37) *Talake ja ngo ceikotima gaso.*
 talák-é=ja ŋgo_A ce-íkót-ima gaso_O
 let-IMP.SG = ADV we.EXC[OBL] kill-COMP-1PL.EXC[OPT] warthog[OBL]
 And then (lit. ‘let go’) we just killed the warthog.

The second function—marking the object (O) of an imperative or optative clause—is illustrated in (38) for imperative and (39) for optative:

- (38) *Dee dī nak.*
 d-e-e dī_O=nák^a
 bring-VEN-IMP.SG one[OBL] = DEM.SG.PST1
 Bring the one of earlier!

- (39) *Nesibano nai na.*
 nesíb-ano naí_O=na
 hear-OPT here[OBL] = DEM.SG
 Let’s listen here (i.e. ‘Let’s listen to this.’)

The third function of the oblique case—marking the complement of an identity copula clause—is shown in the next two examples. In an Ik copula clause of identity, the copula *mit-* ‘be (sth. or sb.)’ links the copula subject (CS) with the copula complement (CC). As seen below, the copula subject occurs in the nominative case, while the complement occurs in the oblique:

- (40) *Mitiya noo terega ntsie dusesi ts’íkæ.*
 mit-i-a=noo terég-a_{CS} ntsí-é dús-ésí_{CC} ts’íká-^e
 be-PLUR-REAL = PST3 work-NOM he-GEN dip-INF[OBL] bees-GEN
 His work used to be to collect bees (i.e. to ‘dip’ honey).

- (41) *Mita noo kija otae.*
 mit-a=noo kíj-á_{CS} otá_{CC}
 be-REAL = PST3 land-NOM wet.season[OBL]
 The land was wet season (i.e. it was wet season).

The fourth function of the oblique case is to mark the first element (N_1) of a nominal compound. The first nominal element must be in the oblique case, while the second element takes whatever case the syntactic context calls for. In this grammar, compounds are identified with a hyphen between the two nouns or pronouns in question. (42) gives two examples of compounds in isolation, and (43)-(44) give two in complete sentences:

- (42) *derocemer* *epuaw*
 déró-cemér-^ø epú-áw-^ø
 rat[OBL]-herb-NOM sleep[OBL]-place-NOM
 rat poison sleeping place

- (43) *Kaini kaatie marijikagwariik.*
 ka-ini ká-áti-e maríŋ-íka-gwarí-ík-^ø
 go-SEQ go-3PL-SIML fence-PL[OBL]-top-PL-INS
 And they went, going by the fence-tops.

- (44) *Zekwesoo jaka dakudeao.*
 zékʷ-es-ɔ-ɔ ják-á dakú-dea-^ɔ
 sit-IPFV-3SG-SEQ elders-NOM tree[OBL]-foot-ABL
 And the elders were sitting at the foot of the tree.

The fifth function of the oblique case is to mark the complement of a quotative clause if the complement is a single noun, usually *isi*- ‘what’:

- (45) *Kutia naa bie is?*
 kut-í-a = naa bi-e [is]_{QUOT COMPLEMENT}
 say-1SG-REAL = PST1 you.SG-DAT what[OBL]
 I said to you what?

The sixth function of the oblique case is to mark the ‘vocative’, that is, any noun referring to a person being called. Take the following examples:

- (46) *Ee wice!* *Iyida, abáji?*
 éé wice i-íd-a abáji
 INTJ children[OBL] be-2SG-REAL my.father[OBL]
 Hey, children! Hello, father (lit: 'Are you there?!')

The seventh function of the oblique case is to mark nouns coming after any of the following five prepositions: *akilo* 'instead of' and *(i)kóteré* 'because of' (from Teso-Turkana), *gone* 'until/up to', *ń'da* 'and/with', and *páka* 'until/up to' (from Swahili). Three other prepositions take the genitive case (see §8.5). The fact that the oblique case is used after mostly-borrowed prepositions confirms that the oblique is a case for 'left-over' case functions.

Examples of *páka*, *(i)kóteré*, and *gone* are shown below with the oblique:

- (47) *Tubini ntsia torobo paka ak.*
 túb-ini ntsí-á torob-ó páka ak^a
 follow-SEQ he-ACC breastbone-INS until mouth[OBL]
 It (i.e. urine) followed the center of his torso down to his mouth.
- (48) *Napei nee Lokinenee paka Lopokok...*
 napei né-é lokinéné-é páka lopokók^o...
 from here-DAT Lokinene-GEN until Lopokok[OBL]
 From here in Lokinene up to Lopokok...
- (49) *Kotere is? Kotere kainika ni gaan.*
 kóteré is kóteré kam-ika = ní gaan-^o
 because.of what[OBL] because.of year-PL[OBL] = REL.PL bad-REAL
 Because of what? Because of bad years.
- (50) *Iryametia fiyekesie ncie kotere kiroti nci.*
 iryam-et-í-á fiyek-esí-é jíci-e kóteré kirotí jíci-^o
 get-VEN-1SG-REAL live-INF-DAT I-GEN b'se.of sweat[OBL] I-GEN
 I get my livelihood because of my own sweat.

- (51) *Koyaa gone at, gone seda jakamae.*
 kó-i-a gone átⁱ gone séda ják-áma-^e
 go-1SG-SEQ up.to FILL[OBL] up.to garden[OBL]elders-SING-GEN
 And I went up to the, um...the garden of the elder.
- (52) *Atsini gone ndai?*
 ats-ini gone ndaⁱ
 come-SEQ up.to where[OBL]
 And they came up to where?

The preposition *ń'da* 'and/with' is often used elsewhere as a connective to join whole independent clauses (see §10.1.10. But the following examples show it preposed to nouns or noun phrases taking the oblique case:

- (53) *Atsese gone awa toroḃo nda ɲoropuo...*
 ats-ese gone awa toroḃ-o ń'da ɲorópúó...
 come-SPS up.to home[OBL] breastbone-INS and organs[OBL]
 And people came up to home with the breastbone and the organs...
- (54) *Kaini kot nda kokesi hoikee dii.*
 ka-ini = kot^o ń'da kək-ésí hó-íke-e = ^ddíí
 go-SEQ = ADV and close-INF[OBL] house-PL-GEN = ANPH.PL
 And then they went and closed up those houses.

In some instances, though, a noun in another case other than the oblique can be found after *ń'da*. This happens when a verb 'sees through' *ń'da* to assign a case role. In the following example, the verb *egini* assigns the dative case to mark its conjoined complex indirect object (with a Goal role):

- (55) *Egini guritinie nda ɲatametaak.*
 eg-ini gúr-ítíní-e ń'da ɲátámetaá-k^e
 put-SEQ heart-PL-DAT and thoughts-DAT
 And they put (it) in their hearts and thoughts.

6.3.2 *Nominative*

The nominative case suffix {-a} has engendered more than its share of confusion in the descriptive literature. Referring to this morpheme, Heine & König state that “Like Crazzolaro, we consider the ‘complemental suffix’ to be a functionally empty appendage of nouns...in their unmarked form. Accordingly, it is interpreted as a morphologically redundant ending...” (1996:137). Later, the segmental similarity between the nominative {-a} and the accusative {-(k)a} led to the following comment (König 2008:73):

“The final vowel *-a* has a unique value in the system. All words or particles of the language end by default in the vowel *-a*, and so are nominative and accusative case forms (in the non-final form). It remains unclear whether the *-a* of the nominative and accusative is triggered by the general rule of the language to use vowel *-a* as a default ending of each word or whether *-a* has the value of an independent case suffix encoding nominative or accusative.”

By contrast, the claim made in this grammar is that the morpheme {-a} is functionally very significant, as both a marker of nominative case and realis modality in the verbal system (§7.6.2). This morpheme has a L tone but assimilates to the tone melody projected by the stem it attaches to (T7). It is one of the language’s opaque dominant suffixes (§3.1.3), and as such can also be represented as {-a⁺}. One of the characteristics that has produced confusion in the past is its subtraction of stem-final vowels. It and the instrumental case suffix {-ɔ} are the only two cases that do this. Before pauses, the nominative surfaces as /-^a/ or /-Ø/. Lastly, if a noun’s final vowel is a back vowel, it may desyllabify before {-a}:

(56) *Nominative case paradigm*

| Basic form-NOM | Non-final | Final | Gloss |
|----------------|-----------|----------------------|--------------|
| ηόκí-a | ηόκ-ά | ηόκ- ^a | 'dog' |
| σί-sí-a | σί-s-a | σί-∅ | 'honey-beer' |
| βό-ré-a | βό-r-ά | βό-r-∅ | 'corral' |
| π-ε-ε-a | π-ε-κ-a | π-ε-κ- ^a | 'hunger' |
| η-υ-rá-a | η-υ-r-a | η-υ-r-∅ | 'cane rat' |
| ζίν-ό-a | ζίν-a | ζίν-∅ | 'zebra' |
| δέ-ró-a | δέ-rw-ά | δέ-rw- ^a | 'rat' |
| κ-α-φ-u-a | κ-α-φ-a | κ-α-φ-∅ | 'thorn' |
| δά-κ-ύ-a | δά-κ-w-a | δά-κ-w- ^a | 'tree' |

On stems with back vowels (/ɔ, o, u, u/) as their final vowel, one cannot predict whether the vowel will be deleted or desyllabified. Out of a sample of sixty-eight nouns ending in a back vowel, only the following fifteen (22%) underwent desyllabification (in order of root-final back vowel):

(57) *Desyllabification of back vowels in the nominative case*

| | | | |
|----------|---|-----------|-------------------|
| cikó- | → | cikw-a | male-NOM |
| diyo- | → | diyw-a | lookout-NOM |
| ído- | → | ídw-a | milk-NOM |
| ínó- | → | ínw-ά | animal-NOM |
| natsiko- | → | natsikw-a | granary.cover-NOM |
| paðo- | → | paðw-a | small.cave-NOM |
| pakó- | → | pakw-a | cave-NOM |
| tsikó- | → | tsikw-a | tree.species-NOM |
| mízɪɔ- | → | mízɪɔw-a | tree.species-NOM |
| ɖaw- | → | ɖaw-a | knife-NOM |
| káú- | → | káw-ά | ash-NOM |
| dakú- | → | dakw-a | tree-NOM |
| ekú- | → | ekw-a | eye-NOM |
| bukú- | → | bukw-a | marriage-NOM |
| ekéú- | → | ekéw-a | muscle.fiber-NOM |

Contrary to the nouns in (57), most nouns ending in a back vowel lose the vowel entirely in the nominative and instrumental cases (see next section), as in *sɔkɔ́-* → *sɔk-a* ‘root-NOM’ and *habu-* → *hab-a* ‘tree.hive-NOM’. Looking at nouns that delete their final vowel versus those that desyllabify it, the reason for this discrepancy is not obvious. It likely represents a historical morphological change toward or away from desyllabification. That nominative-case desyllabification is lexical and not post-lexical is shown by the fact that compensatory lengthening does not occur on the case suffix. Back vowels also desyllabify after the non-final accusative case allomorph /-a/, but when they do, compensatory lengthening occurs. For example, compare *dakú-* ‘tree’ as *dakw-a* ‘tree-NOM’ and as *dakw-áá* ‘tree-ACC’.

The nominative case marks out the following five grammatical functions:

(58) *Nominative case grammatical functions*

| | |
|---|--|
| 1 | The citation or isolation form of nouns. |
| 2 | The subject (A/S) of indicative main clauses. |
| 3 | The subject (A/S) of sequential subordinate clauses. |
| 4 | The object (O) of transitive clauses with 1-2 person subjects. |
| 5 | A fronted (left-dislocated or apposed) argument. |

The first function—marking a noun’s citation or isolation form—is clearly seen with isolated nouns (57 above) or in response to *Isio dá* ‘What is it?’:

(59) *Isio dá?* ‘What is it?’ → *ŋók^a* ‘a dog’

The second function—marking the subject (A/S) of indicative main clauses—is the most common function of the nominative case, e.g.:

(60) *Kaa naa roba ndaik?*
ká-a = náa roḃ-a_s ndaí-k^e
 go-REAL = PST1 people-NOM where-DAT
 Where did the people go?

- (61) *Iya noo koto ŋeka zuk.*
 i-a = noo = kóto ŋek-a_s zuk^u
 be-REAL = PST3 = ADV hunger-NOM very
 There was a lot of hunger then.
- (62) *H'yea noo ntsiceka jii naperitik.*
 fiye-a = noo ntsí-cék-a_A = jii napériti-k^a_O
 know-REAL PST3 he-woman-NOM = also camp-ACC
 His wife also knew the campsite.

The third function of the nominative is to mark the subject (A/S) of preposed (non-chained) subordinate clauses with sequential verbs:

- (63) *Na kija betsukotuo,...*
 na = kíj-á_s bets'-úkót-u-o
 CONJ = land-NOM white-COMP-3SG-SEQ
 When the land gets light,...
- (64) *Na tsora iwuo lejaa,...*
 na = tsór-á_A iw-u-o lejá-á_O
 CONJ = baboon-NOM hit-3SG-SEQ ratel-ACC
 When the baboon hit the ratel,...

The fourth function—marking the object of first or second person subjects—is illustrated below. As further discussed in §6.3.6, a third person subject always takes an object in the accusative case. But in clauses with first or second-person subjects, both A and O are in the nominative:

- (65) *Nta nka wetiii idw.*
 ñt-á ŋk-a_A wet-í-íí ídw-^a_O
 not-REAL I-NOM drink-PLUR-1SG milk-NOM
 I don't usually drink milk.

(66) *H'yeida ama na.*

fīye-íd_A-a ám-á_o = na
 know-2SG-REAL person-NOM = DEM.SG
 You know this person.

(67) *Bedīma koona Kaabonje ts'oo.*

béd-ím_A-a ko-on-a_o kaabónje-e ts'oo
 want-1PL.EXC-REAL go-INF-NOM Kaabong-DAT now
 We want to go to Kaabong now.

The fifth function of the nominative case—marking a fronted argument (often followed by a pronoun in the copulative case)—is illustrated below:

(68) *Roba nii, ntuo bee kaata Kalapataak.*

rob-a = níí n̄tú-o = bee ká-át-a kalapataa-k^e
 people-NOM = DEM.PL they-COP = PST2 go-3PL-REAL Kalapata-DAT
 These people, it was they who went to Kalapata yesterday.

(69) *Oṅjora, sabukotaa noo muṅu Icekijao.*

oṅjor-aá sáḃ-úkot-a-a = noo muṅu icé-kíja-^o
 elephant-NOM kill[PL]-COMP-IPS-REAL = PST3 all Ik-land-ABL
 Elephants, they were all killed off in Ikland.

6.3.3 Instrumental

The instrumental case suffix {-ɔ} may have an areal parallel in the South Omotic language Dime's locative suffix -ó (Mulugeta 2008:55)—no other possible links have been identified. Regardless, the Ik suffix has L tone but may take a H projected by the noun stem's melody. It is a recessive suffix harmonizable to /-o/ by a [+ATR] stem. Like the nominative, it deletes the noun stem's final vowel. Before a pause, the instrumental suffix is devoiced to /-ɔ̥/ or /-^o/ . And in these final form allomorphs, it may be reduced

phonetically to mere labialization on the stem-final consonant (especially nasals). Often, the labialization is not audible at all but only visible.

An interesting further trait of the instrumental suffix is that, while it is devoiced before a pause, it is never deleted. Even if devoiced, it minimally leaves a trace of labialization. So this is an example where the grammar overrides its tendency to delete devoiced vowels for the sake of meaning. For if {-ɔ} was allowed to be deleted, it would be ambiguous with the nominative case suffix which may be fully deleted. The following table shows the presence of the suffix, irrespective of the preceding consonant:

(70) *Instrumental case paradigm*

| Basic form-INS | Non-final | Final | Gloss |
|----------------|-----------|-------------------|--------------|
| ηόκι-ɔ | ηók-ó | ηók- ^o | 'dog' |
| σίσι-ɔ | sis-ɔ | sis- ^ɔ | 'honey-beer' |
| βόρέ-ɔ | βór-ó | βór- ^o | 'corral' |
| πέκ-ɔ | pek-ɔ | pek- ^ɔ | 'hunger' |
| ηυρά-ɔ | ηυr-ɔ | ηυr- ^ɔ | 'cane rat' |
| ζινό-ɔ | zin-ɔ | zin- ^w | 'zebra' |
| δέρο-ɔ | đer-ó | đer- ^o | 'rat' |
| kafu-ɔ | kaf-ɔ | kaf- ^ɔ | 'thorn' |
| δάκι-ɔ | dak-o | dak- ^o | 'tree' |

The instrumental case has the grammatical function of marking a non-core argument expressing any of the following six semantic roles:

(71) *Instrumental case semantic roles*

- 1 Instrument/Means
- 2 Path
- 3 Comitative
- 4 Manner
- 5 Time
- 6 Occupative Aspect

First, the instrumental case is used to encode peripheral arguments that denote an Instrument or Means by which an action is realized. The following two sentences illustrate this specifically ‘instrumental’ case role:

(72) *Kokese akina makulik.*

kɔk-ɛsɛ ak-in-a makúl-ík-°
close-SPS mouth-POSS.PL-NOM grass.over-PL-INS
And its openings were closed with grass covers.

(73) *Taa buka noo bia ino tana?*

taa buk-a = noo bi-a ín-ó taná-∅
QUOT marry-REAL = PST3 you-ACC animal-INS how.many-REAL
So he married you with how many animals?

A culturally relevant usage of the instrumental case to encode the Means role involves the verb *bír-és* ‘to avail, assist with’. In Ik collective society, one is expected to share any acquired resources, from snuff tobacco to meat to clothing to water, etc. The preferred phrase used to acquire assets from another person is constructed with the formula *bír-é* NP[OBL] NP-INS, in other words “Assist me/us with X.” A couple of examples will suffice:

(74) *Bire nci cwo.*

bír-é jíci cu-°
assist-IMP.SG I[OBL] water-INS
‘Assist me with water (or ‘Give me water.’).

(75) *Biroo ngo nkak.*

bír-ɔɔ ngo nkák-°
assist-IMP.PL we.EXC[OBL] food-INS
‘Assist us with food (or ‘Give us food.’).

When requests like the one in (74) are made, the peripheral argument may be dropped. This formulaic request is so often used it is typically

phonetically reduced to something like [brɪnc̣]. Such a reduced surface form seems to have given rise to the phrase *brinji lotop* ‘Give me tobacco’ of Colin Turnbull’s fame (1972:299). His phrase can actually be parsed as:

- (76) “*Brinji lotop.*”
 bír-é jíci lótóḅ-ᵒ → [brɪntʃɪ́ lótóḅ̃]
 assist-IMP.SG I[OBL] tobacco-INS
 ‘Assist me with tobacco (or ‘Give me tobacco.’).

Second, the instrumental case is used to encode peripheral arguments that denote a Path: a place by or through which a motion or action is realized:

- (77) *Atsimaa sabo didik.*
 ats-ima-a sab-o didi-k^e
 come-1PL.EXC-SEQ river-INS up-DAT
 And we came up by way of the river.

- (78) *Ŋatiini awoo xaino gai.*
 ŋat-í-íni awó-ó ʃa-in-o ‘gáí
 run-PLUR-SEQ home-ABL direction-POSS.PL-INS both
 And they ran from the home by way of both directions.

Thirdly, the instrumental case is used to encode peripheral arguments that denote an entity with which an agent goes somewhere. This role is ‘instrumental’ in that the agent takes an object somewhere by the hand to thereby achieve some goal. This case role is most common with inanimate objects or animate entities that have little control over the event. The following two sentences show this Comitative role of the instrumental case:

- (79) *Koyaa naa kurubad.*
 kó-í-a = naa kúrúḅád-^o
 go-1SG-REAL = PST1 things-INS
 I went with (my) things.

(80) *Atsuo eakwa kayuo nk, zeike jik.*

ats-u-o ɛakw-a ka-i-o ŋk-^o ze-íí-ke jík'
 come-3SG-SEQ man-NOM go-3SG-SEQ I-INS big-1SG-SIML ADV
 And the man came and went with me, I being quite grown up.

The use of the instrumental case in (80) indicates that once a dowry was paid, the woman had less control over her going since she was being led away as the property of the man. If she had gone fully on her own accord, it may have been worded instead as *ní^tda jicⁱ* ‘with me’.

Fourthly, the instrumental case is used to encode peripheral arguments that denote the Manner or the way in which an action is accomplished. Such arguments have an adverbial function in that they modify the semantics of the main verb, giving information on how an action is realized:

(81) *Rajetuo ebitini nayee peryanjie batanon.*

raj-et-úó éb-itíní naí-é peryanjí-é batán-ón-^w
 return-VEN-IMP.PL gun-PL[OBL] place-DAT g'ment-GEN be.easy-INF-INS
 Turn in the guns to the government easily (i.e. without problems).

(82) *Sea ni duo kutanee Hyotodo ηapeon.*

se-a=ni dú-ó kut-an-é=e fɪɔɔ-tod-o ηάπεον
 blood-NOM = DEM.PL PRO.PL-COP say-IPS-REAL = DP cow-talk-INS ηapeon
 This blood is the one called ηapeon in the Karimojong language.

As shown in (82), ‘in X language’ is rendered in Ik with the name of the language plus the instrumental case, here “by ‘cow talk’”, i.e. Karimojong.

Fifthly, the instrumental case is used to encode peripheral arguments that denote the Time during which an activity or state takes place. This case role is ‘instrumental’ in that a given period of time is used as chronological space through which an event or activity can be achieved:

- (83) *Nanoo koto nekea gaaniyee kainiko dii.*
 na = noo = kótó ꞑεke-a gaan-i-é=e kaín-ík-o = 'díí
 CONJ = PST3 = ADV hunger-ACC bad-PLUR-REAL = DP year-PL-INS = ANPH
 So when hunger had gotten bad in those years...

- (84) *Hakwiana adó akwedo kainie kon.*
 hakw-í-án-a ad-o ákw-éd-ɔ kaín-é kɔn-Ø
 gather-PLUR-IPS-REAL three-INS inside-POSS.SG-INS year-GEN one-REAL
 They [white-ants] are usually gathered three times in one year.

Lastly, the instrumental case is used to mark arguments in a special syntactic construction used to express Occupative Aspect (§9.5.3). The construction is made up of the verb *cem-* 'fight' and a nominalized verb in the instrumental case. So a clause like 'He is working' is rendered in Ik as 'He is fighting with work'. The following three sentences illustrate this role:

- (85) *Cema saa ibito waicikae.*
 cem-a sa-a íbit-o wa-icíká-^e
 fight-REAL some-NOM planting-INS greens-PL-GEN
 Some (others) are planting greens (i.e. 'fighting with planting').
- (86) *Cemesoo didia wat.*
 cem-és-ɔ-ɔ didi-a wat-^o
 fight-IPFV-3SG-SEQ weather-NOM raining-INS
 And it was raining (i.e. 'fighting with raining').
- (87) *Cemetoo imad.*
 cem-ét-ɔ-ɔ imáf-^ɔ
 fight-INCH-3SG-SEQ dressing-INS
 And he began dressing (a wound) (i.e. 'fighting with dressing').

6.3.4 Ablative

Like the instrumental, the ablative case suffix has the form {-ɔ}. It has a likely parallel in the Lowland Cushitic language Saho where the suffix *-ko* is the bound form of a ‘source marker’ (Banti & Vergari 2005:14). If these forms are cognate, that would explain why the Ik ablative suffix does not subtract the stem-final vowel: In an older form as **-kɔ*, it would have required that vowel to break up a disallowed CC cluster. Another potential parallel is the locative suffix *-ó* in South Omotic Dime (Mulugeta 2008:55).

The ablative case suffix has a L tone but may take a H depending on the tone melody of the stem (T7). It is recessive in terms of vowel harmony, but harmonizes to /-o/ when attached to a [+ATR] stem. The crucial morphological difference between the ablative and instrumental suffixes is that, unlike the instrumental, the ablative does not subtract the nominal stem-final vowel. Instead, the final vowel remains. Before a pause, the ablative suffix is devoiced to /-ʔ/ or /-°/. And if the ablative suffix attaches to a stem ending in a high back vowel (/ɔ, o, u, u/) before a pause, it may not be heard audibly at the surface level of pronunciation (i.e. [-∅]):

(88) *Ablative case paradigm*

| Basic form-ABL | Non-final | Final | Gloss |
|----------------|-----------|--------|--------------|
| ɲókí-ɔ | ɲókí-o | ɲókú-∅ | ‘dog’ |
| sísí-ɔ | sísó-ɔ | sísú-∅ | ‘honey-beer’ |
| bóré-ɔ | bóré-o | bóré-° | ‘corral’ |
| ɲɛkɛ-ɔ | ɲɛkɔ-ɔ | ɲɛkɛ-ʔ | ‘hunger’ |
| ɲurá-ɔ | ɲuró-ɔ | ɲurá-ʔ | ‘cane rat’ |
| zínó-ɔ | zínó-ɔ | zínó-∅ | ‘zebra’ |
| déró-ɔ | déró-o | déró-∅ | ‘rat’ |
| kafu-ɔ | kafu-ɔ | kafu-∅ | ‘thorn’ |
| dakú-ɔ | dakú-ó | dakú-∅ | ‘tree’ |

As (88) shows, the ablative suffix is involved in several kinds of vowel assimilations (see §2.9.4). For example, if the final vowel of a nominal stem in a phrase-medial position is /ɪ/ or /a/, these two vowels get totally assimilated to the ablative suffix (see *sɪsɪ* ‘honey-beer’ and *ɲɪrɪ* ‘cane rat’). Also, if the final vowel of a nominal stem in a phrase-final position is /i/ or /ɪ/, these vowels get partially assimilated to /u/ and /ʊ/ respectively.

In terms of grammatical function, the ablative case is used to mark non-core clause arguments with ‘from’ or ‘at’ semantic roles including the following:

(89) *Ablative case semantic roles*

| | |
|---|-------------|
| 1 | Source |
| 2 | Cause |
| 3 | Stimulus |
| 4 | Location |
| 5 | Experiencer |

First, the ablative case is used to mark peripheral arguments that encode the physical or geographical Source of an action or motion. The following sentences illustrate this prototypical ablative role:

(90) *Atsia naa awoo ne*

ats-í-á = naa awó-ó = ne
 come-1SG-REAL = PST1 home-ABL = DEM.SG.MED
 I came from that home.

(91) *Kanetaa jumujumasia cuaako.*

kan-et-á-á jumujum-así-a cuá-áko-Ø
 take-VEN-REAL-PRF sand-ABST-ACC water-inside-ABL
 He has taken sand out of the water.

Second, the ablative case is used to mark peripheral arguments that encode the Location of an action or state. The first two sentences below illustrate this role with intransitive verbs, while the second two do it with transitives:

(92) *Sarata epa hoikao.*

sár-át-a ep-a hó-íka-°
still-3PL-REAL sleep-REAL hut-PL-ABL
They are still sleeping in the huts.

(93) *Iwiya ceŋa nee bekesanee muceeo.*

iw-i-a ceŋ-a néé bekéés-án-é=e muceé-°
hit-PLUR-REAL woodpecker-NOM CONJ walk-IPS-REAL=DP path-ABL
The woodpecker makes a call when people are walking on the path.

(94) *Ceyoo fetieku!*

ce-íś fetí-éku-°
kill-IMP.PL sun-eye-ABL
Kill from the East (lit. 'sun-eye')!

(95) *Italiana nkaka dadee dakugwariao.*

itál-í-an-a ŋkák-á dade-e dakú-gwaría-°
forbid-PLUR-IPS-REAL eating-NOM honey-GEN tree-top-ABL
It is forbidden to eat honey in the top of the tree.

Third, the ablative case is used to mark peripheral arguments with the semantic role of Cause, which can be animate or inanimate. The next two sentences illustrate the role of Cause with animate entities. Keep in mind that this construction is susceptible to interpretation as encoding the demoted agent of a passive. This view is perpetuated, for example, in Heine & König (1996:33), but Ik speakers insist that strictly cause, not agency, is expressed by the ablative. Cause and agency are semantically related, of course. But while an agent is also a cause, a cause need not also be an agent:

- (96) *Detosa waicika ni ncu.*
 det-ós-á wa-icik-a = ni jícu-Ø
 bring-PASS-REAL greens-PL-NOM = DEM.PL I-ABL
 These greens are brought because of me (**by me).

- (97) *Kawimetaa tsuura na ntsu.*
 kaw-im-et-á-á tsúúr-a = na ntsú-Ø
 cut-MID-INCH-REAL-PRF acacia.sp-NOM = DEM.SG he-ABL
 This acacia has been cut down because of him (**by him).

And the next two sentences illustrate Cause with inanimate entities:

- (98) *Badukota noo nedekéee.*
 bad-úkót-a = noo nedekéé-³
 die-COMP-REAL = PST3 disease-ABL
 He died from disease.

- (99) *Boretiaa bekésu.*
 bór-ét-í-a-a bek-ésú-Ø
 tire-INCH-1SG-REAL-PRF walk-INF-ABL
 I am tired from walking.

The fourth semantic role encoded by the ablative is the Stimulus role. For example, the verbs *mor-* ‘fear, respect’ and *feb-* ‘be shy, afraid’ take a peripheral argument in the ablative case. This peripheral argument provides the Stimulus for the sensation of fear or timidity, as in:

- (100) *Itaamana moriduo baboo nda ŋo.*
 itámáán-á mor-idu-o bábo-o nda ŋó
 behoove-REAL fear-2SG-SEQ your.father-ABL and your.mother[OBL]
 You must respect your father and your mother.

(101) *Xeβa kironu.*

ʃεβ-a kír-onu-∅
 fear-REAL thunder-INF-ABL
 She's afraid of thunder.

Fifth, the ablative case is used to mark non-core arguments that encode the semantic role of Experiencer, a metaphorical extension of Location. The Experiencer in this usage senses or perceives something and forms an opinion of it. The following two sentences illustrate this ablative case role:

(102) *Daa aminu.*

da-a ám-ínu-∅
 nice-REAL person-POSS.PL-ABL
 It's nice to those concerned.

(103) *Gaana ncu.*

gaan-á jícú-∅
 bad-REAL I-ABL
 It's bad to me.

Finally, the verb *birá-* 'to lack' or 'to not be there' selects the ablative case to mark animate (Experiencer) or inanimate locations of lack (Location or Source). The two sentences below illustrate this important semantic role:

(104) *Biraa cikama ntu.*

bir-a cikám-á nítú-∅
 lack-REAL women-NOM they-ABL
 They don't have wives.

(105) *Biraata awikoo ni muɲ.*

birá-át-a aw-iko-o = ni muɲ
 lack-3PL-REAL home-PL-ABL = DEM.PL all
 They are lacking in all these homes.

6.3.5 Genitive

The genitive case suffix has the form {-ε}. It is possible that this morpheme is a reflex of the ancient Eastern Sudanic genitive case marker *-i/i (Dimmendaal 2010:34). A similar form (-i) is found in the Cushitic languages Afar, Beja, and Bilin. Another promising connection is with the Shabo (Nilo-Saharan or unclassified) genitive marker *-ke* (Teferra 1991:9). This connection is appealing because it could help explain why the Ik genitive suffix does not subtract the stem-final vowel. If an older form was *-kε, then the stem-final vowel would be kept to prevent a CC cluster.

The genitive suffix has a L tone but can take a H depending on the melody of the preceding stem (T7). It is recessively [-ATR] but can harmonize to /-e/ when affixed to [+ATR] stems. Like the ablative, the genitive suffix does not subtract the stem-final vowel. And before a pause, the genitive is devoiced to /-^hε/ or /-^hε/. When the stem ends in non-low front vowel, it is usually inaudible [-∅]. And when a noun stem ends in a high back vowel, that vowel may desyllabify to [w] causing compensatory lengthening on the following genitive suffix. Lastly, the genitive suffix may totally assimilate a stem-final /a/ or other [-ATR] vowel in non-final noun forms.

(106) Genitive case paradigm

| Basic form-GEN | Non-final | Final | Gloss |
|----------------|----------------|----------------------|--------------|
| ηόκί-ε | ηόκί-e | ηόκί-∅ | ‘dog’ |
| σισί-ε | σιsé-έ | σισί-∅ | ‘honey-beer’ |
| βόρέ-ε | βόρέ-e | βόρέ-∅ | ‘corral’ |
| πέκε-ε | πέκε-ε | πέκε-∅ | ‘hunger’ |
| ηυρά-ε | ηυρέ-έ | ηυρά- ^h ε | ‘cane rat’ |
| ζινό-ε | ζινό-έ | ζινό- ^h ε | ‘zebra’ |
| δέρο-ε | δέρο-e | δέρο- ^h ε | ‘rat’ |
| kafu-ε | kafu-ε/kafw-εε | kafwí-∅ | ‘thorn’ |
| dakú-ε | dakú-έ/dakw-έέ | dakwí-∅ | ‘tree’ |

The genitive case in Ik has two grammatical functions:

(107) *Genitive case grammatical functions*

| | |
|---|--|
| 1 | To mark the nominal modifier of a noun phrase head |
| 2 | To mark the complement of a similative clause |

In the genitive's first function—to mark a noun dependent on its noun phrase head—the genitive-marked noun encodes Possession broadly construed, including notions of ownership, whole-part, kinship, attribution, orientation, association, and nominalization; see also §9.2:

- (108) Ownership: *Kisanini kurubadiicikaa nti.*
 kisán-íni kúrúbádi-icíká-a ntí-∅
 divide-SEQ things-VAR.PL-ACC they-GEN
 And they divided up their various things.
- (109) Whole-part: *Zikini deikaa ntsi.*
 zík-ini de-ika-a ntsí-∅
 tie-SEQ leg-PL-ACC he-GEN
 And they tied up his legs.
- (110) Kinship: *Nakwita imaa ntsi.*
 naḵw-it-a imá-á ntsí-∅
 suck-CAUS-REAL child-ACC s/he-GEN
 She nurses her child.
- (111) Attribution: *Gaana nepitea dee bie.*
 gaan-a nepite-a = 'déé bi-e
 bad-REAL manner-NOM = ANPH.SG you.SG-GEN
 That behavior of yours is bad.

- (112) Orientation: *Iya kanedee awae.*
 i-a kán-é⁺dé-e awá^{-e}
 be-REAL back-POSS.SG-DAT home-GEN
 It's at the back of the home.
- (113) Association: *Eja ceida loḡotoma ngoe.*
 ej-á ce-íd-a loḡót-óm-a ḡó^{-e}
 not-REAL kill-2SG-REAL enemy-SING-NOM we.EXC-GEN
 Don't kill our enemy (the one we captured)!
- (114) Nominalization: *Nda ikamesukoti ḡokokoro.*
 n⁺da ikam-és-úkoti ḡókókór^{-e}
 and catch-INF-COMP[OBL] chicken(s)-GEN
 And they caught the chickens.

In Ik, nouns with the genitive case can also modify a noun phrase head that is left implicit. The omitted NP must be the complement of a copular verb like *mut-* 'be sb. or sth.' or *bení-* 'not be sb. or sth.', for example:

- (115) *Benia ngoe.*
 beni-á ḡó^{-e}
 not.be-REAL we.EXC-GEN
 It is not ours (lit. 'It is not X of ours').
- (116) *Mita róbee ni wetiat.*
 mit-a róbe-e = ni wet-í-át^{-a}
 be-REAL people-GEN = REL.PL drink-PLUR-3PL-REAL
 It (i.e. tobacco) is of people who snuff (lit. 'drink') regularly.

One of the language's strategies for coordinating and subordinating clauses is to nominalize a clause's verb into an infinitive (as in example 114 above). When this happens, the subject and object (if present) of the nominalized verb follow it in the genitive case, as shown in (117) and (118) below:

(117) *Arutetona ebee,...*

arút-ét-on-a é⁺bε-é
 sound-INCH-INF-NOM gun-GEN

At the sound of a gunshot (lit. ‘the sounding of a gun’),...

(118) *Nda kooni ntie sabak.*

ń⁺da kɔ-oni ńtí-e saba-k^e
 and go-INF[OBL] they-GEN river-DAT

And they went to the river (lit. ‘and the going of them to the river’).

In another special construction, the roles of the NP head and genitive modifier can be reversed so that the possessor is now the head. The sentence in (119) shows the noun *ámá-* ‘person’ modified by the ‘one’ (*kɔní-*), even though it is *ámá-* that is in the genitive case. Then in (120), the pronominal form *ntséní* modifies *neburyaŋí^e*, though the latter is in the genitive:

(119) *Atsuo kona amae.*

ats-u-o kɔn-a ámá-^e
 come-3SG-SEQ one-NOM person-GEN

Another person should come.

(120) *Ijana nda ntseni neburyaŋi.*

ɲan-a ń⁺da nts-éní neburyaŋí-∅
 each-NOM with s/he-PSSM[OBL] container-GEN

Each person with his or her own (snuff) container.

Besides Possession, the second grammatical function of the genitive is to mark the complement of a similitive clause. Similitive clauses in Ik are formed with the special verb *kám-* ‘be like’ (cf. Swahili *kama* and West Rift Cushitic *qoom-*). Similitive clauses have the schema ‘X is like Y’, where X is in the nominative case and Y in the genitive case. This is an interesting example of a genitive used as a clausal argument instead of an NP modifier:

- (121) *Kamata dziberikae.*
 kám-át-a dzibér-íka-^e
 be.like-3PL-REAL axe-PL-GEN
 They are like axes.

- (122) *Biraa keda kamad.*
 bira-a ké'd-a kám-á = d^e
 not.be-REAL way-NOM be.like-REAL = DP
 There is nothing it is like.

In (122), the verb *kám-* is in a relative clause (without a relative pronoun) modifying the word *kéd^a* ‘way, manner’. Because the complement of the similitive relative clause is missing from the relative clause, the dummy pronoun (DP) is used to mark its absence (see §5.10).

6.3.6 Accusative

The accusative case suffix has the form {-ka}, and as such, is one of three Ik case suffixes that consist of /k/ plus a vowel (the other two being the dative and the copulative, described below). Potential parallels for this suffix are widespread in the general Ethio-Sudanic language area. For Nilo-Saharan accusative cases, “the widest-spread marker is a velar, occurring in at least six of twelve families; it seems safe to assume this is a reflex of the proto-form” (Dimmendaal 2010:30), which Ehret reconstructs as **-kò* (2001:203). Besides Ik, Shabo (Nilo-Saharan or unclassified) has *-kak* or *-k* as an object/accusative marker (Teferra 1991:9). And the Cushitic language Afar marks objects on the verb with the morpheme *-aka* (Mahaffy n.d., p. 29).

The Ik accusative suffix has a L tone but may take a H tone according to the stem’s tone melody (T7). It is one of the language’s opaque dominant [+ATR] suffixes and thus can also be represented as {-ka⁺}. Any recessive enclitic following the accusative suffix will surface as [+ATR].

It does not delete the final vowel of the stem but instead attaches directly to it. Before a pause, the vowel of the suffix devoices, changing the suffix to /-k^a/ or /-k^ʔ/. And within a phrase, the suffix loses the /k/, changing the suffix simply to /-a/. If the stem-final vowel is a high back vowel, it may desyllabify and cause the accusative suffix to lengthen in compensation:

(123) *Accusative case paradigm*

| Basic form-ACC | Non-final | Final | Gloss |
|----------------|----------------|---------------------|--------------|
| ŋókí-ka | ŋókí-a | ŋókí-k ^a | 'dog' |
| sísí-ka | sísí-á | sísí-k ^a | 'honey-beer' |
| bóré-ka | bóré-a | bóré-k ^a | 'corral' |
| ɲɛkɛ-ka | ɲɛkɛ-a | ɲɛkɛ-k ^a | 'hunger' |
| ɲorá-ka | ɲorá-á | ɲorá-k ^a | 'cane rat' |
| zínó-ka | zínó-á/zínw-áá | zínó-k ^a | 'zebra' |
| déró-ka | déró-a/dérw-áa | déró-k ^a | 'rat' |
| kafu-ka | kafu-a/kafw-aa | kafu-k ^a | 'thorn' |
| dakú-ka | dakú-á/dakw-áá | dakú-k ^a | 'tree' |

In terms of grammatical function, the accusative case in Ik is used to mark core clausal arguments, namely the following:

(124) *Accusative case grammatical functions*

| | |
|---|--|
| 1 | Direct object (O) of a transitive clause with a 3SG/PL subject |
| 2 | Direct object (O) of all subordinate clauses |
| 3 | Subject (A/S) of any subordinate clause (except sequential) |

First, the accusative marks the direct objects (O) of transitive clauses with third person subjects. If the subject of the clause is first or second person, then both the subject and the object(s) take the nominative case (§6.3.1). See, for example, the pattern in the following paradigm, in which the accusative case (underlined> is found only with the third person verb forms:

(125) *Number-based differential accusative marking*

| | | |
|---------|-----------------------------|--------------------|
| 1SG | bédíá ηkák- ^a | ‘I want food.’ |
| 2SG | bédída ηkák- ^a | ‘You want food.’ |
| 3SG | bédá ηkáká-k ^a | ‘S/he wants food.’ |
| 1PL.EXC | bédíma ηkák- ^a | ‘We want food.’ |
| 1PL.INC | bédísina ηkák- ^a | ‘We want food.’ |
| 2PL | bédíta ηkák- ^a | ‘You want food.’ |
| 3PL | bédáta ηkáká-k ^a | ‘They want food.’ |

Taken from narratives, the following two sentences show the accusative marking the object (O) of transitive clauses with 3SG/PL person subjects:

(126) *Tsidziteta naa inok.*

tsíd-z-it-et-a = náá ínó-k^a_O
 carry-CAUS-VEN-REAL = PST1 animal-ACC
 He flushed out an animal (from a thicket).

(127) *Damatini awaa bubun.*

damat-ini awá-á_O bubun-[?]
 shoot-SEQ home-ACC coal-INS
 And they opened fire on the home (with ‘coals’ = bullets).

As noted in the Case Overview (§6.1), Ik is classified as a split-accusative language due to this type of number-based differential object marking. While this is the descriptive fact, can any explanation be offered for it? Some attempts can be made, though none are conclusive. König suggests that accusative marking comes into play when cross-referencing ‘fails’ on the verb (2008:85). That is, if the subject is not cross-referenced on the verb, case is needed to show grammatical relations. But this explanation falls short on two accounts: 1) First, clausal constituent order is not flexible enough to admit the kind of ambiguity implied by König’s analysis. 2) The ‘failure’ of cross-reference (i.e. a zero morpheme) is in itself cross-reference.

Even if a 3SG subject is not cross-referenced—or is so with zero marking—constituent order would tell a speaker what the subject and object were:

- (128) *Cea ama idemek.*
 ce-a ám-á ídeme-k^a
 kill-REAL person-NOM snake-ACC
 A person kills a snake.

- (129) ***Cea idemea am.*
 **ce-a ídeme-a ám-∅
 **kill-REAL snake-ACC person-NOM
 **A person kills a snake.

These two sentences illustrates that even with accusative marking, the order of subject and object cannot be reversed. At least synchronically, constituent order is fixed enough to prevent any hypothetical ambiguity arising from case ‘defectiveness’. So the split-accusativity of Ik cannot be based only on a need to make up for a failure in subject cross-referencing on the verb.

Taking a different tack, some African languages show a special sensitivity to the notion of ‘speech-act participant’. For example, in Turkana, the marking of a direct or indirect object on a verb depends on whether it is a speech-act participant. If it is (1/2 person), it is marked with the verbal prefix *k-*. If not (3 person), no prefix is present (Dimmendaal 1983:124). Inversely, but with the same attention to speech-act participants, the Ik accusative suffix is only present if the clause’s subject is *not* a speech-act participant (i.e. 3 person).

Related to this is the idea of ‘prototypical transitivity’. According to Næss (2007, quoted in Dimmendaal 2010:39), the prototypical Agent has the semantic features [+volitional], [+instigating], and [-affected]. The converse of this is that the prototypical Patient is [-volitional], [-instigating], and [+affected]. Dimmendaal (2010) explores the application of this for Differential Object Marking (DOM) in Nilo-Saharan.

The claim is that objects that have a more prototypical Patient role are more likely to be marked differently (e.g. with an accusative case) than those without it. Since prototypical Patients are [-volitional], and since volition implies animacy, it is claimed that objects further down the cline toward inanimacy are more likely to be marked differentially (Dimm. 2010:39).

The concept of prototypical transitivity seems applicable to Ik split-accusativity, but along slightly different lines. In Ik, volition, instigation, affectedness, and animacy alone do not determine whether an object will be marked with the accusative case or nominative case. By contrast, the only relevant factor is whether the Agent of a transitive clause is present in the conversation, i.e. is a speech-act participant (3 person). If the Agent (animate or inanimate) is not speaker or addressee, then the object must take the accusative case. Thus, taking Ik into account, the feature [\pm participant] can be added to Næss' definition of prototypical transitivity. An Agent that is not a speech-act participant (3 person) embodies a greater degree of transitivity because its intention (if animate) or capability (if inanimate) is inaccessible and therefore not knowable or assessable. This puts greater semantic 'distance' between the Agent and Patient than if the Agent was a speech-act participant who could be negotiated with. This, then, is one further attempt to make sense of Ik's person-based split-accusativity.

Another question relevant to the Ik accusative case is what semantic roles the object of a transitive clause can take. This question applies to transitive objects generally, including those marked in the nominative case. Ik direct objects encode the expected semantic role of Patient, but they can also encode Direction and/or Purpose. Three Ik verbs of motion—*ats-* 'come', *ka-* 'go', and *itá-* 'reach'—are unusual in that they can behave like transitive verbs. Similar motion-verb properties have been reported as common in Cushitic and Omotic languages (Dimmendaal 2003:100). Old Nubian is reported to have marked Patients and Directions with the suffix *-ka*, while the Semitic language Tigrinya uses its accusative prefix *ni-/nä-* to mark Patients, Directions, and many other roles (Dimmendaal 2010:41).

The following sentences are examples of a) Ik motion verbs functioning as transitive verbs and b) object case (NOM or ACC) marking Direction/Purpose:

- (130) *Atsaa kanesia kurubadie ntsi.*
 ats-á-á kan-ésí-a_o kúrúbádi-e ntsí-∅
 come-REAL-PRF get-INF-ACC things-GEN he-GEN
 He has come to get his things.

- (131) *Kaa naa dzigwa nkakae.*
 ka-a = náa dzi⁴gw-aa_o ηkáká-^e
 go-REAL = PST1 buy-ACC food-GEN
 He went to buy food.

- (132) *Iteesa Kaabongia ts'oo.*
 ité-és-á kaabóni-a_o ts'oo
 reach-INT-REAL Kaabong-ACC soon
 He'll reach Kaabong soon.

In none of the preceding three sentences would the dative case be grammatical on the direct object (O) encoding Direction and/or Purpose. These examples are interesting in that the dative case (next section) is used more generally to encode both Purpose and Goal/Direction. It is only the unique combination of these roles that transitivize the verb and objects.

Back to the grammatical functions of the accusative: Its second function is to mark the overt subject (A/S) of any subordinate clause (except those with sequential verb forms). In many subordinate clauses, the subject may be left implicit, though it is always cross-referenced on the verb. When the subject of a subordinate clause is explicit, it comes before the verb, as opposed to after the verb like unmarked main clauses. Turkana is also a VSO language. And it also marks its preverbal subjects with object case, which for it is the 'absolute', the equivalent of the Ik accusative (Dimmendaal 1983:260).

The next three sentences below illustrate the accusative case marking and preverbal syntactic position of subordinate clause subjects (A/S):

(133) *Naa nabalaŋitia iwidimetik*,...

náa nabáláŋtí-á_s iwid-ím-ét-i-k^e
 CONJ soda.ash-ACC pulverize-MID-INCH-3SG-SIML
 When the soda ash is ground to a fine powder,...

(134) *Duo nuu didia watad*,...

dú-ó = nuu didi-a_s wat-á = d^e
 ones-ABL = REL.PL.PST3 weather-ACC rain-REAL = DP
 Because it was raining,...

(135) *Naa nee amedea bedee ŋesia*,...

náa néé ám-édε-a_A béd-é = ε ŋo-ésí-a
 CONJ CONJ person-POSS.SG-ACC want-REAL = DP grind-INF-ACC
 Whenever the owner wants to grind (some tobacco),...

The third function of the accusative is to mark the direct object of any non-sequential subordinate clause, regardless of the person of the subject. In (136), the object (O) *kóné-éńí* ‘some-X’ is in the accusative case, even though the subject is second person singular. Also, in (137), the object *ńci* ‘I’ is in the accusative, even though the subject is second person plural:

(136) *Nee rebidee koneenia amae*,...

néé réb-id-e = e kóné-éńí-a_O áma-^e
 CONJ deny-2SG-REAL = DP one-PSSM-ACC person-GEN
 When you deny someone (tobacco, that is),...

(137) *Isio tubiitee ncia jiiik?*

isi-o túb-i-it-é = e ńci-a_O jíík
 what-COP follow-PLUR-2PL-REAL = DP I-ACC always
 Why do you follow me always?

6.3.7 Dative

The dative case suffix has the form {-ke}. Potential areal parallels for it include the Cushitic language Saho's goal/source marker *-k* (Banti & Vergari 2005:14) and the Dhaasanac 'core adposition' *-(k)i* that encodes dative, benefactive, and instrumental roles (Tosco 2001:232).

The Ik dative suffix has L tone but can take a H tone spread from the preceding stem (T7). It is a recessive suffix with the [+ATR] allophone /-ke/ after [+ATR] stems. In terms of suffixation strategy, the dative suffix preserves the stem-final vowel, ostensibly to avoid a disallowed CC cluster. Before a pause, the dative suffix is reduced to /-k^e/ or /-k^h/, and its clause-medial allomorph, losing the /k/, has the form /-ε/ or /-e/. If the stem-final vowel is /a/, /i/ or /ɔ/, it may be totally assimilated by the dative suffix. And if the final vowel of a stem is a high back vowel, it may desyllabify and cause the dative suffix to lengthen in compensation:

(138) *Dative case paradigm*

| Basic form-DAT | Non-final | Final | Gloss |
|----------------|------------------|----------------------|--------------|
| ŋókí-ke | ŋókí-e | ŋókí-k ^e | 'dog' |
| sísí-ke | sísí-é/sísé-é | sísí-k ^e | 'honey-beer' |
| bóré-ke | bóré-e | bóré-k ^e | 'corral' |
| ɲεke-ke | ɲεke-ε | ɲεke-k ^e | 'hunger' |
| ɲurá-ke | ɲuré-é | ɲurá-k ^e | 'cane rat' |
| zínó-ke | zínó-é/ziné-é | zínó-k ^e | 'zebra' |
| d'éró-ke | d'éró-e/d'érw-ée | d'éró-k ^e | 'rat' |
| kafu-ke | kafu-ε/kafw-εε | kafu-k ^e | 'thorn' |
| dakú-ke | dakú-é/dakw-ée | dakú-k ^e | 'tree' |

In terms of grammatical function, the dative case is used to mark peripheral arguments that most prototypically encode a Goal for motion or action verbs and Location for static verbs. These have literal and more metaphorical applications as evidenced by the following seven roles:

(139) *Dative case semantic roles*

| | |
|---|--------------------------------|
| 1 | Recipient/Benefactor |
| 2 | Experiencer |
| 3 | Destination/Goal |
| 4 | Location |
| 5 | Possessor |
| 6 | Purpose |
| 7 | Second object of the causative |

First, the dative marks peripheral arguments that encode an entity receiving something from an Agent. This includes Recipients and Benefactors, e.g.:

(140) *Kisanese koto jekinerika robak.*

kisán-ese = kótó jekínér-ik-a roba-k^e
 distribute-SPS = ADV meat.cuts-PL-NOM people-DAT
 Then the meat cuts are distributed to people.

(141) *Dukwee kidiasaik.*

d-ukw-ee ki = diásai-k^e
 take-AND-IMP.SG DEF = others-DAT
 Take (it) to the others!

Second, the dative marks peripheral arguments that encode an Experiencer receiving something from a Stimulus, for example with verbs of speech:

(142) *Kutini nabo ntsie,...*

kut-ini nabó ntsí-é
 say-SEQ again he-DAT
 And they said again to him,...

Third, the dative case in Ik is to mark peripheral arguments that encode the Destination or Goal of an action or motion, as for example in:

- (143) *Bukotio honesiika rijaakok.*
 bú-kót-i-o hɔn-ésí-ik-a ríjá-akɔ-k^e
 enter-AND-3SG-SEQ drive-INF-AGT.PL-NOM bush-inside-DAT
 And the animal-drivers enter the bush.
- (144) *Keese koto awak.*
 ke-esé = koto awá-k^e
 go-SPS = ADV home-DAT
 Then (people) went home.
- (145) *Kaa naa roba ndaik?*
 ka-a = náá roɓ-a ndaí-k^e
 go-REAL PST1 people-NOM where-DAT
 Where did the people go?

Fourth, the dative marks a peripheral argument encoding the Location of a state or action not including a sense of motion, as in the following:

- (146) *Nda iyiima noo Baratiawak.*
 n'ɔda i-í-ím-a = noo baratí-áwa-k^e
 and be-PLUR-1PL.EXC-REAL = PST3 fig.tree-place-DAT
 And we were (staying) at Fig Tree Place.
- (147) *Ibookotuo noropua asakagwariik.*
 íbo-okot-u-o norópú-a asaka-gwaríi-k^e
 keep.overnight-COMP-3SG-SEQ organs-ACC door-top-DAT
 And he kept the organs over the door till morning.
- (148) *Hakaikiaa lorokona moderipak.*
 hakaik-í-a-a lorokon-a módé-ripa-k^e
 forget-1SG-REAL-PRF adze-NOM ground.bee-hole-DAT
 I've forgotten the adze in the ground-bee hole.

Fifth, the dative is used to mark a peripheral argument that encodes the Possessor of someone or something. In this function, the locative copula *i-* ‘be (somewhere)’ must be present, making the Possessor role a natural extension of the Location role illustrated above.

(149) *Iya kaudza bie ts’oo.*

i-a kaúdz-a bi-e ts’oo
 be-REAL money-NOM you.SG-DAT now

Do you have money now (lit. ‘Is there money to you now’)?

(150) *Iya ηokitina lebetse ncik.*

i-a ηók-ítín-á lebetse jíci-k^e
 be-REAL dog-PL-NOM two I-DAT

I have two dogs (lit. ‘There are two dogs to me’).

Despite examples like the ones above, the more common way Ik expresses possession with the locative copula *i-* is with the connector *ní’da* ‘and/with’, as in *íá ní’da ηókítíná lebetse* ‘I have (lit. ‘am with’) two dogs’.

Sixth, the dative case is used to mark peripheral arguments that encode Purpose. In this function, the argument denoting purpose is usually a nominalized verb (infinitive) declined in the dative case.

(151) *Waana nkanesie toboŋoe.*

ó-án-a ηkan-i-esí-e toboŋó-^e
 call-IPS-REAL get-PLUR-INF-DAT maize.mush-GEN

They are invited to get (or ‘for getting’) maize mush.

(152) *Ŋweese paka itemukotuo juresukotik.*

ŋo-ε-ésé páka itém-úkót-u-o júr-és-ukótí-k^e
 grind-INCH-SPS until suitable-COMP-3SG-SEQ snuff-INF-COMP-DAT

And it’s ground up until it becomes suitable for snuffing.

The dative case is also used in a construction called ‘verb intensification’ or ‘verb strengthening’. Since verb strengthening is also found in Teso-Turkana (e.g. Dimmendaal 1983:423), the Ik construction is likely a calque of it. Verb strengthening is when an imperative verb is followed by the same verb in the infinitive and in the dative case. It can be translated as ‘X for X-ing’, that is, for the reason of X and no other. Examples include the following:

(153) *Kae koonik!*

ka-e kó-oni-k^e

go-IMP.SG go-INF-DAT

Get the hell out of here (lit. ‘Go for going’)!

(154) *Ipasoetia ipasoonik.*

ipaso-et-í-a-a ipásó-oni-k^e

be.idle-VEN-1SG-REAL-PRF be.idle-INF-DAT

I just wandered over here for no reason at all.

The final function of the dative case to be described here has to do with causative verbs (see also §7.9.1). In Ik, if an intransitive verb is made a causative with the causative suffix {-it}, the subject (S) of the original verb is treated as the object (O) of the now causative verb.

(155) *Tsidzetaa kotor.*

tsídz-et-á-á kɔ́tór-Ø_S

carry-VEN-REAL-PRF oribi-NOM

An oribi (antelope) has flushed out!

(156) *Tsidzitetaa kotorak.*

tsídz-it-et-á-á kɔ́tórá-k^a_O

carry-CAUS-VEN-REAL-PRF oribi-ACC

He has flushed out an oribi.

Going a step further, when a transitive verb is made into a causative, the subject (A) of the original verb is treated as an object (O) of the now-causative verb. But, the object (O) of the original verb is now treated as a second object or extension (E) in the now causative construction. The data below shows what happens when the transitive verb *wet-* ‘drink’, which requires an agent (A) and a patient (O), is causativized:

(157) *Wetuo ima cemerik.*

wet-u-o im-a_A cemerik^a_O
 drink-3SG-SEQ child-NOM herb-ACC

And the child drank the medicine.

(158) *Wetitukotuo imaa cemerik.*

wet-it-úkót-u-o imá-á_O cemerik^e_E
 drink-CAUS-COMP-3SG-SEQ child-ACC herb-DAT

And she made the child take the medicine.

In (157)-(158), the subject (A) of the first clause (*im* ‘child’) becomes the patient (O) in the second, now causative clause. And the patient (O) of the first clause (*cemer* ‘herb’) becomes a second or extended object (E) in the second clause. So in a sense, through a metaphorical extension of the Location role, the extended object becomes the ‘site’ of the causation.

As a side topic, it is worth mentioning that the Ik verb *iryám-ét-oni-* ‘to get’ (cf. Teso-Turkana *a-ryam-un*) always takes an argument in the dative case:

(159) *Iryameida bee ηitsanie?*

iryam-é-íd-a = bee ηítsaní-ε
 get-VEN-2SG-REAL = PST2 troubles-DAT

Did you get trouble yesterday?

At first glance, it would appear that this is an instance where a core argument is marked with the dative, a non-core-marking case. However, it

is more likely that despite the English translation of this verb as ‘get’, it is really an intransitive verb, making the object in fact a peripheral argument. A clue for this comes from Teso-Turkana, where *a-ryam-un* ‘to get’ is related to *aki-ryam-un* ‘to meet with’. As such, this Ik verb may carry more the idea of ‘meeting with sth.’ (e.g. ‘acquiring’) as opposed to merely ‘getting’ it.

Finally, on the basis of example (160) below, König has claimed that the verb form *bira-e* shows a ‘petrified’ form of the dative case on the verb *birá-* ‘not there’. She analyzes this verb form as *bira-DAT* and suggests that it has been lexicalized into a ‘preposition’ meaning ‘without’ (2002:255):

- (160) ...go-í-a kakum-e edá bíra-e íjar-esí-k^a
 go-1SG-a Kakuma-DAT alone be.NEG-DAT help-INF-ACC
 I went alone to Kakuma without any help.

But this analysis is flawed due to incorrect morphological parsing. The verb form in question is not *bira-e* analyzed as *bira-DAT* but rather *birá-í-ε* analyzed as *birá-3SG-SIML*. This form is not a noun or verb fossilized into a preposition but rather an instance of the impersonal, 3SG adverbial simultaneous verbs used in clause chains (§11.2.2). It is true that this verb form is often best translated as ‘without’ into English, but it does not follow that it has become a ‘preposition’. The example sentence in (160), taken from König (2002:255) is reanalyzed and glossed here as follows:

- (161) *Koyaa Kakumee edá, birayee ijaaresik.*
 kó-ia-a kákumé-é edá birá-í-ε ijaar-ésí-k^a
 go-1SG-SEQ Kakuma-DAT alone lack-3SG-SIML help-INF-ACC
 I went to Kakuma alone without (lit. ‘it lacking’) any help.

6.3.8 Copulative

The Ik copulative case suffix has the form {-kɔ}. In terms of parallels, the wider Cushitic language family abounds with possibilities. Sidaamo has *-ho/hu* as a copulative suffix (Lamberti 1984:5), and Arbore has an interrogative copula with the form *-ko* (Hayward 1984:122). An interrogative copula with the form *-ko* is also found in the Southern Cushitic languages Alagwa and Burunge (Mous 2012:398). Suggesting a link with the Ik copulative's focalizing function, Eastern Cushitic's Dhaasanac has an enclitic =*u* called a 'nominal focus marker' (Tosco 2001:60, 268-269).

The copulative case suffix is L-toned but can take a H tone from a preceding stem (T7). It is a recessive suffix that harmonizes to /-ko/ after a [+ATR] stem. The copulative does not delete stem-final vowels but rather affixes directly to them. Before a pause, the it is devoiced to /-kʰ/, /-k^o/ or /-kʷ/. When the it attaches to a stem-final /i/, the /i/ is backed to /u/ in partial assimilation to the vowel in the case suffix. And if the stem-final vowel is /i/ or /a/, it may be partially or totally assimilated by the case suffix. Lastly, if a stem ends in a high back vowel (/u/ or /u/), that vowel may desyllabify, causing the non-final copulative suffix to lengthen in compensation.

(162) Copulative case paradigm

| Basic form-COP | Non-final | Final | Gloss |
|----------------|-----------|---------------------|--------------|
| ŋókí-kɔ | ŋókú-o | ŋókú-k ^o | 'dog' |
| sísí-kɔ | sísó-ɔ | sísú-kʰ | 'honey-beer' |
| bóré-kɔ | bóré-o | bóré-k ^o | 'corral' |
| ɲɛkɛ-kɔ | ɲɛkɔ-ɔ | ɲɛkɛ-kʰ | 'hunger' |
| ŋurá-kɔ | ŋuró-ɔ | ŋurá-kʰ | 'cane rat' |
| zínó-kɔ | zínó-ɔ | zínó-kʰ | 'zebra' |
| déró-kɔ | déró-o | déró-k ^o | 'rat' |
| kafu-kɔ | kafu-ɔ | kafu-kʰ | 'thorn' |
| dakú-kɔ | dakú-ó | dakú-k ^o | 'tree' |

The copulative case has the following three grammatical functions:

(163) *Copulative case grammatical functions*

| | |
|---|---|
| 1 | Mark focus in a cleft construction |
| 2 | Mark the complement of a verbless copula |
| 3 | Mark the complement of a negative identity copula |

The first function of the copulative is to mark an argument that has been brought into discursive focus by being fronted before the main verb. The result is a cleft-construction that means something like ‘It is X (that)...’. The fronted constituent can be a subject, object, or any peripheral argument:

- (164) Subject: *Ngoo naa ikametim.*
 ŋgó-ó = naa ikam-et-ím-^Ø
 we.EXC-COP = PST1 catch-VEN-1PL.EXC-REAL
 It is we (who) captured (him).

- (165) Object: *Mesoo bedim.*
 mesɔɔ béd-ím-^Ø
 beer-COP want-1PL.EXC-REAL
 Is is beer (that) we want.

- (166) Peripheral: *Ntsuo tomoraneē nda kidíasaí.*
 ntsú-ó tɔmór-án-é = e n’da kidíásaⁱ
 it-COP share-IPS-REAL = DP with others[OBL]
 It is (why) it is shared with others.

The second function of the copulative is to mark nouns functioning as the complements of verbless copula clauses (VCC). VCCs provide an example of when a noun non-canonically functions as a clause’s predicate. The copulative case makes this possible by verbalizing the noun. No corresponding subject is needed, though it may be inferred contextually:

- (167) *Amak. Icek. Robak.*
 áamá-k° icé-k° roba-k°
 person-COP Ik-COP people-COP
 It's a person. They're Ik. It's people.

The third function of the copulative is to mark the complement of a copula clause (CC) with the negative copula *bení-*. If the copula subject (CS) is mentioned, as in (169) and (170), then it appears in the nominative case:

- (168) *Benia ja ngok.*

beni-a = já ηgó-k°_{CC}
 not.be-REAL = ADV we.EXC-COP
 It's really not us.

- (169) *Benia noo cwoo kidaa.*

beni-a = noo cuó-ó_{CC} ki = dá-á_{CS}
 not.be-REAL = PST3 water-COP MED = ones-NOM
 That was not water.

- (170) *Benia njinio da gokisina nee ne?*

beni-a njíní-o_{CC} d-a_{CS} gok-ísin-a né-é = ne
 not.be-REAL we.INC-COP one-NOM sit-1PL.INC-REAL here-DAT = DEM
 Are we not the ones seated here?

Despite what the preceding sentences show, complements of the negative copula of identity *bení-* can also appear in the nominative case. Or perhaps in the following two examples, the nouns in the nominative case are in fact the copula subjects whose complements are understood from the context:

- (171) *Benia ja nk.*

beni-a = já ŋk-^a_{CS/CC?}
 not.be-REAL = ADV I-NOM
 It's just not me.

- (172) *beni-á d-a_{CS/CC?} njíni-e*
 not.be-REAL one.SG-NOM we.INC-GEN
 Is it not (the one of) ours?

In closing, the question must be asked: Is the Ik ‘copulative’ really a case? As mentioned above, Cushitic parallels for the Ik copulative case suffix {-kɔ} are analyzed variously as suffixes, clitics and ‘markers’ more generally. In strictly morphological terms, the morpheme {-kɔ} certainly patterns like all the other Ik case suffixes: 1) It has an identical segmental shape as that of the dative and accusative cases, 2) it undergoes identical morphophonological alternations as the others suffixes, and 3) it fills the same nominal suffixal position as the other case suffixes. Then in syntactic terms, it patterns with other cases in that it is required to mark a unique argument (complement) in a specific clause type: a negative copula of identity clause. Thus it is analyzed in this grammar as a ‘case’ proper, synchronically.

Nevertheless, the copulative case has some peculiar properties that set it apart from all the other cases. First, apart from its function in marking a copular complement, the copulative does not encode grammatical relations of a noun with a predicate or a noun with another noun in a noun phrase. When it marks a noun, either in a cleft-construction or in a verbless copula clause, the noun fills the predicate slot. In that position, the noun with the copulative suffix can be followed by adverbial and tense-marking enclitics that otherwise come directly after true verbs. So in this sense, the copulative has a function more characteristic of a verbal morpheme.

As discussed below in §6.4.1, König has traced a chain of grammaticalization from an old focus marker (cf. the Cushitic parallels) to both the copulative suffix in the nominal system and the sequential aspect marker in the verbal system (2002:349-361). And so it would seem that the Ik copulative case shows the traits of a transitional form between a nominal and verbal morpheme. This might help explain its cross-categorial behavior.

6.4 ‘Case’ and grammaticalization

Formal parallels or homophones of the nominal case suffixes are found in other subsystems of Ik grammar. These are most richly attested in the verbal system (§6.4.1), though they are also found on demonstratives, relative pronouns, and tense particles (§6.4.2). This homophony has led to claims that Ik case is marked on ‘conjunctions, postpositions, prepositions, adverbs, and even verbs’ (König 2008:81). But this is misleading because most of these word classes are really nouns or verbs in Ik. The notion that nominal case suffixes grammaticalized into verbal inflectional affixes is one of the key claims of König 2002. Using her methodology, Schrock 2013 traces out several other potential grammaticalization pathways going from nominal case suffix to verbal affix. The picture emerging from this work is that due to its near ubiquity, ‘case’ is a unifying structural element in the language.

Unless the traditional definition of case is revised to include functors outside the nominal system, it is useful to speak of ‘case’ and ‘Case’ in Ik. The former is a way the language encodes grammatical relations, and the latter is a meta-categorial or mono-systemic archi-morphology whose precise origin and path of grammaticalization is not always known. In some instances, there is a demonstrable semantic link between a form in one system and its parallel in another, but in other instances, there is not.

Up to now it seems to have been assumed in the literature that nominal case suffixes are prior, being the source of parallels found elsewhere. A less explored but equally possible scenario is that all the various formal parallels in the different subsystems all come from a yet undiscovered source. Until much more descriptive and historical-comparative work is done in the Horn of Africa, the origin of these morphological types may remain out of sight.

6.4.1 ‘Case’ on verbs

König 2002 argued that Ik has grammaticalized nominal case suffixes into TAM verbal suffixes. The most prominent examples of this are 1) the dative

suffix turned marker of the simultaneous aspect ('subjunctive' in König's terminology) and 2) the copulative suffix turned marker of the sequential aspect ('narrative' in König's terminology). Consider these examples:

(173) *Grammaticalization of dative into simultaneous*

| Dative | | > | Simultaneous | |
|---------------------|------------|---|----------------------|---------------|
| bólé-k ^e | corral-DAT | > | ats-i-k ^e | come-3SG-SIML |
| sisí-k ^e | mead-DAT | > | kód-í-k ^e | cry-3SG-SIML |

(174) *Grammaticalization of copulative into sequential*

| Dative | | > | Simultaneous | |
|---------------------|------------|---|----------------------|--------------|
| bólé-k ^o | corral-COP | > | ats-u-k ^o | come-3SG-SEQ |
| sisú-k ^o | mead-COP | > | kód-ú-k ^o | cry-3SG-SEQ |

The data in (173) show that the dative case suffix and the simultaneous aspect suffix are identical in form ({-k^e} and its various allomorphs). And as shown in (174), the copulative case suffix and the sequential aspect suffix are also identical in form ({-k^o} and its allomorphs). König establishes the putative grammaticalization link between these nominal and verbal suffixes based on the following five points (adapted from 2002:318-319, 414):

(175) *Evidence of case > verbal suffix grammaticalization*

1. Their forms are identical.
2. Their morphophonological behavior is identical.
3. Their position in the word (i.e. always at the end) is identical.
4. The simultaneous and sequential suffixes show similar syntactic behavior (e.g. they are both used in subordinate clauses).
5. They exhibit other similar characteristics, such as:
 - a. Their non-final/final forms.
 - b. Their form consisting of /k/ plus a silent vowel.
 - c. Their deletion of /a/ in the preceding stem.
 - d. Their exclusion from negated verb forms.

In König's view, both the copulative case suffix and the sequential ('narrative') aspect marker were later developments from a nominal focus marker that was also a development from a copular suffix on nouns (2002:349-361). Paradoxically, she concludes that a focus marker encoding discontinuity developed into a 'narrative' mood marker encoding discourse continuity (2002:360). From a synchronic point of view, the copulative case in the nominal system and the sequential aspect in the verbal system do seem to focus attention on a given noun or verb. For nouns, this attention has a focal or copular function. For verbs, this attention simply highlights the point-by-point sequence of a text. In both systems, the morpheme {-kɔ} focuses attention on the respective item, as in the following:

- | | | | |
|-------|----------|--------------|-------------------------|
| (176) | ámá-k° | person-COP | 'It IS [a person].' |
| | ats-u-k° | come-3SG-SEQ | 'It IS [s/he/it came].' |

As for the homophonous dative /simultaneous ('subjunctive') marker {-kɛ}, König states that "In Icetot, the starting point in the grammaticalization of the dative into the subjunctive was probably an application of the dative as a *purpose* marker: first of all, together with a noun; then with a verbal noun; and finally, with an inflected verb" (2002: 264, italics in original).

But another explanation for the dative > simultaneous grammaticalization—and the one adopted in this grammar—is that the dative case's semantic role of Location was simply extended over time from nouns to whole subordinate clauses. If true, this would reflect one of the cross-linguistic 'cognitive-communicative strategies' in grammaticalization to "treat subordinate clauses like nouns" (Heine & Kuteva (2007:100-101). There is precedent for this analysis in wider Nilotic and particularly in Turkana where the locative prefix *ni-/ni-* is used for manner adverbials whether based on nouns or verbs. As Dimmendaal states, "The semantic distinction between manner and location...is not always clear" (1983:363-364). Just as the Ik dative case on nouns expresses the locational senses of 'in', 'on', or 'at', so the

simultaneous aspect suffix seems to have over time come to encode states or actions in or during which other states or actions are occurring, for example:

(177) *Epuḱwee kijak.*

ep-ukw-ee kǐjá-k^e
 sleep-AND-IMP.SG ground-DAT
 Lie down on the ground.

(178) *Epuḱwee marañidik.*

ep-ukw-ee maráŋ-ídi-k^e
 sleep-AND-IMP.SG good-2SG-SIML
 Sleep well (Lit. ‘Sleep you being good’ or ‘Sleep *in* you being good’).

(177) is a simple command to lie down on the ground, while (178) is a command to lie down ‘*while* you are good’, that is, ‘*in* the state of your being good’. These examples show how the semantics of *physical* co-occurrence on nouns, encoded by the dative, is extended to *circumstantial* co-occurrence on verbs. Even if this analysis is correct, the two homophones in the two grammatical systems must be treated as synchronically distinct. The location analogy may, however, be tested as a grammaticalization hypothesis.

Taking similar points of comparison, other links can be posited between nominal case suffixes and verbal inflectional affixes such as the following:

(179) *Other hypothetical case > verbal affix grammaticalizations*

| Case | | Verbal suffix |
|------------|---|---------------------|
| Oblique | > | Irrealis |
| Nominative | > | Realis |
| Accusative | > | Present perfect |
| Genitive | > | Singular imperative |
| Ablative | > | Plural imperative |

Schrock 2013 goes through each potential pair in (179) and determines that some, namely the first three, are more likely than others. That view is amended here in that only the first two are considered plausible. Those two—oblique > irrealis and nominative > realis—are the only two that seriously affect the analysis of the whole grammar. The other four encounter serious problem but are still interesting for speculative historical analysis.

The hypothesis that Ik has grammaticalized the nominative suffix {-a} into a verbal realis modality marker is analytically important. It was Heine who first noted that the nominative case and his ‘aorist’ tense shared something in common—the vowel /a/, which he calls the ‘thematic final a’ (1983:§2.5.3.1.1). But so far no one has explored the possibility that the ‘aorist’ marker /-a/ is a grammaticalization of the nominative case marker.

Besides their phonological identity, the nominative case {-a} and the realis {-a} share a significant morphological characteristic: They both subtract the final vowel of the stem or affix to which they attach. To illustrate this, the first column in (180) shows the underlying forms, first of noun roots with the nominative suffix, and then of verb roots and pronominal subject markers with the realis suffix. The second column then shows how {-a} in both systems subtracts the preceding nominal or verbal stem-final vowel:

(180) *Grammaticalization of nominative > realis*

| Nouns | | | |
|-----------|---|----------|---------------|
| ḃóré-a | → | ḃór-á | corral-NOM |
| ḡókí-a | → | ḡók-á | dog-NOM |
| sísí-a | → | sís-a | mead-NOM |
| Verbs | | | |
| ats-íí-a | → | ats-í-a | come-1SG-REAL |
| ats-ídi-a | → | ats-íd-a | come-2SG-REAL |
| ats-í-a | → | ats-a | come-3SG-REAL |

Interestingly, similar suggestive commonalities are found to exist between the oblique case morpheme and the irrealis modality morpheme, both of which are zero (\emptyset). Being zero-marked, the oblique case allows a noun stem's underlying form to surface (often with minor tonal changes). Likewise, the irrealis modality allows the underlying form of the preceding verbal morpheme to surface. In (181), the first column presents the underlying forms of several noun and verb stems with the oblique or Irrealis marker. The second column reveals their non-final surface forms:

(181) *Grammaticalization of oblique > irrealis*

| Nouns | | | |
|----------------------|---|---------|---------------|
| ḃóré- \emptyset | → | ḃóré | corral[OBL] |
| ŋókí- \emptyset | → | ŋókí | dog[OBL] |
| sísí- \emptyset | → | sísí | mead[OBL] |
| Verbs | | | |
| ats-íí- \emptyset | → | ats-íí | come-1SG[IRR] |
| ats-ídi- \emptyset | → | ats-ídi | come-2SG[IRR] |
| ats-i- \emptyset | → | ats-i | come-3SG[IRR] |

Based on the data above in (180), a plausible claim can be made that the nominative case {-a} and the realis modality {-a} are related historically. Whether one came from the other or both came from somewhere else is not known. And based on the data in (181), the same claim can be made for the oblique case and the irrealis modality which are both marked by {- \emptyset }.

But beyond segmental identity and morphophonological similarity, can these morphemes in disparate grammatical systems be linked semantically? Tentative connections can be drawn, but they are speculative and based on Ik's mismatch of formal and semantic markedness. For example, just as the nominal system marks what is common (e.g. subjects) and does not mark what is uncommon (e.g. oblique arguments), the verbal system marks what is actual (realis predications) and not what is unactualized (irrealis).

Such theorizing about grammaticalization finds practical application in the analysis of the subject-agreement pronominal suffixes. The analysis of these suffixes has been both the stimulus and result of case grammaticalization hypothesizing. A few comments are made below to illustrate the complexity of the issue and its relevance to Ik grammaticography:

Ik cross-references subjects by means of bound personal pronominal suffixes on verbs. These are described elsewhere §5.1.4 and §7.4, but a brief summary is repeated here: The subject-agreement pronominals mark grammatical person (1-2-3), number (SG and PL) and clusivity (EXC and INC). The underlying forms of these suffixes are posited as [-ATR] (except 3PL) with [+ATR] allomorphs after dominant [+ATR] stems or affixes. The suffixes' tones may be altered by the verbal stem and certain verbal suffixes.

(182) *Ik bound pronominal suffixes*

| | |
|---------|--------|
| 1SG | -íí |
| 2SG | -ídi |
| 3SG | -i |
| 1PL.EXC | -ímí |
| 1PL.INC | -ísíní |
| 2PL | -ítí |
| 3PL | -áti |

The forms presented in (182) for the pronominal suffixes are not automatically discoverable in Ik data. Instead, they came to be analyzed this way through a rather convoluted process. Analysis of these suffixes has long been confounded by at least three factors: 1) the non-final versus final form distinction, 2) the realis suffix which substracts stem-final vowels (§7.6.2), and 3) the behavior of the sequential and simultaneous aspectual suffixes. The interaction of these three factors had led to two conflicting analyses:

(183) *Ik subject-agreement markers in the literature*

| | With /-a/ as 'complemental suffix' (Crazzolara 1967:23, Tucker 1972:184) | With /-a/ as part of the pronominal suffixes (Heine & König 1996, König 2008:83) |
|---------|---|---|
| 1SG | -í-á | -íá |
| 2SG | -íd-a | -ída |
| 3SG | -∅-a | -a |
| 1PL.EXC | -ím-á | -ímá |
| 1PL.INC | -ísín-a | -ísína |
| 2PL | -ít-á | -ítá |
| 3PL | -át-a | -áta |

The data in (183) are presented in their non-final forms since the final forms further obfuscate things by reducing the suffixes' final vowel. As argued in §7.6.2, the position taken in this grammar is that the realis suffix {-a} subtracts the last vowel of whatever morpheme it attaches to. Since this vowel subtraction happens to the subject-agreement suffixes as well, then this means that final vowels have been subtracted from the forms in (184).

That is one point. Parallel to this issue is what happens when verbal extensions like the simultaneous {-ke} are suffixed to the subject-agreement markers. When this occurs, an /ɪ,i/ rather than an /a/ surfaces between the subject-agreement markers and the simultaneous suffix. If the vowel /a/ is part of the subject-agreement markers, it would be hard to explain what happens to it in this situation. Heine & König 1996 and König 2002 argue that the intervening /ɪ,i/ is the optative suffix, but no convincing semantic reason for this is given. Instead, the view taken here is that the intervening /ɪ,i/ is in fact part of the subject-agreement morpheme, while the /a/ so often seen is the realis marker that subtracts the /ɪ,i/ in many contexts.

Below in (184) are given all the subject-agreement suffixes in their non-final and final forms, in both the non-past tense, realis modality on the one hand,

and the simultaneous aspect on the other. For the sake of illustration, morpheme-breaks are purposely not inserted between the subject-agreement markers and the realis suffix {-a/-^a} or the simultaneous suffix {-ε/-k^ε}:

(184) *Ik subject-agreement markers in different verb forms*

| | Non-past, realis | | Simultaneous | |
|---------|------------------|------------------|--------------|----------------------|
| | Non-final | Final | Non-final | Final |
| 1SG | -íá | -í ^a | -ííkε | -íík ^ε |
| 2SG | -ída | -íd ^a | -ídie | -ídik ^ε |
| 3SG | -a | - ^a | -ie | -ik ^ε |
| 1PL.EXC | -ímá | -ím | -ímie | -ímik ^ε |
| 1PL.INC | -ísína | -ísín | -ísínie | -ísínik ^ε |
| 2PL | -ítá | -ít ^a | -ítie | -ítik ^ε |
| 3PL | -áta | -át ^a | -átie | -átik ^ε |

If the simultaneous ('subjunctive') aspectual suffix is -ε/kε/k^ε as claimed in König 2002, where do the subject-agreement markers end in the last two columns of (184)? In answer to this question, it is concluded here that a) since the dative case preserves the stem-final vowel in the nominal system, and b) if the simultaneous suffix is a grammaticalization of the dative case, then c) it too, by analogy, might preserve the final vowel of the morpheme to which it attaches. In this case, that morpheme is the subject-agreement suffixes. So, when the simultaneous suffix in the final column of (184) is removed, what is left is the subject-agreement suffixes without an intervening optative marker. The realis forms can then be accounted for by the realis suffix {-a}, itself a (potential) grammaticalization of the nominative {-a} that subtracts the subject-agreement suffixes' final vowel.

6.4.2 'Case' in other word classes

Formal parallels of Ik nominal case markers are also found on demonstratives, relative pronouns, and tense particles. The situation is less surprising if one considers that both tense particles and relative pronouns

developed out of demonstratives. Ik tensed demonstratives and tensed relative pronouns are identical in form and are marked for Ik's three-term past tense system: recent past, removed past, and remote past:

(185) *Ik tensed demonstratives/relative pronouns*

| | Singular | Plural |
|--------------|--------------------|---------------------|
| Non-past | =na 'this/which' | =ni 'these/which' |
| Recent past | =náka 'that/which' | =níki 'those/which' |
| Removed past | =sína 'that/which' | =sini 'those/which' |
| Remote past | =nɔkɔ 'that/which' | =nuku 'those/which' |

As can be seen in (186), the non-past form of the demonstrative/relative pronouns provides the base on which the other tense forms are built:

(186) *Analysis of tensed demonstratives/relative pronouns*

| | | |
|--------------|-----------------|-----------------|
| Non-past | = na | = ni |
| Recent past | = ná -ka | = ní -ki |
| Removed past | =sɪ- na | =sɪ- ni |
| Remote past | = nɔ -kɔ | = nu -ku |

In (186), the base (non-past) forms of the demonstratives/relative pronouns are in bold print—**na** for singular and **ni** for plural. Vowel assimilation changes **na** to **nɔ** in the remote past singular and **ni** to **nu** in the plural. The recent past and remote past forms form have suffixes resembling a case marker. (Only the removed past shows a prefix instead—*sɪ-/sɪ-*, which is probably related to the South Omotic language Dime's proximal demonstrative element *si-* (Mulugeta 2008:73).) The recent past form of the Ik singular demonstrative has *-ka* as a suffix. This is homophonous with the accusative case suffix {-ka} and nearly so with the present perfect marker {-ka}. Likewise, the remote past singular demonstrative has *-kɔ* as a suffix. This resembles the copulative suffix and sequential aspect marker {-kɔ}.

Two of these Iḱ demonstratives have grammaticalized not only into relative pronouns but also into tense clitics. During that process, the deictic function a demonstrative has over a single noun or a noun phrase was extended to whole clauses. Since clauses are singular, the singular forms of the demonstratives were borrowed to function as tense markers. The tense markers for recent past and remote past are identical to demonstratives, while the removed past marker shows a different form of unknown origin:

(187) *Iḱ tense clitics*

| | Non-final form | Final form |
|--------------|----------------|---------------------|
| Recent past | = náa | = nák ^a |
| Removed past | = bæε | = bats ^ε |
| Remote past | = nɔɔ | = nɔk ^ɔ |

The discussion above examining the recent past and remote past singular demonstratives applies equally to the recent and remote past tense enclitics. For the removed past tense enclitic, the segment /ts/ is missing in the non-final form, leading to vowel assimilation. The origin of the suffix /-tse/ is unknown, though it recalls the Proto-Gumuz word *tsa ‘body’ that has been grammaticalized in Gumuz for several different uses (Ahland 2012:251).

The parsed versions of the tense clitics in (187) are as follows:

(188) *Iḱ tensed clitics parsed*

| | Non-final form | Final form |
|--------------|----------------|----------------------|
| Recent past | = ná-a | = ná-k ^a |
| Removed past | = bæ-ε | = ba-ts ^ε |
| Remote past | = nɔ-ɔ | = nɔ-k ^ɔ |

(188) shows that just as with the demonstratives and relative pronouns, the frozen suffixes on Iḱ tense particles lose their consonantal segment in non-final forms. The suffix on the recent past closely resembles the accusative

case and present perfect aspect suffixes, and the suffix on the remote past form closely resembles the copulative case and sequential mood suffixes. However, just as the present perfect suffix {-ka} has a preceding floating tone, the frozen suffix on the recent past demonstratives and tense clitic shows evidence of a floating tone. This suggests that the sequences /-ka/ for singular and /-ki/ for plural are related historically to the present perfect suffix and not the accusative suffix (which lacks the floating H).

Unlike the grammaticalization links for case > verbal affix discussed above, a semantic link can easily be envisioned between the present perfect aspect-tense marker {-ka} as a verbal suffix and the recent past marker {-ka} as a suffix on demonstratives, relative pronouns, and tense enclitics. In the same way, a semantic link can also be established between the sequential aspect marker {-kɔ} as verbal suffix and the remote past marker {-kɔ} as a suffix on demonstratives, relative pronouns, and tense enclitics. This is true for the singular demonstrative forms; it is less clear how the plural ones developed:

(189) *Verbal < > demonstrative grammaticalization*

| | Singular | Plural? | |
|-----------------|-----------------------|-------------------|---------------|
| Present Perfect | ats-á-k ^a | | come-REAL-PRF |
| Recent Past | ná-k ^a | ní-k ⁱ | PST-REC |
| Sequential | kɔ́ɔ-ú-k ^ɔ | | cry-3SG-SEQ |
| Remote Past | nɔ-k ^ɔ | nu-k ^u | PST-REM |

So based on phonological, morphological, and semantic properties, the diachronic relationship between the forms in (189) is established. The question one step removed—whether the present perfect {-ka} related to the accusative case {-ka} and whether the sequential {-kɔ} is related to the copulative {-kɔ}—is touched on above in §6.4.1 and in Schrock 2013. The latter source fails to take into account the floating H tone in the present perfect suffix {-ka} which makes a link with the accusative less plausible.

7 Verbs

The Ik language's second large, open word class besides nouns is verbs. This chapter begins with an overview of verb roots (§7.1) and then moves on to describe various verbal suffixes and verb-building mechanism (§7.2-§7.11).

In Ik, a verb is a word whose primary grammatical function is to be the head of the predicate. As head of the predicate, a verb can take a variety of inflectional affixes, including those for subject agreement, mood, modality, valency, and aspect. A secondary grammatical function of the Ik verb is to be the head of a noun phrase. For a verb to adopt this function, it must first be nominalized with one of the language's several nominalizing suffixes.

A prototypical member of the Ik verb class predicates the action, state, location, or characteristic of its subject. Some concepts covered by an adjective class in other languages—like color, size, and shape—are covered by special adjectival verbs in Ik. And other concepts conveyed by nouns in many languages are also encoded in Ik with nominalized verbs.

At an abstract lexical level, some words are neither verb nor noun until they receive verbal or nominal affixes. These include words like *deku-* 'quarrel', *kaka-* 'hunt', *tokoba-* 'cultivate', and many others (see also §4 on nouns). When such lexemes are used as verbs, they receive verbal affixes like subject agreement markers. When they are used as nouns, they receive nominal affixes like case markers. So while the word classes of verb and noun can normally be clearly distinguished in Ik on the basis of syntax and semantics, their boundaries do overlap with a fair number of lexemes.

A verbal word in Ik consists minimally of a verbal root plus one inflectional affix. With the exception of reduplicated roots and fossilized prefixes, all verbal inflectional and derivational affixes in Ik are suffixes.

Morphologically, Ik is moderately agglutinative, and this is most fully evident in verbal inflection, for example in a verb like *bud-úd-it-és-úkot* ‘to soften’, which in addition to the root *bud-* contains four verbal suffixes. The most suffixes ever observed in a single verb stem is five, as in *gaan-i-áá-kot-át-a-k^a* ‘They have become increasingly bad’.

The usual citation form of an Ik verb—heard in response to the question “How do you say ____ in Ik?”—is the infinitive which is recognizable from the intransitive nominalizer {-ɔn-} or the transitive nominalizer {-ésí-}:

(1) *Verbal citation (isolation) forms*

| Intransitive | | Transitive | |
|--------------|---------------|------------|--------------|
| ɛf-ɔn | ‘to be sweet’ | ɛf-it-és’ | ‘to sweeten’ |
| zíz-on | ‘to be fat | zíz-it-és | ‘to fatten’ |

Just as noun roots cannot occur without a case suffix, bare verb roots also cannot occur. Even those that may sound like a bare root to a non-Ik speaker—the 3SG realis and singular imperative—have a minimum of one suffix that may be devoiced or deleted at the surface level. In the realis modality, 3SG is zero-marked (-∅) because the realis suffix {-a} subtracts the 3SG subject-agreement suffix {-i}. Then before a pause, the realis suffix may be completely inaudible, though still present phonologically. Similarly, the singular imperative {-é} may be rendered inaudible before a pause:

(2) *Isolated verbs falsely perceivable as bare roots*

| 3sg realis | | | |
|---------------------|---|--------|--------------------|
| bíz-a# | → | [bîz:] | ‘He presses (it).’ |
| pul-a# | → | [pù] | ‘He pierces (it).’ |
| Imperative singular | | | |
| bíz-e’ | → | [bîz:] | ‘Press (it)!’ |
| pul-e’ | → | [pū] | ‘Pierce (it)!’ |

7.1 Verbal roots

Ik verbal words consist of roots and suffixes. The present section examines the structure of Ik roots, while §7.2-§7.9 handle the topics of verbal suffixes. Whenever it is convenient to refer only to a root without suffixes, the root will be hyphenated, as in *ats-* ‘come’ or *zík-* ‘tie’. Such forms are considered lexical and slightly abstracted from actual speech. This section begins with a few comments on various features of verbal roots in general.

As a structural possibility, in rare cases lexical roots may exhibit variable tone melodies with slightly different resulting semantic nuances. Note that this is not the same as minimal pairs with different meanings altogether, e.g. *dúb-* ‘catch’ vs. *dub-* ‘mix with water’. Consider the following examples:

(3) *Tonal minimal lexical verb pairs*

| | |
|------|----------------------|
| búd- | ‘to hide something’ |
| bud- | ‘to hide oneself’ |
| hón- | ‘to drive animals’ |
| hɔn- | ‘to drive a machine’ |
| ɲú- | ‘to be ground’ |
| ɲu- | ‘to grind’ |

The last two verb roots in (3) are illustrated in the two sentences below:

(4) *Beda ceka ηweesik.*

| | | |
|-----------|-----------|-----------------------|
| béd-á | cek-a | ɲu-ésí-k ^a |
| want-REAL | woman-NOM | grind-INF-ACC |

The woman wants to grind (grain).

(5) *Beda ηama ηweesik.*

| | | |
|-----------|-------------|-----------------------|
| béd-á | ɲám-á | ɲú-ésí-k ^a |
| want-REAL | sorghum-NOM | grind-INF-ACC |

The sorghum needs grinding.

Because Ik is an argument-dropping language (even core arguments), one cannot guess the transitivity of a verb from syntax or semantics. But at least, Ik verb roots are lexically specified as intransitive, transitive, or ditransitive (extended transitive). As mentioned above, intransitive verbs are identified by the infinitive suffix {-ɔnɪ-}, while the suffix {-ésí-} identifies transitives and ditransitives. And a significant number of verb roots are ambitransitive—able to be intransitive or transitive, for example:

(6) *Some Ik ambitransitive verb roots*

| | | |
|-------|-----------|--------------------------|
| ábuk- | ábubuk-ɔn | ‘to charge (of animals)’ |
| | ábubuk-és | ‘to scoop out’ |
| dzer- | dzer-ɔn | ‘to tear off running’ |
| | dzer-és | ‘to tear’ |
| fút- | fút-ón | ‘to blow (intrans.)’ |
| | fút-és | ‘to blow (trans.)’ |
| ídz- | ídz-on | ‘to drain, emit’ |
| | ídz-es | ‘to shoot’ |
| ijók- | ijók-ón | ‘to drool’ |
| | ijok-es’ | ‘to lend’ |

Ditransitive verbs can be identified by their imperative forms: If the imperative of a verb requires the dummy pronoun enclitic {=(d)ɛ}, that means an obligatory argument requires a morphological trace. The only three ditransitive verbs identified so far include *eg-* ‘put’, *ɪɲaar-* ‘help’, and *ma-* ‘give’ (Heine & König 1996:30). These are exemplified in (7):

(7) *Ik ditransitive verb roots*

| Root | Imperative | | |
|--------|-----------------------------|-----------------------|---------------------------|
| eg- | eg-é = d ^e | (**eg- ^e) | ‘Put (it) (somewhere)!’ |
| ɪɲaar- | ɪɲaar-ɛs-é = d ^e | (ɪɲaar-és-∅) | ‘Help (someone)!’ |
| ma- | ma-é = d ^e | (**ma- ^e) | ‘Give (it) (to someone)!’ |

As discussed back in §6.3.6 on the topic of the accusative case, a handful of Ik motion verbs can be used intransitively or transitively. According to Dimmendaal, this is a property common in Cushitic and Omotic languages (2003:100). Ik ambitransitive motion verbs include *ats-* ‘come’, *itá-* ‘reach’, and *ka-* ‘go’. When used intransitively—as seems to be the normal case—their Goal or Destination is encoded with the dative case (-k^e). But when used transitively, their Goal~Purpose is encoded with a direct object case: either nominative (1-2 person subject) or accusative (-k^a) (3 person). Even so, the verb *itá-* behaves a little differently than the other two. It appears to be a transitive verb with the ability to intransitivize: With a dative object, it has a meaning usually translated as ‘find’ in English:

(8) *Ik ambitransitive motions verbs*

| Root | | Object case | |
|------|---------------------------|-------------|---------------------------|
| ats- | atsa awá-k ^e | Dative | ‘He’s coming home.’ |
| | atsa zekó-k ^a | Accusative | ‘He’s coming to sit.’ |
| itá- | itáá rítí-k ^e | Dative | ‘He’s found them.’ |
| | itáá awá-k ^a | Accusative | ‘He’s reached home.’ |
| ka- | kaá hoo-k ^e | Dative | ‘He’s going in the hut.’ |
| | kaa rókési-k ^a | Accusative | ‘He’s going bee-keeping.’ |

Finally, a few Ik verbs are lexically specified for the number of one of their arguments—the subject if intransitive and the object if transitive. The following four pairs illustrate these number-based classes:

(9) *Number-based Ik verb root classes*

| Singular | Plural | |
|----------|--------|------------|
| bad- | ts’é- | ‘to die’ |
| ce- | sáb- | ‘to kill’ |
| ŋká- | gwám- | ‘to stand’ |
| zéb- | turúí- | ‘to throw’ |
| zekw- | gok- | ‘to sit’ |

7.1.1 Basic roots

Ik basic verb roots are those considered morphologically unanalyzable. In some cases, insights gained from further historical-comparative research may disqualify some members currently put in this class of verbs. As the class stands, it exhibits eighteen syllable patterns and accompanying tone melodies. Each of these patterns is presented below, beginning with the most frequently occurring in a sampling of approximately 1000 verb roots.

The largest syllabic group of Ik verbs (365 out of 1000) has a CVC pattern. A sample of this group is presented in (10) according to tone melody. Even though L tone is generally not marked in this grammar, a floating L is given for the HL verbs to show that any following suffix must have a L tone due to the presence of the depressor consonants (see also §3.2.3):

(10) *CVC verb roots*

| | | |
|----|------|----------------|
| H | dét- | ‘blow blowgun’ |
| | náf- | ‘call rudely’ |
| HL | bíz- | ‘press’ |
| | zíz- | ‘be fat’ |
| L | ḡoḡ- | ‘be deep’ |
| | gam- | ‘kindle’ |

The second most numerous group (280 out of 1000) has a VCVC syllable pattern. This group includes but is not limited to what would be called the Class 2 counterparts of the CVC roots in (10); see §7.1.4 for Class 2 roots. HL and LHL melodies are created by the presence of depressor consonants:

(11) *VCVC verb roots*

| | | |
|----|-------|------------|
| HH | ákáf- | ‘yawn’ |
| | émít- | ‘wheeze’ |
| HL | águj- | ‘gulp’ |
| | íban- | ‘go later’ |

| | | |
|-----|--------|---------------|
| LL | emin- | ‘pull’ |
| | itsum- | ‘pierce’ |
| LHL | erég̀- | ‘use’ |
| | ilúz̀- | ‘feel sleepy’ |
| LH | arút- | ‘make sound’ |
| | ıdıń- | ‘be narrow’ |

After CVC and VCVC roots, the numbers in each syllable class get considerably smaller. From this point on, the basic root types are presented from smallest to largest in terms of the number of syllables:

(12) *V verb roots*

| | | |
|---|----|--------------|
| H | ı- | ‘clear land’ |
| | ó- | ‘call’ |

CV roots number about thirty-five (35) and include the following:

(13) *CV verb roots*

| | | |
|---|-------|-------------------------|
| H | fá- | ‘boil (trans.)’ |
| | ts’é- | ‘die (multiple people)’ |
| L | cı- | ‘be satiated’ |
| | ho- | ‘cut open’ |

VC roots number about forty-five (45) and include the following:

(14) *VC verb roots*

| | | |
|----|-------|---------------------|
| H | áts’- | ‘chew’ |
| | ıń- | ‘pound’ |
| HL | éđ- | ‘carry on the back’ |
| | ób̀- | ‘occupy an area’ |
| L | ep- | ‘sleep’ |
| | iw- | ‘hit’ |

Depending on one's analysis, the verb roots in (15) can be thought of as CVC roots with an initial [-ATR] semi-vowel or VC with a diphthong:

(15) *Verb roots with semi-vowels (CVC) or diphthongs (VC)*

| | CVC | VC | |
|---|------|------|-----------------------|
| H | ǐéǃ- | ǐǎǃ- | 'be cold' |
| | ǐóǃ- | ǐóǃ- | 'bear fruit' |
| L | ǐǎǃ- | ǐǎǃ- | 'be far' |
| | ǐum- | ǐum- | 'kidnap for marriage' |

A final, single-syllable root type involves a nasal, resulting in a NC syllable structure. Only one lexeme of this type has been found: *ǐk-* 'eat'.

Besides the VCVC roots listed above, other disyllabic roots, few in number, include those with CVCV, CVVC, VCV, and VVC syllable shapes:

(16) *CVCV verb roots*

| | | |
|----|----------|------------------------|
| HL | ts'ágwa- | 'be raw' |
| LL | tala- | 'be long and straight' |
| | tewe- | 'broadcast (seeds)' |
| LH | ǃorá- | 'leave door open' |
| | taǐǎ- | 'spread out' |

(17) *CVVC verb roots*

| | | |
|----|--------|-----------------|
| HH | góóz- | 'throw' |
| | ǐííǃ- | 'rub' |
| LL | cook- | 'shepherd' |
| | gaan- | 'be bad' |
| LH | gwaít- | 'leave angrily' |

(18) *VCV verb roots*

| | | |
|----|------|-----------------|
| HL | ógo- | ‘leave’ |
| LL | ifɔ- | ‘scoot’ |
| | isa- | ‘miss (a shot)’ |
| LH | íkú- | ‘cry’ |
| | isó- | ‘do first’ |

One verb root exhibits a NCV syllable structure: *ɨká-* ‘stand up’.

Other verb roots with three or four syllables occur less frequently and include those with the syllable shapes CVCVCVC, CVCVVC, VCVCVC, VCVCV, VCVVC, VCVCVCVC, VCVCVCV, and VVCVVC.

Only one verb root has been identified with the syllable shape of CVCVCVC: *tumúduɨ-* ‘fold together’. The other syllable profiles also have few representatives, such as these below. Note again how the presence of depressor consonants has created the HLL and LHL tone melodies:

(19) *CVCVVC verb roots*

| | | |
|-----|---------|--------------------------|
| HHH | síkóór- | ‘remove chaff with wind’ |
| LLL | hakaik- | ‘forget’ |
| LHH | tɔkéér- | ‘butcher a goat’ |

(20) *VCVCVC verb roots*

| | | |
|-----|---------|------------------------|
| HLL | ígɔɔb- | ‘jump a long distance’ |
| | fbatal- | ‘put in a sling’ |
| LHL | ikábur- | ‘wrap in clothing’ |
| | rwízil- | ‘close one eye’ |
| LHH | ifáfúk- | ‘swallow quickly’ |
| | imódór- | ‘be sooty black’ |

(21) *VCVCV verb roots*

| | | |
|-----|--------|----------------|
| LHH | ikómá- | ‘move quickly’ |
| | itóká- | ‘hobble’ |

(22) *VCVVC verb roots*

| | | |
|-----|--------|------------|
| LLL | idáar- | ‘ambush’ |
| | imaar- | ‘count’ |
| LHH | imáúr- | ‘be dizzy’ |
| | rwéél- | ‘scatter’ |

The final two syllable types have only one identified member each:

(23) *A couple of quadrisyllabic verb roots*

| | | |
|----------|-----------|----------------------|
| VCVCVCVC | itúlákáp- | ‘gulp down’ |
| VCVCVCV | imópíka- | ‘cut upper branches’ |

7.1.2 *Partially reduplicated roots*

A fair number of Ik verbs are formed by the partial reduplication of the basic root. As in Turkana (Dimmendaal 1983:101), partial reduplication in Ik may have once been a productive morphological process with semantic significance, but this is not the case today. This is shown by the fact that, unlike for some of the fully reduplicated roots, the basic (un-reduplicated) counterparts of partially reduplicated roots cannot be found. Since full reduplication in Ik verbs expresses a repeated, continuous, or intensive action, it is likely that partial reduplication used to have a similar meaning.

Ik partial reduplication in verb roots involved copying the first two segments of the basic root and placing them before the basic root. Only CVC basic roots have undergone partial reduplication. Fossilized prefixes like *a-* or the proto-Nilotic causative prefix *i/i-* present in so-called Class 2 verbs (*v-CVC*; see §7.1.4 below) do not figure into this equation. The copied segments get placed between such prefixes and the basic root.

The formula for Ik partial reduplication is given here in (24):

- (24) *Ik partial reduplication in verbs*
 $*(v-)C_1V_1C_2 \rightarrow *(v-)C_1V_1-C_1V_1C_2$

The next two example sets illustrate partial reduplication in Ik verb roots:

(25) *Reduplicated $C_1V_1-C_1V_1C_2$ verb roots*

| | | |
|------|----------|---------------------|
| *H-H | ǃíǃít- | ‘drink by sucking’ |
| | wówóǃ- | ‘overflow’ |
| *H-L | dódǃr- | ‘scoot on buttocks’ |
| | béber- | ‘pull’ |
| *L-H | tsitsík- | ‘roll’ |
| | tsutsúk- | ‘rub with hands’ |

(26) *Reduplicated $v-C_1V_1-C_1V_1C_2$ verb roots*

| | | |
|---------|-----------|------------------|
| *(H)L-L | (ǃ)bubuf- | ‘scoop’ |
| | (í)bubuŋ- | ‘interfere with’ |
| *(L)H-H | (a)kúkúr- | ‘crawl’ |

7.1.3 Fully reduplicated roots

A fair number of other Ik verbs are formed by a full reduplication of the basic root. On the one hand, unlike partial reduplication, full reduplication is a semi-productive word-formation process that can be used to add repetition, continuousness, or intensity to the meaning of the basic root:

(27) *Semi-productivity of full reduplication*

| | | | | |
|--------|-----------|---|-------------|------------------|
| itsán- | ‘disturb’ | → | itsanítsán- | ‘disturb a lot’ |
| kód- | ‘cry’ | → | kódǃkód- | ‘cry a lot’ |
| táb- | ‘touch’ | → | tábitáb- | ‘touch all over’ |

On the other hand, fully reduplicated roots can be found for which no un-reduplicated counterpart is available. The verb *itwejítwéñ-* ‘twinkle’ is one example. This word suggests an inherent repetitiveness, but if there ever was a un-reduplicated form like **itwéñ-*, it has apparently fallen out of use.

Ik full reduplication involves copying the entire basic root, whether of a CV or CVC syllable type, and placing the copied segments to the left of the basic root. If there is a prefixed vowel, the copied segments go between the prefixed vowel and basic root. If a CVC root is copied, an epenthetic vowel /i,i/ is inserted to prevent a disallowed consonant cluster. And if the nuclear vowel of the copied root is a high back vowel, then the epenthetic vowel backs as well to /u/ or /u/. The formula for full reduplication is given here:

- (28) *Ik full reduplication in verbs*
 $(v-)C_1V_1 \rightarrow (v-)C_1V_1-C_1V_1$
 $(v-)C_1V_1C_2 \rightarrow (v-)C_1V_1C_2-i-C_1V_1C_2$

Below are some examples of full reduplication taking place with roots of different syllable shapes and tone patterns:

- (29) *Reduplicated C₁V₁-C₁V₁ verb roots*

| | | |
|-----|-------|---------------------------------|
| L-L | koko- | ‘dig a hole to trap white-ants’ |
|-----|-------|---------------------------------|

- (30) *Reduplicated v-C₁V₁-C₁V₁ verb roots*

| | | |
|--------|----------|----------------------|
| (H)H-H | (i)ḃáḃá- | ‘treat gently’ |
| (L)H-H | (a)lóló- | ‘hold by the handle’ |
| | (i)mámá- | ‘persuade gently’ |
| | (i)pápá- | ‘moisten’ |
| | (i)tútú- | ‘dust off’ |

(31) *Reduplicated C₁V₁C₂-I-C₁V₁C₂ verb roots*

| | | |
|------|------------|---------------------------|
| HL-H | kéríkér- | ‘be bitter’ |
| | mólókók- | ‘feel nauseated’ |
| | nérinér- | ‘sway’ |
| LL-L | botibot- | ‘be nomadic’ |
| | cemícem- | ‘be combative’ |
| | mɔɔmɔɔ- | ‘be slanderous’ |
| LL-H | ɓaribár- | ‘be sour’ |
| | kupukúp- | ‘get cloudy’ |
| | kwadíkvád- | ‘lessen little by little’ |

(32) *Reduplicated v-C₁V₁C₂-I-C₁V₁C₂ verb roots*

| | | |
|----------|---------------|----------------------------|
| (H)-LL-H | (i)kɪbɪkɪb- | ‘burn along slowly’ |
| (H)-LL-L | (i)dɔlɪdɔl- | ‘speak with a rough voice’ |
| | (i)duludul- | ‘soften by kneading’ |
| | (i)bedɪbed- | ‘open eyes slowly’ |
| (L)-LH-H | (i)ɓurúbúr- | ‘do quickly’ |
| | (i)ɗotíɗót- | ‘hop on one leg’ |
| | (i)ɲíníɲín- | ‘coo’ |
| (L)-HH-H | (i)lómólóm- | ‘munch happily’ |
| | (i)tékíték- | ‘nod the head’ |
| | (i)wítsíwíts- | ‘wag’ |

7.1.4 Prefixed roots

Many Ik verb roots have frozen prefixes that are no longer meaningful in today’s language (if they ever were after being borrowed). In some cases, the origin of the prefixes can be traced, for example those from Eastern Nilotic (particularly Teso-Turkana), while in other cases they cannot. As mentioned in the chapter on nouns, up to at least 40% of the Ik lexicon has parallels in Teso-Turkana. This section examines the borrowed Teso-Turkana prefixes, as well as some prefixes whose origin is not yet known.

Verb roots in the Turkana language (Teso-Turkana) are described as having two morphological classes. According to Dimmendaal, such verb classes are a common feature in both Eastern and Southern Nilotic (1983:98-99, here and for all information below on Turkana). Turkana verb classes are distinguished by the presence of a prefixed high front vowel in Class 1 and the absence of the vowel in Class 2. This prefix is a morphological relic of a proto-Nilotic causative that turned intransitive verbs into transitive ones (Dimmendaal 1982). The following verb sets are given as initial examples:

(33) *Turkana morphological verb classes*

| Class 1 | | Class 2 | |
|---------|--------------------|---------|------------------|
| -nɔm | 'burn out | -inóm | 'set on fire' |
| -nɔk | 'be alight | -inók | 'light (trans.)' |
| -ci | 'split (intrans.)' | -icí | 'split (trans.)' |
| -wal | 'cough' | -iwál | 'wear feathers' |

Whichever morphological class a Turkana verb root belongs to affects the kind of inflectional affixes it may take. For the purposes of comparing with Ik, the Turkana subsecutive prefixes shown in (34) are particularly relevant, as discussed below. With the various vowel assimilation rules operating in Turkana, the prefixes in (34) may have the following additional allomorphs: *tɔ-* and *ta-* for Class 1 and *kɪ-*, *ku-*, and *kʊ-* for Class 2:

(34) *Turkana subsecutive prefixes*

| Person | Class 1 | | Class 2 | |
|--------|----------|--------|----------|--------|
| | Singular | Plural | Singular | Plural |
| 1 | a-to- | á-tó- | a- | á- |
| 2 | to- | to- | kí- | kí- |
| 3 | tó- | tó- | ki- | ki- |

In a 1971 article on Ik grammar, A.N. Tucker was the first to point out that Ik also has two verb root classes based on syllable type: Class I with CVC

roots, Class II with iCVC roots (1971:343). This matches the situation in Turkana, which makes sense given that Ik has borrowed heavily from Teso-Turkana. As in Turkana, the prefixed vowel in the Ik Class II can no longer be analyzed as a separate morpheme synchronically, at least not as a transitivity-causative. This can be seen from the fact that many intransitive Ik verbs manifest this initial vowel, for example: *ikár-* ‘be thin’ and *itém-* ‘be suitable’. Because this initial vowel is no longer meaningful, making the verb-class distinction is not helpful for a contemporary description of Ik grammar. After this section, which is included to aid in historical-comparative work, the idea of verb classes in Ik will be dropped.

In present-day Ik, verb roots beginning with the prefixes *to-*, *tɔ-*, or *ta-* are clear links to Class I verbs in Nilotic. Whether from Teso-Turkana or a language predating them, such verbs were likely borrowed into Ik in the high-frequency subsecutive forms (with the prefixes in 34). Ik marks the subsecutive (‘sequential’ in this grammar) with a suffix, so *to-*, *tɔ-*, or *ta-* (also *tu-*) would be redundant for encoding the subsecutive/sequential. That is why they are considered frozen prefixes in modern Ik. Examples of them include the following (Turkana lexical data is adapted from Barrett 1988):

(35) *Turkana subsecutive verbs borrowed into Ik*

| Ik Class I | Turkana Class I | |
|------------|-----------------|--------------|
| tadáp- | -dap | ‘ambush’ |
| tajál- | -jal | ‘relinquish’ |
| talák- | -lak- | ‘release’ |
| tatsá- | -ca | ‘shine’ |
| tawán- | -wan | ‘hurt’ |
| torik- | -rik | ‘lead’ |
| tɔbél- | -bɛl | ‘split’ |
| tɔjém- | -jam | ‘despise’ |
| tókí- | -kɪ | ‘confess’ |
| tókór- | -kɔr | ‘distribute’ |
| tómór- | -mɔr | ‘share’ |

| | | |
|--------|------|-------------|
| ṭnúp- | -nup | ‘believe’ |
| ṭnǝ́l- | -nǝl | ‘slaughter’ |
| ṭnbún- | -bun | ‘suffocate’ |
| ṭnlúŋ- | -luŋ | ‘abhor’ |
| ṭnók- | -nok | ‘bury’ |

By contrast, Ik verb roots borrowed from Teso-Turkana Class II verbs *cannot* be immediately recognized by a *ki-* or *kɪ-* prefix. In fact, there are only two Ik verb roots known to begin with that sequence of sounds. A very large percentage of Ik verb roots, however, begin with *ɪ-* or *i-*. It is tempting to assume that phonological reduction has whittled *ki-* and *kɪ-* down to just the vowels. While this may have actually happened in some cases, the situation is not so clear-cut. Ik verb roots beginning with a high front vowel may come from either Class I or Class II in Teso-Turkana. The data in (36) and (37) show a mismatch between so-called Class II verb roots in Ik and their parallels in Turkana. In (36), Class II Ik verbs align with Class I Turkana verbs, and in (37), Class II Ik verbs align with Class II Turkana verbs:

(36) *Cognacy of Class II Ik verbs with Class I Turkana verbs*

| Ik ‘Class II’ | Turkana Class I | | Turkana prefix |
|---------------|-----------------|--------------|----------------|
| ɪbááŋ- | -baŋ | ‘be stupid’ | ṭ/ta- |
| ɪdák- | -kad | ‘lack’ | ṭ/ta- |
| ɪdép- | -dɛp | ‘pick up’ | ṭ/ta- |
| ɪdǝ́ŋ- | -dɪdŋ | ‘narrow’ | ṭ/ta- |
| ɪlíḃ- | -lɪḃ- | ‘green’ | ṭ/ta- |
| ɪkám- | -kop | ‘grab’ | to- |
| ɪlúŋ- | -luŋ- | ‘pass’ | to- |
| ɪsúd- | -sud | ‘lie’ | to- |
| ɪtém- | -itemo- | ‘be fitting’ | to- |
| ɪtúk- | -tuk | ‘heap up’ | to- |

The Ik *ɪdák-* compared with the Turkana *-kad* illustrates the kind of segment reversal identified by Blench (n.d.) as characterizing Kuliak etymology.

(37) *Cognacy of Class II Ik verbs with Class II Turkana verbs*

| Ik 'Class II' | Turkana Class II | | Turkana prefix |
|---------------|------------------|-------------|----------------|
| íóŋ- | -bɔŋ | 'hurry' | ki- |
| ídaar- | -dar- | 'ambush' | ki- |
| ídíts- | -dɪc | 'beat' | ki- |
| íjók- | -jok- | 'push' | ki- |
| íkát- | -kat- | 'try' | ki- |
| íbot- | -pot- | 'jump' | ki- |
| íbélé- | -bele- | 'change' | ki- |
| ígom- | -komo | 'bark' | ki- |
| íkóŋ- | -koŋ | 'swear' | ki- |
| ilóts- | -loc | 'transform' | ki- |

Ik verb roots with frozen causative prefixes are not the only ones that have parallels in Teso-Turkana or wider Nilotic. Many others are nearly identical in both Ik and Teso-Turkana, differing only in minor phonological ways:

(38) *Other Ik-Turkana verbal cognates*

| Ik | Turkana | |
|---------|---------|-----------|
| alólóŋ- | -aloloŋ | 'worry' |
| ep- | -per | 'sleep' |
| jal- | -gel- | 'differ' |
| luŋ- | -lik | 'swallow' |
| nepék- | -peg- | 'argue' |
| ŋaŋ- | -ŋaŋ | 'avenge' |
| ŋáb̀- | -nap | 'wear' |
| ŋwaf- | -ŋwal | 'be lame' |
| rót- | -rɔt | 'spy out' |
| taats- | -tac | 'pay' |
| táb̀- | -tap | 'touch' |
| takán- | -takan | 'appear' |
| túb̀- | -tup | 'follow' |

The data above in (38) should not be taken to suggest that the direction of borrowing was always from Teso-Turkana into Ik. Many of these cognates, particularly since they lack Teso-Turkana subsecutive prefixes in Ik, may have come into Ik a) from a proto-Eastern Nilotic language, or b) they came into both Ik and Teso-Turkana from another source altogether. Either way, on the basis of the cognates in (38), the following sound correspondences can be set up between Ik and Teso-Turkana (# means a word boundary):

(39) *Sound correspondences between Ik and Teso-Turkana*

| Ik | | Teso-Turkana |
|--------|---|--------------|
| #j | ↔ | #g |
| k# | ↔ | g# |
| k | ↔ | k |
| ʃ (*ɟ) | ↔ | l |
| ts | ↔ | c [tʃ] |
| b | ↔ | p |
| u | ↔ | i |
| u | ↔ | ʊ |
| e | ↔ | ɛ |

In addition to the many Teso-Turkana influences on the Ik verbal lexicon, there are also prefixal traces from other sources. These frozen prefixes include: *a-*, *ɛ/e-*, *ha-*, *tɛ/te-*, and *ti/ti-*. Although their etymological paths are currently unknown, two of them (*a-* and *ti/ti-*) are also found on nouns (§4.1.4). A few examples of each type are presented in (40). It is hoped that the data presented here will spark someone's historical-comparative insight:

(40) *Ik verbs with frozen prefixes of unknown origin*

| | | |
|------|---------|------------------|
| /a-/ | águj- | 'gulp' |
| | ákáf- | 'yawn' |
| | alóló- | 'hold by handle' |
| | arút- | 'make a sound' |
| | asínít- | 'dream' |

| | | |
|----------|---------|------------------|
| /ε,e-/ | emin- | ‘pull’ |
| | erég- | ‘use’ |
| | erúts- | ‘new’ |
| | eset- | ‘ask’ |
| | émít- | ‘wheeze’ |
| /ha-/ | hakaik- | ‘forget’ |
| | hákát- | ‘be boastful’ |
| | hamuj- | ‘grind finely’ |
| /tε,te-/ | tébin- | ‘lean on’ |
| | terég- | ‘work’ |
| | tetún- | ‘be thick’ |
| | təwé- | ‘broadcast seed’ |
| | tézεd- | ‘bend one leg’ |
| | tisíl- | ‘be lonely’ |
| /ti,ti-/ | titir- | ‘support’ |
| | tílw- | ‘be pure’ |
| | tmíd- | ‘lick fingers’ |
| | turíf- | ‘snoop’ |

7.2 Derivatives

With the discussion of verbal roots and archaic prefixes complete, it is time to move on to verbal suffixes. The first verbal suffixes to be described are the ‘derivatives’—suffixes that derive a noun from a verb or vice versa. The Ik derivatives include the intransitive infinitive (§7.2.1), the transitive infinitive (§7.2.2), the abstractive nominalizer (§7.2.3), the patientive nominalizer (§7.2.4), the substantive nominalizer/verbalizer (§7.2.5), and the behaviorative verbalizer (§7.2.6). Two other suffixes, the passive (§7.8.2) and the reciprocal (§7.8.6) may also optionally nominalize verbs. All eight derivative suffixes are presented below in (41). All derivative suffixes can be inflected for case, and three of them—the infinitivizers and the passive—can even be pluralized with the variative plurative (§4.3.7).

(41) *Ik nominalizing suffixes*

| | | | |
|-----------------------|-------|---------------|--------|
| {-ɔni-} | INF | Intransitive | §7.2.1 |
| {-ésí-} | INF | Transitive | §7.2.2 |
| {-ásí-} | ABST | Abstractive | §7.2.3 |
| {-amá ⁺ -} | PAT | Patientive | §7.2.4 |
| {-VkV-} | SUB | Substantive | §7.2.5 |
| {-nanesi-} | BHVR | Behaviorative | §7.2.6 |
| {-ósí-} | PASS | Passive | §7.8.2 |
| {-ínósí-} | RECIP | Reciprocal | §7.8.6 |

7.2.1 *Intransitive infinitive*

Ik uses the suffix {-ɔni-} to nominalize lexically intransitive verbs. As a non-finite verb, the resulting infinitive is syntactically subordinate. Cushitic languages show promising parallels for this suffix: Afar has *-o* and *-on* as an infinitive suffix (Mahaffy n.d., p. 1), and in K'abeena, one of the typical nominalizers is *-ood* (Mous 2012:411). A less sure but potential connection is with the South Omotic Dime's infinitive marker *-in* (Mulugeta 2008:60)

The tone of {-ɔni-} is L, but H tone may spread to it depending the verb stem's tone melody (T7). It is recessively [-ATR] with /-oni-/ as an allomorph when affixed to [+ATR] stems. Although this suffix is usually the last affix on the verbal stem (i.e. before case suffixes), the andative/completive suffix {-ukótí-} may optionally come before or after it, as in *bur-ɔn-ukótí^a* 'to fly away' versus *bur-ukótí-ɔn* 'to fly away'. The verbs in (42) illustrate the typical position of {-ɔni-} within a verbal stem. Note the vowel harmony caused by the pluractional {-í-} and distributive {-aák⁺-}:

(42) *Position of {-ɔni-} in a verbal stem*

| | |
|--------------------------------|--------------------------------|
| ʃɛβ-ɔn | 'to fear' |
| ʃɛβ-í-ón | 'to fear habitually' |
| ʃɛβ-i-aak-ón | 'to fear as a group' |
| ʃɛβ-i-aak-ón-ukót ^a | 'to become fearful as a group' |

And then the following table gives more examples of simple nominalized verbs with a variety of tonal patterns and the two [ATR] values:

(43) *Intransitive infinitives*

| | [-ATR] | | [+ATR] | |
|------|----------|-------------------|-----------|----------------|
| H-HL | bór-óni- | ‘to be tired’ | bóts-óni- | ‘to be open’ |
| | kán-óni- | ‘to be cloudless’ | kám-óni- | ‘to be like’ |
| | súp-óni- | ‘to breathe’ | sár-óni- | ‘to still be’ |
| H-LL | ɲóʒ-ɔni- | ‘to stare’ | dód-oni- | ‘to hurt’ |
| | rúb-ɔni- | ‘to sprout’ | háb-oni- | ‘to be hot’ |
| | ʃíd-ɔni- | ‘to be green’ | wád-oni- | ‘to boil’ |
| L-LL | bɔr-ɔni- | ‘to fly’ | bot-oni- | ‘to migrate’ |
| | cɛm-ɔni- | ‘to fight’ | ɗas-oni- | ‘to be flat’ |
| | ɗɔk-ɔni- | ‘be wet’ | faɗ-oni- | ‘to be bitter’ |

Verbs nominalized with {-ɔni-} inflect for case, as shown in the following declensions of *bɔr-ɔni-* ‘to fly’ and *bot-oni-* ‘to migrate’:

(44) *Case declensions of {-ɔni-}*

| | Non-final | Final | Non-final | Final |
|-----|-----------|------------------------|-----------|------------------------|
| OBL | bɔr-ɔni | bɔr-ɔn | bot-oni | bot-on |
| NOM | bɔr-ɔn-a | bɔr-ɔn-∅ | bot-on-a | bot-on-∅ |
| INS | bɔr-ɔn-ɔ | bɔr-ɔn- ^w | bot-on-o | bot-on- ^w |
| ABL | bɔr-ɔnɔ-ɔ | bɔr-ɔnu-∅ | bot-oni-o | bot-onu-∅ |
| GEN | bɔr-ɔni-e | bɔr-ɔni-∅ | bot-oni-e | bot-oni-∅ |
| ACC | bɔr-ɔni-a | bɔr-ɔni-k ^a | bot-oni-a | bot-oni-k ^a |
| DAT | bɔr-ɔni-e | bɔr-ɔni-k ^e | bot-oni-e | bot-oni-k ^e |
| COP | bɔr-ɔnɔ-ɔ | bɔr-ɔnu-k ^ɔ | bot-oni-o | bot-onu-k ^o |

Among the deverbatives found in Turkana are the ‘instrumental-locative’ and ‘factive’ (Dimmendaal 1983:282). Ik lacks both of those categories but covers their functions with the intransitive infinitive {-ɔnr-}. One of the functions of the Turkana ‘instrumental-locative’ is to convey a perfective aspect in a subordinate clause (Dimmendaal 1983:394). The next examples show how Ik does the same by using an infinitival subordinate clause:

- (45) *ŋabonukota kidie*,...
 ŋáb-ɔn-ɔkɔt-a ki = dí-é
 finish-INF-COMP-REAL MED = PRO.PL-GEN
 Their having finished (lit. ‘the finishing of those ones’),...
- (46) *Atsona tsamu ntie*,...
 ats-on-a tsamu ní-tí-eé
 come-INF-REAL just they-GEN
 Just after they come (lit. ‘the coming just of them’),...

7.2.2 Transitive infinitive

Ik uses the suffix {-ésí-} to nominalize lexically transitive verbs. As a non-finite verb, the resulting infinitive is syntactically subordinate. Areal parallels for {-ésí-} cross the Afroasiatic/Nilo-Saharan phyletic boundaries to include the nominalizer *-ees* in South Cushitic’s K’abeena (Mous 2012:411) and the nominalizer *-εεðɪt* in Surmic’s Didinga (De Jong 2004:151).

This suffix has H tone on both syllables but is subject to two kinds of tonal alternation: 1) HL and LL patterns induced by the tone melody of the stem (T7) and 2) the suppression its H tone leading to a LL melody (T6). Both of these are illustrated below. The suffix is underlyingly [-ATR] but has /-ésí-/ as an allomorph when affixed to a [+ATR] root or affix. It is always the last suffix in the verbal stem (before case markers apply), except when optionally followed by the andative/completive suffix {-ɔkɔtí-}. Its normal position in the stem is demonstrated in the following four verbs:

(47) *Position of {-ésí} in a verbal stem*

| | |
|----------------------------|------------------|
| dzígw-es' | 'to do commerce' |
| dzígw-et-és | 'to buy' |
| dzígw-i-et-és | 'to usually buy' |
| dzígw-es-ukot ^a | 'to sell' |

Other examples of transitive verbal infinitives are shown in (48) according to different tone melodies and both [ATR] values:

(48) *Transitive infinitives*

| | [-ATR] | | [+ATR] | |
|------|-----------|--------------|----------|---------------|
| H-HL | bót-ésí- | 'to shave' | dóđ-ésí- | 'to point' |
| | hón-ésí- | 'to drive' | séb-ésí- | 'to sweep' |
| | kóŋ-ésí- | 'to cook' | tír-ésí- | 'to hold' |
| H-LL | céb-esí- | 'to roughen' | bíz-esí- | 'to press' |
| | dúb-esí- | 'to catch' | góg-esí- | 'to puncture' |
| | zíz-esí- | 'to blame' | táb-esí- | 'to touch' |
| L-HH | ban-ésí- | 'to sharpen' | dim-ésí- | 'to refuse' |
| | đots-ésí- | 'to add' | fur-ésí- | 'to scavenge' |
| | ŋeβ-ésí- | 'to grumble' | pođ-ésí- | 'to thresh' |

The infinitives in (48) exhibit tonal changes on {-ésí-} brought about by the melodic template completion (T7) of the verb roots. But transitive infinitives also give evidence of high-tone suppression (T6). Compare, for example, the ambitransitive root *tatsád-* 'break away' as an intransitive (*tatsád-óni-*) and transitive verb (*tatsád-esí-*). On a suppressed transitive infinitive like *tatsád-esí-*, only the final syllable bears H tone. But in its citation form, in the nominative case, the suppressed H shows up as a floating H, leading to a mid-level surface pitch. This and other examples are shown below in (50):

(50) *High-tone suppression in transitive infinitives*

| | | | | |
|--------------|---|-------------|-------------|-----------------|
| aṅír-ésí- | → | aṅir-es´ | [āṅīrēs] | ‘to turn’ |
| gefér-ésí- | → | gefer-es´ | [gēfērēs] | ‘to stab’ |
| iḃók-ésí- | → | iḃok-es´ | [iḃōkēs] | ‘to shake’ |
| tatsád-és | → | tatsad-es´ | [tātsādēs] | ‘to break away’ |
| tsitsík-ésí- | → | tsitsik-es´ | [tsītsikēs] | ‘to roll’ |

As deverbal nouns, transitive infinitives are inflected for case, as shown in (51) for the verbs *ber-ésí-* ‘to build’ and *bud-ésí-* ‘to hide oneself’:

(51) *Case declensions of {-ésí-}*

| | Non-final | Final | Non-final | Final |
|-----|------------|-------------------------|------------|-------------------------|
| OBL | ber-ésí | ber-és | bud-ésí- | bud-és |
| NOM | ber-és-á | ber-és-∅ | bud-és-á | bud-és-∅ |
| INS | ber-és-ó | ber-és- ^o | bud-és-ó | bud-és- ^o |
| ABL | ber-és-ó-ᵛ | ber-és-ú-∅ | bud-és-í-o | bud-és-ú-∅ |
| GEN | ber-és-í-ε | ber-és-í-∅ | bud-és-í-e | bud-és-í-∅ |
| ACC | ber-és-í-a | ber-és-í-k ^a | bud-és-í-a | bud-és-í-k ^a |
| DAT | ber-és-í-ε | ber-és-í-k ^e | bud-és-í-e | bud-és-í-k ^e |
| COP | ber-és-ó-ᵛ | ber-és-ú-k ^o | bud-és-í-o | bud-és-ú-k ^o |

Like the intransitive infinitive, the transitive infinitive can also be used to express perfective aspect in a subordinate clause, for example in (52). This is one of the language’s several subordination strategies (see §10.5):

(52) *Enesa ntie toimena ityoonukota imanona...*

| | | | |
|--|----------|-----------|-------------------------|
| en-és-á | ńtí-e | toimena-a | ityóón-ukot-á-a |
| see-INF-NOM | they-GEN | COMPL-ACC | difficult-COMP-REAL-PRF |
| Upon their seeing that it had become difficult,... | | | |

7.2.3 Abstractive

The verbal suffix {-ásí-} turns an intransitive stative verb into an abstract noun expressing a quality or characteristic. It seems to be closely related to the Turkana abstract nominalizer -sɿ (Dimmendaal 1983:270), despite the difference in tone. The Ik suffix is one of the language's opaque recessive [-ATR] suffixes: [+ATR] harmony cannot spread from the root through /a/ to /ɪ/. Its tone is HH but is susceptible to root-induced tone changes (T7). The table below depicts the abstractive nominalization of ten stative verbs:

(53) *Abtractively nominalized verbs*

| Stative | | | Abstract | |
|------------|----------------|---|------------|-------------|
| do-oni- | 'to be nice' | → | da-así- | 'niceness' |
| ɛf-ɔni- | 'to be tasty' | → | ɛf-ásí- | 'tastiness' |
| gaan-óni- | 'to be bad' | → | gáán-así- | 'badness' |
| háɓ-oni- | 'to be hot' | → | háɓ-así- | 'heat' |
| ɿɛk-ɔni- | 'to be far' | → | ɿɛk-ásí- | 'farness' |
| kom-oni | 'to be many' | → | kom-ásí- | 'manyness' |
| maráŋ-óni- | 'to be good' | → | maráŋ-ásí- | 'goodness' |
| ŋɿ-ɔni- | 'to be strong' | → | ŋɿ-ásí- | 'strength' |
| ŋwaɿ-ɔni- | 'to be lame' | → | ŋwaɿ-ásí- | 'lameness' |
| ɿɛɓ-ɔni- | 'to be afraid' | → | ɿɛɓ-ásí- | 'fear' |

By all appearances, the abstractive nominalizer {-ásí-} is a productive morpheme in today's Ik. However, there is another abstractive nominalizer that is not productive. This suffix, *-ísí-, has been found on only two lexemes: *tsekísí-* 'bushes, thicket' from the root *tsek-* 'be bushy, hairy' and *zeísí-* 'importance, greatness' from the verb root *ze-* 'big'. This suffix would seem to be an older Eastern Nilotic morpheme now semi-lexicalized in Ik. Like {-ásí-}, *-ísí- has parallels in the Teso-Turkana abstract deverbative -sɿ and the Didinga (Surmic) nominalizer -ið (De Jong 2004:151).

Just like the infinitive suffixes described above, the abstractive nominalizer inflects fully for case, as shown in (54) for the word *ʃɛb-ásí* ‘fear, timidity’:

(54) *Case declension of {-ásí-}*

| | Non-final | Final |
|-----|-----------|-------------------------|
| OBL | ʃɛb-ásí | ʃɛb-ás |
| NOM | ʃɛb-ás-á | ʃɛb-ás-∅ |
| INS | ʃɛb-ás-ó | ʃɛb-ás- ^ɔ |
| ABL | ʃɛb-ás-ɔ | ʃɛb-ás-∅ |
| GEN | ʃɛb-ásí-ɛ | ʃɛb-ásí-∅ |
| ACC | ʃɛb-ásí-a | ʃɛb-ásí-k ^a |
| DAT | ʃɛb-ásí-ɛ | ʃɛb-ásí-k ^ɛ |
| COP | ʃɛb-ás-ɔ | ʃɛb-ás-ú-k ^ɔ |

The abstractive nominalizer differs from the two infinitivizers in that it can again take verbal affixes, specifically subject-agreement pronominals. So far this has only been heard with the word *háb-as* ‘heat’, which has the metaphorical meaning of ‘stinginess’. If one refuses a request in a way deemed ungenerous, one may hear the phrase *háb-as-íd^a* ‘You are stingy!’.

7.2.4 *Patientive*

The patientive suffix {-amá-} nominalizes verbs—mostly transitive ones but also intransitive ones. Etymologically, it may be related to the word *ámá* ‘person’—perhaps as the semi-grammaticalized agentive (§4.3.4)—and/or the human singulative {-Vma-}. The patientive suffix’s LH tone melody is invariable, regardless of the preceding root. It is also one of the language’s opaque [+ATR] morphemes and as such can be represented as {-amá⁺-}. This means that the case suffixes that follow it will also be [+ATR].

This morpheme {-amá-} is called the ‘patientive’ here because in most cases it encodes the semantic Patient of a transitive verb. Elsewhere it has been described as expressing the notions of ‘potentiality’ or ‘feasability’ (Heine &

König 1996:98). With this suffix, the patient is given a rather stative passive role that is not easy to gloss in English. One strategy is to use the English suffix ‘-able’ in the gloss, as in an ‘X-able thing’. As a nominalizer, this suffix attaches to a verb stem and creates a noun that combines the meaning of the transitive verb stem and its patient. Examples of patientives formed from transitive verbs include the following:

(55) *Patientive nominalizer*

| Transitive | | | Patientive | |
|------------|-----------|---|-------------|------------------|
| abut-i-és | ‘to sip’ | → | abut-i-amá- | ‘sippable thing’ |
| dzígw-es | ‘to sell’ | → | dzígw-amá- | ‘buyable thing’ |
| erég-es | ‘to use’ | → | erég-amá- | ‘useable thing’ |
| isud-es | ‘to lie’ | → | isud-amá- | ‘nonsense’ |
| me-et-és | ‘to give’ | → | me-et-amá- | ‘gift’ |
| ɲk-és | ‘to eat’ | → | ɲk-amá- | ‘eatable thing’ |
| ógod-és | ‘to keep’ | → | ógodes-amá- | ‘leftovers’ |
| təkób-es | ‘to farm’ | → | təkob-amá- | ‘arable land’ |

In addition to the examples in (55), other nouns formed with the patientive nominalizer fall into two peculiar semantic groups: 1) food items and 2) small objects. These groups are exemplified in (56) and (57):

(56) *Patientive food items*

| | |
|------------|---|
| íbots-amá- | ‘milk cream’ |
| ízot-amá- | ‘solid food with gravy’ |
| ílir-amá- | ‘food without gravy’ |
| jul-amá- | ‘chunks of leftover meat’ |
| keker-amá- | ‘mixture of honey and pounded white-ants’ |
| tək-amá- | ‘pure white ants’ |
| tudut-amá- | ‘solid food’ |

(57) *Patientive small objects*

| | |
|-------------|-----------------------|
| bitit-amá- | ‘product’ |
| botet-amá- | ‘splinter’ |
| gúdús-amá- | ‘burnt piece of wood’ |
| iluloh-amá- | ‘fist’ |
| ipelet-amá- | ‘wood chip’ |
| iyom-amá- | ‘work of art’ |
| mokut-amá- | ‘fist’ |
| kíbéz-amá- | ‘splinter’ |
| pæsel-amá- | ‘small piece’ |

Although for some of these examples, the corresponding verbs have been found (e.g. *kékér-* ‘mix honey and white-ants’ and *bitit-* ‘produce’), for most others, no independent transitive verb has yet been identified. But this could be a gap in research. There is also one example where an intransitive verb takes this suffix: *bar-* ‘to be sour’ nominalized as *bar-amá-* ‘sour porridge’. So although the term ‘patientive’ seems to reasonably represent this morpheme today, in the past its meaning and usage could have been more diverse.

As a nominalizing suffix, {-amá-} is inflected fully for case, as shown below for the word *ηk-amá-* ‘eatable thing’:

(58) *Case declension of {-amá-}*

| | Non-final | Final |
|-----|-----------|-----------------------|
| OBL | ηk-ama | ηk-am´ |
| NOM | ηk-am-a | ηk-am-Ø´ |
| INS | ηk-am-ɔ | ηk-am- ^w |
| ABL | ηk-amó-ó | ηk-amá- ^o |
| GEN | ηk-amé-é | ηk-amá- ^e |
| ACC | ηk-amá-á | ηk-amá-k ^a |
| DAT | ηk-amé-é | ηk-amá-k ^e |
| COP | ηk-amó-ó | ηk-amá-k ^o |

7.2.5 Substantive

The rare suffix {-V \acute{K} V-} is both a nominalizer and a verbalizer. As a nominalizer, it gives a verb the meaning ‘substance of X verb’. As a verbalizer, it gives a noun the meaning ‘to issue X substance’. That both vowels (V) in {-V \acute{K} V-} should be the same seems like a heuristic for tracking down instances of the suffix in the lexicon. So far the only unambiguous cases contain either /a/ or /o/. The suffix’s tone is L but may bear H tone spread from the verb root (T7). Here are the only four clear examples:

(59) *Substantive nominalizer/verbalizer {-V \acute{K} V-}*

| Verb | | | Deverbal noun | |
|---------|--------------|---|-----------------------|---------------|
| ɖas- | ‘to be flat’ | → | ɖas-o \acute{K} o- | ‘flatland’ |
| ŋk- | ‘to eat’ | → | ŋk-á \acute{K} á- | ‘food’ |
| Noun | | | Denominal verb | |
| ets’í- | ‘feces’ | → | nts’-á \acute{K} á- | ‘to defecate’ |
| kwatsí- | ‘urine’ | → | kuts-á \acute{K} á- | ‘to urinate’ |

The data in (59) show that in its verbalizing function, {-V \acute{K} V-} accompanies some morphological variation, i.e. /e/→/n/ in *nts’-á \acute{K} á-* ‘feces’ and /w(a)/→/u/ in *kuts-á \acute{K} á-* ‘urine’. This variation, plus the rarity of the suffix at all, suggests that the substantive is a very old morpheme within Ik.

Other lexemes ending in the sequence -V \acute{K} V include those in (60). Whether they involve the substantive suffix or not is not known because corresponding roots without the suffix have not yet been identified:

(60) *Ambiguous instances of the sequence -V \acute{K} V-*

| | |
|------------|-------------------|
| bɔrɔkɔkɔ́- | ‘tobacco cone’ |
| karoko- | ‘burnt land’ |
| ɔfɔrɔkɔ́- | ‘dry honeycomb’ |
| tufereke- | ‘Black Jack weed’ |

7.2.6 Behaviorative

Besides the nominalizers described in the last five sections, Ik also has one strictly verbalizing derivative. This verbalizer, the ‘behaviorative’ {-nanesi-}, creates a verb out of a noun and has the meaning of ‘to behave with the characteristics of X noun’. The suffix is complex, consisting of *-nan* on the one hand and *-esi-* on the other. The latter is probably a distinct grammaticalization of the Ik proto-morpheme **-ɛsɪ* that has led to the 1) transitive infinitive suffix, 2) the imperfective aspect suffix, and 3) the intentional modality suffix. Because {-nanesi-} conveys an ongoing, habitual sense to the denominal verb, it seems more closely related to the meaning of the imperfective aspectual instantiation of the proto-morpheme. Since nothing more is known about **-nan*, the behaviorative verbalizer is treated as a historically complex but synchronically composite verbal suffix.

The behaviorative suffix’s tone is L, but a H tone may spread to its first syllable from the nominal stem (T7). Because it contains /a/, {-nanesi-} prevents its own [+ATR] harmony from spreading back to a [-ATR] stem. The following table presents a sample of nouns verbalized by {-nanesi-}:

(61) *The behaviorative verbalizer {-nanesi-}*

| Noun | | | Verbalized noun | |
|-----------|------------|---|------------------|---------------------|
| badirétí- | ‘wizardry’ | → | badirétí-nanesi- | ‘to do wizardry’ |
| cekí- | ‘woman’ | → | cekí-nánési- | ‘to act womanly’ |
| dzúú- | ‘theft’ | → | dzú-nánési- | ‘to do thievery’ |
| ɛakwá- | ‘man’ | → | ɛakwá-nánési- | ‘to act manly’ |
| imá- | ‘child’ | → | imá-nánési- | ‘to act childishly’ |
| kuts’á- | ‘worm’ | → | kuts’á-nánési- | ‘to be corrupting’ |
| lɔŋótá- | ‘enemies’ | → | lɔŋótá-nanesi- | ‘to be hostile’ |
| lejée- | ‘madness’ | → | lejé-nánési- | ‘to be mad’ |
| ɲót-íkó- | ‘friends’ | → | ɲót-íkó-nánési- | ‘to be friendly’ |
| ɲókí- | ‘dog’ | → | ɲókí-nanesi- | ‘to be poor’ |

7.4 Directionals

Directional suffixes in Ik include the andative {-*ukotí*-} and venitive {-*et*-}. The andative denotes motion away from a deictic center, while the venitive denotes motion toward it. The deictic center is usually the speaker but can be another place, provided the speaker and hearer share the reference. Directionals are an integral and important part of Ik verbal semantics but as much so as aspectual markers as directional (§7.9.2-7.9.3). The directionals and their aspectual counterparts are highly but not fully productive; speakers have an intuition for which combinations are natural. In nearby Turkana, directional suffixes are only found on dynamic verbs (Dimmendaal 1983:110). Not so in Ik: They are found on all verb types. The table below illustrates the directional nuances expressed by these two suffixes:

(62) *Ik directional suffixes*

| | |
|--------------------------------|-------------------|
| <i>ilá-</i> | ‘go somewhere’ |
| <i>iló-ón</i> | ‘to go somewhere’ |
| <i>ilé-ét-on</i> | ‘to come here’ |
| <i>iló-ón-ukot^a</i> | ‘to go there’ |
| | |
| <i>raj-</i> | ‘return (trans.)’ |
| <i>raj-és</i> | ‘to return’ |
| <i>raj-et-és</i> | ‘to return here’ |
| <i>raj-és-úkot^a</i> | ‘to return there’ |

7.4.1 Andative

The suffix {-*ukotí*-} communicates motion away from a deictic center. It is called ‘andative’ here in keeping with Kuliakist tradition, but ‘itive’ would be another appropriate label. The Ik andative has a promising parallel in the Surmic language Didinga’s itive suffix -*oð* (De Jong 2004:150). The sequence /-*uk*-/ within {-*ukotí*-} calls to mind the substantive suffix {-*VkV*-}, but at present there is nothing obvious linking the two semantically.

The andative suffix has a LL(H) melody but is susceptible to several tonal alternations. For example, the depressor consonant /d/ in the 2SG suffix {-ídr-} repels H tone back onto the andative (T4), as in the verb *hɔn-úkɔ́-íd^a* ‘You drive (it) away.’ Then, H tone may spread onto its first syllable as the preceding morpheme completes its tonal melody (T7), as in the verb *ɲur-és-úkɔ́t^a* ‘to cut’. Lastly, a particular verb paradigm, like the sequential aspect, can totally replace the tones of the andative (T8), for example in the verb form *hɔn-úkɔ́-ese* ‘And it was driven away.’ In terms of vowel harmony, the andative has the allomorph /-úkɔ́tí-/ after [+ATR] stem. In a verb infinitive, {-úkɔ́tí-} usually comes last, after the root and infinitive suffix. But it can also come before the infinitive suffix with no change in meaning. The following examples show the two positions of the andative:

(63) *Position of {-úkɔ́tí-} within a verb*

| | | |
|-----------------------------|----------------|--------------------|
| ár-ón-úkɔ́t ^a | ár-úkɔ́t-on | ‘to cross over’ |
| ep-on-úkɔ́t ^a | ep-úkɔ́t-on | ‘to lie down’ |
| ɲur-és-úkɔ́t ^a | ɲur-úkɔ́t-és | ‘to cut’ |
| itútú-és-úkɔ́t ^a | itútú-úkɔ́t-és | ‘to beat out dust’ |

As already mentioned, the andative communicates motion away from a deictic center. This semantic enhancement is further demonstrated (64):

(64) *Verbs with the andative suffix {-úkɔ́tí-}*

| | | | | |
|--------|-------------|---|---------------------------|------------------------|
| ár-ón | ‘to cross’ | → | ár-ón-úkɔ́t ^a | ‘to cross over (away)’ |
| bur-ɔn | ‘to fly’ | → | bur-ɔn-úkɔ́t ^a | ‘to fly away’ |
| hɔn-és | ‘to drive’ | → | hɔn-és-úkɔ́t ^a | ‘to drive away’ |
| raj-és | ‘to return’ | → | raj-és-úkɔ́t ^a | ‘to take back’ |
| zéb-es | ‘to toss’ | → | zéb-es-úkɔ́t ^a | ‘to toss away’ |

Although the andative is not a nominalizer *per se*, it is forced to inflect for case on verbal infinitives because it usually occurs stem-finally between the nominalizers {-ɔn-} and {-ésí-} and case suffixes. (65) depicts the full case inflection of the verb *bur-ɔn-úkɔ́t^a* ‘to fly away’:

(65) *Case declension of {-uƙɔtí-}*

| Case | Non-final | Final |
|------|----------------|-----------------------------|
| OBL | bur-ɔn-uƙɔtɪ | bur-ɔn-uƙɔtɪ' |
| NOM | bur-ɔn-uƙɔt-a | bur-ɔn-uƙɔt-a' |
| INS | bur-ɔn-uƙɔt-ɔ | bur-ɔn-uƙɔt-ɔ' |
| ABL | bur-ɔn-uƙɔtɔ-ɔ | bur-ɔn-uƙɔtɔ-∅ |
| GEN | bur-ɔn-uƙɔtí-é | bur-ɔn-uƙɔtí-∅ |
| ACC | bur-ɔn-uƙɔtí-á | bur-ɔn-uƙɔtí-k ^a |
| DAT | bur-ɔn-uƙɔtí-é | bur-ɔn-uƙɔtí-k ^e |
| COP | bur-ɔn-uƙɔtɔ-ɔ | bur-ɔn-uƙɔtɔ-k ^ɔ |

The andative suffix undergoes haplology (§2.5.1) when followed by certain suffixes. For example, the /t/ in {-uƙɔtí-} is dropped before the second person singular {-íɗɪ-}, the second person plural {-ítí-}, and the first person plural inclusive {-ísín-} subject-markers, making /-uƙɔ-/ an allomorph. For some reason, haplology fails to apply to 3PL. This allomorphy is so common that it appears to be obligatory, but some speakers claim it is grammatically 'incorrect'. The following paradigm illustrates this type of haplology:

(66) *Andative haplology with subject-agreement suffixes*

| | | |
|---------|--------------------------|------------------------------|
| 1SG | hɔn-uƙɔt-í | 'I drive (it) away.' |
| 2SG | hɔn-uƙɔ-íɗ ^a | 'You drive (it) away.' |
| 3SG | hɔn-uƙɔt-a' | 'S/he drives (it) away.' |
| 1PL.EXC | hɔn-uƙɔt-ím | 'We (exc.) drive (it) away.' |
| 1PL.INC | hɔn-uƙɔ-ísín | 'We (inc.) drive (it) away.' |
| 2PL | hɔn-uƙɔ-ít ^a | 'You all drive (it) away.' |
| 3PL | hɔn-uƙɔt-át ^a | 'They drive (it) away.' |

The final /t/ in the andative {-uƙɔtí-} is dropped before a variety of other suffixes as well, including the imperative singular {-ɛ'}, the sequential impersonal passive {-esɛ'}, and the dummy pronoun {=(d)ɛ}. With the imperative singular, haplology only occurs in non-final environments, as in:

(67) *Andative haplology with other suffixes*

| | Non-final | Final | |
|--------|------------|-------------------------|-----------------------------|
| IMP.SG | hɔn-ɔkɔ-ε | hɔn-ɔkɔt-ε ^e | ‘Drive away!’ |
| SPS | hɔn-ɔkɔ-εε | hɔn-ɔkɔ-εs | ‘And it was driven away.’ |
| DP | hɔn-ɔ-kɔ=ε | hɔn-ɔ-kɔ=d ^e | ‘He drove it away with it.’ |

7.4.2 *Venitive*

The venitive (or ‘ventive’) suffix has the form {-εt-} with a [+ATR] allomorph /-εt-/ on [+ATR] stems. As the andative’s counterpart, the venitive communicates motion toward a deictic center, usually but not always the speaker. (Once a speaker was heard shouting the question *ɲát-ét-ɪa* ‘Should I run there?’ to someone, indicating that the motion of his running would be toward the hearer rather than toward the speaker.) No clear etymological parallels for this suffix have been found in languages of the region. But one clue comes from the Kuliak language So: Just as the So venitive suffix *-ac* is related to the verb *ac-* ‘to come’ (Carlin 1993:50), the Ik venitive {-εt-} could potentially be related to the Ik verb *ats-*, also meaning ‘come’. Granted, this is a stretch given the tonal and segmental differences.

The verbs in (68) illustrate three key properties of the venitive: 1) its position between the root (or stem with preceding suffixes) and the infinitive suffix, 2) the ‘this way’ directional nuance added to the basic meaning of a verb, and 3) its two tonal allomorphs, /-ét-/ and /-εt/:

(68) *Verbs with the venitive suffix {-εt-}*

| | | | | |
|----------|-------------|---|-------------|------------------------|
| ár-óni- | ‘to cross’ | → | ar-ét-óni- | ‘to cross (over here)’ |
| ɲat-ɔni- | ‘to run’ | → | ɲat-ét-ɔni- | ‘to run (this way)’ |
| dúr-ésí- | ‘to pull’ | → | dúr-εt-ésí- | ‘to pull out’ |
| gon-ésí- | ‘to look’ | → | gon-εt-ésí- | ‘to look here’ |
| raj-ésí- | ‘to return’ | → | raj-εt-ésí- | ‘to return here’ |

Because verbs like *dūr-et-ésí-* ‘to pull out’ pattern tonally with L-toned verbs like *ídák-ésí-* ‘to lack’, the underlying tone of {-et-} is posited as L. But even so, it may bear H tone in several contexts. For instance, H tone may spread to it from a preceding root (T7), as in *fút-ét-u-k^o* ‘And he blew (this way)’. But also, a general tendency is observed in the venitive paradigms—the preference for a HH tonal peak within the word (T8). For example, the verb *ηat-ét-ón* ‘to run this way’ in (68) exhibits a HH peak despite the absence of underlying H on any of the three morphemes. Another example comes from words like *ηús-ét-ine* ‘Let me grab (it) (this way)’ in which the first two morphemes are underlyingly L-toned. Also, high-tone suppression (T6) is operative with the venitive, as in the verb *fut-et-ím* ‘We are blowing (this way)’, where the H tone of the verb *fút-* ‘blow’ has been suppressed. The venitive paradigms in (69) below compare verbs with and without {-et-} their non-final, realis, non-past forms to better show the tonal complexity:

(68) *Venitive tonal behavior*

| | <i>fút-ési-</i> ‘to blow’ | <i>fut-et-ési-</i> ‘to blow this way’ |
|---------|---------------------------|---------------------------------------|
| 1SG | <i>fút-í-a</i> | <i>fut-et-í-á</i> |
| 2SG | <i>fút-íd-a</i> | <i>fut-é-íd-a</i> |
| 3SG | <i>fút-á</i> | <i>fut-et-a’</i> |
| 1PL.EXC | <i>fút-ím-a</i> | <i>fut-et-ím-á</i> |
| 1PL.INC | <i>fút-ísin-a</i> | <i>fut-e-ísín-a</i> |
| 2PL | <i>fút-ít-a</i> | <i>fut-e-ít-á</i> |
| 3PL | <i>fút-át-a</i> | <i>fut-et-át-a</i> |
| | <i>ηus-ési-</i> ‘to grab’ | <i>ηus-et-ési-</i> ‘to grab this way’ |
| 1SG | <i>ηus-í-á</i> | <i>ηus-et-í-á</i> |
| 2SG | <i>ηus-íd-a</i> | <i>ηus-é-íd-a</i> |
| 3SG | <i>ηus-a</i> | <i>ηus-et-a’</i> |
| 1PL.EXC | <i>ηus-ím-á</i> | <i>ηus-et-ím-á</i> |
| 1PL.INC | <i>ηus-ísín-a</i> | <i>ηus-e-ísín-a</i> |
| 2PL | <i>ηus-ít-á</i> | <i>ηus-e-ít-á</i> |
| 3PL | <i>ηus-át-a</i> | <i>ηus-et-át-a</i> |

Unlike the andative, the venitive comes before infinitive suffixes in a nominalized verb. For that reason, case suffixes never attach to {-et-} directly. But like the andative, the venitive undergoes haplology in the 2SG, 1PL.INC, and 2PL members of its paradigms, as shown in (69):

(69) *Venitive haplology with subject-agreement suffixes*

| | | |
|---------|------------------------|---------------------------|
| 1SG | ɲat-et-í | ‘I run this way.’ |
| 2SG | ɲat-é-íd ^a | ‘You run this way.’ |
| 3SG | ɲat-et-aʻ | ‘S/he runs this way.’ |
| 1PL.EXC | ɲat-et-ím | ‘We (exc.) run this way.’ |
| 1PL.INC | ɲat-e-ísín | ‘We (inc.) run this way.’ |
| 2PL | ɲat-e-ít ^a | ‘You all run this way.’ |
| 3PL | ɲat-et-át ^a | ‘They run this way.’ |

It also undergoes haplology before the imperative singular (non-final only) and sequential impersonal passive suffixes as shown below in (70):

(70) *Venitive haplology with other suffixes*

| | Non-final | Final | |
|--------|-----------|-----------|--------------------------------|
| IMP.SG | hɔn-ε-ε | hɔn-et-εʻ | ‘Drive (it) (this way)!’ |
| SPS | hɔn-é-εε | hɔn-é-εεʻ | ‘And it was driven (this way)’ |

7.5 Subject-agreement pronominals

Ik subject-agreement pronominal suffixes mark the grammatical person (1-2-3) and number (SG and PL) of the subject. Like in neighboring Teso-Turkana and Kuliak languages, these suffixes make a distinction in the 1PL between exclusive (excluding the addressee) and inclusive (including the addressee). The sex of the subject is not specified in the third person singular. The underlying forms of these suffixes are posited as [-ATR] with [+ATR] allomorphs in the presence of dominant [+ATR] stems or affixes. Lastly, the suffixes are also subject to a range of tonal phenomena including high-tone suppression (T6) and melodic template completion (T7).

The 1k subject-agreement pronominals were already described in §5.1.4, and the reader is referred there for details not repeated in this section. The table in (71) presents the subject-agreement suffixes as they are analyzed here:

(71) *1k bound pronominal suffixes*

| | |
|---------|--------|
| 1SG | -íí |
| 2SG | -íđı |
| 3SG | -ı |
| 1PL.EXC | -ímı |
| 1PL.INC | -ísımı |
| 2PL | -ítı |
| 3PL | -áti |

The realis modality morpheme {-a} subtracts the final vowel of the pronominals shown in (71). This means practically that 3SG is zero-marked in the realis modality: The realis morpheme {-a} subtracts the 3SG morpheme {-ı} making 3SG zero-marked. To avoid the cumbersome usage of \emptyset in place of the subtracted 3SG pronominal, no morpheme gloss is given for 3SG in the realis modality. Whenever a given verb in the realis has no subject-agreement marker, it is understood that subject marking is for 3SG.

First and second person subjects (S/A) are always cross-referenced on the verb by means of personal pronominal suffixes. 3SG subjects are too, even if only by a zero-morpheme. But as pointed out by König, 3PL subjects are inconsistently cross-referenced on verbs (2008:84). The 3PL suffix is only obligatory when 1) no independent subject is present, 2) when the subject is the 3PL personal pronoun *ńt-á*, and 3) when the subject is preposed before the verb like in a subordinate clause with simultaneous aspect.

For example, in (72) below, no overt subject is present, so the 3PL suffix must be present, while in (73) the 3PL personal pronoun *ńt-á* (in the NOM case) also requires the suffix. The preverbal subject in (74), *gwágwaicéá*, also requires the 3PL suffix on the verb coming after it:

(72) *Sabukotataa Fetiicek.*

sáb-úkót-át-a-a fetí-íce-k^a
 kill[PL]-COMP-3PL-REAL-PRF sun-AGT.PL-ACC

They have killed the Jie ('sun people', i.e. from the East).

(73) *Sabukotataa nta Fetiicek.*

sáb-úkót-át-a-a nít-á fetí-íce-k^a
 kill[PL]-COMP-3PL-REAL-PRF they-NOM sun-AGT.PL-ACC

They have killed the Jie ('sun people', i.e. from the East).

(74) *Na Gwagwaicea sabukotatie Fetiicek,...*

na = gwágwa-íce-á sáb-úkót-áti-e fetí-íce-k^a
 CONJ = Dodoth-AGT.PL-ACC kill[pl]-COMP-3PL-SIML sun-AGT.PL-ACC

When the Dodoth killed the Jie,...

However, the 3PL pronominal suffix is ungrammatical if an independent nominal (postverbal) subject is present in the clause. Unlike examples (72)-(74), example (75) contains the nominal plural postverbal subject *gwágwaika*, resulting in the verb being zero-marked as 3SG:

(75) *Sabukotaa Gwagwaika Fetiicek.*

sáb-úkót-á-á gwágwa-ik-a fetí-íce-k^a
 kill[PL]-COMP-REAL-PRF Dodoth-AGT.PL-NOM sun-AGT.PL-ACC

The Dodoth have killed the Jie.

3rd-person marking on verbs in relative clauses is optional, but not so much as to be in complete free variation. With some exceptions, the trend among Ik speakers is to use a 3SG verb in a relative clause modifying a plural noun. This is true whether the plural noun is overtly marked with a plurative or whether it is lexically specified as plural. The following two examples compare number marking in a relative clauses modifying the lexically plural *méná*- 'issues' and the morphologically plural *méná-ícík* 'various things':

(76) *Itetia noo menee ni maraŋ.*

it-et-í-á = noo mən-é-é = [ni maráŋ-∅]_{REL}
 come-VEN-1SG-REAL = PST3 issues-DAT = REL.PL good[3SG]-REAL
 I found good things/circumstances.

(77) *Menaicika ni kama tasapeti.*

mən-á-ícík-a = [ni kám-á tasapetí-∅]_{REL}
 issues-PL-NOM = REL.PL be.like[3SG]-REAL initiation-GEN
 Things like initiation

However, the suppletive plural of *kóróbádr* ‘thing’—*kúribádi* ‘things’—and the plural pronoun *dí* ‘ones’ provide some counter-examples:

(78) *Kuruḃaa ni kamata dziberikae.*

kúribá-a = [ni kám-át-a dzibér-íka-^e]_{REL}
 things-NOM = REL.PL be.like-3PL-REAL axe-PL-GEN
 Things (that are) like axes

(79) *Da sini bolukotat.*

ǀ-a = [sini bol-ukot-át-^a]_{REL}
 ones-NOM = PST2.REL.PL stop-COMP-3PL-REAL
 The ones that stopped (yesterday)

But nouns that are lexically specified with a general or neutral numeric value can go either way in terms of relative clause marking. Example (80) shows the general noun *dájá* ‘white ant(s)’ taking singular marking in a relative clause, while in (81), the noun *tóda* ‘speech’ take plural marking:

(80) *Kutese hakwesie daŋee ni kom.*

kut-εεε hakw-ésí-e dáŋé-e = [ni kom-∅]_{REL}
 say-SPS harvest-INF-DAT white.ant-GEN = REL.PL many[3SG]-REAL
 It was decided to harvest a lot of white ants.

(81) *Toda ni kamata die njini.*

| | | | |
|---------------------------|------------------|----------|-------------------------|
| tód-a = [ni | kám-át-a | dí-é | njíní-Ø] _{REL} |
| speech-NOM = REL.PL | be.like-3PL-REAL | ones-GEN | we.INC-GEN |
| Speech that is like ours. | | | |

7.6 Dummy pronominal clitic

The particle {='de} is used to mark the absence of a peripheral argument from its usual post-verbal position. It was already treated under §5.10 due to its having a pronominal function, and the reader is referred there for more details on its meaning and syntactic function. Heine was the first to recognize this particle, which he called the ‘dummy pronoun’ (1983:119). He also pointed out that the dummy pronoun may be a grammaticalization of the singular anaphoric demonstrative =‘dǝǝ described ahead in §8.2.3. The dummy pronoun is analyzed as an enclitic in this grammar because no verbal affixes—no matter which or how many—can come after it.

An initial survey of regional languages indicates that {='de} can be linked most strongly to the Afroasiatic language family. From within Cushitic, Afar has a ‘positional indicator’ *eda-* (Mahaffy n.d., p. 29), while the ‘locative postpositioned clitic’ of Saho has the form *-dde* or *-d* (Banti & Vergari 2005:14). Switching subgroups, the South Omotic language Dime’s ablative marker *-de* has the meaning ‘from’ or ‘out of’ (Mulugeta 2008:57). If the Ik dummy pronoun is related historically to the Dime ablative suffix, this could mean that {='de} in Ik developed into a purely grammatical morpheme.

The dummy pronoun enclitic has a L tone on its vowel but a preceding floating H tone. This floating H is posited on the basis of the H tone that usually appears on the preceding tone-bearing unit. Since the /d/ in {='de} is a depressor consonant, the floating H may have been lexicalized in order to compensate for the depressing effect of the depressor consonant. The dummy pronoun is a recessive morpheme that has the allomorph /='de/ when attached to [+ATR] stems. The dummy pronoun is also subject to

vowel assimilation, segment loss in non-final forms, and final-form devoicing, giving it the numerous allomorphs presented in (82). The final-form allomorphs, with devoiced vowels and segments, sound a lot like [t̚]. And the allomorphs /='ɛ/ and /='e/ have at times been confused with the dative case non-final allomorph /ɛ,e/ (e.g. Heine & König 1996:25).

(82) *Allomorphs of the dummy pronoun {='dɛ}*

| | Non-final | Final |
|--------|-----------|------------------------------|
| {='dɛ} | = 'ɛ | = 'd ^e [t̚ɛ]/[t̚] |
| | = 'e | = 'd ^e [t̚e]/[t̚] |
| | = 'ɪ | |
| | = 'i | |
| | = 'ɔ | |
| | = 'o | |
| | = 'de | |

As noted above, the dummy pronoun (DP) always occurs last on the verbal stem, regardless of other preceding verbal suffixes. The trio of examples in (83) show its position, even as more and more suffixes are added:

(83) *Stem-final position of the dummy pronoun*

| | |
|-------------------------------|-------------------------|
| ats-át-a = d ^e | come-3PL-REAL = DP |
| ats-áti-ké = d ^e | come-3PL-SIML = DP |
| ats-i-áti-ké = d ^e | come-PLUR-3PL-SIML = DP |

When found clause-medially, however, the dummy pronoun can be hard to identify because of its many allomorphs (shown in 82 above). Each of the non-final allomorphs listed in (84) is given one example below:

(84) *Náita noo mitee ayi...*

naítá = noo mɪt-é = ɛ ai {='dɛ} → /='ɛ/
 degree = PST3 be-REAL = DP side[OBL]
 Since ('the degree to which') it was the side...

- (85) *Noo iyanee Mayee Diw,...*
 noo i-an-é=e mayé-e diw-Ø {='dɛ}→/'e/
 PST3 be-IPS-REAL=DP reedbuck-DAT red-REAL
 When people were at Red Reedbuck,...
- (86) *Naikotinii demus.*
 na-ikɔt-iní=i demus {='dɛ}→/'i/
 get.used-COMP-SEQ=DP fast
 So they get used to it quickly.
- (87) *Todoini napankaik.*
 todó-íní=i nápanká-ik-^o {='dɛ}→/'i/
 start-SEQ=DP machete-PL-INS
 And they fell on him with machetes.
- (88) *J'ejiakoo ja nk.*
 jɛj-ia-kó=o=ja ŋk-^a {='dɛ}→/'ɔ/
 stay-1SG-SEQ=DP=ADV I-NOM
 So then I stayed there.
- (89) *Keesukoo ja roba budesik.*
 ke-ésú-kó=o=ja roɓ-a bud-ésí-k^a {='dɛ}→/'o/
 go-IPFV-SEQ=DP=ADV people-NOM hide-INF-ACC
 So then the people went there to hide (themselves).

But on a 1SG verb, the unreduced allomorph of the dummy pronoun is found clause-medially, as shown in (90). This is apparently to avoid an interrupted sequence of three vowels, each belonging to a distinct morpheme:

- (90) *Ntsuo naa imodiade bik.*
 ntsú-ó=naa imódí-í-a=de bi-k^a (**imódí-í-a=e)
 it-COP=PST1 trick-1SG-REAL=DP you.SG-ACC
 That's why I tricked you.

7.7 Modals

Ik grammar specifies the non-spatial setting of utterances with a variety of modality and aspect-marking suffixes, as well as tense-marking and epistemic clitics and particles. This section examines the verbal affixes that express sentential modality, that is, how speakers perceive the predication in terms of its actuality, likelihood, or relevance. The modal notions conveyed by these affixes include reality, necessity, and desire.

In the Teso-Turkana languages surrounding Ik, the most basic verbal distinction is perfective versus imperfective aspect. Not so in Ik: Instead, the most basic distinction is a modal one between irrealis and realis. Heine was the first to take note of this, though he called the realis the ‘aorist’—“the most unmarked tense...that denotes actions or states in the past, present, or without reference to time...” (1983:132). König also recognized this modal distinction, claiming that “the morphologically unmarked realis form is used for present and past contexts, the derived irrealis form (expressed by the suffix *-es-*) covers future” (2008:83). So up to now, realis was thought to be unmarked, and irrealis was thought to be marked by the suffix *-és/és*.

Contrary to Heine and König (1996:84 [typed as 73]), it is claimed here that the irrealis, rather than the realis, is the morphologically unmarked member of the pair. It is also claimed that neither irrealis nor realis have anything to do with time or tense *per se*. Though realis forms cooccur with tense clitics far more often than irrealis ones, irrealis verb forms can also cooccur with tense clitics. Finally, the suffix *-és/és* which König posits as the irrealis suffix is analyzed in this grammar as a marker both of ‘intentional’ modality (cf. Serzisko 1992) and imperfective aspect.

The verb form that Heine termed ‘the most unmarked tense’ and König called ‘the morphologically unmarked realis’ is identified by the suffix {-a}. The meaning and function of this vowel has long perplexed researchers studying Ik. Crazzolaro deemed this vowel ‘meaningless’ (1967:9), while

Tucker called it a ‘complemental suffix’ without further explanation (1971:349). Heine labeled it the ‘thematic final vowel’, which he recognized as also characteristic of his ‘absolute’ nominal case (1983:132). Because this vowel was found on verbs in basic declarative sentences in past, present, and future tenses, it was assumed to be an unmarked realis form, e.g.:

(91) *Atsida nak.*
 ats-íd-a = nak^a
 come-2SG-? = PST1
 You came (earlier today).

(92) *Atsidak.*
 ats-íd-a-k^a
 come-2SG-?-PRF
 You have come.

(93) *Atsesid.*
 ats-és-íd-^a
 come-INT-2SG-?
 You will come.

By contrast, verb forms without {-a}, like those in the sequential and simultaneous aspects, were assumed to be marked irrealis forms:

(94) *Atsiduk.*
 ats-idu-k^o
 come-2SG-SEQ
 And you come.

(95) *atsidik.*
 ats-ídi-k^e
 come-2SG-SIML
 ...as you come.

In light of these examples, a fundamental distinction emerges from Ik verbs between forms that manifest the vowel /-a/ and those that do not (but rather retain the subject-agreement suffixes' underlying final vowels). Thus the starting point for the irrealis-realis division posited here is this very morphological distinction, rather than a primarily semantic one. Unquestionably, the morphological distinction is there, yet the semantic bases for it have not yet fully come to light. The table below presents the two groups of verb forms defined by whether they contain /-a/ or /-i,i/:

(96) *A morphological division of Ik verb forms*

| | | |
|------------------|-------------------------------|--------------------------|
| With /-a/ | | |
| Past | atsíd-a = nak ^a | 'You came.' |
| Present perfect | ats-íd-a-k ^a | 'You've come.' |
| Intentional | ats-és-íd- ^a | 'You will come.' |
| Prohibitive | máá ats-íd- ^a | 'Don't come.' |
| With /-i,i/ | | |
| Sequential | ats-idu-k ^{o'} | 'And you come/came.' |
| Simultaneous | ats-ídi-k ^e | 'As/when you come/came.' |
| Optative | ats-ídi' | 'May you come.' |
| Negated past | máá = naa ats-íd ⁱ | 'You haven't come.' |
| Negated non-past | ńtá ats-íd ⁱ | 'You don't come.' |

As argued in §5.1.4, the underlying forms of the subject-agreement suffixes end in the vowel /i,i/, including the 2SG suffix {-ídi-} shown in (96). So the 2SG suffix in the first four verbs in (96) must have had its final vowel subtracted by a morpheme {-a}. The subtractive behavior shown by {-a} in those examples is identical to that of the nominative case suffix which subtracts a noun's final vowel. Since the nominative case is marked rather than unmarked in Ik, the forms containing {-a} in (96) are also analyzed here as marked. Similarly, just as the oblique case preserves the lexical form of a noun (i.e. is unmarked), so the last five verbs in (96) preserve the underlying form of the 2SG suffix {-ídi-} leaving them unmarked also.

The verb forms in (96) with a 2SG suffix ending in /i/ are vaguely irrealis-like, if irrealis is “used to refer to an event...possible or imagined, as opposed to one that is actually happening or has happened (Matthews 2007:204). (Even though the sequential and simultaneous aspects can be modified by tense clitics, historical actuality does not seem to be their main meaning.) By contrast, if realis is used “to distinguish events...that actually happened or are happening (Matthews 2007:334),” then only the first two verbs in (96) clearly qualify for this definition. But if the intending of the intentional and the prohibiting of the prohibitive can be considered already actualized, then their membership in that category becomes more plausible.

In summary, Ik irrealis and realis modalities can be defined as follows:

- Irrealis—modality used for predications whose temporal realization is not grammatically encoded.
- Realis—modality used for predications:
 - a. Whose temporal realization is grammatically encoded, or
 - b. That are not irrealis, or
 - c. That are characterized by some yet unknown feature.

7.7.1 *Irrealis*

The irrealis modality in Ik is zero-marked. When pertinent, the zero-marking may be glossed in square brackets as [IRR], but otherwise it will not be reflected in the glossing of examples (as opposed to realis). As mentioned above, the irrealis modality is reserved for predications whose temporal realization is not grammatically encoded. Irrealis is the base form for a variety of modal and aspectual categories, including the following:

- (97) Negative past: *Maa atsid.*
 má-á ats-ídⁱ
 not-REAL come-2SG[IRR]
 You haven't come.

- (98) Negative non-past: *Nta atsid.*
 ñt-á ats-ídⁱ
 not-REAL come-2SG[IRR]
 You don't come.
- (99) Optative: *Talake atside.*
 talák-é ats-idi'
 let.go-IMP.SG come-2SG.OPT[IRR]
 And then you came.
- (100) Subjunctive: *Demusu atsid.*
 demosu ats-ídⁱ
 before come-2SG.SUBJ[IRR]
 Unless/until you come.
- (101) Sequential: *Atsiduk.*
 ats-idu-k^o
 come-2SG[IRR]-SEQ
 And then you come.
- (102) Simultaneous: *Na atsidik,...*
 na = ats-ídi-k^e
 CONJ = come-2SG[IRR]-SIML
 When you came,...

In (97) and (98), the negating verbs *ma-* and *ñt-* act as the main verb and are marked with the realis suffix {-a}. As verbs, these negators negate the clause, taking the irrealis verb form *atsídⁱ* as a complement. Since the event in question—‘your coming’—did not or does not take place, the complement falls under the domain of the irrealis modality.

- (106) Prohibitive: *Maa atsid.*
 má-á ats-íd^a
 not-REAL come-2SG-REAL
 Don't come.

As evident from (103)-(104), the realis modality coincides with the straightforward expression of temporally realized states or events in the present or past. The intentional and prohibitive instances of the realis modality may be admitted on the basis of some kind of cognitive actuality whereby intention and prohibition are happening at the time of speech.

7.7.3 *Intentional*

Strictly speaking, Ik has no inflectional marker of future tense. It is the future tense adverbial particles (§7.10.2) along with the realis modality marker on verbs that allows the notion of futurity to be expressed. However, the suffix {-és-} is also usually employed alongside these other components. The suffix is here called 'intentional', a term borrowed from Serzisko 1992.

The intentional suffix has H tone, but it may take a L tone as a result of high-tone suppression (T6), melodic template completion (T7), or replacive morphological tone (T8). In terms of vowel harmony, it is a recessive suffix with /-és-/ as an allomorph when affixed to a [+ATR] stem.

The intentional suffix and the imperfective suffix (§7.9.1) are formally identical (homophonous). Their meaning and function are also very close. For these reasons, they are thought to have arisen from a single morpheme diachronically. In some usages, the interpretation of {-és-} is truly ambiguous, while in others, either intentionality/imminency or imperfectivity makes more sense in the local context. Neither intentionality/imminency nor imperfectivity adequately accounts for all the uses of {-és-}. That is why, with some tentativeness, the two functors are treated in this grammar as synchronically separate morphemes.

The intentional suffix {-és-} expresses intentionality with animate subjects and imminency with inanimate ones. When added to a non-past realis verb like the one in (107) below, the {-és-} gives the verb a sense of unrealized latent potentiality or ‘about-to-ness’. As such, the sentence in (108) could be more insightfully glossed as ‘I am going to/about to be thirsty (lit. ‘The sun is about to/going to eat me’). Nevertheless, native Ik speakers consistently translate {-és-} verbs with the English future ‘will’ (keeping in mind that ‘will’ is also a grammaticalization of a verb of intentionality in English):

(107) *Nka feta ncik.*

ɲk-a fet-á jíci-k^a
eat-REAL sun-NOM I-ACC

I am thirsty (lit. ‘The sun is eating me’).

(108) *Nkesa feta ncik.*

ɲk-és-á fet-á jíci-k^a
eat-INT-REAL sun-NOM I-ACC

I will get thirsty (lit. ‘The sun will eat me’).

The sentence in (109) is a simple past-tense statement. The subject’s coming is viewed as a once-off, completed action. But when {-és-} is added to the verb in (110), it signifies that the subject merely intends to come. Whether or not the intention was realized is not grammatically encoded:

(109) *Atsia nak.*

ats-í-á = nak^a
come-1SG-REAL = PST1

I came earlier today.

(110) *Atsesia nak.*

ats-és-í-a = nak^a
come-INT-1SG-REAL = PST1

I was about to come earlier today.

The sentence in (111) is a particularly interesting example of the intentionality encoded by {-és-}. It is a sentence that was uttered by an Ik child just waking up from a nap. It was made as an announcement of intention, with a pragmatic sense of asking permission. The child had not begun moving to get down but was sitting still, waiting for a response:

- (111) *Atsesia kijak.*
 ats-és-í-a kǐjá-k^e
 come-INT-1SG-REAL I and-DAT
 I intend/want/will (to) come down.

With regard to the analytical ambiguities of {-és-}, a strictly imperfective interpretation of (111) would entail that the process of coming had already begun and had internal temporal duration. This is clearly not the case because the child was sitting motionless. The only way to keep an imperfective interpretation would be to assume that the child's mental process of intending to come down is already part of the coming. But encoding the temporal duration of cognitive processes (as precursors to action) does not seem to be the normal function of an imperfective aspect. That is why examples like (111) point to something more like intentionality.

A final comment: As Serzisko recognized (1992:205), there are verbs in which {-és-} occurs twice in sequence. It is not known whether these are a) instances of the intentional and imperfective occurring together (which would be evidence of two separate morphemes) or b) instances of the doubling of either suffix. Nor is it clear how this dilemma could be resolved:

- (112) *Dzuesesa bats.*
 dzu-es-és-á = bats^e
 steal-?-?-REAL = PST2
 He was going to steal (and did?) (yesterday).

7.7.4 Optative

The optative mood is encoded grammatically in three concurrent ways: 1) a floating H tone (often with high-tone suppression of preceding H's) 2) neutralization of pre-pause devoicing, and 3) a handful of suppletive suffixes occurring unevenly throughout the paradigm. The floating H tone gives even L-toned verbs mid-pitch, even before a pause. The neutralization of pre-pause vowel devoicing can be represented by an autosegmental morpheme like {-[+voice]}. And so the following table summarizes the two autosegmental markers together with the segmental ones:

(113) *Optative mood markers*

| | Tonal | Vowel quality | Segmental |
|---------|----------------------------|-------------------|-----------|
| 1SG | $\acute{V} \rightarrow V'$ | $V_{[+voice]} \#$ | -inɛ' |
| 2SG | $\acute{V} \rightarrow V'$ | $V_{[+voice]} \#$ | |
| 3SG | $\acute{V} \rightarrow V'$ | $V_{[+voice]} \#$ | |
| 1PL.EXC | $\acute{V} \rightarrow V'$ | $V_{[+voice]} \#$ | -ima' |
| 1PL.INC | $\acute{V} \rightarrow V'$ | $V_{[+voice]} \#$ | -ano' |
| 2PL | $\acute{V} \rightarrow V'$ | $V_{[+voice]} \#$ | |
| 3PL | $\acute{V} \rightarrow V'$ | $V_{[+voice]} \#$ | |

The three segmental optative morphemes all have a LL tone melody with a floating H tone. Their tone may change to HL after a H-tone verb (T7) or to LH before the dummy pronoun {=dɛ}. The suffixes {-inɛ'} and {-ima'} are susceptible to vowel harmony when affixed to [+ATR] stems. The suffix {-ano'}, on the other hand, is an opaque dominant morpheme that therefore does not change [ATR] categories. It is, moreover, the only one of the three for which areal (Cushitic) parallels have been found, namely the Saho 1PL 'subjunctive' suffix *-no* (Banti & Vergari 2005:4) and the Somali 1PL.INC 'jussive' suffix *-no* (Lamberti 1984:5)—both obviously related to each other.

The table in (114) illustrates the complex optative-marking strategy with full optative paradigms for the verbs *fút-és* 'to blow' and *ber-és* 'to build':

(114) *Optative mood paradigm*

| | ‘blow’ | ‘build’ |
|---------|----------|----------|
| 1SG | fút-íne’ | ber-me’ |
| 2SG | fút-ídi’ | ber-idi’ |
| 3SG | fút-í | ber-í’ |
| 1PL.EXC | fút-íma’ | ber-ima’ |
| 1PL.INC | fút-áno’ | ber-ano’ |
| 2PL | fút-ítí’ | ber-iti’ |
| 3PL | fút-átí’ | ber-átí’ |

The optative mood is used to express a wish, even an ironic negative wish in the form of a resignation. And with the appropriate auxiliary verb, the optative has been grammaticalized into use as an irrealis narrative mood.

Besides the morphological markers presented in (113), optative verbs are also commonly recognized by the auxiliary verbs *ógo-* ‘leave/let’ or *talák-* ‘let go’ occurring in the imperative mood, for example:

(115) *Ogoyuo kaati.*

ógo-íó ká-átí’
 leave-IMP.PL g go-3PL[OPT]
 Let them go.

(116) *Talake atsati.*

talák-é ats-átí’
 let.go-IMP.SG come-3PL[OPT]
 Let them come.

The optative mood has been grammaticalized into use as a sort of narrative mood alongside the sequential aspect. In this usage, it must be preceded by the imperative *talák-é* ‘let go’ (sometimes shortened to *aláké*), which is related to the Teso-Turkana *-lak* ‘let go’, a synonym of the Ik *ógo-* ‘let/leave’:

(117) *Talake atsati, talake koŋatii toboŋ.*

talák-é ats-átí' talák-é kɔŋ-átí=i tɔbɔŋʔ
 let.go-IMP come-3PL[OPT] let.go-IMP cook-3PL[OPT] =DP posho[OBL]
 And then they came, and then they cooked posho with it (a pot).
 [Lit: 'Let them come, let them cook posho with it.]

(118) *Talake daŋadidi todoi.*

talák-é dáŋá-didí todó-í'
 let.go-IMP white.ant-rain[OBL] fall-3SG[OPT]
 And then the white-ant rain fell.
 [Lit: 'Let the white-ant rain fall.']

In Ik, both overt subjects and objects of imperatives take the oblique case. Note that in (117) and (118), every clausal argument is zero-marked: Nouns are in the oblique case, and verbal complements are in the optative (an irrealis) mood. This type of argument-marking can be explained by positing the optative-narrative mood as a grammaticalization of the optative mood and the optative mood as a grammaticalization of an imperative clause.

As a narrative mood marker, *taláké* can be followed by verbs in the sequential and simultaneous aspects as well as the optative:

(119) *Talake kanetia takwiak.*

talák-é kan-ét-i-a takw-i-a-k^o
 let.go-IMP take-VEN-1SG-SEQ step.on-1SG-SEQ
 And then I took (it) and stepped on (it).

(120) *Talake kotuo komitik.*

talák-é kó-tu-o kom-ítí-k^e
 let.go-IMP go-2PL-SEQ many-2PL-SIML
 And then you go when you are many.

As indicated in (113), Ik has {-inɛ'} as a special 1SG optative suffix. Heine & König point out that the suffix could also be analyzed as {-nɛ'} (1996:82). Without further information, it is difficult to know which analysis is better. The following two sentences exemplify the use of {-inɛ'}. Note that the form *kóne* 'Let me go' in (121) is irregular in the paradigm for the verb *ka-* 'go':

(121) *Tebetine nemeleku awoo ne.*

téɓ-ɛt-inɛ némelekú awó-ó = ne
 get-VEN-1SG[OPT] hoe[OBL] home-ABL = MED.DEM.SG
 Let me get a hoe from that home.

(122) *Kone sabak.*

kó-ne saba-k^e
 go-1SG[OPT] river-DAT
 Let me go to the river.

The 1PL.INC optative, marked with the invariable suffix {-ano'}, could also be called the 'hortative'. The optative-hortative mood is used to encourage or command a group of people of which the speaker is a part. Since it is inherently 1st person, it is usually translated into English as 'Let us...':

(123) *Idimano namiili na.*

idim-ano námíli = na
 fix-1PL.INC[OPT] bicycle[OBL] = DEM.SG
 Let's fix this bicycle.

(124) *Atsuo kaano bedetano kakaako.*

ats-úó ká-áno béd-ét-ano kaka-akɔ-Ø
 come-IMP go-1PL.INC[OPT] want-VEN-1PL.INC[OPT] hunt-inside-ABL
 Come let's go, let's look for (it) while hunting.

7.7.5 Subjunctive

The subjunctive mood (along with negative polarity) is the quintessential irrealis mood in that it is zero-marked. That is, it is recognized morphologically by the subject-agreement suffixes surfacing in their underlying forms. Syntactically, it is recognized by a couple of conjunctions.

The subjunctive mood is used to encode propositions that are contingent and temporally unrealized. Note that the ‘subjunctive’ as intended here differs from that found in previous Ik studies (e.g. Heine & König 1996, König 2002) which is called the ‘simultaneous’ aspect in this grammar.

The following table presents the subjunctive mood paradigms for the verbs *fút-és* ‘to blow’ and *ber-és* ‘to build’:

(125) *Subjunctive mood paradigm*

| | Non-final | Final | Non-final | Final |
|---------|-----------|---------------------|-----------|---------------------|
| 1SG | fút-íí | fút-í ⁱ | ber-íí | ber-í ^f |
| 2SG | fút-ídi | fút-íd ⁱ | ber-ídi | ber-íd ⁱ |
| 3SG | fút-í | fút- ⁱ | ber-ɪ | ber-∅ |
| 1PL.EXC | fút-ímí | fút-ím | ber-ímí | ber-ím |
| 1PL.INC | fút-ísíni | fút-ísín | ber-ísíni | ber-ísín |
| 2PL | fút-ítí | fút-ít ⁱ | ber-ítí | ber-ít ^t |
| 3PL | fút-áti | fút-át ⁱ | ber-áti | ber-át ⁱ |

Verbs in the subjunctive mood are found in subordinate clauses introduced by the words *demusó* ‘unless, until, before’ and *damu* or *damu koja* ‘may’:

(126) *Xeikweese cua demusu fetia pelemet.*

ʃɛ-íkw-éese cu-a [dɛmuso fetí-á pelém-ét-]_{SUBORD}
 sprinkle-AND-SPS water-NOM before sun-ACC appear-VEN-3SG [SUBJ]
 And water is sprinkled before the sun comes up.

- (127) *Demusu Pakoicea deti riyaa,*
 [dɛmusu pakó-íce-a det-i rié-á]_{SUBORD}
 until cave-AGT.PL-ACC bring-3SG[SUBJ] goat(s)-ACC
 Until the Turkana brought goats,

isio noo ŋabian?

isi-o = noo ŋáb-i-an-Ø
 what-COP = PST3 wear-PLUR-IPS-REAL
 what was usually worn?

- (128) *Damu soreimaa na mitukoti dí fyoos.*
 damu soréím-a = na mít-úkót-i dí fyo-ós-Ø
 may boy-NOM = DEM.SG be-COMP-3SG[SUBJ] one[OBL] know-PASS-REAL
 May this boy become (a) famous (one).

- (129) *Damu koja maidi ntsik.*
 damu koja ma-ídi ntsí-k^e
 may give-2SG[SUBJ] s/he-DAT
 May you give (it) to her.

7.7.6 Imperative

The imperative mood in Ik is marked by the suffix {-é'} for singular and {-ís} for plural. A likely parallel for the singular imperative suffix is the singular imperative suffix -e found in the Cushitic languages Boni and Gidole (Lamberti 1984:5). As for the plural suffix, it recalls the Cushitic language Dhaasanac's imperative plural suffix -é which has the assimilated allomorph -ó, as in *kosol-ó* 'Laugh (pl.)!' (Tosco 2001:114).

The floating H tone of {-é'} is posited on the basis of the isolation forms of L-toned imperative verbs that surface with mid instead of low pitch. The plural suffix {-ís} may bear L tones when following a H-toned stem ending in a depressor consonant, as in the command *kád-u* 'Shoot (pl.)!'. Both

suffixes are recessively [-ATR] but have /-e'/ and /-íó/ as [+ATR] allomorphs. The plural suffix is also particularly susceptible to vowel assimilation, as when the command *ats-íó* 'Come (pl.)!' becomes *ats-úó* or when the command *ber-íó* 'Build (pl.)!' becomes *ber-úó* or even *ber-óó*.

The imperative mood is used to issue direct commands, for example:

- (130) *Ats.* *Atse nayee na.*
 ats-e' ats-e naí-é = na
 come-IMP.SG come-IMP.SG here-DAT = DEM.SG
 Come. Come here.

- (131) *Atsu.* *Atsuo nayee na.*
 ats-ú° ats-úó naí-é = na
 come-IMP.PL come-IMP.PL here-DAT = DEM.SG
 Come. Come here.

Any core arguments in an imperative clause take the oblique case. This includes subjects and direct objects. Imperative subjects are also claimed to exist in Turkana (Dimmendaal 1983:179), but they could also be vocatives. And as König noted, the use of the oblique for core arguments in the imperative mood is another example of case neutralization in Ik (2008:7):

- (132) *Kaidee dí nak.*
 kái-d-e-e dí = nák^a
 go-bring-VEN-IMP.SG one[OBL] = DEM.SG.PST1
 Go bring the earlier one.

- (133) *Ogoyuo biti ati na.*
 ógo-íó biti átí = na
 leave-IMP.PL you.PL[OBL] FILL[OBL] = DEM.SG
 You (pl.) leave this whatcha-ma-callit!

The imperative verb in (132) is a fusion of two verbs, *ka-* ‘go’ and *d-et-* ‘bring’ that have been reanalyzed as a single verb. This is evident from phrases spoken by children, like *káidetine* ‘Let me go-and-bring’. The object of this transitive verb in (132) is *dí* in the oblique case. As for (133), both the subject *biti* ‘you (pl.)’ and the object *átí* ‘filler word’ are in the oblique.

On an imperative verb stem, the imperative suffixes are usually the last morpheme. Only the dummy pronoun enclitic {=’de} can follow them:

(134) *Irimitete nc.*

| | |
|----------------------|------------------|
| irím-ít-et-é | jíc ⁱ |
| spin-CAUS-VEN-IMP.SG | I[OBL] |
| Spin me around. | |

(135) *Tsaitukotuo kwetik.*

| | |
|----------------------|----------------------|
| tsá-ít-ukót-úó | kwet-ik ^a |
| dry-CAUS-COMP-IMP.PL | hand-PL[OBL] |
| Dry your hands. | |

(136) *Yanuod.*

| |
|-------------------------|
| ǰán-úó = d ^e |
| talk-IMP.PL = DP |
| Talk to them. |

Polite imperatives are made with the soliticive intonational tune which consists of vowel lengthening and a boundary H tone (§3.3.5), for example:

(137) *Maxane birobakee!*

| | |
|--------------------------------|-------------------|
| máǰán-e | bi-róbá-keé |
| greet-IMP.SG | you.SG-people-DAT |
| Say ‘hi’ to your people, okay? | |

The neighboring Turkana language reportedly does not allow double imperatives (Dimmendaal 1983:183), but Ik does, as in the following:

- (138) *Atse zekwete karatsik.*
 ats-e zekw-et-ε káratsi-k^e
 come-IMP.SG S it-VEN-IMP.SG stool-DAT
 Come sit down on the stool.

Negated imperatives—prohibitives— are significantly different in form from the affirmative ones. They involve the highly irregular negating verbs *ma-/na-* and the particle *ejá* plus the negated verb as a complement in the realis mood with subject-agreement suffixes. Prohibitives are touched on in the next section and more fully treated ahead in §10.13.

7.7.7 Negative

Negative polarity in Ik depends on the irrealis-realism distinction for morphological manifestation. In other words, there is no independent marking for polarity, in particular for negative polarity. Negation is expressed in Ik with a combination of highly irregular negating verbs and modal suffixes (irrealis or realis). This section presents only a brief summary; see §10.13 for a more complete discussion of negation.

The following table introduces the Ik negating verbs, the modality of their negated complements, the types of clauses they can negate:

(139) *Ik negating verbs*

| Negator | Verb type | Complement | Clause type |
|-----------|-----------------|------------|-------------|
| ńt- | Non-past realis | Irrealis | Main |
| ma- (na-) | a) Past realis | Irrealis | Main |
| | b) Imperative | Realis | Main |
| mo- (SEQ) | Irrealis | Irrealis | Subordinate |

The negating verbs in (139) fill the syntactic slot for a clause's main verb. Then the negated main verb follows in the irrealis mood (or realis mood, in the case of prohibitives) as a kind of complement clause, for example:

(140) *Nta kod.*

ńt-á kó-dⁱ
 not-REAL go-2SG[IRR]
 You don't go.

(141) *Maa naa kod.*

má-á = naa kó-dⁱ
 not-REAL = PST1 go-2SG[IRR]
 You didn't go (earlier today).

(142) *Maa kod.*

má-á kó-d^a
 not-REAL go-2SG-REAL
 Don't go.

(138) *Moo kod.*

mo-o kó-dⁱ
 not-SEQ go-2SG[IRR]
 And you don't go.

7.8 Aspectuals

The aspectual suffixes in Ik provide further details as to the non-spatial setting of a clause. In the sense that it is used here, 'aspect' covers the temporal composition of a verb but also its temporality relative to another verb, its phase of activity, degree of completion, and frequency (Dixon 2012:30-36). This broader definition of 'aspect' contrasts it with mood and modality (§7.7), voice and valency (§7.9), and markers of pure temporality (§7.11). Ik employs the following seven functors of aspectuality: sequential

(§7.8.1), simultaneous (§7.8.2), imperfective (§7.8.3), inchoative (§7.8.4), completive (§7.8.5), present perfect (§7.8.6), and pluractional (§7.8.7).

7.8.1 *Sequential*

The Ik sequential aspect is marked in two concurrent ways: 1) a floating H tone (in all but the 3SG and 3PL paradigm members) and 2) a handful of suppletive suffixes making up an irregular paradigm. The floating H tone is posited because a) some sequential verbs with L-tones surface with mid instead of low pitch in isolation or before a pause and b) words following a sequential verb often get a H tone on their first syllable.

The suffix used to mark all members of the sequential paradigm except 3PL is {-kɔ}. As discussed back in §6.4.1, this morpheme is most likely a grammaticalization of the copulative case, or otherwise, both the sequential and copulative evolved from a precursor such as a focus marker. For comments on the origin of the cross-categorical morpheme {-kɔ}, the reader is referred back to §6.3.8. The 3PL sequential suffix is {-ɪɪ} or /-ini/. Also, the 1SG and 1PL.EXC subject-markers in the sequential paradigm are irregular in that they end with /a/ instead of the expected irrealis /i,i/.

The sequential suffix {-kɔ} is [-ATR] with /-ko/ as an allomorph on [+ATR] stems. Its tone is L but may bear H tone spread from the stem. Before a pause, the suffix has the further allomorphs /-kʔ/, /-k^o/, or /-k^w/. And then in clause-medial positions, it has the reduced allomorphs /-ɔ/ or /-o/. Heine & König analyzed the sequential ('narrative' in their terminology) as composed of an optative *-i* and the copulative *-ko* (1996:77). This was presumably to account for the high-frequency sequence *-ʊkʔ* or *-uk^o*. But in this grammar, the form *-ʊkʔ* or *-uk^o* is analyzed as made of the underlying 3SG suffix {-ɪ} followed by the sequential {-kɔ}.

The 3PL sequential suffix {-inɪ} is reduced to /-in/ before a pause. In terms of tone, it has a LL melody but may surface as HL after a H tone on the preceding stem or as LH before the dummy pronoun enclitic {=ʼdɛ}.

The table in (139) presents the sequential aspect paradigm for the verbs *fút-és* ‘to blow’ and *bɛr-és* ‘to build’:

(139) *Sequential aspect paradigm*

| | NF | FF | NF | FF |
|---------|-------------|--------------------------|-------------|--------------------------|
| 1SG | fút-ia-a | fút-ia-k ^o | bɛr-ia-a | bɛr-ia-k ^o |
| 2SG | fút-ídu-o | fút-ídu-k ^o | bɛr-ido-ɔ | bɛr-ido-k ^o |
| 3SG | fút-ú-o | fút-ú-k ^o | bɛr-ɔ-ɔ | bɛr-u-k ^o |
| 1PL.EXC | fút-íma-a | fút-íma-k ^o | bɛr-ima-a | bɛr-ima-k ^o |
| 1PL.INC | fút-ísini-o | fút-ísinu-k ^o | bɛr-isinɔ-ɔ | bɛr-isinu-k ^o |
| 2PL | fút-ítu-o | fút-ítu-k ^o | bɛr-itu-ɔ | bɛr-itu-k ^o |
| 3PL | fút-íni | fút-ín | bɛr-inɪ | bɛr-in |

As seen in (139), the final /ɪ/ of the subject-agreement suffixes is partially assimilated to /u/ before the sequential suffix. The degree of assimilation is gradient in phonetic realization: a form like *bɛridoɔ* ‘and you build’ can just as often surface as *bɛridɔ* with total assimilation of the subject-agreement suffix’s final vowel. In [+ATR] stems, the assimilation gradient varies between /i/ and /u/, as in *subánídiɔ* ~ *subáníduɔ* ‘and you (sg.) got ready’.

Up to now, the sequential has been called the ‘narrative’ (Serzisko 1992, Heine & König 1993, König 2002, König 2008). It seemed an appropriate label since the verb forms in (139) are by far the predominant ones observed in narrative texts. However, given that they are also predominant in procedural, exhortative, explanatory, and just about any other type of discourse, the term ‘narrative’ is just not suitable. That the sequential is found in narratives is just coincidental to the fact that it is used express simple verbal sequences. The sequential aspect simply indicates that a state or event follows in sequence after one or more previous states or events.

Sequential verbs are found in both main and subordinate clauses. Main clauses with the sequential are always subordinate or ‘co-subordinate’ (medial or chained) to a previous controlling clause (see §10.2). Subordinate clauses with the sequential only come before the main clause and are used for hypothetical or conditional predications. The sequential aspect in main clauses is by far the most frequently occurring verb type in the whole language. It is used in narratives, instructions, explanations, descriptions, and everyday conversations. The following two sentences illustrate its narrative (140) and gnomic (141) uses:

(140) *Atsini koketini fiyekesia bi.*

ats-ini kɔk-ét-ini fiyek-esí-á bi-∅
 come-SEQ shut-VEN-SEQ live-INF-ACC you.SG-GEN

And they come and shut off your livelihood.

(141) *Kídzesoo bia kwaeo, ceikotuk.*

kídz-es-ɔ-ɔ bi-a kwaě-³ ce-ikót-u-k³
 bite-INT-3SG-SEQ you.SG-ACC tooth-INS kill-COMP-3SG-SEQ

And it tries to bite you with (its) tooth, and it kills (you).

And then the next two sentences illustrate the hypothetical (142) and the conditional (143) usages of the sequential in subordinate clauses:

(142) *Na kanaa jarema birayoo, maraŋa kanak.*

na = kánaa járém-a bira-i-ɔɔ maráŋ-á kanak^a
 CONJ = COND insecurity-NOM not.be-3SG-SEQ good-REAL COND

If insecurity were not there, it would be good.

(143) *Na eniduo ntsaa, kute ntsie ‘Ats’.*

na = én-idu-o nts-aá kut-ε ntsí-é ats-^ε
 CONJ = see-2SG-SEQ she-NOM say-IMP.SG she-DAT come-IMP.SG

If you see her, tell her ‘Come’.

The sequential aspect is also used for a series of polite commands, instructions, or requests. Often the controlling verb (on which the clause chain is built) is a simple imperative, but it may also be another sequential verb. In the latter case, a controlling verb is implied:

(144) *Kae kaneiduo cemera egiduo ikak.*

ka-e kan-é-idu-o cemera eg-idu-o iká-k^e
 go-IMP take-VEN-2SG-SEQ herb-NOM put-2SG-SEQ head-DAT
 Go get medicine and put it on (your) head.

(145) *Maxanidoo robe e awoo?*

máxán-idɔ-ɔ robe-e awó-oó
 greet-2SG-SEQ people-DAT home-ABL
 Please greet people at home, okay?

In addition to the polite imperative usage, the sequential is also used in a deontic or ‘should/must’ sense. The controlling verb, *itámáán-* ‘behoove’ may or may not be present:

(146) *(Itamaana) atsiduo taa barats.*

(itámáán-á) ats-idu-o táa barats-^o
 behoove-REAL come-2SG-SEQ next morning-INS
 You should come tomorrow (lit: ‘It behooves, (and) you come...’).

Though not reflected in (139), the sequential paradigm also has its own passive form: {-εε’} (/ese’/ on [+ATR] stems). The sequential passive (SPS) is impersonal like the non-sequential impersonal passive (§7.9.3); neither type involve demoting a known agent or promoting the object to subject. Any inferred agent is vague or impersonal, and they are both normally translated into English with an agent like ‘people’ or ‘one’ or are left in the passive. The sequential impersonal passive is discussed more under §7.9.4, but the next two sentences provide an initial picture of how it works:

(147) *Epukwes, na baratso keese danjaakok.*

ep-úkó-es^e ná = barats-o ke-ese dánjá-akó-k^e
 sleep-COMP-SPS CONJ = morning-INS go-SPS white.ant-inside-DAT
 People sleep and in the morning go for white ants.

(148) *Itamaana ogweese ti.*

itámáán-á ógo-ese tí
 behoove-REAL leave-SPS ADV
 It must be left like that.

A variety of ‘narrative’ or ‘subsecutive’ verb forms are found scattered throughout the East African region, for example: Lango and Nuer (Western Nilotic); Toposa, Turkana, Maasai (Eastern Nilotic), and So (Kuliak). As a result of the long-term contact between Ik and Teso-Turkana languages, one wonders whether the Ik sequential aspect is a grammatical replication of the Teso-Turkana ‘subsecutive’ mood. The two have similar functions, but the morphological resources used for them are quite different. In pursuit of this question, the following comparison may provide some clues. Data on Teso-Turkana are taken from Dimmendaal’s description of Turkana (1983):

(149) *Comparison of Ik ‘sequential’ with Teso-Turkana ‘subsecutive’*

| | Ik | Turkana |
|------------------------------------|----------|------------|
| After a temporal controlling verb? | Yes | Yes |
| Has special agreement markers? | Partly | No |
| After an auxiliary verb? | Optional | Obligatory |
| Can cooccur with tense marking? | Optional | No |
| As hortative & jussive? | Optional | Obligatory |
| In double imperatives? | Optional | Obligatory |
| In simultaneous clauses | Optional | Obligatory |
| After a quotative complementizer? | No | Yes |
| Has different aspect marking? | No | Partly |
| Identical to imperative? | No | Yes |

7.8.2 Simultaneous

The suffix {-kɛ} marks the ‘simultaneous’ aspect in Ik. As discussed back in §6.4.1, the accepted analysis is that this suffix is a grammaticalization of the homophonous dative case suffix. Or otherwise, both suffixes arose from a common proto-morpheme. The reader is referred to §6.4.1 for more details. The simultaneous suffix attaches directly to the underlying forms of the subject-agreement markers. This combination resulted in the high-frequency sequence /-ik^ɛ/ or /-ik^ɛ/ that has often been interpreted as an optative *-i* together with the dative case suffix {-kɛ} (e.g. Heine & König 1996:77). In this grammar, however, the ambiguous sequence /-ik^ɛ/ or /-ik^ɛ/ is treated as a combination of the 3SG morpheme {-ɪ-} and the simultaneous {-kɛ}.

The suffix {-kɛ} is recessively [-ATR] with /-ke/ as an allomorph on [+ATR] stems. Before a pause, the suffix is reduced to /-k^ɛ/ or /-k^ɛ/, and in clause-medial contexts, it surfaces as /-ɛ/ or /-e. Its tone is L, but it may receive H tone from the stem to which it attaches or from the clitic {=’dɛ}. The following table presents the simultaneous paradigm for the verbs *fút-és* ‘to blow’ and *ber-és* ‘to build’. Note that the pre-pause allomorph of the suffix is retained for the non-final 1sg form. This is apparently to prevent a three-vowel sequence spanning two morphemes:

(150) *Simultaneous aspect paradigm*

| | NF | FF | NF | FF |
|---------|-------------|--------------------------|-------------|--------------------------|
| 1SG | fút-íi-ke | fút-íi-k ^ɛ | ber-íi-ke | ber-íi-k ^ɛ |
| 2SG | fút-ídi-e | fút-ídi-k ^ɛ | ber-ídi-ɛ | ber-ídi-k ^ɛ |
| 3SG | fút-í-e | fút-í-k ^ɛ | ber-ɪ-ɛ | ber-ɪ-k ^ɛ |
| 1PL.EXC | fút-ími-e | fút-ími-k ^ɛ | ber-ímí-ɛ | ber-ímí-k ^ɛ |
| 1PL.INC | fút-ísini-e | fút-ísini-k ^ɛ | ber-ísini-ɛ | ber-ísini-k ^ɛ |
| 2PL | fút-íti-e | fút-íti-k ^ɛ | ber-ítí-ɛ | ber-ítí-k ^ɛ |
| 3PL | fút-áti-e | fút-áti-k ^ɛ | ber-áti-e | ber-áti-k ^ɛ |

The verbal suffix {-kε} has been called the ‘subjunctive’ up to now (e.g. Heine & König 1996, König 2002). But the term ‘simultaneous’ is preferred because a) it pairs with ‘sequential’ which, by one typology, is the other aspect found in clause chains (Kroger 2004:243), and b) it more clearly communicates what the suffixes actually does: indicate that a state or event temporally coincides with or accompanies another state or event.

Clauses with simultaneous verbs are always subordinate and may come before or after the main clause. If one comes before the main clause, it is often introduced by the conjunction *na* (past) or *náa* (hypothetical or future). Example (151) shows the simultaneous suffix on the verb *iryámétaní-é* ‘when gotten’ in a subordinate clause before the main clause. The subordinate clause is introduced by *náa*, while the preposed subordinate clause in (152) illustrates the simultaneous in use without a subordinating conjunction. Lastly, in (153) the subordinate clause with the simultaneous verb *wati-k^e* ‘raining’ comes after the main clause it modifies:

(151) *Naa iryametanie gwasak, ηweese nabalanjit.*

náa iryám-ét-aní-ε gwasá-k^e ηυ-εεε nabá-lá-ηjt-^a
 CONJ get-VEN-IPS-SIML stone-DAT grind-SPS soda.ash-NOM
 When a stone is gotten, soda ash is ground.

(152) *Koηesia ηabukotie kutini ‘Kae’.*

kɔη-ésí-a ηáb-υkɔti-ε kɔt-ɪni ka-^e
 cook-INF-ACC end-COMP-3SG-SIML say-SEQ go-IMP.SG
 When cooking was done, they said ‘Go!’.

(153) *Mita noo kija odow, didia watik.*

mit-a=noo kíj-á ódo^u didi-a wat-i-k^e
 be-REAL=PST3 land-NOM day[OBL] weather-ACC rain-3SG-SIML
 It was daytime, (and) raining.

Although the simultaneous aspect is in principle found only in subordinate clauses, simultaneous clauses can also be used as pragmatically independent in everyday conversation. This usage is grammatical only if the matrix clause for the stand-alone subordinate clause is implied by the discourse context. And this is true whether the matrix clause was actually spoken or is just part of the cognitive environment shared by the speech-act participants. This use of the simultaneous is often heard in friendly bantering in response to comments or questions, for example:

- (154) *Biraa cemerik.* *Iyatie!*
 bira-a cemér-ík-^a → i-áti-e
 lack-REAL herb-PL-NOM be-3PL-SIML
 There aren't any drugs. They're there!
- (155) *Maa koti?* *Sarimie!*
 má-á kó-ti → sár-ími-e
 not-REAL go-2PL[IRR] still-1PL.EXC-SIML
 Haven't you gone (yet)? We still haven't!

In both (154) and (155), the two independent clauses on the lefthand side can be seen as the matrix clauses for the two simultaneous clauses on the right, even though the speakers are different.

Lastly, when paired with the interrogative pronoun *n'déé* 'from where', the simultaneous aspect can be used elliptically to form a negative statement:

- (156) *Otsiike ndee?*
 ots-íi-ke n'déé
 climb-1SG-SIML from.where
 I'm not climbing (lit. 'I climbing from where?').

7.8.3 Imperfective

The same form—{-és-}—encodes both intentional modality and an imperfective aspect. Phonological and morphophonological details of this suffix are discussed back in §7.7.3. Although they are related semantically and probably historically, the two uses are viewed here as too far apart to be treated as two functions of the same suffix. The Ik imperfective marked by {-és-} is contrasted with the perfect aspect which is the default and unmarked aspect. In other words, without {-és-} the meaning of many verbs does not have the internal temporal composition of the activity or state in view (though some verbs are lexically imperfective, such as *tsuwa-* ‘run’). This does not mean that the activity or state has no temporal duration, only that any temporal duration is not grammatically encoded. By contrast, the imperfective aspect highlights the ongoing and unfinished nature of the predicated situation. On this score, compare the following examples:

(157) *Kayuo awak.*

ka-i-o awá-k^e
 go-3SG-SEQ home-DAT
 And he goes/went home.

(158) *Keesuo awak.*

ke-es-ú-o awá-k^e
 go-IPFV-3SG-SEQ home-DAT
 And he was/kept going home.

(157)-(158) illustrate the straightforward use of the imperfective, adding a nuance of duration to the sense of a verb. But the imperfective can also function in a way similar to the simultaneous, by modifying a sequential clause with a sense of temporal duration. The sequential aspect is inherently tenseless and perfective in aspect, so the imperfective prolongs a temporal situation long enough for it to be simultaneous or accompanying. Consider, for example, the imperfective verbs in the following sentences:

- (159) *Atsiata noo dzigwaa lotobae,*
 ats-í-át-a = noo dzíg-w-aa lótóba-^e
 come-PLUR-3PL-REAL = PST3 buying-ACC tobacco-GEN
 They used to come to buy tobacco,

iyesini tumede.

i-és-íni tumé'dé-é
 be-IPFV-SEQ there-DAT
 (and) they were (continuously) there.

- (160) *Mitesoo Loyoro.*
 mit-és-ó-ɔ loyóro
 be-IPFV-3SG-SEQ Loyoro[OBL]
 It was Loyoro (i.e. as a continual state of affairs).

ntsú-ó = noo mit-i-a kǐjá njíní-∅
 it-COP = PST3 be-PLUR-REAL land[OBL] we.INC-GEN
 It is what used to be our homeland.

- (161) *Saresuo Pakoika*
 sár-és-u-o pakó-ík-a
 still-IPFV-3SG-SEQ cave-AGT.PL-NOM
 And the Turkana were still (being good),

demusu gaanaakotat nda rob.

demusu gaan-áá-kot-átⁱ nda rob^a
 until bad-DISTR-COMP-3PL[SUBJ] with people[OBL]
 until they became bad (i.e. hostile) with people.

- (162) *Cemesoo didia wat.*
 cem-és-ó-ɔ didi-a wat-^ɔ
 fight-IPFV-3SG-SEQ weather-NOM raining-INS
 And it was (continuously) raining.

Note that in (159) and (160) the pluractional aspect is used alongside the imperfectivized sequentials, giving the complex sentences further nuances of protracted activities or states. In (161), though the pluractional aspect is absent, the verb *sár-* ‘still’ is present instead; this auxiliary verb is inherently lexically imperfective in aspect (see §9.2.1 for more details). And then in (162), the imperfective adds a degree of temporal composition to the inherently imperfective ‘occupative’ auxiliary verb *cəm-* (§9.2.3).

Some actions are seen as so inherently imperfective that the verbs expressing them can only occur with the imperfective suffix {-és-}. Among these are *bék-és* ‘walk’, *dzú-és* ‘steal’, and *gón-és* ‘be awake’. Yet other verbs are only typically (but not obligatorily) found in the imperfective. These include verbs like *itiŋ-és* ‘cook (in general)’ and *kóŋ-és* ‘cook by stirring’.

7.8.5 Inchoative

The same morpheme—{-ét-}—encodes both the venitive directionality and inchoative aspect. The etymological and allomorphic details of this suffix are covered above in §7.4.2 and so are not repeated here.

The directionals described in §7.4.1 and §7.4.2 have been grammaticalized into use as aspectuals (assuming the grammaticalization did not happen in the other direction). For the venitive, the notion of directionality toward an egocentric point of reference was extended over time to mean the starting up of an action or state. A similar aspectual sense is called the ‘prospective’ in Turkana (Dimmendaal 1983:112). In that language, both venitive and andative (or itive) are used in a ‘dynamic inchoative sense’; the choice of venitive or andative for aspectual meaning depends on root structure (Dimmendaal 1983:168). In Ik, root structure has nothing to do with it. Instead, the venitive-as-inchoative denotes the beginning of a state or action, while the andative-as-completive denotes the end of it. The following two sentences introduce the inchoative {-ét-}’s basic function:

(163) *Budama kij.*

budám-á kǐj^a

dark-REAL land-NOM

The land is dark (i.e. ‘It’s dark outside’).

(164) *Budametaa kij.*

budám-et-á-á kǐj^a

dark-INCH-REAL-PRF land-NOM

The land has started getting dark (i.e. ‘It’s now getting dark’).

Some uses of the suffix {-ét-} are clearly directional (venitive), as in *me-et-és* ‘to give (this way)’ and *ilé-ét-ɔn* ‘to travel (this way)’. And others are clearly aspectual (inchoative), as in *bɔr-ét-ɔn* ‘to get tired’ and *kɔ-et-és* ‘to await’. But for many other verbs with this suffix, it is not entirely clear whether they carry a mainly directional or aspectual meaning. Consider the following verbs in their nominalized infinitive forms:

(165) *Ambiguous instances of {-ét-}*

| | |
|-------------|------------------|
| an-et-és | ‘to remember’ |
| fiyen-ét-ɔn | ‘to vomit’ |
| idim-et-és | ‘to make’ |
| iwír-ét-ɔn | ‘to shine’ |
| ɲaʃ-ét-ɔn | ‘to be startled’ |
| ɲɔr-et-és | ‘to judge’ |
| ʃɔb-et-és | ‘to choose’ |
| tsam-ét-ɔn | ‘to agree’ |
| zɛkw-ét-ɔn | ‘to sit down’ |
| zik-et-és | ‘to tie up’ |

For some such examples, a directional meaning can be imagined, like for *fiyen-ét-ɔn* ‘to vomit’ and *ʃɔb-et-és* ‘to choose’, though it is not obvious how they can be construed as ‘motion toward speaker’. Perhaps the usage here is aspectual, ‘to vomit’ being viewed as ‘to enter a process of vomiting’ and ‘to

choose' as 'to enter a state of preference'. So, though there are prototypical cases of directional and aspectual uses of {-ét-}, the boundary between the two semantic categories seems to be rather fuzzy (at least to a non-Ik).

As both a directional and aspectual suffix, {-ét-} provides one way for the language to enrich its verbal semantics. Often the inchoative suffix is optional and may be added to elaborate the meaning of the verb stem:

(166) *Inchoative use of {-ét-}*

| | | | | |
|--------|---------------|---|-----------|---------------------|
| aě-on | 'to be lit' | → | aě-ét-ón | 'to catch fire' |
| béǰ-és | 'to want' | → | béǰ-et-és | 'to look for' |
| bór-ón | 'to be tired' | → | bór-ét-ón | 'to get tired' |
| cem-on | 'to fight' | → | cem-ét-ón | 'to begin fighting' |
| hod-és | 'to free' | → | hod-et-és | 'to set free' |

For a few verbs with the inchoative suffix, a corresponding shorter form without the suffix is not found. Most of these were borrowed for Teso-Turkana where they also have the venitive/inchoative suffix *-un*, e.g.:

(167) *Invariably inchoative verbs*

| | | |
|-------------|----------------------|-----------------------------------|
| iryám-ét-on | 'to get' | (Teso-Turkana <i>a-ryam-un</i>) |
| itúm-ét-on | 'to spend time with' | (Teso-Turkana <i>aki-tum-un</i>) |

Although not obligatory, the inchoative suffix is often used with transitive or intransitive verbs that have been causativized:

(168) *Inchoative causative verbs*

| | |
|---------------|---------------|
| bit-it-et-és | 'to multiply' |
| dim-it-et-és | 'to forbid' |
| en-it-et-és | 'to clarify' |
| fek-it-et-és | 'to amuse' |
| idik-it-et-és | 'to solidify' |

For causative verbs like these, it cannot be gathered from English translations what semantic nuance the inchoative aspect adds to the verb. So based on other clearer uses, it is assumed that the added nuance is one of the beginning of the action. As such, a verb like *fek-it-et-és* ‘to amuse’ (lit. ‘to make laugh’) may be more colloquially glossed as ‘to get someone laughing’ or even more colorfully ‘to crack someone up’.

The following sentences illustrate the inchoative in discourse context:

(169) *Na koto tezetic kayuo koto amed.*

na = kótó téz-et-I-ε ka-i-o = koto ám-éd-^a
 CONJ = then end-INCH-3SG-SIML go-3SG-SEQ = then person-OSS.SG-NOM
 So when it ended, the owner then went.

(170) *Gametuo roba dii cikamak.*

gam-ét-u-o roḃ-a = ⁺díí cikámá-k^e
 kindle-INCH-3SG-SEQ people-NOM = ANPH.PL women-DAT
 And those people started up a fire for the women.

Ik words for animal colors and the shapes of animal horns (both important aspects in pastoralist culture, of which the Ik used to be part) have the form of intransitive adjectival verbs. In many instances, these terms contain the suffix {-ét-}, though neither a venitive nor an inchoative interpretation makes much sense of it. Take the following, for example:

(171) *The suffix {-ét-} in animal color/horn shape verbs*

| | | |
|-------------|----------------|--------------------------|
| Colors | ḃokó-án-et-on | ‘to be purple’ |
| | kipúr-án-et-on | ‘to be red-brown’ |
| Horn shapes | ilúk-án-et-on | ‘to be pointed downward’ |
| | top-ét-ón | ‘to slant outward’ |

Perhaps the inchoative aspect is used with these terms to communicate that the color or horn shape is an incipient (and then ongoing) state.

7.8.6 *Completive*

The same morpheme—{-*ukotí*}-—encodes both the andative directionality and the completive aspect. The etymological and allomorphic details of this suffix are covered above in §7.4.1 and so are not repeated here.

Just as the inchoative is the aspectual extension of venitive directionality, so the completive is the aspectual extension of andative directionality. As a marker of completive aspect, {-*ukotí*}- signifies that an activity or state is complete. This is a semantic extension of the directional andative that refers to a motion away from a deictic center (usually the speaker). A near-equivalent to completive aspect is the Turkana ‘retrospective’ aspect, also conveyed by the same suffix as the itive/andative (Dimmendaal 1983:112).

The next two examples illustrate the completive aspect marked by {-*ukotí*}-:

(172) *Budama kwaz.*

budám-á kwaz-Ø

dark-REAL clothing-NOM

The piece of clothing is dirty.

(173) *Budamukotaa kwaz.*

budam-ukot-á-á kwaz-Ø

dark-COMP-REAL-PRF clothing-NOM

The piece of clothing has become dirty.

Compared to the venitive-inchoative pair, it is generally easier to distinguish the directional use of {-*ukotí*}- from the aspectual use. However, this is not always the case, for example with a verb like *ḡán-és-ukot^a* ‘to open up’. Does the suffix {-*ukotí*}- give the verb a directional nuance (‘Open up away from me!’) or an aspectual nuance (‘Open up it right up!’)?

Like the inchoative, the completive aspect enriches Ik verbal semantics in ways similar to the English phrasal particles like ‘up’, ‘out’, and ‘off’, as in ‘break up’, ‘break out’, and ‘break off’. And with stative verbs like *gaan-ón* ‘to be bad’, the completive aspect has the additional sense of process or becoming, as in *gaan-ón-ukot^a* ‘to become bad’ (Heine & König 1996:96):

(174) *Aspectual usage of {-ukot^a-}*

| | | | | |
|---------|--------------|---|---------------------------|------------------|
| aě-on | ‘to be ripe’ | → | aě-on-ukot ^a | ‘to ripen (up)’ |
| bad-on | ‘to be dead’ | → | bad-on-ukot ^a | ‘to die (off)’ |
| ep-on | ‘to sleep’ | → | ep-on-ukot ^a | ‘to fall asleep’ |
| kək-és | ‘to shut’ | → | kək-és-úkot ^a | ‘to shut (out)’ |
| ńííd-és | ‘to rub’ | → | ńííd-és-úkot ^a | ‘to rub (off)’ |

Also like the inchoative, the completive suffix is often found on causativized transitive and intransitive verbs like the following:

(175) *Completive causative verbs*

| | |
|---------------------------------|------------------------|
| ḃúk-ít-és-ukot ^a | ‘to stick sth. in’ |
| ḃók-ít-és-úkot ^a | ‘to make sth. wet’ |
| ep-ít-és-ukot ^a | ‘to put down to sleep’ |
| ts’íts’-ít-és-úkot ^a | ‘to sharpen up’ |

The following sentences illustrate the completive in discourse context:

(176) *Isiamoo kawukota rijaa nci?*

| | | | |
|-----------------|---------------|------------|-------|
| isi-amo-o | kaw-ukot-a | rijá-a | nci-Ø |
| what-person-COP | cut-COMP-REAL | forest-ACC | I-GEN |

What kind of person cuts down my forest?

(177) *Naa ts’agusukotatik, tudukotin.*

| | | |
|------|---------------------------------|---------------|
| náa | ts’agus-ukot-áti-k ^e | tud-ukót-in |
| CONJ | four-COMP-3PL-SIML | five-COMP-SEQ |

When they get to be four, then they’ll get to be five.

7.8.7 Present perfect

The suffix {-ka} marks present perfect aspect in Ik. This morpheme has parallels in both Southern Nilotic (Nilo-Saharan) and South Omotic (Afroasiatic): Kalenjin has a ‘perfectivizer’ prefix *ka-* (Hall et. al 1974:247), while in Dime, the perfective marker is *-ka* (Mulugeta 2008:134). Given its preceding floating H tone and suffixing nature, the Dime morpheme is the most promising link, though the directionality of influence is undetermined.

The tone of the present perfect {-ka} is L, but it may take a H tone imposed by the preceding stem or the dummy pronoun {=de}. Its own floating H is posited on the basis of the tone changes it causes on preceding syllables. It is one of the language’s opaque dominant [+ATR] morphemes: It spreads harmony to the right but not to the left due to the presence of /a/. Before a pause, {-ka} has the allomorph /-k^a/, and in clause-medial positions, /-a/.

The Ik present perfect has both temporal and aspectual values. But since it is not really a tense in and of itself, it is treated here as primarily an aspect but with a tense component. Specifically, it signifies that an action or state is complete (aspect) with ongoing relevance in the present (tense), e.g.:

(178) *Atsaa nomotoka!*

ats-á-á nómotoká-Ø

come-REAL-PRF vehicle-NOM

A vehicle has come! (a phrase Ik children often call in excitement)

(179) *Komaa ja.*

kó-m-á-a=ja

go-1PL.EXC-REAL-PRF = ADV

We’re gone then (i.e. ‘We’re leaving now’).

(180) *J'alanukoidak.*

jalan-ukó-íd-a-k^a

different-COMP-2SG-REAL-PRF

You've become different.

(181) *Dubak! Dubak! Dubak!*

dób-a-k^a

dób-a-k^a

dób-a-k^a

grab-REAL-PRF

grab-REAL-PRF

grab-REAL-PRF

It has grabbed! It has grabbed! It has grabbed! (Yelled out when an Augur buzzard was swooping down toward some chickens.)

The present perfect aspect interacts with the realis modality and the semantics of motion verbs in interesting ways. For example, when one wants to part company with someone, it is proper to say *kóíak^a* 'I have gone' rather than *keésí* 'I will (intend to) go' even if you have not yet started leaving. According to how it is expressed in the grammar, once you have decided to go, you have more or less already gone, hence the present perfect. So perhaps a better translation of *kóíak^a* would be 'I'm on my way' or much more colloquially 'I'm outta here!'. And to take another example, if you call someone in another location to tell them you are leaving to come, you would say *atsíak^a* 'I have come' rather than *atsésí* 'I will come'. This implies that coming and going are seen from the point of view of beginning rather than ending as they are in English (where 'I have come' means that the coming is complete; you have arrived at your destination.)

7.8.8 *Pluractional*

The suffix {-í-} marks the pluractional aspect in Ik. A likely areal parallel comes from Northern Turkana, where the 'habitual' suffix *-een/-aan* has the dominantly [+ATR] allomorph *-yeen* (Dimmendaal 1983:107). The Ik pluractional {-í-} is also dominant, harmonizing the stem as far as possible in both directions. Its tone is H, but it can take a L tone in the tonal environment of stem, especially as a result of high-tone suppression (T6).

The Ik pluractional aspect is an expression of grammatical number in the verbal system. Broadly speaking, it signals that the meaning of a given verb *applies more than once*. This could be because the subject is plural, the object is plural, or simply that the action or state occurs more than once. Such grammatical plurality has various finer nuances that have elsewhere been called ‘distributive, ‘habitual’, ‘iterative, ‘frequentative’, etc.—the term ‘pluractional’ is therefore intended to cover all of them.

The Ik pluractional is versatile in that it can take singular or plural subjects and/or objects. This means that it does not conform to the prototypical African pluractional verb described by Dimmendaal as those that “express the involvement of a plural (as against as singular) subject in the case of intransitive verbs and repetition of some action as applied to plural objects (as against a singular object) in the case of transitive verbs...” (2010:10).

The following first examples of the pluractional show how it spreads [+ATR] harmony to the preceding root:

- (182) kɔɔ- ‘cry’ → *Koɔiya jiik.*
 kɔɔ-í-á jíikⁱ
 cry-PLUR-REAL always
 She’s always crying.
- (183) inóm- ‘beat’ → *Inomiyata ncik.*
 inom-í-át-a ŋci-k^a
 beat-PLUR-3PL-REAL I-ACC
 They usually beat me.

Then the following sentences are given to illustrate each of the different nuances of the pluractional {-í-} is capable of expressing:

7.9 Voice and valency-changers

Ik has a three-way grammatical voice contrast: {active/middle/passive}. The unmarked active voice covers transitive clauses with A and O, as well as intransitive clauses with S. The middle voice covers intransitive clauses that are derived from transitive clauses but fall semantically somewhere between a reflexive and a passive. The passive voice covers all other intransitive clauses with S derived from transitive clauses. Unlike So and Turkana, Ik has no applicative. This function is handled by the dative case in Ik (König 2008:86). The Ik voice contrast differs from Turkana for which is claimed an {active/middle/impersonal-active} contrast (Dimmendaal 1983:97).

In the Ik passive voice, the original O of the transitive clause is promoted to S, and the A is absent (all Ik passives are syntactically agent-less). Ik has three types of passive: the ‘true’ passive (§7.9.2), the impersonal passive (§7.9.3), and the sequential impersonal passive (§7.9.4). All three types of passive are also occur with intransitive verbs, and the PASS suffix is even found marking the A of a transitive clause. In this latter non-canonical usage, the passive simply emphasizes a characteristic of the subject.

The only valency-increasing suffix in Ik is the causative (§7.9.1). It increases valency by introducing the causer as the agent, demoting the original A to O and the original O to E (or O₂). Applied to an extended transitive clause, the causative creates two peripheral arguments (in the dative case). Valency-decreasing operations include the passives (§7.9.2-§7.9.4), the middle (§7.9.4), and the reciprocal (§7.9.6). All three convert transitive or extended transitive clauses to intransitive ones by either eliminating A (passive and middle) or combining A with O (reciprocal).

The six voice-marking or valency-changing suffixes are presented in (188):

(188) *Ik voice-marking or valency-changing suffixes*

| | | | |
|-----------|-------|-------------------------------|--------|
| {-it-} | CAUS | Causative | §7.9.1 |
| {-ósí-} | PASS | Passive | §7.9.2 |
| {-aní-} | IPS | Impersonal passive | §7.9.3 |
| {-εσε´} | SPS | Sequential impersonal passive | §7.9.4 |
| {-V́m-} | MID | Middle | §7.9.5 |
| {-ínósí-} | RECIP | Reciprocal | §7.9.6 |

7.9.1 *Causative*

The suffix {-it-} is Ik's morphological marker of causality. It is apparently related to the Teso-Turkana causative *-itV*, which can be traced back to the proto-Teso-Turkana verb root **-ito* 'send' (Dimmendaal 1983:196). The Ik causative is a recessive suffix with the allomorph /-it-/ on [+ATR] stems. Its tone is L, but H tone may spread to it if imposed by the preceding stem (T7). After high back vowels, the vowel in {-it-} may be assimilated for backness, as in *itúr-út-és* 'to praise (cause to be proud)'.

The syntax and grammatical relations of causative clauses are described ahead in §9.2 and so are not dealt with here in detail. But in short, the causative is a valency-increasing morpheme, introducing an agent to intransitive clauses or a second agent into transitive clauses. As such, it can be added to intransitive, transitive, or ditransitive base verbs like those in (189). These data also show that the causative is often further extended by the aspectual completive {-ukotí-} and inchoative {-ét-} suffixes:

(189) *Derived causative verbs*

| Intransitive | | | |
|--------------|------------------|----------------------------|-----------------|
| ci-on | 'to be satiated' | ci-it-és-ukot ^a | 'to satiate' |
| do-on | 'to be nice' | da-it-es´ | 'to make nice' |
| ep-on | 'to sleep' | ep-ít-és-ukot ^a | 'to lay down' |
| fek-on | 'to laugh' | fek-it-et-és | 'to make laugh' |
| tsó-ón | 'to be dry' | tsá-ít-és | 'to dry' |

| Transitive | | | |
|--------------|-------------|-----------------------------|------------------|
| dim-es | 'to reject' | dim-it-és | 'to make reject' |
| naḱw-és | 'to suckle' | naḱw-it-et-és | 'to make suckle' |
| ḡáb-es | 'to wear' | ḡáb-it-et-és | 'to dress' |
| tam-es' | 'to think' | tam-it-et-és | 'to remind' |
| təkóḃ-es' | 'to farm' | təkóḃ-it-et-és | 'to make farm' |
| Ditransitive | | | |
| maḱ-és-úḱot | 'to give' | maḱ-it-és-uḱot ^a | 'to make give' |

Besides the morphological causative {-it-}, Ik also has periphrastic causatives. These involve specific lexical verbs and constructions whose semantic range is much narrower than the causative suffix. One of the periphrastic causatives consists of the verb *itíḡ* 'force' in a clause where the causer is the transitive subject (A) and the causee the object (O). Since this lexical causative means 'force s.b. to do sth.', the verbal complement follows the object in the form of a nominalized verb in the dative case, as in:

- (190) *Itiḡida nka koonik.*
 itíḡ-íd-a ḡk-a ko-oni-k^e
 force-2SG-REAL I-NOM go-INF-DAT
 You force me to go.

Semantically, the periphrastic causative in (190) communicates directness and intention on the part of the causer, and lack of control or volition on the part of the causee. The causer must also be animate (Dixon 2013:269).

The second type of periphrastic causative consists of the verb *béd* 'want' plus a complemental subordinate clause. The causer is the transitive subject (A) in this construction. The causee is both the object of the matrix clause and the subject of the subordinate clause whose verb is a simultaneous one:

(191) *Bedā ncia koiik.*

béd-á jíci-a kó-íi-k^e
 want-REAL I-ACC go-1SG-SIML
 He wants me to go.

The semantics of this periphrastic causative are quite different than the one in (190). In this one, an animate causer is intending or hoping for an outcome, but the causee has considerably more control over it. He or she can decide whether or not to comply with the wishes of the causer.

Finally, the Ik lexicon contains a few verbs that are known lexicalizations of morphological causatives in Teso-Turkana. As lexicalizations, though, they are used in Ik as normal verbs, not as causatives *per se*. The table in (192) presents the known representations and any non-Teso-Turkana equivalents:

(192) *Lexicalized Teso-Turkana causatives in Ik*

| | | | |
|-------------|------------|---------|-------------------|
| (isí)kwáán- | ‘compare’ | kám-ít- | ‘make to be like’ |
| (isí)sá- | ‘practice’ | | |
| (isí)tíya- | ‘use’ | erég- | ‘use, employ’ |
| (itá)máán- | ‘behoove’ | | |
| (itá)tám- | ‘teach’ | | |

7.9.2 *Passive*

It has been claimed that Ik has no productive passive, that even the suffix {-śí-} (called ‘passive’ in this grammar) is just an ‘intransitivizer’ since no agent can be expressed (Serzisko 1989:400). If by definition an agentless passive is no passive at all, then the above claim is true for Ik. But in other typologies, one can speak of canonical and non-canonical passives. For example, in Dixon’s typology (2012:206), cross-linguistically canonical passive constructions have all the properties presented in (193). Note how the three Ik passives check out in reference to these properties:

(193) *Ik passives compared to the cross-linguistically canonical passive*

| | Canonical passive | Ik passive(s)? |
|---|--|--|
| 1 | It applies to an underlying transitive clause and forms a derived intransitive. | All three |
| 2 | The underlying O becomes the S of the passive. | Only one fully; the other two in main clauses only |
| 3 | The underlying A goes into a peripheral function, being marked by a non-core case...; this argument can be omitted, although there is always the option of including it. | None; the Agent cannot be included. |
| 4 | There is some explicit (that is, non-zero) formal marking of a passive construction... | All three |

So, when examined in light of (193), the Ik passives check out as canonical in some regards and non-canonical in others. On point 2 from (193), only the passive {-śí-} derives an S from an underlying O. The other ‘impersonal passives’ derive an S-like argument in main clauses (marked in the NOM case), but in subordinate clauses this argument is still encoded as the O. On point 3, despite prior claims (e.g. Heine & König 1996:33), all of the Ik passives are strictly agentless—there is no option of including an agent syntactically, although an agent may be implied. These properties of Ik passives are demonstrated in each relevant section below.

The suffix {-śí-} is analyzed in this grammar as a morphological passive. A potential etymological parallel for it is the Surmic language Didinga’s passive suffix *-oođik* (De Jong 2004:150). It also does not seem coincidental that {-śí-} closely resembles {-ésí-}, the Ik transitive nominalizer. Indeed, {-śí-} is the only Ik passive morpheme that can also nominalize a verb.

The passive {-ósi-} is recessively [-ATR] but has /-ósi-/ as an allomorph on [+ATR] stems. It has a H(H) tone melody but may undergo tonal changes depending on the tonal environment. For example, after a depressor consonant, its tone is L(L), as in *táb-osi-* ‘to be touched’. The passive suffix is the last derivational morpheme on a stem but may be followed by one or more inflectional suffixes, as in *iw-ót-ós-át-^a* ‘They are locked’.

In its usual function as a detransitivizer, the passive (PASS) passivizes a transitive verb by deriving a stative intransitive verb from it. Examples of this include those in (194). The parentheses are meant to account for the fact that the passive can also nominalize a stem into of passive infinitive:

(194) *Derived passive verbs*

| Active | | | Passive | |
|-------------|-------------|---|-------------|--------------------|
| búd-esi- | ‘to hide’ | → | búd-osi- | ‘(to be) hidden’ |
| ɔ́ɔts-é-sí- | ‘to join’ | → | ɔ́ɔts-ó-sí- | ‘(to be) joined’ |
| ɪlam-é-sí- | ‘to curse’ | → | ɪlam-ɔ́-sí- | ‘(to be) cursed’ |
| ɲájɲ-é-sí- | ‘to open’ | → | ɲájɲ-ó-sí- | ‘(to be) opened’ |
| tsájɲ-é-sí- | ‘to anoint’ | → | tsájɲ-ó-sí- | ‘(to be) anointed’ |

The passive suffix is found with both unaccusative verbs like *kək-* ‘close’ and highly transitive verbs like *ɲk-* ‘eat’:

(195) *Kokosa asak.*

kək-ó-s-á asak-^a
 close-PASS-REAL door-NOM
 The door is closed.

(196) *Nkosa toboɲ.*

ɲk-ó-s-á ɔ́bɔɲ-Ø
 eat-PASS-REAL posho-NOM
 The posho is eaten.

The grammatical relations involved with the Ik passive differ from those in Teso-Turkana. For example, in Toposa, bordering Ik to the north, the normal nominative-accusative marking system changes to ergative-absolutive in the passive: The subject of an intransitive passive sentence is encoded with the accusative case rather than the nominative (Schröder 2008:59). While a similar situation obtains for the Ik impersonal passives, for the passive marked by {-śí-}, the sole verbal argument is treated syntactically as S, not O. This is shown by the syntax of subordinate clauses, as explained next.

In most types of Ik subordinate clauses, any overt subject comes before the verb in the ACC case, and any overt direct object follows the verb, also in the ACC case. (197) shows the passive clause in (195) as a complement to the verbless copulative clause *isio* ‘It is what... (i.e. ‘why?’)’. In the subordinate complement clause, the word *asak* ‘door’ is put before the verb, indicating that it is viewed as the syntactic subject (S) of (197). If *asak* is put after the verb, as if it were an object, the result is ungrammatical (198). The same process is seen taking place between (196) and (199)-(200) as in:

- (197) *Isio asakaa kokosad?*
 isi-o ásaka-a kɔk-śs-á = d^e
 what-COP door-ACC close-PASS-REAL = DP
 Why is the door closed?
- (198) ***Isio kokosee asakak?*
 **isi-o kɔk-śs-é = ε asaka-k^a
 **what-COP close-PASS-REAL = DP door-ACC
 **Why is the door closed?
- (199) *Isio toboŋoa nkosad?*
 isi-o tɔbɔŋɔ-á ŋk-śs-á = d^e
 what-COP posho-ACC eat-PASS-REAL = DP
 Why is the posho eaten?

- (200) ***Isio nkosee toborok?*
 **isi-o ηk-ós-é = ε τᵔbᵔηó-k^a
 **what-COP eat-PASS-REAL = DP posho-ACC
 **Why is the posho eaten?

Unexpectedly, the suffix {-ósí-} is also found on transitive verbs still acting in transitive clauses. That is, the passive does not have a solely detransitivizing function. In its non-detransitivizing function, the Ik passive adds the stative nuance ‘habitually characterized by X’ to the meaning of verb X. In the next few sentences, the passive suffix is used even though the clauses remain transitive with an A and O (though O may be dropped):

- (201) *Tubiida nka jiiik.*
 túb-i-íd_A-a ηk-a_O jiiikⁱ
 follow-PLUR-2SG-REAL I-NOM always
 You always follow me.

- (202) *Tubosiida nka jiiik.*
 túb-os-i-íd_A-a ηk-a_O jiiikⁱ
 follow-PASS-PLUR-2SG-REAL I-NOM always
 You always make a point of following me.

- (203) *Bedetia naa bia baratso nak.*
 béd-ét-í-a = naa bi-a barats-o = nák^a
 want-VEN-1SG-REAL = PST1 you.SG-NOM morning-INS = DEM.SG.PST1
 I looked for you this morning.

- (204) *Bedetosia bia napei nak.*
 béd-ét-ós-í-a bi-a napei = nák^a
 want-VEN-PASS-1SG-REAL you.SG-NOM since = PST1
 I’ve been all about looking for you since earlier.

The sentences in (201) and (203) are normal, simple transitive clauses with A and O. These then are modified by the passive suffix {-śí-} in (202) and (204) without causing a decrease in clausal valence. In this sense, {-śí-} can apparently be used in a non-passivizing way to draw attention to how a transitive situation characterizes the subject as well as affecting the object.

The story does not end there: The suffix {-śí-} is also found on intransitive verbs like the ones in (205). When occurring with intransitive verbs, the {-śí-} is obviously not behaving as a canonical passive, since there is no change in transitivity. Instead, it basically turns a merely intransitive verb into a stative one. In this function, the verb root is usually reduplicated to express the stative notions of habitual or repetitive characteristicness:

(205) *Stative passives derived from intransitives*

| Intransitive | | | Stative | |
|--------------|--------------|---|-------------|-----------------------|
| bék-és | 'to walk' | → | bék-es-śs' | '(to be) 'walkative'' |
| bot-on | 'to migrate' | → | botibot-os' | '(to be) migratory' |
| cem-on | 'to fight' | → | cemicem-śs' | '(to be) combative' |
| ep-on | 'to sleep' | → | epop-os' | 'to sleep around' |
| fek-on | 'to laugh' | → | fekifek-os' | '(to be) cheerful' |
| kod-on | 'to cry' | → | kodikód-śs | 'to be tearful' |

In summary then, the suffix {-śí-} has the following three functions:

(206) *Functional summary of the Ik passive {-śí-}*

| | |
|---|---|
| 1 | To passivize a transitive clause by omitting its subject (A) and promoting the object (O) to subject (S). |
| 2 | To impute stative characteristicness to a transitive subject (A). |
| 3 | To stativize an otherwise merely intransitive verb. |

To account for these three functions of the passive {-śí-}, it can be said that more abstractly, this suffix conveys the meaning 'characterized by X verb'.

7.9.3 *Impersonal passive*

The suffix {-aní-} acts as the marker of an ‘impersonal passive’ construction. At first glance, {-aní-} seems to be related to the ‘stative’ suffix {-án⁺-} (§7.10.3). This superficial resemblance led to {-aní-} being analyzed as stative as well (Serzisko 1992:202). But the two suffixes differ crucially in their underlying tones and [ATR] values and thus cannot easily be linked. The impersonal passive {-aní-} is an opaque recessive suffix that blocks [+ATR] harmony spread from a dominant stem. Its tone is LH, but that can change in the tonal environment of the stem, as seen in examples below.

The construction marked by {-aní-} is called ‘passive’ because it syntactically omits any subject (A/S), leaving it to be inferred pragmatically. And it is called ‘impersonal’ because a verb with {-aní-} invariably has 3SG zero-marking, regardless of the person and number of any implied subject.

The impersonal passive can occur with transitive or intransitive verbs. With transitive verbs, the A is omitted, and the O is promoted to S only in terms of surface grammatical relations (marked by case suffixes). That is, the subject of an impersonal passive verb is marked with the NOM case in main clauses. This contrasts it with the So ‘impersonal’ (Carlin 1993:85), the Toposa ‘passive’ (Schröder 2008:59), and the Turkana ‘impersonal active’ (Dimmendaal 1983:72)—all of which retain object-marking for the patient.

However, in most types of subordinate clauses, the patient of an Ik impersonal passive is also encoded as the object (O). So there is a mismatch in alignment between main and subordinate clauses. This seems to indicate transitional forms—the impersonal passive/active being a Kuliak calque from Teso-Turkana (or earlier) that is now being reanalyzed in Ik due to a prohibition against marked objects without subjects in main clauses.

The examples below illustrate these properties of the impersonal passive. First, in (207), presents a normal impersonal passive construction: No agent

is encoded (except an impersonal one), and the patient is encoded as an S in the NOM case. Then in (208), an ungrammatical clause shows that nothing but an impersonal subject can be marked on the impersonal passive verb:

- (207) *Inomesana bi.*
 inóm-és-an-a bi-∅
 beat-INT-IPS-REAL you.sg-NOM
 You will be beaten (Lit. ‘It will be beaten you.’).

- (208) ***Inomesanida bi.*
 **inóm-és-án-íd-a bi-∅
 **beat-INT-IPS-2SG-REAL you.SG-NOM
 **You will be beaten.

Second, the sentence in (209) shows an impersonal passive construction as a subordinate clause acting as the complement to the verbless copulative *ntsúó* ‘It is...’. Note that the patient now receives double object-marking: 1) It is postverbal, whereas most subordinate clause subjects are preverbal, and 2) it has the ACC case. Then compare it with (210), where the patient is cast as the subject of the impersonal passive verb—the result is ungrammatical:

- (209) *Ntsuo inomanee bik.*
 ntsú-ó [inóm-án-é = e bi-k^a]_{CC}
 it-COP beat-IPS-REAL = DP you.SG-ACC
 That’s why you are beaten (Lit. ‘It is (why) it is beaten you.’).

- (210) ***Ntsuo bia inomanad.*
 **ntsú-ó [bi-a inóm-án-á = d^e]_{CC}
 **it-COP you.SG-ACC beat-IPS-REAL = DP
 **That’s why you are beaten.

Semantically, it can be said that in impersonal passive clauses, the point is not ‘who did what’ but only that something got done. This would help

explain why the impersonal passive is also used with intransitive verbs. The point is to be as indirect as possible about the agents/people involved and focus only on the fact that something has taken place. The following three examples are fairly common sayings heard among speakers in daily social interaction. The impersonal passive construction serves the Ik well in their proclivity to be curious and inquiring without being direct and rude:

(211) *Atsana awoo?*

ats-an-a awó-o
come-IPS-REAL home-ABL

Are you coming from home (lit. 'Is it come from home')?

(212) *Kutana is?*

kut-an-a is
say-IPS-REAL what[OBL]

What do you say/what are people saying (lit. 'It is said what')?

(213) *Epesana ndaik?*

ep-és-án-a ndaí-k^e
sleep-INT-IPS-REAL where-DAT

Where will you/people sleep (lit. 'It will be slept where')?

And finally, a few examples from other natural discourse contexts:

(214) *Cemana emutik.*

cɛm-an-a emút-ík-^o
fight-IPS-REAL story-PL-INS

We/people are telling stories (Lit. 'It is fought with stories.').

(215) *Maa noo iyi ikametanie ntsik.*

má-á=noo i-i ikám-ét-aní-é ntsí-k^a
not-REAL=PST3 be-3SG catch-VEN-IPS-SIML s/he-ACC

He wasn't there when he was caught.

7.9.4 Sequential impersonal passive

The suffix {-εσε'} is the morphological marker of the 'sequential impersonal passive'. Absolutely no etymological parallels for this suffix have been found. This suffix is recessively [-ATR], having /-ese/ as an allomorph on [+ATR] verbs stems. Before a pause, {-εσε'} is reduced to /-εs/ or /-es/. Its underlying tone is LL(H), the floating H tone being posited on the basis of the H tone it places on a following L-tone-bearing unit. Its own tone melody can change, for example to HL on stems ending in H (T7) or LH before the dummy pronoun {='de}, as in *ats-esé=d^e* 'And people came from there.'

In terms of meaning and function, the sequential impersonal passive (SPS) is a marriage between the sequential aspect and the impersonal passive described in the previous section. It does for the sequential aspect what the impersonal passive does for every other non-sequential clause type. Briefly, it eliminates any subject (A/S) and promotes any object (O) to subject (S). One might say that the SPS takes impersonalness a step further than the impersonal passive in that its morpheme (-εσε') is so suppletive in contains no 3SG marker—nor any subject-marker at all. It is an agentless passive *par excellence*, having neither a syntactic nor morphologically encoded agent.

The SPS differs from the impersonal passive in one other way: Even in subordinate clauses where the patient assumes an object's postverbal syntactic slot, the case-marking on that argument remains NOM, for example:

(216) *Na enukweese bi, ceikweese bi.*

| | | | |
|------------------------------------|------------|---------------|------------|
| na = en-úkó-esé | bi-∅ | ce-íkó-esé | bi-∅ |
| CONJ = see-AND-SPS | you.SG-NOM | kill-COMP-SPS | you.SG-NOM |
| When you are seen, you are killed. | | | |

Like the impersonal passive, the SPS also occurs with intransitive verbs, e.g.:

(217) *Keese waa lodíwei.*

ke-ese wa-a lódíwéí-Ø
go-SPS harvest-NOM plant.sp-GEN

And then one goes to harvest the *Maerua angolensis* plant.

As part of the sequential aspect paradigm, the SPS is used in long strings of discursively (co-)subordinate clauses such as the following:

(218) *Itsujkweese rijika tokobimak.*

itsóŋ-kɔ-εεε ríj-ík-a tókób-ima-k^o
burn-COMP-SPS forest-PL-NOM cultivate-1PL.EXC-SEQ

The forest areas are burned, and we cultivate,

tokobeese ed, dwaanetimak,

tókób-ε-εεε ed^a dwaan-ét-ima-k^o
cultivate-INCH-SPS grain-NOM weed-INCH-1PL.EXC-SEQ

and grains begin to be cultivated, and we start weeding,

aikotini weetimak,

aě-íkót-ini wé-ét-ima-k^o
ripen-COMP-SEQ harvest-VEN-1PL.EXC-SEQ

and they get ripe, and we harvest,

ipese dipook, berukweese lodíuru.

ip-ese dípɔɔ-k^e ber-úkó-εεε lódíurú-Ø
thresh-SPS threshing.floor-DAT build-COMP-SPS granary-NOM

and they are threshed on the threshing floor, and a granary is built.

The sequential impersonal passive cannot be negated in and of itself. If a clause with the SPS needs to be negated, the sequential aspect negator *moo* is employed with the second (negated) verb in the impersonal passive voice. To illustrate this, (219) presents an affirmative sequential impersonal passive sentence, followed by its negative version in (220):

(219) *Honetiakoo ragw, ceikweesed.*

hón-ét-ia-kó = ɔ rágw^{-a} ce-íkó-esé = d^e
 drive-VEN-1SG-SEQ = DP ox-NOM kill-COMP-SPS = DP
 With that I drove an ox, and it was killed (from that).

(220) *Honetiakoo ragw, moo koto ceikotan.*

hón-ét-ia-kó = ɔ rágw^{-a} mo-o = koto ce-íkót-an
 drive-VEN-1SG-SEQ = DP ox-NOM not-SEQ = ADV kill-COMP-IPS[IRR]
 With that I drove an ox, but it was not killed.

7.9.5 Middle

The suffix {-*ǂm*-} marks what is called the ‘middle’ construction in Ik. It has another form {-*ím*-} that occurs exclusively with the inchoative aspect suffix {-*ét*-} as in {-*ím-ét*-}. Particularly this latter form ties the Ik middle suffix to the Cushitic language Afar’s passive suffix *-im* (Mahaffy n.d., p. 18). The morpheme {-*ǂm*-} also functions in an adjectival role (see §7.10.2).

In most instances, the underspecified vowel in {-*ǂm*-} is a copy of the vowel in the preceding root. This links it formally with the Turkana resultative construction that copies the root final vowel (and consonant if there is one) (Dimmendaal 1983:159). Only with the Ik inchoative middle {-*ím-ét*-} is the vowel predetermined as /i/. In terms of vowel harmony, {-*ǂm*-} falls into whichever [ATR] class the preceding root belongs to. The suffix, {-*ím-ét*-}, on the other hand, is dominant, harmonizing to [+ATR] in both directions. The tone of both suffixes remains H(H) unless altered by the stem.

As a marker of middle voice, {-*ǂm*-} applies to transitive verbs and derives intransitive verbs from them. Because an agent is not in view, and because there is an emphasis on process, another label for this morpheme could have been ‘perfective impersonal passive’. And because after undergoing a process, the subject enters a resulting state, another label could be ‘resultative’, similar to what is in Turkana (Dimmendaal 1983:158).

Despite terminological ambiguity, the following definition of ‘middle’ is an apt characterization of what the Ik suffix {-*Ŵm*-} does: It “expresses a semantically transitive situation in terms of a process undergone by a PATIENT, rather than as an action carried out by an AGENT” (Payne 1997:216). The middle voice in Ik is formed when a transitive clause is detransitivized, conflating the A and O into an S that is both agent and patient in a process. In this sense, the middle is closer in meaning to a reflexive: Among the next three examples, the middle in (221) is said to be closer in meaning to the reflexive in (223) than the transitive in (222):

- (221) *Ŵjurumaa dakw.* MIDDLE
 ŋɔr-óm-á-a dakw-^a
 break-MID-REAL-PRF tree-NOM
 The wood has broken.
- (222) *Ŵjuraa kona amee dakuk.* TRANSITIVE
 ŋɔr-á-á kɔn-a ámé-e dakú-k^a
 cut-REAL-PRF one-NOM person-GEN tree-ACC
 Someone has broken the wood.
- (223) *Ŵjuraa dakwa asik.* REFLEXIVE
 ŋɔr-á-á dakw-a así-k^a
 cut-REAL-PRF tree-NOM self-ACC
 The wood has broken itself.

The table in (224) gives examples of lexical, detransitivized middle verbs:

- (224) *Middle verbs derived with {-Ŵm-}*
- | | | | | |
|--------|-------------|---|-----------|-------------|
| βel-és | ‘to crack’ | → | βel-ém-ón | ‘to crack’ |
| βil-és | ‘to burst’ | → | βil-ím-ón | ‘to burst’ |
| hod-és | ‘to loosen’ | → | hod-óm-ón | ‘to loosen’ |
| ŋáj-és | ‘to open’ | → | ŋáj-ám-on | ‘to open’ |
| ŋɔr-és | ‘to break’ | → | ŋɔr-óm-ón | ‘to break’ |

And here are a couple of examples of the middle voice in everyday speech:

- (225) *Hodómaa kwaz*
 hod-óm-á-a kwaz-∅
 loosen-MID-REAL-PRF clothing-NOM
 (My) clothing came off.

- (226) *Teremata nak.*
 ter-ém-át-a = nak^a
 divide-MID-3PL-REAL = PST1
 They (got) separated (i.e. husband and wife).

The most commonly occurring form of the middle voice marking is {-ím-ét-}. It is the required allomorph with polysyllabic verb roots and possibly those with a depressor consonant (further study is need on this score). As a composite morpheme with [+ATR] vowels, this ‘inchoative middle’ harmonizes the preceding stem to [+ATR] if no opaque /a/ intervenes. In addition to middle voice, and the often coinciding present perfect aspect, the inchoative middle gives this composite morpheme a further sense that a process has been initiated with ongoing consequences. Below are some lexical examples with the inchoative middle composite morpheme:

- (227) *Middle verbs derived with {-ím-ét-}*
-
- | | | | | |
|-----------|---------------|---|---------------|-------------------|
| ibélé-és | ‘to change’ | → | ibélé-imet-on | ‘to change’ |
| isómé-és | ‘to read’ | → | isómá-imet-on | ‘to be read’ |
| kán-és | ‘to wipe’ | → | kan-ímét-on | ‘to be wiped out’ |
| réb-es | ‘to withhold’ | → | réb-imet-on | ‘to go without’ |
| tawan-es’ | ‘to afflict’ | → | tawan-ímét-on | ‘to suffer’ |

In Ik’s sister Kuliak language So, the form *-met* is the marker of an ‘intransitive state’ (Carlin 1993:47). It is analyzed there as being derived from the copula verb *met-* (*mit-* in Ik), but more likely it is an eroded morphological remnant of the Ik inchoative middle suffix {-ím-ét-}.

To conclude, here are a few examples of is {-ím-ét-} in natural contexts:

- (228) *Isio noo itiyaimeta kaino noo Lopiaari?*
 isi-o = noo itíyá-im-et-a kain-ɔ = noɔ lopiáari-Ø
 what-COP = PST3 do-MID-INCH-REAL year-INS = REL.SG.PST3 lopiar-GEN
 What happened in the year of Lopiar?

- (229) *Inakwiimetaa tokoba kainiko ni.*
 inákwí-im-et-á-á tɔkɔb-a kaín-ík-o = ni
 ruin-MID-INCH-REAL-PRF farming-NOM year-PL-INS = DEM.PL
 Farming is ruined these years.

- (230) *Tawanimetiaak.*
 tawan-im-et-í-a-k^a
 afflict-MID-INCH-1SG-REAL-PRF
 I'm hurt/I'm suffering.

7.9.6 Reciprocal

The suffix {-ínósí-} communicates reciprocity. It is morphologically complex, consisting of the plural possessive suffix -íní- (from which the reciprocity component is probably derived; see §4.2.5) plus the passive suffix {-ósí-} (§7.9.2). But it is treated here as one suffix. A frequent variant of the 'reciprocal' is {-ímósí-}. It is not known whether this allomorph developed along different lines historically or whether it is just a phonological variant. Both variants are recessively [-ATR], with allomorphs /-ínósí-/ or /-ímósí-/ on [+ATR] stems. Their tone is HHH, or LHH after a depressor consonant.

When applied to a transitive or extended transitive verb, the reciprocal suffix decreases the valency of the verb by one. It does this by combining A and O (or A and E in the case of an extended transitive) into a single subject (S). However, when applied to an intransitive verb, the reciprocal does not alter the valency of the verb. The original plural S remains an S. On

intransitive verbs, the reciprocal conveys notions of togetherness. The following are example of the reciprocal on verbs with different valencies:

(231) *Derived reciprocal verbs*

Transitive verbs (A + O → S)

| | |
|--------------|---|
| én-ímósí- | ‘to see each other (i.e. visit)’ |
| fiye-ímósí- | ‘to know each other (i.e. be related)’ |
| iból-ínósí- | ‘to promise each other (make a pact or covenant)’ |
| ikát-ínósí- | ‘to try each other (i.e. compete)’ |
| iríts-ínósí- | ‘to care for each other’ |
| mín-ínósí- | ‘to love each other’ |
| torík-ínósí- | ‘to lead each other (i.e. walk together)’ |

Extended transitive verbs (A + E → S)

| | |
|------------|--------------------------|
| tód-ínósí- | ‘to speak to each other’ |
|------------|--------------------------|

Intransitive verbs (S → S)

| | |
|---------------|--------------------|
| ðekés-ínósí- | ‘to walk together’ |
| naruét-ímósí- | ‘to be neighbors’ |

A verb inflected with the reciprocal suffix can function in the clause as a noun or a verb. That is, the reciprocal is also a nominalizer. When used as a noun, a reciprocal stem takes case suffixes, and when used as a verb, it takes the appropriate verbal suffixes. A commonly used example of the reciprocal stem-as-noun is *fiyeínós*: Formed by the verb *fiye-* ‘know’ and the reciprocal suffix, this verb stem means ‘relative’. But even it can function as a noun or verb, as in *fiyeínósím* ‘We know/are related to each other’.

Some examples of the reciprocal in natural discourse include the following:

(232) *Iritsinosu.*

iríts-ínós-ú

keep-RECIP-IMP.PL

Take care of each other.

(233) *Enimosined.*

én-ímós-íné = d^e

see-RECIP-1SG[OPT] = DP

Let me visit (with her).

(234) *Esetinosio cikama kutatik,...*

eset-ínós-í-o cikám-á kut-áti-k^e

ask-RECIP-3SG-SEQ women-NOM say-3PL-SIML

And the women asked themselves saying,...

(235) *Demusu robaa fyeitimosat.*

demusú roba-a fye-it-ímós-átⁱ

before people-ACC know-CAUS-RECIP-3PL[SUBJ]

Before people recognize each other.

(236) *Roba ni biraa morinosia iyad.*

rob-a = ni bira-a mór-ínósí-a i-á = d^e

people-NOM = REL.PL not.be-REAL fear-RECIP-ACC be-REAL = DP

People in whom there is no mutual respect.

7.10 Adjectivals

Dixon asserts that every language has an adjectival word class, regardless of how similar it may be to either nouns or verbs (2010:62). Cross-linguistically, ‘adjectives’ tend to be distinguished as a distinct word class based on relative similarities or differences between them and nouns or verbs. The following diagram presents a typology of ‘adjectives’ in which similarity and difference are modeled as spatial distance (Dixon 2010:66):

- (237)
- | | | | | |
|----|------|-----------|-----------|------|
| a) | NOUN | | ADJECTIVE | VERB |
| b) | NOUN | ADJECTIVE | | VERB |
| c) | | NOUN | ADJECTIVE | VERB |
| d) | NOUN | | ADJECTIVE | VERB |

According to this typology, Ik is a type (a) language whose adjectives exhibit many verb-like characteristics. So many that, despite Dixon's assertion, 'adjectives' are treated here as an 'adjectival' subset of intransitive verbs instead of their own, separate word class. This is because, morphologically and syntactically, they are just like other intransitive verbs. Nonetheless, their semantics do cover categories traditionally handled by adjectives, as shown below. And a handful of suffixes are found only on 'adjectival' verbs, also as described in the following sections.

The semantic properties encoded by adjectival verbs include the following:

(238) *Dimension*

| | |
|-----------|----------------|
| boḅ- | 'deep' |
| ɪdĩŋ- | 'narrow' |
| ɪkár- | 'thin' |
| kik-ím- | 'medium build' |
| kúḍ- | 'short' |
| kwáts- | 'small' |
| tékéz-em- | 'shallow' |
| ze- | 'big' |
| zikíḅ- | 'tall, long' |
| zíz- | 'fat' |

(239) *Shape*

| | |
|------------|---------------------|
| ḍap-ál-ám- | 'flat' |
| kaḍ-ús-úm- | 'small-bodied' |
| laḅ-áŋ-ám- | 'expansive' |
| lik-íd-ím- | 'hour-glass shaped' |
| paḍ-ók-óm- | 'sunken' |
| puŋ-úr-úm- | 'short and stubby' |
| sem-él-ém- | 'oval' |
| sul-út-úm- | 'conical' |
| zaḍ-íd-ím- | 'arched' |

(240) *Age*

| | |
|---------|---------------|
| dun-ét- | ‘ageing’ |
| erúts- | ‘new, recent’ |
| kow- | ‘old’ |
| kwáts- | ‘young’ |

(241) *Value*

| | |
|--------|--------|
| da- | ‘nice’ |
| gaan- | ‘bad’ |
| maráj- | ‘good’ |

(242) *Color*

| | |
|-------------|--------------|
| bós-án- | ‘blue, gray’ |
| budám- | ‘black’ |
| βets’- | ‘white’ |
| điw- | ‘red’ |
| ilíf- | ‘green’ |
| meriʃ-án- | ‘colorful’ |
| mukí-án-et | ‘brown’ |
| ɔŋɔr-án-et- | ‘dark red’ |

(243) *Physical property*

| | |
|--------------|-----------------|
| bɔf-ɔd- | ‘puffy’ |
| dul-áts’-ám- | ‘fat and juicy’ |
| ja-ul-ím- | ‘sleek’ |
| lɪw-íd- | ‘smooth’ |
| mɪt-ír-ím- | ‘withered’ |
| ŋar-ód- | ‘crunchy’ |
| ɲɔŋ-ɔr-ɔm- | ‘dirty’ |
| ts’al-íd- | ‘oily’ |

(244) *Behavioral propensity*

| | |
|-----------|----------------|
| batán- | 'kind' |
| fiyet- | 'fierce' |
| no-ʒs-án- | 'wise, clever' |
| iráká-án- | 'jealous' |
| itsán-án- | 'irritating' |

(245) *Speed*

| | |
|---------|--------|
| inípón- | 'slow' |
| itírón- | 'fast' |

(246) *Difficulty*

| | |
|---------|-------------|
| bat-án- | 'easy' |
| itión- | 'difficult' |

(247) *Difference*

| | |
|---------|-------------|
| jal-án- | 'different' |
|---------|-------------|

First, just like other intransitive verbs, Ik adjectival verbs encode these semantic properties by being the head of a clause's predicate. In (248), the intransitive verb *i-* 'be (somewhere)' fills the clause-initial slot for main verbs, as does the adjectival verb *maráŋ-* 'good'. This syntactic slot reserved for verbs (in unmarked clauses) as well as the verbal realis affix {-a} show that *maráŋ-* is functioning as the predicate head in example two of (248):

(248) *Iya Nakuj.*

| | |
|---------------|---------------------|
| i-a | ŋakuj- ^a |
| be-REAL | god-NOM |
| God is there. | |

Maráŋa Nakuj.

| | |
|--------------|---------------------|
| maráŋ-á | ŋakuj- ^a |
| good-REAL | god-NOM |
| God is good. | |

Secondly, Ik adjectival verbs help specify a noun's referent by acting as a modifier within the relevant noun phrase. To do this, they occur as stative verbs within restrictive relative clauses following the modified NP, as in:

(249) *Ama na da.*

ám-á = [ná da-∅]_{RC}
 person-NOM = REL.SG nice-REAL
 A person who is nice/a nice person

(250) *Roba ni dayaak.*

roḅ-a = [ni da-i-aák^a]_{RC}
 people-NOM = REL.PL nice-PLUR-DISTR-REAL
 People who are nice/nice people

So just like in (248), the adjectivals in (249)-(250) fill the slot that a verb would normally fill. Compare those with the following non-adjectival verbs:

(251) *Ama na beda koonik.*

ám-á = [na béd-á ko-oni-k^a]_{RC}
 person-NOM = REL.SG want-REAL go-INF-ACC
 The person who wants to go.

(252) *Roba ni beda koonik.*

roḅ-a = [ni béd-á ko-oni-k^a]_{RC}
 people-NOM = REL.PL want-REAL go-INF-ACC
 The people who want to go.

Thirdly, Ik adjectival verbs function as the parameter in comparative constructions, of which Ik has two types (see §9.12). One involves the ablative case, and the other verb *iló*- 'defeat' as the comparative index:

(253) *Kwatsa bu.*

kwáts-á bu-Ø
small-REAL you.SG-ABL

He's smaller than you (lit. 'He's small from you').

(254) *Kwatsa iloie bik.*

kwáts-á iló-í-ε bi-k^a
small-REAL defeat-3SG-SIML you.SG-ACC

He's smaller than you (lit. 'He is small defeating you').

Fourthly, Ik adjectival verbs can function like adverbs in modifying a verb's referent. They do this in conjunction with the simultaneous aspect suffix {-kε} in a postverbal simultaneous clause, as in:

(255) *Epukwee marañidik.*

ep-uko-e maráŋ-ídi-k^e
sleep-COMP-IMP.SG good-2SG-SIML

Sleep well (lit. 'Sleep you being good')!

(256) *Imedetaa bets'ik.*

imεd-εt-á-á bets'-i-k^e
sparkle-INCH-REAL-PRF white-3SG-SIML

It's sparkling brightly (lit. 'It has sparkled being white').

In the predicate slot, adjectival verbs and other intransitive verbs differ only slightly. For obvious semantic reasons, adjectivals do not cooccur with either directional suffixes or the various passive suffixes. But other than these, adjectivals can take all the other inflectional and derivational suffixes found on other verbs. Even so, semantics and pragmatics may eliminate some adjectival-suffix combinations from the realm of possibility. For example, though the adjective *da-* 'nice' can be made into an imperative like *da^e* 'Be nice!' or an optative like *dayaákáno* 'Let's be nice', it is hard to imagine a color or a other involuntary physical property being commanded.

Ik adjectivals are less distinguishable by what suffixes they share with other verbs (almost all) than by the suffixes they do not share. The adjectival verbs exhibit a handful of suffixes found only on adjectivals. These include the two ‘physical property’ suffixes (§7.10.1-§7.10.2), the stative suffix (§7.10.3), the plural adjective suffix (§7.10.4), and the distributive suffix (§7.10.5). Each of these are described in their respective sections below.

7.10.1 Physical property I

The adjectival suffix {- \check{V} d-} is called the ‘physical property I’ marker. It is potentially related to the final VC sequence in Turkana words like *jurut* ‘callow’ (Dimmendaal 1983:143). But regardless, it is most likely a retention of the proto-Nilo-Saharan ‘adjective suffix’ *-d/-od? (Ehret 2001:154). The suffix usually (but not always) copies the root-final vowel, and thus takes whatever [ATR] value the copied vowel has. Its tone is invariably H(L): Since it contains the depressor /d/, the next vowel always bears L tone.

The physical property I suffix is used to express real physical properties of the clause’s subject. These properties include things like size, shape, appearance, texture, consistency, and other such tangible attributes. The meaning of this suffix often coincides with that of English adjectives ending in -y, like gooey, gummy, gushy, squashy, squishy, etc.

Physical property I (PHYS1) adjectivals function as the heads of intransitive predicates, such that they are nominalized with the infinitivizer {-ɔnɪ-}, as in *ɔf-ɔd-ɔnɪ-* ‘to be light’. The PHYS1 suffix immediately follows the root but can precede any number of other verbal affixes, such as in *ol-ód-ukot-u-kó = d^e* ‘And from that it became light’ or *ol-ód-aak-ít^a* ‘You (pl.) are light’.

The table in (257) presents some physical property I lexical adjectivals. In the first four examples, the suffix’s underspecified vowel a copy of the preceding root-vowel. While in the second four, the vowel is different:

(257) *Vowel patterns in physical property I adjectivals*CV₁C-V₁C-

bɛf-éd- 'delicate'

lɪw-íd- 'smooth'

lyam-ád- 'powdery'

ŋɔb-úd- 'brittle'

CV₁C-V₂C-

bɛf-úd- 'hefty'

ɓal-íd- 'glistening'

ŋar-úd- 'crunchy'

pɪl-úd- 'slippery'

The reason for this discrepancy in vowel patterns is not clear. Any possible explanation will hinge on a broader analysis of Ik verbal roots. In modern Ik, many lexical items can function as either nouns or verbs, depending on the suffixes they are given. When functioning as verbs, such lexemes are analyzed as ending in a consonant. When functioning as nouns, they are analyzed as ending in a vowel, as in *tɔkɔb*- 'farm (v.)' versus *tɔkɔba*- 'farming (n.)'. So it could be that adjectival forms in (257) preserve an older morphology in which verbal roots also ended in vowels. This could mean that these roots are actually bisyllabic and the physical property I suffix is really just {-d-}. Then it would be coincidental that some roots have the same vowel in both syllables while others did not.

But a) in keeping with the broader analysis of Ik verbal roots in this grammar, and b) given that in the majority of instances of the physical property I suffix the vowel is identical with the root vowel, this morpheme is analyzed as having the structure {-V́d-}. This conclusion, of course, does not preclude further investigation into this issue.

So more examples of physical property I adjectival verbs are given below to illustrate the semantic vividness it expresses:

(258) Physical property I adjectivals

| | |
|------------|--------------|
| bɔf-ʒd- | ‘puffy’ |
| buf-úd- | ‘spongy’ |
| dab-úd- | ‘mushy’ |
| dej-éd- | ‘squat’ |
| gɔk-ʒd- | ‘stiff’ |
| gwid-íd- | ‘limber’ |
| ʒam-úd- | ‘velvety’ |
| kwits’-íd- | ‘juicy’ |
| mil-íd- | ‘shiny’ |
| na-úd- | ‘flimsy’ |
| ner-éd- | ‘wobbly’ |
| tsak-ád- | ‘watery’ |
| ts’al-íd- | ‘oily’ |
| tud-ád- | ‘leathery’ |
| wɪŋ-íd- | ‘syrupy’ |
| wuj-úd- | ‘jiggly’ |
| ʃa-úd- | ‘paper-thin’ |

In most cases, a corresponding noun root cannot be found for adjectivals like the ones in (258), but there are a few exceptions. For, example, the noun root *bɛfá-* ‘puff adder’ is clearly related to *bɛf-úd-* ‘hefty’ since the puff adder is quite a hefty snake. The noun root *dosi-* ‘gum, sap’ seems related to *dɔs-ʒd-* ‘gummy’, despite a change in [ATR] value. One can speculate for others, for example if and how *gɔka-* ‘larynx’ is related to *gɔk-ʒd-* ‘stiff’.

An interesting feature of adjectivals with the physical property I suffix is that the adjectival root can be repeated as a sort of emphatic particle, as in:

(259) *Liida lii.*

| | |
|---------------------|------|
| lí-íd-a | lii |
| quiet-PHYS1-REAL | EMPH |
| It’s totally quiet. | |

- (260) *Maṇada maṇ.*
 maṇ-ád-a maṇ
 thick-PHYS1-REAL EMPH
 It's extremely thick.

- (261) *Kwexedukotaa kwex.*
 kwɛʃ-éd-ɔkɔt-á-á kwɛʃ
 be.thin-PHYS1-COMP-REAL-PRF EMPH
 It has become extremely thin.

7.10.2 Physical property II

The physical property II suffix—{-*Ṽm*-}—is identical to the middle voice marker described above in §7.9.5. Historically, both these morphemes most likely arose from the same proto-morpheme. Synchronically, the middle suffix occurs with transitive verbs, while the physical property II suffix occurs with intransitive adjectival verbs. Particularly as an adjectival morpheme, {-*Ṽm*-} resembles the final *Vm* sequence in Turkana adjectivals like *ḡalom* ‘missing front teeth’ (Dimmendaal 1983:143-144). The suffix {-*Ṽm*-} takes whatever [ATR] value is supplied by the copied vowel. Its tone is invariably H unless preceded by a depressor as in *tékéz-em* ‘shallow’.

The physical property II suffix also expresses the physical properties of a subject in conjunction with the verbal root to which it is affixed. Like the physical property I suffix, PHYS2 can convey tangible attributes like shape, posture, texture, color, consistency, appearance. But it can also communicate less tangible features like weakness, strength, and other internal states.

Physical property II adjectivals function as intransitive predicates, so they are nominalized with the infinitivizer {-*ɔni*-} as in *gak-ím-óni* ‘to be too weak to move’. Often between the root and the PHYS2 suffix there is an intervening archaic morpheme consisting of an underspecified vowel and a consonant, for example, *-*Vl*, *-*Vk*, *-*Vɲ*, *-*Vr*, or *-*Vs*. More comparative

research is required to trace the origin of these underspecified morphemes. However, they are likely retentions of the series of derivational suffixes posited for proto-Nilo-Saharan, many of which contain underspecified vowels in various Nilo-Saharan daughter languages (Ehret 2001:145-165).

The physical property II suffix's underspecified vowel is almost always a copy of the preceding vowel, whether directly from the root or from an intervening archaic morpheme like *-Vr or *-Vs. The first ten words in (262) exhibit root-vowel copying, while the last two show different vowels:

(262) *Vowel patterns in physical property II adjectivals*

| $CV_1CV_1C-V_1C$ | |
|--------------------|---------------------|
| belér-ém- | 'bulging' |
| ɖapál-ám- | 'flat' |
| duláts'-ám- | 'fat and juicy' |
| kik-ím- | 'stout' |
| likíd-ím- | 'hour-glass shaped' |
| ɲɔrɔɲ-óm- | 'dirty' |
| puɲór-óm | 'stumpy' |
| semél-ém- | 'oval' |
| toróɲ-óm- | 'ridged' |
| tudús-úm- | 'naked' |
| $CV_1(C)V_2C-V_3C$ | |
| ɟul-ím- | 'sleek' |
| ɲaɲál-óm- | 'gap-toothed' |

The following table gives more examples of physical property II adjectivals to illustrate the semantic vividness they can express:

(263) *Physical property II adjectivals*

| | |
|-----------|-----------------------------|
| bulúk-úm- | ‘abnormally big-headed’ |
| ḏatáj-ám- | ‘flat on top and bottom’ |
| heḃúl-úm- | ‘pot-bellied’ |
| kaḏús-úm- | ‘small-bodied’ |
| kweel-ém- | ‘big and pointed (of ears)’ |
| laḃáj-ám- | ‘expansive’ |
| mitír-ím- | ‘withered’ |
| paḏók-óm- | ‘sunken’ |
| piír-ím- | ‘squinty-eyed’ |
| rekéj-ém- | ‘stunted’ |
| sulót-úm- | ‘conical’ |
| taḃój-óm- | ‘flat-buttocked’ |

For most of the PHYS2 adjectivals, corresponding verb roots have not been identified in other lexemes. However, there are clues that these adjectivals can be built from nouns. For example, the verb *karúts’-úm-* ‘be crunchy like a carrot’ is obviously related to *káruts’a-* ‘carrot’, and the verb *paḏók-óm-* ‘be sunken’ can likely be linked to *paḏo-* ‘small cave’. A few others have identifiable bases in other lexemes, for example, *jurót-úm-* ‘slippery’ from *jór-* ‘rub, massage’ and *olól-óm-* ‘eager’ from *ol-ód-* ‘light, eager’.

7.10.3 *Stative*

The ‘stative’ adjectival suffix {-án-} expresses an ongoing state or condition characterized by the meaning of a transitive verb, an intransitive verb, or even a noun. It is certainly related to the Turkana ‘habitual stative’ suffix *-aan/-oon* (Dimmendaal 1983:107) as can be seen in cognate forms *á-pég-áán-a* (Turkana) and *νεπεκ-án-ón* (Ik) ‘be argumentative’. Reflexes are also found in Cushitic languages: the Afar ‘customary/habitual’ *ene* (Mahaffy, n.d., p. 31) and the Dhaasanac ‘adjective focus form’ *-áan/-éen/-óon* (Tosco 2001:209). The cross-phyletic presence of these parallels suggests areal movement, though the directionality of borrowing has yet to be established.

The tone of the stative adjectival {-án-} is H, though it may bear L tone after a depressor consonant, for example in *ságo-an-* ‘be ensnared’. It is one of the language’s opaque dominantly [+ATR] suffixes and as such can also be represented as {-án⁺-}. Being dominant, it harmonizes any recessive suffixes following it, and being opaque, prevents harmony spread leftward. This suffix superficially resembles the impersonal passive suffix {-aní-}, but their different tones and [ATR] value make a shared history less than likely.

An adjectival verb with {-án-} derived from a transitive verb communicates a passive situation focusing not on the direct result of an action but rather on the ongoing state of the passivized patient. Consider these examples:

(264) *Stative verbs derived from transitive verbs*

| Transitive | | | Stative | |
|------------|----------|---|-----------------|------------------|
| dzɛr- | ‘tear’ | → | dzɛ́rɛ́dzɛr-án- | ‘be all torn up’ |
| ɗɔts- | ‘join’ | → | ɗɔts-án- | ‘be joined’ |
| iraj- | ‘spoil’ | → | irájón-án- | ‘be spoiled’ |
| ital- | ‘forbid’ | → | itál-í-án- | ‘be taboo’ |
| ógo- | ‘let go’ | → | ógo-an- | ‘be let go’ |
| raj- | ‘return’ | → | raj-án- | ‘be returned’ |
| zík- | ‘tie’ | → | zíkízík-án- | ‘be all tied up’ |

Less commonly, the stative can characterize the agent of a transitive situation rather than the patient, for example in the verb *itsán-án-* ‘be irritating’ (rather than ‘irritated’ or ‘irritable’) from *itsán-* ‘to irritate’.

Contrary to the verbs in (264), most stative adjectival verbs do not have independently identified basic verb roots. Therefore it is difficult (if not impossible) to tell whether they are derived from underlyingly transitive or intransitive verbs. And this makes it doubly difficult to discern the semantic changes {-án-} makes to a base verb stem. Perhaps the basic roots of verbs like these below in (265) will come to light with further in-depth research:

(265) *Stative verbs without independent basic roots*

| | |
|-------------|-----------------------|
| aḃúlúk-án- | ‘fall off, roll down’ |
| alámáár-án- | ‘sway’ |
| ḃaaḃ-án- | ‘be cracked’ |
| bós-án- | ‘be blue’ |
| bu-án- | ‘disappear’ |
| ḃeḃe-án- | ‘pitter-patter’ |
| ḃutúḃút-án- | ‘be disintegrated’ |
| erut-án- | ‘low (of cows)’ |
| firiḃri-án- | ‘come and go’ |
| gaga-án- | ‘laugh while talking’ |
| hádaad-án- | ‘be a poor shot’ |
| ijúḃá-án- | ‘be confused’ |
| koḃo-án- | ‘stretch’ |
| ḃoróts-án- | ‘drain bloody liquid’ |
| rúguruḃ-án | ‘be rough, bumpy’ |
| sokol-án- | ‘curved frontwards’ |

Lastly, stative adjectival verbs can be derived with {-án-} from nouns. In this way, the verb’s subject is attributed with the noun’s core characteristics:

(266) *Stative verbs derived from nouns*

| Noun | | | Stative | |
|---------|---------------|---|------------|----------------|
| ḃemá- | ‘fight’ | → | ḃem-ek-án- | ‘be a fighter’ |
| ḃeḃá- | ‘joke’ | → | ḃeḃ-án- | ‘be joking’ |
| cué- | ‘water’ | → | cu-án- | ‘be liquid’ |
| ésá- | ‘drunkenness’ | → | es-án- | ‘be drunk’ |
| ḃuḃé- | ‘lie’ | → | ḃu-án- | ‘be a liar’ |
| ḃáká- | ‘elders’ | → | ijáká-án- | ‘be wealthy’ |
| kirotí- | ‘sweat’ | → | kirot-án- | ‘be sweaty’ |
| ḃeḃe- | ‘hunger’ | → | ḃeḃ-án- | ‘be hungry’ |
| ḃókí- | ‘dog’ | → | iḃókí-án- | ‘be poor’ |
| ságo- | ‘snare’ | → | ságo-an- | ‘be ensnared’ |

In closing, the following examples of the stative suffix {-án-} in discourse contexts illustrate how it is inflected for subject-agreement on the verb:

(267) *Mudúkanid.*

múdúk-án-íd-∅
 blind-STAT-2SG-REAL
 You are blind.

(268) *...idódokanatie tumedoo jík.*

idódók-án-áti-e tume'dó-ó jík
 pile-STAT-3PL-SIML there-ABL ADV
 ...(they being) piled up all over there.

(269) *Iteisinoo wicee tutukanatie ho.*

ité-ísino-ó wicé-é tutuk-an-áti-e ho-∅
 reach-1PL.INC-SEQ children-DAT curl-STAT-3PL-SIML house-ABL
 And we found the children curled up in the house.

7.10.5 Plural

The ‘plural adjectival’ suffix {-ik-} is only rarely attested. It is most likely related to the plurative III suffix {-ika-} (§4.2.3). These morphemes have parallels in Surmic (e.g. Murle) and Teso-Turkana which are of “considerable antiquity” (Dimmendaal 1983:333). The suffix {-ik-} is recessive but harmonizes to /-ik-/ on [+ATR] stems. It has a L tone.

The plural adjectival suffix obligatorily marks a tiny subset of adjectival verbs as plural. Only two examples are known: *ze-* ‘big’ and *kwáts-* ‘small’:

(270) *roba ni zeik*

roḃ-a = ní ze-ik-^a
 people-NOM = REL.PL big-ADJ.PL-REAL
 big people (i.e. adults or persons in charge)

- (271) *wika ni kwatsik*
 wik-a = ni kwáts-ik-^a
 children-NOM = REL.PL small-ADJ.PL-REAL
 small children

The plural adjectival suffix often occurs with the distributive adjectival suffix {-aák-} (described in the next section):

- (272) *Bedata zeikaakonukotik.*
 béd-át-a ze-ik-aak-ón-ukotí-k^a
 want-3PL-REAL big-ADJ.PL-DISTR-INF-COMP-ACC
 They are (each) about to get big.

- (273) *Kwatsikaakit.*
 kwats-ik-aak-ít-^a
 small-ADJ.PL-DISTR-2PL-REAL
 You (each one of you) are small.

7.10.6 Distributive

The ‘distributive’ adjectival suffix {-aák-} gives a plural adjectival verb a sense of distributiveness. It is probably related historically to the Turkana plural habitual stative *-aak* that conveys ‘iterativity’ and ‘regularity’ (Dimmendaal 1983:107). The Ik suffix has a LH tone melody but is often flattened to LL in stems due to high-tone suppression (T6). It can also surface as HH as a result of high-tone anticipation (T5). Since it is an opaque dominantly [+ATR] suffix, it can also be represented as {-aák⁺-}. It harmonizes recessive suffixes rightward but not leftward because of /a/.

Being a marker of distributiveness, {-aák-} highlights that each member of a group is equally characterized by a plural verb’s meaning. As such, the suffix can occur with first, second, and third-plural subjects, for example:

(274) *Distributive adjectival verbs*

| | | |
|---------|---------------------------|----------------------|
| 1PL.EXC | marañ-aak-ím | ‘We are all good.’ |
| 1PL.INC | marañ-aak-ísin | ‘We are all good.’ |
| 2PL | marañ-aak-ít ^a | ‘You are all good.’ |
| 3PL | marañ-aak-át ^a | ‘They are all good.’ |

Because {-aák-} ends in the segment /k/, haplology occurs when the suffix is followed by the completive aspect morpheme {-ukóti-} containing /k/. This results in a /-áá-/ being a haplogitized allomorph of the distributive:

(275) *Zeikaakotatak.*

ze-ik-áá-kot-át-a-k^a
 be-ADJ.PL-DISTR-COMP-3PL-REAL-PRF
 They’ve each grown big.

(276) *Maa xebiaakoit.*

má-á ʃeb-i-áá-ko-ít-^a
 not-REAL afraid-PLUR-DISTR-COMP-2PL-REAL
 Don’t (each of you) be afraid!

The following are some more instances of the distributive in discourse:

(277) *Itaaka niyee ni.*

it-aak-á nié-é = ni
 be.a.size-DISTR-REAL place.PL-DAT = DEM.PL
 They each reach this size (lit. ‘these sizes’).

(278) *Atsimaá bets’aakimie pak.*

ats-ima-a bets’-aak-ími-e pakⁱ
 come-1PL.EXC-SEQ white-DISTR-1PL.EXC-SIML IDEO
 And we came (each of us being) totally white.

7.11 Tense markers

Tense in Ik is a grammatical category that is not reflected in verbal morphology *per se* but rather in a group of tense particles. The past tenses are expressed by a class of particles analyzed as enclitics because a) they participate in vowel harmony and b) are also in the second position of the clause (§7.11.1). By contrast, the non-past tense particles are treated as free, syntactically mobile adverbial words (§7.11.2).

In the Ik tense system, there is a three-term past tense and three-term non-Past tense distinction. These six terms are presented in (279) along with the enclitics and adverbial particles that encode them:

(279) *Ik six-term tense system*

| Past | | Non-final | Final |
|-------------------|------|-----------|---------------------|
| Remote past | PST3 | = nɔɔ | = nɔk ^ɔ |
| Removed past | PST2 | = bɛɛ | = bats ^ɛ |
| Recent past | PST1 | = náa | = nák ^a |
| Non-Past | | | |
| Distended present | PRES | ts'ɔɔ | ts'ɔɔ |
| Removed future | FUT2 | táa | táa |
| Remote future | FUT3 | fara | far |

These tense particles are usually found with verbs in the realis modality, but they can also less commonly occur with irrealis verbs in the simultaneous or sequential aspects, for example here in (280):

(280) *Tense enclitics with different TAM types*

| | | |
|---------------|----------------------------------|---|
| Realis: | gaan-át-a = bats ^ɛ | 'They were bad yesterday.' |
| Simultaneous: | gaan-áti-e = bats ^ɛ | 'they being bad yesterday.' |
| Sequential: | gaan-iní = i = bats ^ɛ | 'And from there they were bad yesterday.' |

7.11.1 Past tense clitics

As noted above, the past tense particles shown in (279) are analyzed as enclitics for two reasons: 1) They participate in vowel harmony within the phonological word, and 2) they are usually the second element in the clause. Vowel harmony only affects the remote =*nɔɔ* and removed =*bɛɛ* since the recent past =*náa* contains only /a/. If the morpheme to which these recessive clitics attach is [-ATR], then they remain the same. But if the morpheme is [+ATR] the clitics are harmonized to =*noo* and =*bee*. In the following four examples, the [-ATR] verbs *áts'*- 'eat' and *ʃik*- 'hang' are first separated from the tense clitics by the dominant opaque [+ATR] realis suffix {-a⁺}. This suffix harmonizes the tense clitic but not the verb stem. In the second set of sentences (right column), no [+ATR] suffix intervenes, and so the underlying [-ATR] forms of the clitics are allowed to surface:

- | | | |
|-------|---|---|
| (281) | <i>Áts'ukota nok.</i> áts'-úkwɔt-a = nok ^o eat-COMP-REAL = PST3 He ate (it) up. | <i>Áts'ukotukoo nok.</i> áts'-úkwɔt-u-kɔ = ɔ = nɔk ^o eat-COMP-3SG-SEQ = DP = PST And from there he ate (it) all up. |
| (282) | <i>Xika bee?</i> ʃik-á = bee hang-REAL = PST Did he hang it yesterday? | <i>Xikukoo bee?</i> ʃik-u-kɔ = ɔ = bɛɛ hang-3SG-SEQ = DP = PST And did he hang it from there? |

As 'second-position' clitics, the Ik past tense clitics generally immediately follow the first element of the clause. That element is usually the main verb, but can also be a negating verb, a verbless copula, or even a conjunction:

- (283) *Nkákia nak.*
ŋkák-í-a = nak^a
eat-1SG-REAL = PST1
I ate (earlier today).

(284) *Maa naa nkaki.*

má-á = naa ηkáák-í
 not-REAL = PST1 eat-1SG[IRR]
 I didn't eat (earlier today).

(285) *Ntsuo naa nkakiaad.*

ntsú-ó = naa ηkáák-í-á = d^e
 it-COP = PST1 eat-1SG-REAL = DP
 That's why I ate (earlier today).

(286) *Nanaa nkakiaadee,...*

na = náa ηkáák-í-á = deé
 CONJ = PST1 eat-1SG-REAL = DP
 When I had eaten (earlier today),...

As shown back in (279), the Ik tense system has three past-tenses. Recent past covers the general time period of 'earlier today'. Removed past covers 'the last X' where X is a specified time unit like 'hour', 'day', 'week', 'year', etc. If the time unit is not specified, then 'last day' or 'yesterday' is implied. The Ik Removed Past coincides nicely with the archaic English descriptor 'yester-' as in *yesterday* and *yesteryear*. Remote past covers the time period from 'before yesterday' to as far back in time as the speaker might intend. The three past tense markers and their time depths are repeated below:

(287) *Ik past tense enclitics*

| | UF | NF | FF | |
|----------------|-------|-------|---------------------|--------------------|
| Remote (PST3) | nɔkɔ | = nɔɔ | = nɔk ^ɔ | 'before yesterday' |
| Removed (PST2) | batse | = bɛɛ | = bats ^e | 'yester-(day)' |
| Recent (PST1) | náka | = náa | = nák ^a | 'earlier today' |

The following sentences illustrate these tense clitics with a simple verb:

(288) *Atsia nak.*
 ats-í-á = nak^a
 come-1SG-REAL = PST1
 I came (earlier today).

(289) *Atsia bats.*
 ats-í-á = bats^e
 come-1SG-REAL = PST2
 I came yesterday.

(290) *Atsia nok.*
 ats-í-á = nok^o
 come-1SG-REAL = PST3
 I came a while back/a long time ago.

Two of the past tense clitics—the remote past =*nɔkɔ* and the recent past =*náka*—are identical in form to demonstratives and relative pronouns of the same tense specification. Ik demonstratives are tensed (see §8.2), and it is suggested here that relative pronouns and two of the three tense particles may have developed out of the demonstrative system:

(291) *A comparison of tensed grammatical systems*

| | Demonstratives | Relative pronouns | Tense clitics |
|---------|----------------|-------------------|---------------|
| Recent | ná-ka | ná-ka | ná-ka |
| Removed | sɪ-na | sɪ-na | (ba-tse) |
| Remote | nɔ-kɔ | nɔ-kɔ | nɔ-kɔ |

A comparison of the three grammatical systems shows they are linked by what appear to be archaic morphemes: *-ka for recent past, *-(t)se/sɪ? for removed, and *-kɔ for remote. The suffix *-ka is related to the present perfect suffix {-ka}, and both may be linked to the Afar language's -ka meaning 'before' (Mahaffy, n.d., p. 29). As for *-kɔ, it has obvious ties to the morpheme {-kɔ} which marks both copulative case and sequential aspect.

7.11.2 Non-past tense adverbials

Dixon claims that languages divide neatly into the following two groups according to how a ‘future’ setting is handled grammatically (2012:7):

- (292) I Future is a tense, referring to a location in time.
 II Future is shown by modalities, within irrealis.

However, Ik does not lie exclusively in either of these two groups. In a near mirror-image of the three past tense clitics, Ik has a three-term non-past tense system that is expressed by free, adverb-like particles. But a non-past setting in Ik is also conveyed by the intentional modality suffix {-és-} (§7.7.3). So ‘future’ for Ik is a concept hinging both on tense adverbs and verbal morphology, a combination of Dixon’s groups I and II.

The following table repeats Ik’s three-term non-past tense system:

(293) *Non-past tense adverbs*

| | NF | FF | |
|--------------------------|-------|-------|-------------------------|
| Distended present (PRES) | ts’ɔɔ | ts’ɔɔ | soon |
| Removed (FUT2) | táa | táa | later today or tomorrow |
| Remote (FUT3) | fara | far | after tomorrow |

These non-past adverbs, unlike the past-tense clitics, are not morphologically related to each other. The remote future adverb is sometimes given the form *faro/far^o*, probably being reinterpreted as a time word that should take the instrumental case suffix {-ɔ} (see §6.3.3).

The first term in the non-past system is called ‘distended present’ because the adverb *ts’ɔɔ* can be used in both recently past and nearly future senses. In other words, *ts’ɔɔ* can refer to the present time distended slightly in the past and slightly into the future. For example, one hears both *atsíá=naa ts’ɔɔ* ‘I just came’ and *ats-és-í-a ts’ɔɔ* ‘I will come just now’.

The following sentences offer a comparison of the three non-past terms:

(294) *Nkakesia ts'oo.*

ŋkaḱ-es-í-á ts'ɔɔ

eat-INT-1SG-REAL PRES

I will eat just now.

(295) *Nkakesia taa.*

ŋkaḱ-es-í-á táa

eat-INT-1SG-REAL FUT2

I will eat later/next time.

(296) *Nkakesia far.*

ŋkaḱ-es-í-á far

eat-INT-1SG-REAL FUT3

I will eat in the future.

A non-past tense adverb can occur pre-verbally in subordinate clauses like the one below where it is used with an irrealis impersonal passive verb:

(297) *Naa fara kwaatetanie wicea...*

náa fara kwaat-ét-aní-é wicé-á

CONJ FUT3 bear-INCH-IPS-SIML children-acc

When children are born in the future,...

And unlike the past-tense clitics, the freely occurring non-past tense adverbials can precede or follow the negated verb in a negative clause, e.g.:

(298) *Nta ts'oo koi.*

ńt-á ts'ɔɔ kó-í'
not-REAL PRES go-1SG[IRR]

I'm not going now.

Nta koií ts'oo.

ńt-á kó-íí ts'ɔɔ
not-REAL go-1SG[IRR] PRES

I'm not going now.

7.12 Epistemic qualification

Ik employs three methods for qualifying the certainty of knowledge expressed in a statement. Knowledge that is not completely certain, that is made on inference from observed evidence, may be expressed with a set of morphologically complex ‘inferential’ particles (§7.12.1). Knowledge gained counter-expectationally is marked at the clausal level through a special combination of verbal modality and nominal case marking (§7.12.2). And lastly, knowledge expressed as a way to confirm a state of affairs is marked by a special usage of temporal particles (§7.12.3). Quite unlike evidentiality in some other languages, these epistemic devices are not part of an obligatory inflectional system in Ik. They are simply an available means to qualify the status of one’s knowledge communicated in a proposition.

7.12.1 Inferential

When Ik speakers make an inference about something based on any observable evidence, they may use an ‘inferential’ adverbial particle. Because the knowledge expressed is only inferred, it has a degree of uncertainty. This inferentiality can be translated in English with such phrases as ‘it seems’, ‘it appears’, ‘X must have...’, and ‘apparently, ...’.

The inferential adverbials—also called markers of ‘uncertain past’ (Heine & König 1996:80)—are made up of the conjunction-like particle *na* and the past-tense enclitics presented in (287) above (except for the removed past form which uses *-tsamu* instead). Both elements are clitics themselves, and so they fuse easily into one phonological word. So in addition to encoding inference, the inferential adverbials are conveniently tensed:

(299) *Inferential adverbials*

| | NF | FF | |
|----------------|------------|------------------------|------------------|
| Recent (PST1) | ná = bee | ná = bats ^e | earlier today |
| Removed (PST2) | ná = tsamu | ná = tsam | yesterday |
| Remote (PST3) | ná = noo | ná = nok ^o | before yesterday |

7.12.3 Confirmational

The tensed conjunctions that are used to introduced temporal subordinate clauses (§9.6.1) are also used in a ‘confirmational’ construction. This construction consists of a tensed conjunction (*náa*, *sma*, or *noo*) followed by a verb in the realis modality. Semantically, the construction serves to confirm a state of affairs by placing extra emphasis on the predication. It can be translated along the lines of ‘Yes, X did Y.’ Compare the following regularly tensed sentences and their their confirmational counterparts:

- | | | |
|-------|---|---|
| (303) | <i>Kaa nak.</i> ka-a = nák ^a go-REAL = PST1 She went. | <i>Naa kaa.</i> náa ka-a CONF.PST1 go-REAL Yes, she did go. |
| (304) | <i>Nkakima bats.</i> ɲkáák-ím-a = bats ^e eat-1PL.EXC-REAL = PST2 We ate. | <i>Sina nkekima.</i> sina ɲkáák-ím-a CONF.PST2 eat-1PL.EXC-REAL Yes, we did eat. |
| (305) | <i>Todia nok.</i> tód-i-a = nok ^o speak-1SG-REAL = PST3 I spoke (to him). | <i>Noo todia.</i> noo tód-i-a CONF.PST3 speak-1SG-REAL Yes, I did speak (to so-and-so). |

The confirmational construction is morphologically interrogative, in that the final vowel is voiced in a clause-final position. For example, in the indicative mood, one would expect the phrase in (305) ‘Yes, I did speak (to so-and-so)’ to surface as *noo tódi* in Ik, with the realis {-a} devoiced or deleted. Perhaps at a pragmatic level, the structure is functioning as a rhetorical question whose implied response is ‘Yes, of course you spoke’.

8 Other Word Classes

In addition to nouns and verbs—Ik's large open word classes—the language also has several other, closed word classes. These include quantifiers (§8.1), demonstratives (§8.2.), adverbs (§8.3), conjunctions (§8.4), prepositions (§8.5), interjections (§8.6), ideophones (§8.7), and infantile imperatives (§8.8). Time expressions, while technically nouns, are discussed as a lexical subset in §8.9. And though greetings do not make up a separate class in and of themselves, they are used in a ritualized way that transcends whatever word classes they consist of. For that reason, they are discussed in §8.10.

8.1 Quantifiers

One of the ways the grammatical number of a noun phrase is encoded is through quantifiers. Ik has both non-numeral and numeral quantifiers. With a few exceptions, Ik quantifiers are verbs in the surface structure. So, like the Adjectival verbs described in the last chapter, quantifier verbs might not be analyzed as a separate word class. However, since some quantifiers are not verbs and others are becoming less verb-like, they are all treated here under one general category. The verbal nature of quantifiers is shown in the following four examples where they take a variety of verbal suffixes such as subject-agreement, modal, and aspectual markers:

- | | | | |
|-----|--|-----|--|
| (1) | kom-ím-∅ many-1PL.EXC-REAL We are many. | (2) | kom-ukot-ím-á-k ^a many-COMP-1PL.EXC-REAL-PRF We have become many. |
| (3) | lebets-át- ^a two-3PL-REAL They are two. | (4) | lebets-i-áti-k ^e two-PLUR-3PL-SIML ...they (being) two by two. |

In these four clauses, the quantifier fills the syntactic slot for an intransitive verb. Quantifiers can also follow the noun they modify in a relative clause (RC). Examples (5)-(6) illustrate the non-numeral quantifiers *kom-* ‘be many’ and *kwad-* ‘be few’ acting as the verb in relative clauses:

- (5) *Kutese hakwesie daŋee ni kom.*
 küt-εse hakw-ésí-e dáŋé-e = [ni kom-∅]_{RC}
 say-SPS gather-INF-DAT white.ant(s)-GEN = REL.PL many-REAL
 And it was decided to gather many white ants.
- (6) *kots-et-í-á = naa jékiloró-ik-a = [ni kwad-∅]_{RC}*
 fetch-VEN-1SG-REAL PST1 jerrycan-PL-NOM = REL.PL few-REAL
 I fetched a few jerrycans.

Quantifiers in relative clauses may also appear without a relative pronoun:

- (7) *Hoese oŋora odoiciko leβets.*
 ho-ese oŋor-a ódo-icík-ó leβets^e
 cut-SPS elephant(s)-NOM day-PL-INS two
 And the elephants are cut up over two days.
- (8) *Hyeyia kida kwad.*
 fiye-í-á ki = d-a kwad^e
 know-1SG-REAL DIST = ones-NOM few
 I know a few (e.g. words of Ik).

Not only is there no relative pronouns in (7) and (8), but the quantifiers exhibit no verbal morphology at all. In fact, the words for numbers 1-5, as well as the non-numeral quantifiers *kwadé* ‘few’ and *koma* ‘many’, can function as full verbs or adjective-like words without verbal morphology. In their non-verbal function, the numbers 2-5 and *kwad* end in the vowel /e/, while the number 1 and *kom* end in /a/:

(9) *Quantifiers with some non-verbal properties*

| Numeral | | Non-numeral | |
|----------|---------|-------------|--------|
| kona | 'one' | kwade | 'few' |
| lebetse | 'two' | koma | 'many' |
| ade | 'three' | | |
| ts'agúsé | 'four' | | |
| tude | 'five' | | |

The unverblikeness seen among the quantifiers in (9) indicates one of two things: Either a) numbers used to be a separate word class and then became more verb-like, or b) they used to be full verbs are gradually losing verb-like characteristics and becoming more of a separate word class.

8.1.1 *Non-numeral quantifiers*

Ik non-numeral quantifiers are limited to two lexical verbs (also as adjective-like particles) and three invariable adjective-like particles:

(10) *Ik non-numeral quantifiers*

| | |
|-----------|--------------|
| kom-oni- | 'to be many' |
| kwad-oni- | 'to be few' |
| 'gái | 'both' |
| mupu | 'all, whole' |
| tsífi | 'all, whole' |

The next few sentences provide some examples from various contexts:

(11) *Atsituo komitikee?*

ats-itu-o kom-ítí-keé
 come-2PL-SEQ many-2PL-SIML

Then you come when there are many of you, ok?

- (12) *Kwadukotaa inwa kijoo na.*
 ƙwɑɗ-ukot-á-á ínw-á kǐjó-o = na
 few-COMP-REAL-PRF animals-NOM land-ABL = DEM.SG
 Animals have become few in this land.
- (13) *J'ejitoo bita gai.*
 jɛj-ɪɔ-ɔ bit-a 'gáí
 stay-2PL-SEQ you.PL-NOM both
 And both of you stay.
- (14) *Ats'ese ema naruetikoo muɲ.*
 áts'-ése em-a narúét-iko-o muɲ
 eat-SPS meat-NOM village-PL-ABL all
 And meat was eaten in all the villages.
- (15) *Nakujuo fiyea menaa ni tsíd.*
 ɲakují-ó fiye-a mená-á = ni tsíd
 god-COP know-REAL issues-ACC = DEM.PL all
 It's God who knows all these issues.

8.1.2 Numeral quantifiers

Ik has a quinary or base-5 counting system: There are lexical number words for the numbers 1-5, and then numbers 6-9 are formed by saying 'five and one', 'five and two', etc. The word *kɔní-* 'one' functions as noun elsewhere in the language, and the number 10 is the noun *to(o)míní-*, related to *tomon* 'ten' which has widespread areal parallels in both Afroasiatic and Nilo-Saharan. Other etymological hints are presented with numbers 1-5 in (16).

As already noted, number words can function as verbs with verbal morphology or as a distinct adjective-like word class in which numbers 2-5 end in the vowel /e/. Both types are given here:

(16) *Ik numbers 1-5*

| # | Verb | Numeral | Some areal parallels |
|---|----------|----------|--|
| 1 | kɔn- | kɔna | Lango (WNil) <i>kén</i> 'alone' |
| 2 | leβets- | leβetse | Saho (LowCush) <i>lamma</i> 'two' |
| 3 | ad- | adɛ | Lwo (WNil) <i>adek</i> 'three' Saho (LowCush) <i>adooxa</i> 'three' |
| 4 | ts'agús- | ts'agúsé | — |
| 5 | tud- | tude | Shabo (Nilo-Saharan?) <i>tuula</i> 'five' |

Number 6-9 are formed with the quinary base 5 *tud-/tude* plus the singular (for 6) and plural (for 7-9) pronouns *kɪ = dɪ* (sg.) and *ki = dɪ* (pl.):

(17) *Ik numbers 6-9*

| | |
|---|---------------------------------------|
| 6 | tude nída kɪ = dɪ kɔn |
| 7 | tude nída ki = dɪ leβets ^e |
| 8 | tude nída ki = dɪ ad ^e |
| 9 | tude nída ki = dɪ ts'agús |

When something is being counted in sequence, the numbers 1-9 can be treated as verbs taking the sequential suffixes {-kɔ} (sg.) and {-mɪ} (pl.):

(18) *Ik verbal counting*

| | |
|---------------------------------------|-----------------------|
| kɔnɔ-k ^ɔ | 'And it is one.' |
| leβets-in | 'And they are two.' |
| ad-in | 'And they are three.' |
| ts'agus-in | 'And they are four.' |
| tud-in | 'And they are five.' |
| tud-ini nída kɪdɪ kɔn | 'And they are six.' |
| tud-ini nída kɪdɪ leβets ^e | 'And they are seven.' |
| tud-ini nída kɪdɪ ad ^e | 'And they are eight.' |
| tud-ini nída kɪdɪ ts'agús | 'And they are nine.' |

The numbers 10, 100, 1000, 100,000, 1,000,000, and 1,000,000,000 are all nouns. The larger denominations—hundred thousand, million, billion—have names borrowed from English as well as indigenous labels:

(19) *Numbers 10-1,000,000,000*

| # | Borrowed | Indigenous | Meaning/Source |
|---------------|-------------------|------------|--------------------------|
| 10 | to(o)míní- | | (cf. Trk. <i>tomon</i>) |
| 100 | ɲamíá- | | (< Swahili <i>mia</i>) |
| 1,000 | álifu- | | (< Swahili <i>elfu</i>) |
| 100,000 | álifika ɲamíá kɔn | kɔrɔká kɔn | 'one finger' |
| 1,000,000 | ɲémílioni- | dakwa kɔn | 'one tree' |
| 1,000,000,000 | ɲéǎílioni- | ǎola kɔn | 'one old hive' |

Multiples of ten are formed with the nouns *to(o)míní-* 'ten' and *ekú-* 'eye':

(20) *Multiples of ten*

| | | |
|----|---------------------------------|-----------------|
| 20 | tomín-ékw-a leβets ^e | 'ten-eye two' |
| 30 | tomín-ékw-a ad ^e | 'ten-eye three' |
| 40 | tomín-ékw-a ts'agús | 'ten-eye four' |
| 50 | tomín-ékw-a túd ^e | 'ten-eye five' |
| 60 | tomín-ékw-a túde ńda kɔn | 'ten-eye six' |
| 70 | tomín-ékw-a túde ńda kɔn | 'ten-eye seven' |
| 80 | tomín-ékw-a túde ńda kɔn | 'ten-eye eight' |
| 90 | tomín-ékw-a túde ńda kɔn | 'ten-eye nine' |

The numbers between multiples of 10 can be formed in two ways. Both ways start with the relevant multiple of 10 (20, 50, 70, etc.) followed by the connective *ńda* 'and'. For numbers like 11, 21, 31, etc., this connective can be followed by either *kɔn* 'and that one, one' or *néβεε kɔn*. The precise meaning of *néβεε-* is not currently known, though a possible connection is with the word *nébu-* 'body'. For numbers like 12/22, 13/23, and above, the connective *ńda* can be followed either by *kɔn* 'the ones' or by *ɲɪr-mu* 'its remainders' and the appropriate number word. The word *ɲɪr-mu* consists of

the noun *jiiri-* ‘behind’ and the possessive pluralive {-*ini*-}, not the 3PL sequential aspect marker {-*ini*} as supposed by Heine & König (1996:42):

(21) *Numbers 11-19*

| | |
|----|--|
| 11 | tomíní náda kídi/néβεε kɔn |
| 12 | tomíní náda kídi/jírini léβets ^e |
| 13 | tomíní náda kídi/jírini ad ^e |
| 14 | tomíní náda kídi/jírini ts’agús |
| 15 | tomíní náda kídi/jírini túd ^e |
| 16 | tomíní náda kídi/jírini túde náda kídi kɔn |
| 17 | tomíní náda kídi/jírini túde náda kídi léβets ^e |
| 18 | tomíní náda kídi/jírini túde náda kídi ad ^e |
| 19 | tomíní náda kídi/jírini túde náda kídi ts’agús |

Ik counting can get quite complicated, as the following numbers show:

(22) *Complicated Ik counting*

| | |
|---------|--|
| 66 | tomínékwa túde náda kídi kɔn náda jírini túd náda kídi kɔn |
| 999,999 | álifika ŋamíá tude náda kídi ts’agúsé náda tomínéku tude náda kídi ts’agúsé náda jírini tude náda kídi ts’agúsé náda ŋamíá tude náda kídi ts’agúsé náda tomínéku tude náda kídi ts’agúsé náda jírini tude náda kídi ts’agús |

Ik ordinal numbers are formed with relative pronouns or demonstrative pronouns plus the relevant number verb in the infinitive form, as in:

(23) *Ik ordinal numbers 1-5*

| | |
|-----------------|-------------------|
| 1 st | na/ɗa kón-oni |
| 2 nd | na/ɗa leβéts-óni |
| 3 rd | na/ɗa áɗ-oni |
| 4 th | na/ɗa ts’agús-óni |
| 5 th | na/ɗa túd-oni |

8.2 Demonstratives

Demonstratives are words that point to or ‘demonstrate’ nouns in the discourse (and real entities extralinguistically). The demonstrative word class in Ik is made up of eleven nominal demonstratives, three locative adverbial demonstratives, and four special anaphoric demonstratives: two nominal and two locative adverbial ones. Five of the nominal demonstratives have spatial reference, while six others have temporal reference. The tensed demonstratives are based on the singular and plural proximal spatial demonstratives. Both spatial and temporal nominal demonstratives follow their referent and reflect the grammatical number of their referent(s). Ik nominal demonstratives have a deictic function of specifying the relative spatial location of a referent and the syntactic function of modifying an NP in any core or peripheral argument.

8.2.1 Spatial nominal demonstratives

In its spatial demonstrative system, Ik exhibits a three-term distance distinction in the singular and a two-term distinction in the plural. The singular spatial demonstratives are recessively [-ATR], while the plural ones are dominantly [+ATR], post-lexically harmonizing only one preceding syllable. All the spatial nominal demonstratives are analyzed as enclitics based on their forming a phonological word with vowel harmony.

(24) *Ik spatial demonstratives*

| | Singular | Plural |
|----------|----------|--------|
| Proximal | = na | = ni |
| Medial | = ne | |
| Distal | = ke | = ki |

For the singular demonstratives in (23), Proximal refers to distances relatively near to the speaker, medial to a distance slightly farther from the speaker, and distal to a distance relatively far from the speaker. The distinction between proximal and medial is collapsed among the plural

demonstratives: =*ni* covers any non-distal location from the speaker and is referred to simply as proximal in opposition to distal.

The Ik spatial nominal demonstratives follow the argument they modify. They can occur with nouns and pronouns but cannot stand alone as an NP (except possibly where the NP head is pragmatically implied). Cases of demonstratives with personal pronouns are restricted to a vocative-type situations like the one shown in (25). The sentence in (26) shows how a demonstrative cannot stand alone as an NP, in this case the complement of a copula. The independent usage in (26) is only grammatical if the implicit referent is understood. For example, it could be uttered along with a pointing gesture to clarify which entity was referred to by another speaker. But the usual way of referring pronominally to a 3-person referent is with the demonstrative pronouns *dī* (sg.) and *dī* (pl.).

- | | | |
|------|------------------------|-------------------------------|
| (25) | <i>awa na</i> | <i>Bia na!</i> |
| | aw-a = na | bi-a = na |
| | home-NOM = DEM.SG.PROX | you.SG-NOM = DEM.SG.PROX |
| | this home (here) | You! (lit. 'This you (here)') |
| (26) | ** <i>Mita na.</i> | <i>Na?</i> |
| | **mit-a na | na |
| | **be-REAL DEM.SG.PROX | DEM.SG.PROX |
| | **It's this. | This? |

8.2.2 Temporal nominal demonstratives

Ik also has temporal or 'tensed' nominal demonstrative clitics. They are based on the spatial demonstratives but not on an analogy of time as distance. Rather, the proximal forms in (24)—*na* (sg.) and *ni* (pl.)—are used as the non-past form and the base for the three-term past demonstratives. The singular remote past demonstrative =*nɔ* is recessive, while all four plural temporal demonstratives are dominantly [+ATR] post-lexically:

(27) *Temporal nominal demonstratives*

| | Singular | | Plural | |
|--------------|-----------|-------------------|-----------|-------------------|
| | Non-final | Final | Non-final | Final |
| Non-Past | =na | =na (=n) | =ni | =ni (=n) |
| Recent Past | =náa | =nák ^a | =níi | =ník ⁱ |
| Removed Past | =sina | =sin | =sini | =sin |
| Remote Past | =nɔɔ | =nɔk ^ɔ | =nuu | =nuk ^u |

The non-past demonstratives in their final forms can optionally lose their final (and sole) vowel, firmly attaching them to the preceding noun. As is discernable from (27), =na for singular and =ni for plural form the basis for the other tensed demonstratives. Although it seems they were bimorphemic historically, these forms will be henceforth treated as single morphemes. The frozen suffix *-ka seen on the singular recent past demonstrative in (27) is related to the present perfect morpheme formally and semantically. The frozen suffix *-kɔ attached to the singular remote past demonstrative is likewise linkable to the synchronic copulative case and sequential aspect morpheme {-kɔ}. A clue to the origin of the frozen prefix *si/si- in the removed past members of the paradigm in (27) comes from the South Omotic language Dime's 'feminine demonstrative' *siná* that contains the prefix *si-* denoting 'nearness' (Mulugeta 2008:72-73).

In the remote past forms for both singular and plural, vowel assimilation occurs. The combination *na + (k)ɔ* leads to *nɔ-(k)ɔ* in the singular, and the combination *ni + (k)u* leads to *nu-(k)u* in the plural.

The Ik temporal demonstratives are identical to both the relative pronouns (which are tensed; §5.6) and the temporal subordinating conjunctions (§8.4.1). It seems that historically they were all part of one system, though synchronically they must be treated as separate. The relationship between these identical forms in disparate systems can be represented as follows:

(28) *Interrelationship of na-(k)a in three grammatical systems*

| | | |
|--------------------|------------------------|-------------------------------|
| Demonstrative | ámá = nak ^a | ‘that person (earlier)’ |
| Relative pronoun | ámá = naa... | ‘the person who...(earlier)’ |
| Subordinating CONJ | náa ámáa... | ‘When the person...(earlier)’ |

Heine & Kuteva describe two grammaticalization pathways that could apply to (28): 1) demonstrative > relativizer, and 2) relativizer > subordinator (2007:89, 95). In light of this, it seems likely that the Ik tensed relative pronouns developed out of the tensed demonstratives, and that the tensed subordinating conjunctions developed from the tensed relative pronouns.

8.2.3 *Anaphoric demonstratives*

The anaphoric demonstrative clitics =^hdéé (sg.) and =^hdíí (pl.) are used to refer to any bit of information already identified at least once in a discourse. The singular form is recessive and can occur as =^hdéé after a [+ATR] morpheme. The plural form is dominantly [+ATR], capable of harmonizing the preceding phonetic syllable post-lexically (§3.1.7). The downstep (‘) is posited to account for the following two tonal effects caused by the depressor consonant /d/ (see §3.2.3): 1) The lowering of the anaphoric demonstratives’ own pitch to mid (see 29) and 2) the lowering of pitch ceiling that occurs after them (see 30). Consider the following examples:

(29) *Takanetesa kwetoo dee.*

| | | |
|---------------------|----------------------------|---------------------|
| takan-et-és-á | kwetó-ó = ^h déé | [- - - - - \ - -] |
| appear-VEN-INT-REAL | hand-ABL = ANPH.SG | |

It will appear on that side (lit. ‘hand’).

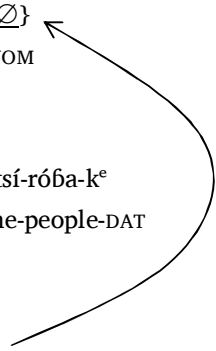
(30) *Dukwee ima dee awak.*

| | | |
|-----------------|------------------------|------------------------------------|
| d-uko-e | ámá = ^h déé | awá-k ^e [- - \ - - -] |
| take-AND-IMP.SG | person[OBL] = ANPH.SG | home-DAT |

Take that person home.

The information referenced by the anaphoric demonstratives is either a) encoded at least once before in the discourse or b) inferred pragmatically or extralinguistically from the physical or cognitive environment shared between the speech-act participants. That is, the anaphorics refer to discursively and/or pragmatically old information. For example, if someone says *keésíá awéé 'dée bie* 'I'm going to that home of yours', it can mean either that a) the house was already mentioned at least once in the conversation or b) that the speaker believes that the particular home is a topic found in the immediate cognitive environments of both speech-act participants.

Any old information, whether noun phrases or whole clauses, can be anaphorically referenced by these demonstratives. In (31) below, the core argument *fiyo* 'cow', underlined in the first main clause, is referred to anaphorically three clauses (two lines) later (where it is underlined again):

- (31) *Na koto ts'edoo nee, koyaa*
 na = kótó ts'é'dó-ó = néé kó-ia-a
 CONJ = then there-ABL = DEM.SG.MED go-1SG-SEQ
- dzigwetiaa fiyo.*
 dzígw-et-ia-a {fiyo-Ø}
 buy-VEN-1SG-SEQ COW-NOM
- Koyaa ceyaa ntsirobak.*
 kó-ia-a ce-ia-a ntsí-róba-k^e
 go-1SG-SEQ kill-1SG-SEQ she-people-DAT
- Ceyaa fiyoa dee.*
 ce-ia-a {fiyo-a = 'dée}
 kill-1SG-SEQ COW-NOM = ANPH.SG
- 

So then from there, I went and bought a cow. And I went and killed it for her people. I killed *that cow*.

By contrast, in (32), the anaphoric noun phrase *emuta* ‘*dée* ‘that story’ refers back to two full clauses each introduced by *naítá* (and underlined), that are both functioning as complements of the imperative verb *tóde* ‘tell’:

(32) *Tode*
 tód-e
 tell-IMP.SG

naíta noo dukotanee bia ngok,
naítá=noo d-ufkot-an-é=e bi-a ngó-k^e
 way[OBL] = REL.SG.PST3 take-AND-IPS-REAL = DP you.SG-ACC we.EXC-DAT

naíta noo tataekwaa sít's'ee bia
naít-á=noo táta-ekwa-a sít's'-é=e bi-a
 way[OBL] = REL.SG.PST3 aunt-man-ACC engage-REAL = DP you.SG-ACC

paka iyudukwee ts'oo ti.
 páka i-idu-kó=e ts'oo tí
 until be-2SG-SEQ=DP now ADV

Emuta dee jík!
 {emut-a='dée} jík
 story-NOM = ANPH.SG ADV

Tell a) how you were taken to us, b) how my uncle engaged you until from then you are here right now—that whole story!

Lastly, Ik nominal demonstratives—spatial, temporal, and anaphoric—are not mutually exclusive. They can occur singly or in combination with one or two other types. This is possible because they all have different functions, indicating the location, place in time, and discourse topicality, respectively, of their referents. Whichever types coincide in one noun phrase, the order in which they occur is: NP.HEAD = (anaphoric) = (spatial/temporal) = (spatial):

(33) *Cooccurring nominal demonstratives*

| | |
|------------------------|---|
| ámá = 'dée | 'that person (already mentioned)' |
| ámá = nak ^a | 'that person (from earlier)' |
| ámá = na | 'this person' |
| ámá = 'dée = naa | 'that person (mentioned, from earlier)' |
| ámá = 'dée = na | 'this person (already mentioned)' |
| ámá = 'dée = náa = ne | 'that person (there, mentioned, earlier)' |
| ámá = ke = náa = ke | 'that person (over there, from earlier)' |

8.2.4 *Locative adverbial demonstratives*

In addition to nominal demonstratives that point to objects, and anaphoric demonstratives that point to known information, Ik also has several locative adverbial demonstratives that point to a place. These also include deictics and anaphorics. The deictics comprise a three-term system distinguishing proximal, medial, and distal distances, just like nominal demonstratives. The anaphorics include two demonstratives that refer to a place or metaphorically to a time already known from the discourse context.

Even though they adverbially specify a location or direction, the Ik locative adverbial demonstratives exhibit the structure and behavior of nouns. That is, they can be inflected for all eight nominal cases and can be modified by deictic demonstratives as well as relative clauses. When they are modified by relative clauses, they fulfill the language's need for locative adverbial clauses. For example in (34), the locative demonstrative *naí-* acts as a peripheral argument (encoding a Destination role) of the verb *ká-* 'go'. It is then modified by a relative clause (RC) introduced by the relative pronoun = *noo*. The whole construction acts as a locative adverbial clause (LOC ADV):

(34) *Kaa nayee noo itsyaketad.*

ká-a [naí-é = [noo itsyak-et-á = d^e]_{REL}]_{LOC ADV}
 go-REAL where-DAT = REL.SG.PST3 begin-INCH-REAL = DP
 She's going to where she started.

The whole system of the first set of Ik locative demonstratives is apparently based on the noun *aí-* ‘location, side’. This noun, combined with the nominal spatial demonstratives, produces a system of locative reference that shows various degrees of grammaticalization and phonological erosion. Because the noun *aí-* ‘location, side’ is at the heart of this system, in principle all members of the paradigm should inflect for all eight Ik nominal cases. In reality, though, some of the case suffixes have been lexicalized as part of the noun base and substantially eroded, resulting in case conflation. (35) shows the synchronic system of locative demonstratives, their hypothetical diachronic development being discussed below:

(35) *Deictic locative adverbial demonstratives (Set 1)*

| Case | Proximal | Medial | Distal |
|------|--------------------------|--------------------------|-----------|
| OBL | naí (=na) | naí (=ne) | kóó (=ke) |
| NOM | nay-á (=na) | nay-á (=ne) | kóó (=ke) |
| INS | nó-ó (=na) | nó-ó (=ne) | kóó (=ke) |
| ABL | naí-ó (=na) | naí-ó (=ne) | kóó (=ke) |
| GEN | naí-é (=na) néé (=na) | naí-é (=ne) néé (=ne) | kóó (=ke) |
| ACC | naí-á (=na) | naí-á (=ne) | kóó (=ke) |
| DAT | naí-é (=na) néé (=na) | naí-é (=ne) néé (=ne) | kóó (=ke) |
| COP | naí-ó (=na) | naí-ó (=ne) | kóó (=ke) |

First of all, the proximal and medial forms in (35) are made up of the noun *aí-* plus the proximal demonstrative *na=* as a proclitic. The same demonstrative is then an optional enclitic for the proximal forms, while the medial demonstrative *=ne* is an optional enclitic for the medial forms. The proclitic *na=* has apparently undergone phonological reduction. Then, once *na=* and *aí-* were conflated into *naí-*, it became subject to vowel assimilation. In the instrumental case, marked by the suffix {-ɔ}, the resulting form is *nóó*. This vowel assimilation is expected since the instrumental case deletes the stem-final vowel. However, in the genitive and

dative cases, both of which are marked with the suffix $\{-(k)\varepsilon\}$, the resulting form is *née*. This form involves further phonological reduction:

- (36) Instrumental: $na = +aí- + \text{ɔ} \rightarrow n\acute{o}\acute{o}$
 Genitive/dative: $na = +aí- + \varepsilon \rightarrow naí-é \rightarrow née$

As for the distal locative demonstrative, it appears to have undergone grammaticalization and phonological reduction to the point that it has the same form in all nominal cases: $k\acute{o}\acute{o} = (k\varepsilon)$. In years past, the distal locative demonstrative comprised a regular part of the paradigm in which the noun *aí-* was flanked on both sides by the distal nominal demonstrative $k\varepsilon$, as in $ke = aí-é = ke$, for example, in the genitive and dative cases. At some point, the preceding $ke =$ merged with the base noun, and at a later point, the instrumental case form $k\acute{o}\acute{o}$ was substituted for all the cases. Since it has undergone phonological reduction and morphological conflation to this degree, the form $k\acute{o}\acute{o}$ is analyzed here as a single morpheme synchronically.

Ik also has plural locative adverbial demonstratives: *nií-* for proximal and medial and *kií-* for distal. If the diachronic analysis of the forms in (35) is correct, then it would seem these plural forms were created by analogy with the demonstratives *na* (sg.) ~ *ni* (pl.) for proximal/medial and $k\varepsilon$ (sg.) ~ *ki* (pl.) for distal. These plural locative demonstratives pattern as follows:

(37) *Plural deictic locative adverbial demonstratives*

| Case | Proximal/medial | Distal |
|------|-----------------------------|-----------------------------|
| OBL | <i>nií</i> (= <i>ni</i>) | <i>kií</i> (= <i>ki</i>) |
| NOM | <i>ni-á</i> (= <i>ni</i>) | <i>ki-á</i> (= <i>ki</i>) |
| INS | <i>ni-ó</i> (= <i>ni</i>) | <i>ki-ó</i> (= <i>ki</i>) |
| ABL | <i>nió-ó</i> (= <i>ni</i>) | <i>kió-ó</i> (= <i>ki</i>) |
| GEN | <i>nií-é</i> (= <i>ni</i>) | <i>kií-é</i> (= <i>ki</i>) |
| ACC | <i>nií-á</i> (= <i>ni</i>) | <i>kií-á</i> (= <i>ki</i>) |
| DAT | <i>nií-é</i> (= <i>ni</i>) | <i>kií-é</i> (= <i>ki</i>) |
| COP | <i>nió-ó</i> (= <i>ni</i>) | <i>kió-ó</i> (= <i>ki</i>) |

Another set of locative adverbial demonstratives is based on the noun *ǰána-* ‘direction, location’. In this function, *ǰána-* is preceded by a proclitic demonstrative and followed optionally by another demonstrative. These locative demonstratives can be proximal or distal, as shown in (38). In the distal column, the /e/ in the distal demonstrative *ke* has been shortened to /i/ in *ki* = as a result of it being in an unstressed position:

(38) *Deictic locative adverbial demonstratives (Set 2)*

| Case | Proximal | Distal |
|------|--------------------|--------------------|
| OBL | ná = ǰána (= na) | kí = ǰána (= ke) |
| NOM | ná = ǰán-a (= na) | kí = ǰán-a (= ke) |
| INS | ná = ǰán-o (= na) | kí = ǰán-o (= ke) |
| ABL | ná = ǰáno-o (= na) | kí = ǰáno-o (= ke) |
| GEN | ná = ǰáne-e (= na) | kí = ǰáne-e (= ke) |
| ACC | ná = ǰána-a (= na) | kí = ǰána-a (= ke) |
| DAT | ná = ǰáne-e (= na) | kí = ǰáne-e (= ke) |
| COP | ná = ǰáno-o (= na) | kí = ǰáno-o (= ke) |

The noun *ǰána-* is also used to build compounds that signify geographical locations or directions. These may correspond to their absolute navigational referents, but they are often skewed somewhat by local topography:

(39) *Navigational terms*

| | | |
|-------|----------------|---------------------|
| East | Fetí-éku-ǰaná- | ‘sun-eye-direction’ |
| West | Tábai-ǰaná- | ‘?-direction’ |
| North | Gwáριο-ǰaná | ‘top-direction’ |
| South | Gígiro-ǰaná- | ‘down-direction’ |

Finally, the words *nédi-* (medial) and *kédi-* (distal) also function as locative adverbial demonstratives. Because *kédi-* has the lexical meaning of ‘way, means’ and *nédi-* has none such, it is suspected that *nédi-* was introduced by analogy with the deictic demonstratives *ne* (medial) and *ke* (distal). As full nouns, they make up a fully regular case paradigm as shown in (40):

(40) *Deictic locatives (Set 3)*

| Case | Medial | Distal |
|------|--------------|--------------|
| OBL | nédi (=ne) | kédi (=ke) |
| NOM | néd-a (=ne) | kéd-a (=ke) |
| INS | néd-o (=ne) | kéd-o (=ke) |
| ABL | nédi-o (=ne) | kédi-o (=ke) |
| GEN | nédi-e (=ne) | kédi-e (=ke) |
| ACC | nédi-a (=ne) | kédi-a (=ke) |
| DAT | nédi-e (=ne) | kédi-e (=ke) |
| COP | nédi-o (=ne) | kédi-o (=ke) |

Besides the three sets of deictic locative demonstratives outlined above, Ik also has two anaphoric locative demonstratives: *tumɛ'dé-* and *ts'édé-*. The downstep posited for both forms is based on the fact that the H tone after the depressor consonant /d/ is lowered to mid pitch (actually a low-to-mid rise phonetically). As mentioned in §3.2.3, this is typical tonal behavior whenever a depressor consonant is followed or flanked by H tones.

(41) *Anaphoric locative demonstratives*

| | | |
|-----|-----------|----------|
| OBL | tumɛ'dé | ts'édé |
| NOM | tumɛd-a | ts'éd-a |
| INS | tumɛd-ɔ | ts'éd-ɔ |
| ABL | tumɛ'dɔ-ɔ | ts'édɔ-ɔ |
| GEN | tumɛ'dé-é | ts'édé-é |
| ACC | tumɛ'dé-á | ts'édé-á |
| DAT | tumɛ'dé-é | ts'édé-é |
| COP | tumɛ'dɔ-ɔ | ts'édɔ-ɔ |

The fact that both anaphoric locative demonstratives contain the segment /d/ suggests that they are linked formally as well as functionally with the anaphoric nominal demonstrative =*d'ée* described above (as well as the singular possessive suffix *-ede-*). The demonstrative *ts'édé-* has two

frequently encountered allomorphs varying in the first segment: *jé'dé-* and *ké'dé-* and. This type of glottalic allophony is described back in §2.3.3.

The two anaphoric locative demonstratives are close in meaning and function in that they both refer anaphorically to a previously mentioned place, whether near or far away. However, though *tumé'dé-* can refer only to physical locations, *ts'é'dé-* can also refer metaphorically to circumstantial and even temporal 'locations', giving it a slightly broader usage.

In (42) below, *tumé'dé-* is used twice to refer back to the location 'Usake', marked with the dative case. Note the different case endings on the demonstrative according to which case the clause's syntax requires:

(42) *Kayuo saa jii Usakeek.*

ka-i-o sa-a=jii {usakee-k^e}
go-3SG-SEQ others-NOM = also Usake-DAT

Pelemoo saa tumedoo,

peɫ-ém-ó-ɔ sa-a {tumé'dó-ó}
appear-MID-3SG-SEQ others-NOM ANPH.LOC-ABL

kayukwee bobaina jii tumedee.

ka-i-kó=e bobá-ín-á=jii {tumé'dé-é}
go-3SG-SEQ = DP grandfather-POSS.PL-NOM = also ANPH.LOC-DAT

Others also went *to Usake*. Others came out *from there*. (My) grandparents also went *there*.

And in (43) below, *ts'é'dé-* is also used to refer to the location 'Moroto':

(43) *Na itayee Morotoa,*

na = ita-i-ε {moroto-á}
CONJ = reach-3SG-SIML moroto-ACC

ibamukotoo roba ts'edoo.

ibám-úkət-ɔ-ɔ roḅ-a {ts'é'dó-ɔ}
 free-COMP-3SG-SEQ people-NOM ANPH.LOC-ABL

When he reached *Moroto*, people became free *from there*.

(44), on the other hand, is an example of *ts'édé-* used to refer to a set of temporal circumstances, in this case how the weather affected agriculture:

(44) *Tokobeese koto eda dii,*

təkób-ε-εε = kótó eɗ-a = 'díí
 dig-INCH-SPS = then grain-NOM = ANPH.PL

itetuo koto didia dita noo kowee nabo.

it-ét-u-o = koto didi-a dí'tá = noo kɔwé-é naḅó
 come-VEN-3SG-SEQ = then rain-NOM like = PST3 old-REAL-GEN again

Marankoo, gaanukoo,

marán-ú-ko = o gaan-u-kó = o
 good-3SG-SEQ = DP bad-3SG-SEQ = DP

kama noo koto mena ts'edee.

kám-á = noo = kótó mən-a ts'édé-é
 like-REALPST3 = then issues-NOM ANPH.LOC-GEN

Then that grain started getting farmed, and the rain came back again like it used to long ago. And then from there it was good, and then from there it was bad...So that's how things were *at the time*.

8.3 Adverbs

Ik has a small, closed class of words that can be called ‘adverbs’ on the basis that they are mostly monomorphemic and can modify whole clauses. Some adverbs convey the manner of an action, while others relate the epistemic attitude of the speaker. Other still defy any semantic characterization.

The Ik manner adverbs include the following:

(45) *Ik manner adverbs*

| | | |
|----------------------|-----------------------|-----------------------------|
| dɛmusu | ‘quickly’ | (also <i>damusu</i>) |
| híjɔ | ‘slowly, carefully’ | |
| jíkí | ‘totally, really’ | |
| jíiki | ‘always’ | |
| kóntíák ^e | ‘straightaway’ | (cf. <i>kɔní-</i> ‘one’) |
| muka | ‘completely, forever’ | (also a noun <i>muka-</i>) |
| páka | ‘until, indefinitely’ | (fr. Swahili <i>mpaka</i>) |
| zuku | ‘very, especially’ | (also in Nyang’í) |

A few of the adverbs in (45) undergo the deletion of their final consonant segment in clause-medial environments. For example, *dɛmusu* ‘quickly’ may be pronounced as *dɛmu* and *kóntíák^e* ‘straightaway’ as *kóntíéé*.

Other adverbs relate the epistemic attitude of the speaker, for example:

(46) *Ik epistemic adverbs*

| | | |
|-------|----------------------|--|
| =já | ‘just, then’ | (an enclitic) |
| tsábo | ‘apparently’ | |
| tsamu | ‘exactly, of course’ | (also a noun <i>tsamú-</i> ‘freeness’) |
| ts’ɔɔ | ‘probably’ | (marker of distended present) |

A handful of other adverbial particles fall together into the following group unmarked by any particular semantic cohesiveness:

(47) *Other Ik adverbs*

| | |
|---------|---------------|
| edá | ‘only, alone’ |
| =jike | ‘also, too’ |
| kíná | ‘and then’ |
| naó | ‘again’ |
| =ná(k)a | ‘just’ |
| toni | ‘even’ |

The adverb *jike* ‘also, too’ undergoes non-final deletion and vowel assimilation such that *ju* is an allomorph commonly heard in the language. The adverb *naó* ‘again’ is cognate with Teso-Turkana *nabo* of the same meaning. In both languages, it can also be used in the sense of ‘moreover’.

Adverbial functions are often handled in Ik by nouns and verbs. For example, nouns in the instrumental or dative cases can be used to modify a predicate. In (48) below, the nominalized verb *isílon* ‘to be peaceful’ is given the instrumental case to elaborate on the manner in which the person was settled down. Then in (49), the noun *kédi-* ‘way’ is put in the dative case, also to express the manner in which it was getting cloudy:

(48) *Zekwitetesa bia isilon.*

| | | |
|---|------------|----------------------|
| zekw-it-et-és-á | bi-a | isíl-ón ^w |
| sit-CAUS-INCH-INT-REAL | you.SG-ACC | be.peaceful-INF-INS |
| He will settle you down peacefully (i.e. with peace). | | |

(49) *Kupetaa kedia gaan.*

| | | |
|---|---------|----------|
| kup-et-á-á | kédi-e | gaan-∅ |
| cloudy-INCH-REAL-PRF | way-DAT | bad-REAL |
| It's getting dangerously cloudy (i.e in a bad way). | | |

Many time expressions used adverbially are in fact nouns in the instrumental case with the suffix {-ɔ}, for example those in (50). For more on Ik time expressions, skip ahead to §8.9.

(50) *Nominal time expressions.*

| | |
|-----------------------|------------------|
| barats- ^o | 'in the morning' |
| mukú-∅ | 'at night' |
| ɲabáít- ^ɔ | 'at dawn' |
| ód-atu-∅ | 'all day' |
| ódo- ^o | 'during the day' |
| tso-ík- ^o | 'all night' |
| wídz- ^o | 'in the evening' |
| wídz-ek- ^o | 'in the evening' |
| ʃɪɲat- ^ɔ | 'at dusk' |

Other adverbial meanings are expressed through the use of verbs in the simultaneous aspect, marked by the suffix {-ke}. For a simultaneous verb to be used adverbially, it must follow the main verb without a subordinating conjunction. And it must also have an impersonal 3SG subject, for example:

(51) *Waakuo maraɲik!*

wáák-úó maráɲ-í-k^e
 play-IMP.PL good-3SG-SIML
 Play well (lit. 'You play, it being well.')

(52) *Todia Icetoda gaanik.*

tód-i-a icé-tód-a gaan-i-k^e
 speak-1SG-REAL Ik-speech-NOM bad-3SG-SIML
 I speak Ik badly (lit. 'I speak Ik, it being bad').

Though the subject of the sentence in (51) is 2PL, and the subject of the one in (52) 1SG, in both cases the post-posed simultaneous verb is 3SG.

8.4 Conjunctions

Conjunctions form that small set of words that link one syntactic unit—be it a phrase or clause—to another. Ik has numerous subordinating conjunctions that introduce dependent clauses, as well as a few coordinating conjunctions that join two syntactic units of the same type. These are described below.

8.4.1 Subordinating conjunctions

Ik exhibits a fairly complicated set of subordinating conjunctions. One cause of the complexity is that different categories like ‘conditional’ and ‘hypothetical’ include the Ik three-tier past tense depth. The subordinating conjunctions can be divided into groups according to the type of verb that follows them in the subordinate clause. These include 1) realis, 2) sequential, 3) simultaneous, and 4) miscellaneous.

Temporal subordinate clauses coincide with verbs in the realis modality. They are tensed, their tense specification coming from tensed subordinating conjunctions. A dummy pronoun on the verb marks the fact that a temporal adjunct is part of the clause’s semantic schema. These conjunctions are actually grammaticalizations of relative pronouns that themselves were grammaticalized from demonstratives. Ik temporal subordinating conjunctions are all based on the proto-demonstrative **na*. Compare this with nearby Turkana, where the ‘feminine agreement marker’ *na-* also introduces preposed temporal adverbial clauses (Dimmendaal 1983:392).

(53) Temporal subordinating conjunctions

| CONJ | Clause type | Gloss |
|-----------|--------------|------------------|
| náa | PST1 | ‘When...,’ |
| sina | PST2 | ‘When...,’ |
| noo | PST3 | ‘When...,’ |
| na = náa | PST1 Perfect | ‘When...had...,’ |
| na = samu | PST2 Perfect | ‘When...had...,’ |
| na = noo | PST3 Perfect | ‘When...had...,’ |

Two other subordinating conjunctions combine notions of temporality with conditionality. These are shown in (54). They also cooccur with verbs in the realis modality joined to the dummy pronoun. The particle *néé* ‘if/when’ also functions elsewhere as a locative (ablative) preposition meaning ‘from X’ (see §8.5). Compare this with the Turkana conjunction *a ní* ‘from’ which also doubles as a conjunction meaning ‘if/when’ (Dimmendaal 1983:395-396). The two functions of *néé* thus appear to be a calque of similar functors in Turkana. Then the second Ik conjunction shown in (54) is just a combination of the recent past conjunction from (53) and *néé*:

(54) *Conditional-temporal subordinating conjunctions*

| | | |
|----------------|----------------------|---------------|
| <i>néé</i> | Conditional/non-past | ‘If/when...,’ |
| <i>náa néé</i> | Conditional/non-past | ‘If/when...,’ |

Subordinate clauses with sequential verbs encode conditional and hypothetical statements. Conditional clauses are introduced by the proclitic particle *na’=* (the floating H being posited to account for H tones may put on the first next syllable). Used alone, *na’=* conveys a non-past or gnomic sense, while in combination with tensed conjunctions, it communicates past perfect conditionals. The conditional conjunctions are shown below in (55):

(55) *Conditional subordinating conjunctions*

| CONJ | Clause type | Gloss |
|-----------------|--------------------------|----------------|
| <i>na’=</i> | Gnomic conditional | ‘If...,’ |
| <i>na = náá</i> | Conditional PST1 perfect | ‘If...had...,’ |
| <i>ná = bee</i> | Conditional PST2 perfect | ‘If...had...,’ |
| <i>na = noo</i> | Conditional PST3 perfect | ‘If...had...,’ |

The hypothetical subordinating conjunctions consist in the first place of the general subordinator *na’=* procliticized to the auxiliary *ka* which is in turn modified by tense clitics. The particle *ka* is isomorphic with the verb root *ka-* ‘go’. It would be interesting to investigate cross-linguistically whether a motion verb is elsewhere grammaticalized as a hypothetical marker. The

removed past form =*samu* is used instead of =*bee*. The PST1 perfect form *na = ká = naa* can also convey a general, gnomic hypotheticality:

(56) *Hypothetical subordinating conjunctions*

| CONJ | Clause type | Gloss |
|-----------------------|-----------------------------|----------------------|
| <i>na = ká = naa</i> | Hypothetical PST1 (perfect) | 'If...would (have),' |
| <i>na = ká = samu</i> | Hypothetical PST2 perfect | 'If...would have,' |
| <i>na = ká = noo</i> | Hypothetical PST2 perfect | 'If...would have,' |

Subordinate clauses with simultaneous verb forms are introduced by three different conjunctions: 1) The conjunction *áta* (from Swahili *hata* 'even') introduces concessive clauses. 2) The conjunction *na =* introduces narrative clauses with relative rather than absolute tense. 3) And the conjunction *náa* introduces hypothetical-temporal clauses. The form *náa* is obviously linked to the PST1 conjunction, but its function is nearer to that of *néé*.

(57) *Mixed subordinating conjunctions with simultaneous verbs*

| CONJ | Clause type | Gloss |
|-------------|-----------------------------|----------------------|
| <i>áta</i> | Concessive | 'Even though/if...,' |
| <i>na =</i> | Narrative relative temporal | 'When...,' |
| <i>náa</i> | Hypothetical-temporal | 'If/when...,' |

Four miscellaneous conjunctions remain: 1) *naítá* also takes verbs in the realis modality with the dummy pronoun enclitic. In translation it means 'Since...', 'Given that...', and 'Due to the fact that...'. It is morphologically complex, being made up of the subordinating conjunction *na* plus the 3sg verb form *ít-á* 'It amounts to...'. As such, *naítá* can more accurately be glossed as 'To the degree that...'. 2) *demusú*—used elsewhere as an adverb—coincides with verbs in either the realis modality or the subjunctive mood (irrealis). As a conjunction, it communicates the idea of 'Unless/until...'. 3) *dítá*—used elsewhere as a preposition—cooccurs with verbs in the realis modality with the dummy pronoun. As a conjunction, it introduces a

similative dependent clause with the meaning ‘Like (when)...’. 4) *térútsu*— used to convey a perfect aspectual sense for either present perfect or past tenses. It may be related to the verb *erúts-* ‘be new’, possibly in connection with an emphatic particle *te*. The conjunction *térútsu* is usually translated as ‘After/when...had already...’.

(58) *Miscellaneous subordinating conjunctions*

| CONJ | Clause type | Gloss |
|---------|-------------|--------------------------------|
| naítá | Resultative | ‘Since...,’ |
| ǀemosu | Concessive | ‘Even if/though...,’ |
| ǀítá | Similative | ‘Like (when)...,’ |
| térútsu | Perfective | ‘After/when...had already...,’ |

The reader is referred ahead to §9.8 for real-language examples of all these subordinating conjunctions being used to introduce dependent clauses.

8.4.2 Coordinating conjunctions

The coordinating conjunctions conjoin any two syntactic constituents of the same type, for example noun phrases with noun phrases or independent clauses with independent clauses. The semantic relationship implied by the conjunction may be a logical one or a temporal one. The table in (59) presents the Ik coordinating conjunctions and their various meanings. The word *kede* is cognate with Teso-Turkana *kori* also meaning ‘or’, while *ńda* ‘and’ may be related to the Turkana ‘second linker’ *tá* (Dimmendaal 1983:411). When followed by another H tone in the same tonal phrase, the conjunction *ńda* causes downstep and may so also be represented as *ń¹da*.

(59) *Coordinating conjunctions*

| | Logical | Temporal |
|-----------|-------------|----------|
| kede | ‘or’ | — |
| (=)kǀotǀo | ‘then, but’ | ‘then’ |
| ńda | ‘and’ | ‘and’ |

Below, two examples of *kedé* ‘or’ are provided, one with the conjunction (underlined) linking noun phrases and one with it linking clauses:

(60) *Atsa Fetiekuo kedé Tabayu?*

ats-a [fetí-éku-o]_{NP1} kedé [tábayu-∅]_{NP2}
 come-REAL sun-eye-ABL or west-ABL
 Does she come from the East or the West?

(61) *Daiya noo kedé gaaniya nok?*

[da-í-a=noo]_{CLAUSE1} kedé [gaan-i-á=nok^o]_{CLAUSE2}
 good-PLUR-REAL=PST3 or bad-PLUR-REAL=PST3
 Was it (usually) good or was it (usually) bad?

The conjunction *kedé* ‘or’ is also part of a special construction that can be translated for the first person as “I thought maybe...” or “I wondered whether...”. This construction consists of the verb *kut-* ‘say’ followed by *kedé* followed by a complement clause, for example:

(62) *Kutia kedé atsidaa nkanes.*

kut-í-á kedé [ats-íd-a-a ŋkan-és-∅]_{COMPL}
 say-1SG-REAL or come-2SG-REAL-PRF get-INF-NOM
 I thought maybe you’ve come to get (it).

(63) *Kwüida kedé ncuo bee?*

ku-íd-a kedé [jícú-ó=bee]_{COMPL}
 say-2SG-REAL or I-COP=PST2
 Do you think it was me (yesterday)?

The conjunction (=) *kwɔ* can occur clause-initially followed by a brief pause, but it often attaches to the first clausal element as enclitic. As an enclitic, it is susceptible to vowel harmony coming from a [+ATR] host. This conjunction does not conjoin noun phrases but only clauses. Its meaning is vague enough to cover such notions as ‘then’, ‘so’, ‘therefore’, and even ‘but’.

In (64), (=)kɔtɔ links two verbless copular clauses (VC) where it can be translated as ‘but’. Then in (65), (=)kɔtɔ links the clause temporally to the previous clause in a text talking about grains being harvested, brought home, piled up, and then cooked for the elders:

(64) *Benia ncuk, buo kot.*

[beni-á jícu-k^e]_{VC} [bu-o]_{VC} = kót
 not.be-REAL I-COP you.SG-COP = but
 It’s not me, but it’s you.

(65) *Koŋese koto jak.*

kóŋ-ése = ε = kɔtɔ jáká-k^e
 cook-SPS = DP = then elders-DAT
 Then it’s cooked with it (i.e. grain) for the elders.

Moving on to *ńda*: When noun phrases are linked by *ńda* in a series, the NP heads before *ńda* take whatever case the verb calls for, while the final NP head after *ńda* usually appears in the oblique case. For example, in (66), the first noun in the series (*Ika*) is in the nominative case, while the second (*Pakóíce*) is in the oblique case. Then in (67), the multiple objects of the verb *detini* ‘and they brought’ (some of which have been left out) take the accusative case except for the last one, which has the oblique case (*sai*):

(66) *Ika nda Pakoice*

[ik-a]_{NP1} ńda [pakó-íce]_{NP2}
 Ik-NOM and cave-AGT.PL[OBL]
 The Ik and the Turkana

(67) *Detini riyek, kwazikak, nda...sai menaicikae.*

det-ini [rié-k^a] [kwáz-íka-k^a]...ńda [sai mená-íčíká-^e]_{NP}
 bring-SEQ goats-ACC cloth-PL-ACC and other[OBL] things-PL-GEN
 And they brought goats, clothing,...and other things.

Two or more independent clauses may also be joined by *nda*. In (68), two sequential clauses are linked with it in a compound sentence:

- (68) *Atsini nda meese nkaka ntik.*
 [ats-ini]_{CLAUSE1} nda [me-ese ηkáá-á ní-tí-k^e]_{CLAUSE2}
 come-SEQ and give-SPS food-NOM they-DAT
 They came, and food was given to them.

A verb form often found following *nda* in a series of two or more clauses is the infinitive, as in the last clause of the following complex sentence :

- (69) *Bunutoo Pakoika Icek,*
 [bun-út-ǝ-ǝ pakó-ík-a icé-k^a]_{CLAUSE 1}
 scatter-CAUS-3SG-SEQ cave-AGT.PL-NOM Ik-ACC

itsujini awikaa,

[itsúŋ-ími aw-ika-a]_{CLAUSE 2}
 burn-SEQ home-PL-ACC

tobini nkakak,

[tob-ini ηkáá-k^a]_{CLAUSE 3}
 plunder-SEQ food-ACC

nda itsunesukoti menaicikee muŋ

nda [itsún-és-ókoti mená-ícíké-e muŋ]_{CLAUSE 4}
 and gather-INF-AND[OBL] things-PL-GEN all

The Turkana scattered the Ik, burned [their] homes, plundered [their] food, and gathered up all [their] things.

8.5 Prepositions

The ‘preposition’ category is used here as a catch-all for eight random words that are nonetheless found pre-posed before nouns. The meanings and functions of prepositions in other languages are in large part handled by the Ik relational nouns listed back in §4.3.8. Ik prepositions come from a variety of sources, and each require a particular case on the noun that follows them. Of the eight prepositions shown in (70), only *naakwaa* is properly considered a noun as evidenced by its ability to take case suffixes:

(70) *Ik prepositions*

| | Gloss | Case | Note |
|---------|-----------------|------|---------------------------------|
| dítá | ‘like’ | GEN | — |
| naakwaa | ‘even’ | GEN | cf. Ik <i>aká</i> - ‘inside’ |
| néé | ‘from, through’ | GEN | cf. Teso-Turkana <i>aní</i> |
| akıɓ | ‘instead of’ | OBL | fr. Teso-Turkana ‘to defeat’ |
| gone | ‘until, up to’ | OBL | fr. Ik <i>gon</i> - ‘to look’? |
| kóteré | ‘because of’ | OBL | fr. Teso-Turkana <i>ikóteré</i> |
| ńda | ‘with’ | OBL | cf. Teso-Turkana <i>tá</i> |
| páka | ‘until, up to’ | OBL | fr. Swahili <i>mpaka</i> |

These eight prepositions are each exemplified with one example below:

(71) *Gogosese dita riye.*

góg-os-ese dítá rié-Ø
 peg-PASS-SPS like goat-GEN

It (i.e. a rat skin) was pegged like (that of) a goat.

(72) *Ee, naakwaa jotee tsitsikimik.*

ee naakwaa-a jóté-é tsitsik-ímí-k^e
 yes even-NOM sisal.root-GEN roll-1PL.EXC-SIML

Yes, (we) rolling even sisal root (i.e. as kids practicing spearing).

(73) *Hyeida dikwitina nii nee karoŋoe?*

fīye-íd-a dikw-itín-á = nii néé karoŋó-e
 know-2SG-REAL song-PL-NOM = DEM.PL.PST1 from harvest.season-GEN
 Do you know these songs from harvest season?

(74) *Akilo bi ibeleesi kijae,*

akilo bi íbélé-ésí kǐjá-^e
 instead.of you.SG[OBL] change-INF[OBL] land-GEN

ibelea kija bik.

íbélé-a kǐj-á bi-k^a
 change-REAL land-NOM you.SG-ACC

Instead of you changing the world, the world changes you.

(75) *Toriikweese gone dziŋa ke.*

torí-íko-ese gone dziŋá = ke
 lead-AND-SPS up.to base[OBL] = DEM.SG.DIST
 And they were led away to that base of the slope.

(76) *Iryametia fiyekesie ncie kotere kiroti nci.*

iryam-et-í-á fiyek-esí-é jíci-e kóteré kirotí jíci-^o
 get-VEN-1SG-REAL live-INF-DAT I-GEN b'se.of sweat[OBL] I-GEN
 I get my livelihood because of my own sweat.

(77) *Tomore emutika nda ngo.*

tómór-é emút-íká nda ngo
 share-IMP.SG story-PL[OBL] with we.EXC[OBL]
 Share stories with us!

(78) *Beberese paka Lokoŋude.*

béber-ese páka lókóŋu-de
 pull-SPS until sacred.tree-foot[OBL]

And it was pulled all the way to the foot of the Sacred Tree.

8.6 Interjections

A number of words may be uttered in Ik that express a speaker's state of mind in response to something strongly felt. Such 'interjections' are of two types: 1) Those that have no other meaning and 2) those that do:

(79) *Interjections with no other meanings*

| | |
|---------|---|
| aaii/ái | expression of pain (like 'ouch!') |
| báas | expression of conclusion (fr. Swahili <i>basi</i>) |
| ee/éé | 'yes' |
| ha | expression of strong disagreement or protest |
| héé? | expression of disbelief |
| ńtódó | 'no' |
| wói | expression of pain or fear |
| wúlu | expression of surprise (like 'yikes!') |
| yweé | when someone has made a mistake |
| yóói | expression of good-natured disbelief or protest |

(80) *Interjections with other meanings*

| | Expressive meaning | Literal meaning |
|-----------|------------------------------|-------------------|
| ábaŋ/ábaŋ | expression of surprise | 'My father!' |
| hóítá kwí | expression of surprise | fr. Teso-Turkana |
| ima = na | expression of surprise | 'This child!' |
| ndéé | expression of disbelief | 'From where?' |
| ŋakuŋ | expression of strong emotion | 'God!' |
| ŋɔɔ = ni | expression of surprise | 'These men!' |
| roɔa | attention-getting device | 'People!' |
| wice = ni | expression of surprise | 'These children!' |
| yáŋ | expression of surprise | 'My mother!' |

8.7 Ideophones

Like many African languages, Ik has a class of expressive words that may be called ‘ideophones’, forms “characterized by phonological structures that tend to be peculiar” (Matthews 2007:183). In Ik, this phonological peculiarity may entail extra-long vowels and multiple reduplications, as well as expressive tonal and intonational patterns. Ik has three types of ideophones: 1) Those that are onomatopoeic or symbolic of the sound made by an action, 2) those that add extra vividness to a stative verb, and 3) those paired with the verb *kut-* ‘say’ to form special phrasal verbs. Examples of the first type—onomatopoeic—include the following:

(81) *Onomatopoeic ideophones*

| | |
|-------------------|--|
| buluk | sound of stone landing in water |
| buúu | sound of cow lowing |
| dereðereðer | sound of saucepan rolling |
| di | sound small sticks make when hitting or breaking |
| diul | sound body makes when hitting the ground |
| fiuꞰ | sound of bullet whizzing by |
| guluꞰ | sound made when swallowing a big piece of meat |
| hyea | sound of a tree falling |
| fiyom | sound of a stick breaking easily |
| kurukurukur | sound of a gourd rolling |
| mééé | sound made by goats bleating |
| piis | sound of sharp object piercing flesh |
| puot ^u | sound of spear going through a body |
| raaraar | sound of many hands clapping |
| riirri | sound of a flame |
| te | sound of firewood breaking |
| tsef | sound of an animal stepping |
| tud ^u | sound made when spear fails to penetrate |
| wuoo | sound of a Euphorbia tree falling |
| ziiri | sound of a vehicle going by |

The second type of ideophone—those not obviously onomatopoeic—simply add some semantic vividness to the verb’s meaning. These ideophones are often paired with a particular verb, for example:

(82) *Non-onomatopoeic ideophones*

| | | |
|------------------|-------------------------|-----------------------|
| duu | boʔa duu | ‘It’s very deep.’ |
| ɖuk ^u | masána ɖuk ^u | ‘It’s rotten stinky.’ |
| hel | tsáá hel | ‘It’s very dry.’ |
| pak ⁱ | ʔets’a pak ⁱ | ‘It’s very white.’ |
| pic | ɛ́óda pic | ‘It’s very full.’ |
| tík ⁱ | budámá tík ⁱ | ‘It’s very black.’ |
| tson | dīwa tson | ‘It’s very red.’ |

The third type of Ik ideophone are those that are paired with the verb *kut-ɔn* ‘to say’ to form special phrasal verbs with highly expressive overtones:

(83) *Ideophones paired with kut- ‘say’*

| | | |
|------------------|-------------------------|--|
| ɖi | kutɔna ɖi | ‘to hit something’ |
| ɖii | kutɔna ɖii | ‘to beat down (of hot sun)’ |
| kɪmɪa | kutɔna kɪmɪa | ‘to be dead silent’ |
| lioo | kutɔna lioo | ‘to be dead silent’ |
| líʊ | kutɔna líʊ | ‘to make sound of a bullet or beating’ |
| ɲɛɖ | kutɔna ɲɛɖ | ‘to stop suddenly (of one’s heart)’ |
| pel | kutɔna pel | ‘to make first appearance (of the moon)’ |
| pir | kutɔna pir | ‘to appear’ |
| píʊ | kutɔna píʊ | ‘to refuse to catch fire’ |
| puas | kutɔna puas | ‘to shatter or burst’ |
| rit ⁱ | kutɔna rit ⁱ | ‘to run and collapse suddenly’ |
| tusss | kutɔna tusss | ‘to ricochet’ |

8.8 Infantile imperatives

Ik has a collection of short words that are used to encourage young children to perform certain actions. These ‘baby-talk’ particles are inherently imperative but involve no verbal morphology. Examples include these:

(84) *Infantile imperatives*

| | |
|-------|---|
| ḃá | used to call a child to come eat |
| bubú | ‘night-night’, used to encourage a child to go to sleep |
| dí | ‘poo-poo’, used to encourage a child to defecate |
| ko | children’s word for ‘water’ |
| kókó | used to warn a child not to touch something |
| kukú | used to encourage a child to climb on one’s back |
| kwaa | ‘pee-pee’, used to encourage a child to urinate |
| mamá | used to encourage a child to eat |
| nuunú | used to encourage a child to nurse |

8.9 Time expressions

Time expressions in Ik do not make up a distinct word class. However, they do form a special lexical subset worth taking note of. All time expressions are nouns with case suffixes and other modifiers like demonstratives and post-posed subordinate clauses. Their being formed from nouns recalls Turkana adverbs of time which also originate in nouns (Dimmendaal 1983:360). As mentioned back in §6.3.3, the instrumental case is used in Ik to mark time expressions in the context of sentences. In their isolation forms, however, the time expressions may take the nominative case.

The names for the weekdays Monday-Friday in Ik are formed with the word *nákásií* ‘work’—from Swahili *kazi* ‘work’—coupled with a numeral quantifier in a simultaneous clause. For example, the word for ‘Monday’ translates literally as ‘work(day) being one’. The words for ‘Saturday’ and ‘Sunday’ are borrowed from Teso-Turkana. The term of ‘Sunday’ (*násabéti*-) originates from Italian through the influence of the Catholic church:

(85) *Ik days of the week*

| | | |
|---|--------------------------------|-------------|
| 1 | Nákásíá Kɔnik ^e | 'Monday' |
| 2 | Nákásíá Leβetsik ^e | 'Tuesday' |
| 3 | Nákásíá Adik ^e | 'Wednesday' |
| 4 | Nákásíá Ts'agúsík ^e | 'Thursday' |
| 5 | Nákásíá Tudik ^e | 'Friday' |
| 6 | Nárámíram | 'Saturday' |
| 7 | Násabét ^a | 'Sunday' |

The names for the months of the year are borrowed from Teso-Turkana because the Ik have no indigenous alternative. At times the Teso-Turkana names are translated directly into Ik, but these calques receive little usage.

(86) *Ik Months of the Year*

| | | |
|----|-----------------------|-------------|
| 1 | Lomuk´ | 'January' |
| 2 | Lokwanj´ | 'February' |
| 3 | Lɔ́dóŋe´ | 'March' |
| 4 | Lomaruk´ | 'April' |
| 5 | Titímá | 'May' |
| 6 | Yelyél | 'June' |
| 7 | Lɔmɔ́dɔ́kɔ́gec´ | 'July' |
| 8 | Lɔ́sóbán | 'August' |
| 9 | Lotyak´ | 'September' |
| 10 | Lɔ́lɔ́bá ^e | 'October' |
| 11 | Lopóo | 'November' |
| 12 | Lorára´ | 'December' |

Ik also has time expressions used to refer to days or years removed from the present either in the past or the future. For the day-terms, Ik combines the proto-temporal root *tso, the word *ódou-* 'day', or the word *baratsó-* 'morning' with demonstratives in proclitic and/or enclitic positions. Some of these demonstratives exhibit phonological reduction, maybe to the point of

lexicalization. Not all the morphology in these terms is fully understood. The day terms in (87) are presented with Wednesday acting as ‘today’:

(87) *Day-Terms, Past and Future*

| | | |
|------------------|--------------------------------|-----------------------|
| Saturday | ké = tsóítá ke = noo = ke | ‘four days ago’ |
| Sunday | ké = tsóítá = nok ^o | ‘three days ago’ |
| Monday | nó = tsóo = nok ^o | ‘two days ago’ |
| Tuesday | sáá = tso = sin | ‘yesterday’ |
| Wednesday | nó = ódwáá (= ne) | ‘today’ |
| Thursday | táá barats- ^o | ‘tomorrow’ |
| Friday | ké = tsói barats- ^o | ‘two days from now’ |
| ▼ Saturday | ké = tsóítá = ke | ‘three days from now’ |

Time expressions used to refer to years removed in the past or future are built on the root *kamí-* ‘year’. This is also modified by proclitic and enclitic demonstratives and exhibits phonological reduction and lexicalization. The proclitic or prefix *sá(á)-* seen in both (87) and (88) no doubt is a parallel with Dime’s (South Omotic) distal prefix *sa-* (Mulugeta 2008:73). In (88), the term *keináts* contains the verb root *ats-* ‘come’, as in ‘the coming year’:

(88) *Year-terms, past and future*

| Year | Grammatical | (Partly) Lexicalized |
|-------------|-------------------------|------------------------------|
| 2010 | kama = noo = ke | nókéma ke = noo = ke |
| 2011 | kama nó = tso | nókéma = ke |
| 2012 | kama = nok ^o | nókéma (= nok ^o) |
| 2013 | kama = sin | sákema (= sin) |
| 2014 | kamɔ = na | nákáíná (= na) |
| 2015 | kama = na táa | keináts |
| 2016 | kama = na tsó | nákáíná tso |
| 2017 | kama = ke | nákáíná = ke |
| ▼ 2018 | kama = na far | nákáíná far |

8.10 Greetings

Ik greetings do not constitute a separate grammatical word class *per se*. But they do consist of a variety of verb phrases and noun phrases used ritually so as to take on pragmatic meaning beyond grammar and semantics. Given the cultural importance of Ik greetings, they are presented below.

The most general greeting and the one usually first taught to outsiders is in the form of a question:

- | | | |
|------|----------------|--------------------|
| (89) | <i>Iyida?</i> | <i>Iyita?</i> |
| | i-íd-a | i-ít-a |
| | be-2SG-REAL | be-2PL-REAL |
| | Are you there? | Are you all there? |

In answer to this question, one typically responds with another question:

- (90) *(Iyida) bia jii?*
 (i-íd-a) bi-a=jii
 be-2SG-REAL you.SG.NOM = also
 (Are you there) you also?

The standard greetings in (89)-(90) mirror exactly those in Teso-Turkana languages where the phrase is rendered *Iyai a?* ‘Are you (sg.) there?’ or *Iyakasi a?* ‘Are you (pl.) there?’ A variation on this greeting in the northern Dodoth dialect of Karimojong is set in the subsecutive mood as *Toyai/Toyakas* ‘And you be there’ which can also have imperative overtones, as in ‘You be there’. The grammatical form of these greetings has seeped into Ik as *Iyiduk/Iyitik* ‘(And) you be there’ in the sequential aspect, though this form is less frequently heard. This reflects the fact that most Ik greetings are grammatical replications of those found in Teso-Turkana.

A number of other Ik greetings are specific to certain times of the day. In the morning, generally up till about 9 or 10 am, the following greetings may be used in place of those described above:

- | | | | |
|------|------------------------------|--|------------------------------|
| (91) | <i>Epidaa?</i> | | <i>Epitaa?</i> |
| | ep-íd-a-a | | ep-ít-á-a |
| | sleep-2SG-REAL-PRF | | sleep-2PL-REAL-PRF |
| | Have you slept? | | Have you all slept? |
| (92) | <i>Goneseidaa?</i> | | <i>Goneseitaa?</i> |
| | gon-es-é-íd-a-a | | gon-es-é-ít-á-a |
| | awake-IPFV-INCH-2SG-REAL-PRF | | awake-IPFV-INCH-2SG-REAL-PRF |
| | Have you awoken? | | Have you all awoken? |

The answer to both of these greetings, as well as the one presented next in (93), is the refrain given in (90) above.

From mid-morning until the evening, the greetings in (93) are also heard:

- | | | | |
|------|---------------------------|--|------------------------------|
| (93) | <i>Iryaidaa?</i> | | <i>Iryaitaa?</i> |
| | iryá-íd-a-a | | iryá-ít-á-a |
| | pass.the.day-2SG-REAL-PRF | | pass.the.day-2PL-REAL-PRF |
| | Have you passed the day? | | Have you all passed the day? |

After these initial greetings used to initiate a social interaction, any of the following questions may be posed in a polite bid for more information:

- | | | | |
|------|-------------------|----------|----------------------|
| (94) | <i>Kutana is?</i> | | <i>Isiemutio iy?</i> |
| | kut-an-a | is-Ø | isi-emutí-ó |
| | say-IPS-REAL | what-OBL | what-story/news-COP |
| | What is said? | | What news is there? |
| | | | i-Ø |
| | | | be-REAL |

Of course, like greeting questions in any language, the ones in (94) are more like rhetorical questions than information questions. There is handful of standard replies that may be alternated according to the weather, the relative hunger felt in that land, or the current mood in the neighborhood:

(95) *Biraa emuta iy.*

bira-a émut-a i-∅
 not.be-REAL story/news-NOM be-REAL
 There is no news.

(96) *Neke eda.*

ɲék-a ɛdá
 hunger-NOM only
 Only hunger.

(97) *Maraŋa zuk!*

maráŋ-á zuk^u
 good-REAL very
 Very good.

Chronic hunger, especially in the second and third quarters of the year, has been part of the Ik people's normal existence. Over time, the conditions of hunger have shaped the culture, and this is reflected in another series of greetings. The following greetings, having to do with hunger and food, are often quite startling to newcomers in the area. This is because they sound very direct and are interpreted literally as requests for food, when more often the people saying them do not actually expect food to be given:

(98) *Isio nkan?*

isi-o ɲk-an-∅
 what-COP eat-IPS-REAL
 What is (being) eaten?

Isio nki?

isi-o ɲk-í-∅
 what-COP eat-1SG-REAL
 What do I eat (here)?

The standard reply to both of these questions is *bra* ‘Nothing’. But if persistent, one may further inquire:

- (99) *Ayukotaa toboŋa?*
 aě-íkot-á-á tɔbɔŋ-a
 ready-COMP-REAL-PRF maize.mush-NOM
 Has the *posho* gotten ready?

One can respond to (99) with *sár* ‘Not yet’, *máá aěikotí* ‘It hasn’t got ready’, or *máá naa ŋwéesí* ‘I didn’t grind (flour)’.

Another type of initial greeting, involving the imperative verb *bíré*, became something of a symbol of Ik beggarliness in Colin Turnbull’s (1972) infamous book about the Ik called *The Mountain People*. A phrase often repeated in the book—*brinji lotop* in his orthography (e.g., p. 56)—is usually translated as ‘Give me tobacco’. Both in translation and in actual pronunciation, this phrase sounds abrupt and a bit rude to a foreigner unaccustomed to a begging/sharing culture. Though the stark intonation of the phrase is unavoidable, there is a better translation than ‘Give me’.

The imperative *bíré* should not be translated simply as ‘Give me’ because there is already another verb that means ‘give’: *ma-*, or *me-et-* in the venitive. ‘Give me’ is the correct translation for the phrase *meete jícik^e*, where *jícik^e* ‘to me’ is the dative case form of the first person singular pronoun. So ‘Give me tobacco’ would be *Meete lótóba jícik^e*. As discussed back in §6.3.3, in the phrase *brinji lotop*—more accurately written as *bíré jící lótó^b*—the object of the imperative is *jící* ‘me’ in the oblique case, while *lótó^b* ‘tobacco’ is an adjunct argument in the instrumental case. If the grammar is any indication, then the phrase means ‘X me *with* tobacco’. As best as can be gathered from its singular use in this greeting of request, the verb *bíré jící* approximates to something like ‘Help me’, ‘Relieve me’, or ‘Avail me’.

Another component of Ik greeting is asking about one's movements to and fro. In Western society, this may seem rude as most people live out their individual lives with a good deal of privacy. But in tight-knit communities like those of the Ik, ones that have suffered from attacks and emergencies of all kinds, knowing each other's whereabouts is an expected nicety. The following questions and replies are representative of what one might hear:

- (100) *Atsida ndee?* *Atsia awao.*
 ats-íd-a ndéé ats-í-á awá-^o
 come-2SG-REAL from.where come-1SG-REAL home-ABL
 You're coming from where? I'm coming from home.

- (101) *Keesida ndaik?* *Keesia sedak.*
 ke-es-íd-a ndaí-k^e ke-es-í-á séda-k^e
 go-INT-2SG-REAL where-DAT go-INT-1SG-REAL garden-DAT
 You are going where? I'm going to the garden.

After one's origin or destination has been revealed, further seemingly (to outsiders) intrusive questions may be asked. These questions are generally good-natured and should be viewed as such. Consider the following:

- (102) *Isio naa nkaneid?*
 isi-o = náa ŋkan-é-íd-∅
 what-COP = PST1 get-VEN-2SG-REAL
 What did you get (i.e. when you went there)?
- (103) *Nkaka isi?*
 nkák-á isi-∅
 eating-NOM what-GEN
 To eat what (i.e. why are you going)?

After greetings, questions, and conversation, leave-taking occurs. When one participant gets ready to leave, the other may offer such phrases as:

- (104) *Kae jaa?* *Koyuo kotoo?*
 ka-e = jááá kóy-úo = kotoó
 go-IMP.SG = ADV go-IMP.PL = ADV
 Alright, go! You go then!
- (105) *Itae marájidik!*
 ita-ε maráη-ídi-k^e
 reach-IMP.SG good-2SG-SIML
 Reach well!
- (106) *Epu kotuo marájitik!*
 ep-ukot-úó maráη-íti-k^e
 sleep-COMP-IMP.PL good-2PL-SIML
 Sleep well!

At any point of a social interaction, the liberal usage of *maráη* ‘good/okay’ is typically appropriate. And if one is particularly happy about what has transpired during the interaction, it is suitable to add the following:

- (107) *Ilakasukotiaak!*
 ilák-ás-ukót-í-a-k^a
 happy-ABST-COMP-1SG-REAL-PRF
 Thank you (lit. ‘I have become happy’)!
- (108) *Ilakasukotimak!*
 ilák-ás-ukót-ím-á-k^a
 happy-ABST-COMP-1PL.EXC-REAL-PRF
 Thank you (lit. ‘We have become happy’)!

9 Phrases and Clauses

Now that phonemes and morphemes (words and affixes) have been described, the present chapter takes up the topic of basic syntax. It begins with a discussion of noun phrases (§9.1), followed by simple main clauses (§9.3-§9.6), a variety of subordinate clauses (§9.7-§9.9), and several other noteworthy syntactic constructions (§9.10-§9.16). In many regards, this chapter only scratches the surface of Ik syntax, but it is hoped that the topics covered here will provide impetus for further investigation.

9.1 Noun phrase structure

Noun phrases (NP) fill core or peripheral argument slots in clause structure. Their phrasal heads can be made up of a solitary noun (including nominalized verbs), pronoun, or compound. Noun phrases may also include one or more modifiers such as: demonstratives, quantifiers, possessive phrases, or relative clauses. In other words, a given NP may consist of just the head or of multiple embedded phrases and/or clauses.

Any modifiers within an Ik noun phrase follow the phrasal head they modify. This conforms to expectations for VSO languages (Creissels 2000:252), of which Ik is one. For example, in (1) below, the possessive NP *jíci* ‘my’ follows the noun *dakwitíná* ‘trees’, as do the plural demonstrative =*ni* in (2) and the numeral quantifier *ad^e* ‘three’ in (3):

- (1) *dakwitina nci*
[*dakw-itín-á* [*jíci-Ø*]_{NP.POSS}]_{NP}
tree-PL-NOM I-GEN
my trees

(2) *dakwitina ni*
 [dakw-itín-á = ni]_{NP}
 tree-PL-NOM = DEM.PL
 these trees

(3) *dakwitina ad*
 [dakw-itín-á ad^e]_{NP}
 tree-PL-NOM three
 three trees

More than one type of demonstrative may modify a noun in the same noun phrase. When all three types of demonstrative cooccur, they do so in the following order: anaphoric-temporal-spatial. An example of this is in (4):

(4) *ama dee sina ne*
 [ám-á = 'déé = sina = ne]_{NP}
 person-NOM = ANPH.SG = PST2.DEM.SG = DEM.SG.MED
 that person there (of yesterday, already mentioned)

Ik speakers have a penchant for using spatial demonstratives more than once in a single noun phrase (see also §8.2.1). It seems to add a bit of rhythmic balance to one's speech. (5) shows an example of this:

(5) *ama ke naa ke*
 [ám-á = ke = náa = ke]_{NP}
 person-NOM = DEM.SG.DIST = DEM.SG.PST1 = DEM.SG.DIST
 that person over there (of earlier today)

If a modifier NP is selecting its head from a group rather than merely qualifying it, it trades places: It becomes the NP head and the modified noun becomes a possessive NP. This happens, for example, with the indefinite pronoun *saí-* 'some more, some other' and the interrogative pronominal compound *ńtė-ėní-* 'which?'. In (6), the noun *awika-* 'homes' is

bumped into an embedded genitive possessive phrase modifying the indefinite *saa*. And in (7), the same thing happens to *awá^e* ‘home’:

- (6) *saa awikae*
 [sa-a [aw-ika-^e]_{NP:POSS}]_{NP}
 other-NOM home-PL-GEN
 some other homes
- (7) *Nteena awae?*
 [íté-én-á [awá-^e]_{NP:POSS}]_{NP}
 which-PSSM-NOM home-GEN
 Which home?

If a quantifier cooccurs with either a possessive phrase or a demonstrative in an NP, the quantifier comes last in the sequence, for example:

- (8) *ηokitina ncie gai*
 [ηók-ítín-á [jci-e]_{NP:POSS} †gái]_{NP}
 dog-PL-NOM I-GEN both
 both my dogs
- (9) *ηokitina ni gai*
 [ηók-ítín-á = ni †gái]_{NP}
 dog-PL-NOM DEM.PL both
 both these dogs

And if all three types of modifiers are present, the following order obtains:

- (10) *ηokitina ncie ni gai ni*
 [ηók-ítín-á [jci-e]_{NP:POSS} = ni †gái = (ni)]_{NP}
 dog-PL-NOM I-GEN = DEM.PL both = DEM.PL
 both these dogs of mine (these)

Noun phrase heads may be modified by relative clauses (see §9.8 for a more detailed treatment). These clauses also follow the NP head. They tend to fall at the end of the NP, but quantifiers may optionally follow them:

- (11) *dakwitina ncie gai ni dunaaket*
 [dakw-itín-á [jici-e]_{NP.POSS} 'gái = [ni dun-aak-et-^{a'}]RC]_{NP}
 tree-PL-NOM I-GEN both = REL.PL old-DISTR-INCH-REAL
 both of my old trees

- (12) *dakwitina ncie ni dunaaketa gai*
 [dakw-itín-á [jici-e]_{NP.POSS} = [ni dun-aak-et-a]_{RC} 'gái]_{NP}
 tree-PL-NOM I-GEN = REL.PL old-DISTR-INCH-REAL both
 both of my old trees

And when multiple adjectival verbs are used to describe a clausal argument, only one relative clause structure is used. After the relative pronoun come the two or more adjectivals, demarcated with a pause (||) between each one:

- (13) *dakwitina ncie ni dunaaket,*
 [dakw-itín-á [jici-e]_{NP.POSS} = [ní dun-aak-et-∅] ||
 tree-PL-NOM I-GEN = REL.PL old-DISTR-REAL

zikibaakat, ilibaakata muṅ

- zikiḃ-aak-át-∅ || ilíḃ-aak-át-a]_{RC} muṅ]_{NP}
 tall-DISTR-3PL-REAL green-DISTR-3PL-REAL all
 all my old, tall, green trees

9.2 Possession

The following overview of ‘possession’ in Ik covers not only the possessive constructions within in noun phrases, but also some of the broader issues surrounding how ‘possession’ is syntactically encoded in the language.

From a syntactic point of view, Ik employs three types of possessive construction: 1) A possessee NP head followed by a possessor NP in the genitive case, 2) a possessor noun and a possessee noun joined in a compound, in that order. Ik speakers claim there is no difference in meaning between these two types. 3) The third type of possessive construction is complex. It consists of a compound with the possessor as the N₁ and the possessum morpheme *ení-* as the N₂. These two elements alone comprise a possessive noun phrase, as in *ɲj-én* ‘mine’. But then the possessee can be specified by putting it in a genitive phrase after the NP head. This construction can be termed ‘pertensive’ (Dixon 2010b:268), given that the possessee bears the traditional marking for possessor (the genitive case):

(14) *NP possessive constructions*

| | | | |
|---|-------------------------|----------------------|-----------|
| 1 | awa jíci | home I:GEN | ‘my home’ |
| 2 | jíci-aw | I:OBL-home | ‘my home’ |
| 3 | ɲj-éná awá ^e | I[OBL]-PSSM home:GEN | ‘my home’ |

The types of semantic relationships that Ik possessive constructions can express include those in (15)-(21). According to Dixon (2012b:263), Ik would fall into that group of languages worldwide that shows a comparatively wide range of such relationships:

- (15) Ownership: *nkáka nti*
 ɲkáká ńtí-Ø
 food-NOM they-GEN
 their food

- (16) Whole-part: *rijaakw*
 ríjá-akw-^a
 forest[OBL]-inside-NOM
 the inner (part of the) forest

- (17) Kinship: *njini-liaat*
 njíńi-liaát^a
 we.INC[OBL]-brother-NOM
 our brother
- (18) Attribute: *íbaaŋasa wice*
 íbááŋ-as-a wicé-∅
 foolish-ABST-NOM children-GEN
 the foolishness of children
- (19) Orientation: *koo kwaro awae*
 kóó kwar-ɔ awá^e
 there mountain-INS home-GEN
 there by the upper side of the home
- (20) Association: *mucea tajaikini*
 muce-a taja-ík-ini-∅
 path-NOM cohort-PL-POSS.PL-GEN
 the path of their companions
- (21) Nominalization: *arutetona ebae*
 arút-ét-on-a éba^e
 sound-INCH-INF-NOM gun-GEN
 the sound of a gunshot

Ik also uses verbal means to express possession. For example, the verbs *tír-és* ‘to hold’, *i-on* ‘to be’, and *i-ona nda* ‘to be with’ are all common verbal alternatives alongside the NP possessive constructions in (14). These verbs used in this way often translate as ‘to have’. The first, *tír-és*, is a transitive verb whose subject would be the possessor and object the possessee. Due to its high degree of agency, this verb is restricted to human possessors:

- (22) *Tirida nakalama?*
 tír-íd-a nákalám-a
 hold-2SG-REAL pen-NOM
 Do you have a pen (lit. ‘Are you holding a pen’)?

- (23) *Biraa koróbaa tiri.*
 bira-a kóróbá-a tír-í-Ø
 not.be-REAL thing-NOM hold-1SG-REAL
 I have nothing (lit. ‘There is nothing I am holding’).

The second ‘have’-verb—*i-on* ‘to be’—is the language’s locative/existential copular verb. Used in a possessive way, this verb takes the possessee as its subject and the possessor as a peripheral argument in the dative case, e.g.:

- (24) *Iya nakalama ncik.*
 i-a nákalám-a nci-k^e
 be-REAL pen-NOM I-DAT
 I have a pen (lit. ‘There is a pen to me’).

To negate the kind of possessive clause in (24), one has to substitute the negative locative copula (*birá-* ‘not be there’) and put the possessor (or more precisely, the ‘un-possessor’) in the ablative case:

- (25) *Biraa nakalama ncu.*
 bira-a nákalám-a ncu-Ø
 not.be-REAL pen-NOM I-ABL
 I have no pen (lit. ‘A pen lacks from me’).

The third verb, *i-ona náda* ‘to be with’, combines the locative/existential copula *i-* with the preposition *náda* ‘and/with’. The possessor is the subject of the verb, and the possessee is a peripheral argument in the oblique case. When negated with the verb *birá-* ‘lack’ the oblique-case possessee is marked on the subordinated verb *i-* ‘be’ with the dummy pronoun enclitic {=’dɛ}:

(26) *Iyida nda nakalamu?*

i-íd-a n⁺da n⁺akálámú
be-2SG-REAL with pen[OBL]

Do you have a pen (lit. 'Are you with a pen')?

(27) *Biraa nakalama iyiaad.*

bira-a n⁺akálám-a i-í-á = d^e
not.be-REAL pen-NOM be-1SG-REAL = DP

I don't have a pen (lit. 'A pen is lacking that I am with').

The Teso-Turkana languages bordering Ik, like Karimojong and Turkana, also convey possession by means of locative/existential copulae. In the following examples (from Mantovani 1963:9, though morpheme glosses are my own), the verb *ayakau* 'to be (there)' has the meaning of 'to have':

(28) *Eyai iyong áite.*

eyái íyong áite
be:3SG you:DAT cow

You have a cow (lit. 'A cow is to you').

(29) *Eyakasi iyong ngaatuk.*

eyakási íyong n⁺áátuk
be:3PL you:DAT cows

You have cows (lit. 'Cows are to you').

9.3 Basic clause structure

The ‘clause’ is defined here as the minimal unit of syntactic organization that includes a verbal element, finite or non-finite. Thus it encompasses the ‘verb phrase’ (predicate and any modifiers) and any ‘noun phrases’ (nouns and any modifiers) needed to fill the predicate’s argument slots. The notion of ‘verb phrase’ *per se* will not be dealt with further since the ‘clause’ includes the verb phrase by definition. Having discussed noun phrases in the last section, this one takes up the topic of basic Ik clauses: unmarked main clauses, subordinate clauses, and various types of marked main clauses. Other specific topics covered in later sections of this chapter include questions, reported speech, comparative constructions, and negation.

Ik exhibits a strict VSO constituent order in basic unmarked main clauses. This puts it in a ‘word-order’ typological category with Ancient Egyptian, a few Chadic languages, much of Eastern Sudanic (notably Eastern Nilotic), and possibly some Berber and other Afroasiatic languages (Creissels 2000:252). It distinguishes it from other regional languages like Dhaasanac (SOV) and Dime (SOV). Though Teso-Turkana languages are classified as VSO, a VOS order is also common (Dimmendaal 1983:68). But VOS is not attested in Ik. Like some of the controversially analyzed VSO languages in Africa, Ik exhibits both VSO and SVO constituent orders. However, in Ik, SVO is restricted to subordinate clauses, which are described below in §9.4.

Ik’s VSO constituent order along with its total lack of synchronically functional prefixes is one of its ‘remarkable’ typological properties (Heine & König 1996:123). This property, along with the subordinate clause SVO constituent order, suggests that VSO may be a wholesale syntactic structure replicated from the historically influential Eastern Nilotic languages.

A ‘basic clause’ is defined here as a simple, declarative statement with a 3SG subject, realis modality, and positive polarity—in other words, functionally and semantically unmarked. As noted above, the order of core constituents

in an Ik basic clause is VSO, or more precisely, VS in intransitive clauses and VAO in transitive clauses. In (30) below, the noun *ɲók^a* ‘dog’ is functioning as the subject of the intransitive predicate *ep-* ‘sleep’. And in (31), the same noun is acting as the subject of the transitive predicate *áts’-* ‘gnaw’ with *ɔká-* ‘bone’ as its object. Note how the subject follows the verb in each example, and how the object follows the subject in (31):

- (30) *Epa ɲok.*
 ep-a_v ɲók-a_s Intransitive=VS
 sleep-REAL dog-NOM
 The dog is asleep.
- (31) *Áts’a ɲoka oka.*
 áts’-á_v ɲók-á_A ɔká-k^a_O Transitive=VAO
 gnaw-REAL dog-NOM bone-ACC
 The dog gnaws a bone.

Tense clitics fall between the main verb and its first overt argument, as in:

- (32) *Epa bee ɲok.*
 ep-á_v=bee ɲók-a_s
 sleep-REAL=PST2 dog-NOM
 The dog slept (yesterday).
- (33) *Áts’a noo ɲoka oka.*
 áts’-á_v=noo ɲók-á_A ɔká-k^a_O
 gnaw-REAL=PST3 dog-NOM bone-ACC
 The dog gnawed the bone (a while ago).

When peripheral arguments and other adjuncts like adverbs are put in a clause, these fall after any core constituents. For example, if the peripheral argument *kurú* ‘in the shade’ is added to (32) from above, it comes after both the verb and the subject, as in (34) below:

- (34) *Epa ηoka kuru.*
 ep-a_v ηók-á_s kurú-∅_{PERIPHERAL}
 sleep-REAL dog-NOM shade-ABL
 The dog is sleeping in the shade.

And if an adverb like *híjǵ* ‘slowly’ is added to (33), it comes after the verb, tense clitic, subject, and object, as in:

- (35) *Ats’a naa ηoka okaa híjǵ.*
 áts’-á_v = naa ηók-á_A ɔká-á_O híjǵ_{ADJUNCT}
 gnaw-REAL = PST1 dog-NOM bone-ACC slowly
 The dog gnawed the bone slowly (earlier today).

If the arguments, core or peripheral, have modifiers, these modifiers directly follow the NP heads they modify. The next three examples are variations of (34), showing where respective NP modifiers occur:

- (36) *Epa ηoka nciε kuru.*
 ep-a_v [ηók-á ɲci-ε]_S kurú-∅_{PERIPHERAL}
 sleep-REAL dog-NOM I-GEN shade-ABL
 My dog is sleeping in the shade.
- (37) *Epa ηoka na βets’a kuru.*
 ep-a_v [ηók-á = na βets’-a]_S kurú-∅_{PERIPHERAL}
 sleep-REAL dog-NOM = REL.SG white-REAL shade-ABL
 The white dog is sleeping in the shade.
- (38) *Epa ηoka kuruo na kwats.*
 ep-a_v ηók-á_s [kurú-ó = na kwáts-∅]_{PERIPHERAL}
 sleep-REAL dog-NOM shade-ABL = REL.SG small-REAL
 The dog is sleeping in the small shade.

Ik clauses may be intransitive, transitive, or distransitive. At the notional level, intransitive clauses minimally require a subject (S) as an argument. Transitive clauses minimally require an agent (A) and object (O), while ditransitives requires an agent (A), object (O), and extended object (E). However, in Ik, some or all core arguments may be omitted (left implicit) in the surface structure. As such, Ik is not just a pro-drop language (which it is) but also an ‘argument-drop’ language. Consider these examples:

(39) *Makotia naa kaudza ntsik.*

| | | |
|--------------------------------|----------------------|----------------------------------|
| ma-ƙot-í-a _{VA} = naa | kaúdz-a _O | ntsí-k _E ^e |
| give-AND-1SG-REAL = PST1 | money-NOM | s/he-DAT |

I gave the money to him.

(40) *Makotia naa kaudz.*

| | | |
|--------------------------------|----------------------------------|----------------|
| ma-ƙot-í-a _{VA} = naa | kaúdz- ^a _O | ∅ _E |
| give-AND-1SG-REAL = PST1 | money-NOM | |

I gave the money (to someone).

(41) *Makotia naa ntsik.*

| | | |
|--------------------------------|----------------|----------------------------------|
| ma-ƙot-í-a _{VA} = naa | ∅ _O | ntsí-k _E ^e |
| give-AND-1SG-REAL = PST1 | | s/he-DAT |

I gave (something) to him.

(42) *Makotia nak.*

| | | |
|---|----------------|----------------|
| ma-ƙot-í-a _{VA} = nak ^a | ∅ _O | ∅ _E |
| give-AND-1SG-REAL = PST1 | | |

I gave (something) (to somebody).

These four examples show progressively the omission of one or the other—and then all—core arguments from the surface structure (though of course the clause subject is always cross-referenced on the main verb).

first extended object (E_1) marked with the dative case. And the original extended object (E_1) becomes the second extended object (E_2), also in the dative case. This construction puts Ik in the company of the relatively few languages worldwide—like Japanese, Turkish, and Kamairá—that allow more than one dative noun phrase in the same clause (Dixon 2012:264):

(46) *Makotiaa nka kaudza konie amae.*

ma-kot-í-a-a [ɲk-a]_A [kaúdz-a]_O [kɔni-ε áamá-^ε]_{E1}
 give-AND-1SG-REAL-PRF I-NOM money-NOM one-DAT person-GEN
 I have given the money to another person.

(47) *Makitiikota ncia kaudzoe konie amae.*

mak-it-i-ikot-a [ʃci-a]_O [kaúdz-o-e]_{E1} [kɔni-ε áamá-^ε]_{E2}
 give-CAUS-PLUR-AND-REAL I-ACC money-DAT one-DAT person-GEN
 He makes me give money to another person.

9.5 Auxiliary verbs

Two different constructions are here being called ‘auxiliary’. One type involves a small subset of verbs that carry aspectual meaning paired with a main verb that carries the lexical semantic content, semantic roles, and argument structure of the whole clause. The second type involves a small set of lexical verbs that, when paired with a nominalized complement, add aspectual meaning to the complement. These are termed ‘auxiliary-like’.

9.5.1 Auxiliary verbs proper

The auxiliary verbs ‘proper’ are lexical verbs in their own right but also double as aspectual auxiliaries. In the Ik auxiliary verb construction, the aspectual auxiliary fills the slot for the main verb and is the only verb marked for subject-agreement, tense, and polarity. The semantic main verb follows in a morphologically defective form. If the clause subject is overt, it comes between the auxiliary and the main verb, making the constituent order of auxiliary clauses Aux-S-V or Aux-A-V-O, the same order found in

subordinate clauses. The only inflection found on the main verb in an auxiliary construction is the realis suffix {-a}. It remains thus, regardless of the various inflectional suffixes the auxiliary verb may take.

The verbs in (48) form a subset based on the fact that they all aspectually modify a morphologically defective, semantically main verb. The ‘anticipative’ verb *ɨ́r-* ‘do early’ is most likely related to the proto-Kalenjin verb *ɨ́r-* ‘foretell’ (Rottland 1989). And the verb *sár-* is functionally quite similar to the Turkana auxiliary *-rok-* which Dimmendaal calls the “auxiliary of unexpected state of affairs” in the affirmative (1983:138) and the “unexpected negative perfective” in the negative (1983:457).

(48) *Ik auxiliary verbs*

| | Lexical | Aspectual |
|--------|-----------------------------|--------------|
| erúts- | ‘be new, fresh’ | Recentive |
| ɨ́r- | ‘do early (already)’ | Anticipative |
| sár- | ‘still, not yet, no longer’ | Durative |

The following three examples illustrate these auxiliary verbs. First, in (49) the recentive auxiliary *erúts-* modifies the semantic main verb *ats-* ‘come’. Since the auxiliary verb fills the syntactic slot for main verbs, the second-position tense clitic =*noo* attaches to it:

(49) *Erutsa noo ɨ́bura ats.*

[erúts-á = noo]_{AUX} ɨ́bur-a_S ats-∅_V
 recent-REAL = PST3 maize-NOM come-REAL

Maize (i.e. as a crop) came in the not-so-distant past.

In the next example, the anticipative auxiliary *ɨ́r-* modifies the main verb *ce-* ‘kill’ which is transitive, taking A and O as arguments. The agent A is omitted but is marked with a subject-agreement suffix on the auxiliary verb:

- (50) *ŋorata naa cea riyek.*
 [ŋór-át-a = naa]_{AUX} cε-a_v rié-k^a_o
 early-3PL-REAL = PST1 kill-REAL goat-ACC
 They already killed the goat (earlier today).

Transitive verbs like *cε-* ‘kill’ take an object in the accusative case only when the subject is 3-person. In (50), though, it is the intransitive auxiliary verb *ŋór-* that is marked for 3-person, not *cε-*. Still, the object of the clause takes the accusative case. This is because the semantic main verb (V), not the auxiliary (AUX), governs the argument structure of the clause.

This third example shows the affirmative durative Auxiliary *sár-* modifying the intransitive verb *kom-* ‘be many’:

- (51) *Sarima koma zuk.*
*sár-ím-a*_{AUX} *kom-a*_v *zuk*^u
 still-1PL.EXC-REAL many-REAL very
 We are still very many.

9.5.2 Auxiliary-like verbs

Several Ik verbs add aspectual meaning to a clause, even though they are simply lexical verbs taking a nominal(ized) complement. As such, they are technically not auxiliary verbs but rather auxiliary-like in their semantics:

- (52) *Ik auxiliary-like verbs*

| | Lexical | Aspectual |
|-------------------|-------------------|-------------|
| <i>béd-</i> | ‘want’ | Proximative |
| <i>itsyák-ét-</i> | ‘begin’ | Inchoative |
| <i>isé-ét-</i> | ‘begin’ | Inchoative |
| <i>tođó-</i> | ‘land, arrive’ | Inchoative |
| <i>ŋáb-ókɔt-</i> | ‘finish, end’ | Completive |
| <i>cεm-</i> | ‘fight, struggle’ | Occupative |

The first five verbs in (52) are ambitransitive. But in their auxiliary-like role, they take an object in the nominative or accusative case, depending on the identity of the subject and the syntactic environment. The sixth verb, *cem-*, is intransitive, but in the ‘occupative’ usage, takes a peripheral argument in the instrumental case (see next section). The objects of these verbs can be nouns or nominalized verbs, though in their auxiliary-like function, they are usually nominalized verbs. Here are some examples:

- (53) Proximative: *Bedia naa rumanon!*
 béčf-í-a =naa rumán-on-Ø
 want-1SG-REAL = PST1 fall-INF-NOM
 I almost fell!
- (54) Inchoative: *Itsyaketaa jeryaŋa atsonik.*
 itsyak-et-á-á jeryaŋ-a ats-oni-k^a
 begin-INCH-REAL-PRF modernity-NOM come-INF-ACC
 Modernity has started coming.
- (55) Inchoative: *Isetataa waanak.*
 ise-et-át-a-a wáána-k^a
 begin-INCH-3PL-REAL-PRF prayer-ACC
 They’ve started to pray.
- (56) Inchoative: *Todoyuo roba ats’esia jejeikae.*
 todó-í-o rob-a áts’-ési-a jéje-ika-^e
 land-3SG-SEQ people-NOM chew-INF-ACC mat-PL-GEN
 And people began to eat leather mats.
- (57) Completive: *ŋabukotima bee zikesa deretsae.*
 ŋáb-ukot-ím-á = bee zík-és-a dēretsa-^e
 finish-COMP-1PL-REAL = PST2 tie-INF-NOM kindling-GEN
 We finished tying kindling (yesterday).

9.5.3 Occupative aspect

Lastly, Ik has a construction whose function approximates the progressive aspect of many languages (if English translations are any indication). It consists of the intransitive verb *cem-* ‘fight, struggle’ plus a nominal word as a peripheral argument in the instrumental case. This aspect is called ‘occupative’ here because, in addition to implied progressive activity, it communicates an ethnosemantic nuance of intensity (Serzisko 1992:79) and struggle (hence *cem-* ‘struggle’)—that is, of being engaged or ‘occupied’.

Examples of the occupative aspect include the following sentences:

(58) *Cemia hoeso inoe na.*

cem-í-á ho-és-ó ínó-e = na
 struggle-1SG-REAL cut-INF-INS animal-GEN = DEM.SG
 I am busy dressing this animal.

(59) *Cemesoo ηwaata terego nda babat.*

cem-és-ó-ɔ ηw-áát-a terég-o n'da báb-atⁱ
 fight-IPFV-3SG-SEQ mother-3SG-NOM work-INS with father-3SG[OBL]
 And his mother was busy working along with his father.

(60) *Itelisina wika cematikee waak.*

itél-ísin-a wik-a cem-áti-ké = e wáák-^o
 watch-1PL.INC-REAL children-NOM fight-3PL-SIML = DP play-INS
 We're watching children busy playing (with toys).

(61) *Cemeese koto tsajeso ceki.*

cém-é-εε = kótó tsáj-és-o cekí-∅
 fight-SPS = then annoint-INF-INS woman-GEN
 And then they got busy annointing the woman.

9.6 Copula clauses

Ik has three verbs that qualify as copula verbs in that they have relational rather than referential meanings. One is *mit-*, a copula verb that covers the semantic relations of identity and possession (Dixon 2010:159). In Serzisko's analysis, *mit-* also denotes 'ascription/description' (*Zuschreibung*) versus the 'specification' (*Spezifizierung*) handled by the copulative case (1992:55ff). The second copula is *ir-*, a verb with a narrow expression of attribution, and the third is *i-*, a Copula verb that covers existence and location. All three copula verbs can take two arguments, the copula subject (CS) and the copula complement (CC). Although *i-*, when used for the existence relation, takes only a copula subject. The following sentences exemplify these verbs (underlined in the data) and the semantic relations they encode:

(62) Identity: *Mitima jɔt.*
mit-ím-á ɲgw-a_{CS} jɔt^{CC}
 be-1PL.EXC-REAL we.EXC-NOM men[OBL]
 We are men.

(63) Possession: *Mita da nci.*
mit-á d-a_{CS} ɲci-∅_{CC}
 be-REAL one-NOM I-GEN
 This one is mine.

(64) Attribution: *Ira ntsa tiye.*
ir-a nts-a_{CS} tíyé_{CC}
 be-REAL it-NOM like.this
 It's like this.

(65) Location: *Iyata nta awak.*
i-át-a ńt-á_{CS} awá-k^e_{CC}
 be-3PL-REAL they-NOM home-DAT
 They are at home.

- (66) Existence: *Iya Nakuj.*
 i-a nakuj-^a_{CS}
 be-REAL God-NOM
 God is (there).

Examples (62)-(66) show that the subject (CS) of Ik copula clauses is treated syntactically like a typical S or A subject: 1) It takes the nominative case; 2) though explicitly mentioned in these example, the CS can be omitted, leaving its trace in the form of subject-agreement suffixes; and 3) it fills the canonical syntactic slot for a subject, just after the main verb.

As for the CC, the case it takes depends on the relation the copula is encoding. In the ‘identity’ relation, the CC is in the oblique case. In the ‘possession’ relation, it is in the genitive case. (The copula *ir-* expressing attribution is a special case: Its CC is an adverb like *ńńí* ‘how’ or *týé* ‘like this’ instead of a noun phrase.) In the ‘location’ relation, the CC takes the dative case, while in the ‘existence’ relation, no CC is present. The following table captures how these copular relations are mapped onto copular arguments and the respective nominal cases they assume:

(67) *Case marking in copula constructions*

| | Copula | CS | CC |
|-------------|--------|-----|--------|
| Identity | mit- | NOM | OBL |
| Possession | mit- | NOM | GEN |
| Attribution | ir- | NOM | adverb |
| Location | i- | NOM | DAT |
| Existence | i- | NOM | — |

The three copulae behave like typical intransitive verbs in terms of the type of inflectional and derivational augmentations they can undergo. Between the three, though, they do differ in what suffixes they can cooccur with. For example, *mit-* can be causativized into the transitive *mit-it-és-úńńót* ‘to cause to become’, while the other two cannot. The completive suffix {-úńńótí-} can

modify *mit-* and *ir-* (*mit-ɔn-ukot'* 'to become' and *ir-on-ukot'* 'to become like') but not to *i-* (***i-on-ukot'*). The impersonal passive suffix {-aní-} is commonly found with *i-* but not with the other two. Otherwise, none of the three Ik copulae have any irregular forms in their paradigms. Neither do they have other functions or homonymns in the grammar.

The three Ik copula verbs can be negated in the standard way, using the realis negating verbs *ńt-* and *ma-* or the sequential negator *moo*, for example:

(68) *Nta miti aban̄.*

ńt-á mit-1 abán̄
not-REAL be-3SG my.father[OBL]
He is not my father.

(69) *Maa bee iri nti.*

má-á = bee ir-1 ńtí
not-REAL = PST2 be-3SG ADV
It wasn't like that.

(70) *Moo iyidi koo ke.*

mo-o i-ídi kóó = kε
not-SEQ be-2SG there = DEM.SG.DIST
And then you'll not be over there.

In terms of etymology, Ehret links the copula *mit-* (which is *mɛt-* in the Kuliak language So; Carlin 1993:65) to the Proto-Nilo-Saharan root **méy* 'to do, make' (2001:281). But how that may have developed into a copula is not obvious. Also unexplained is the link between *i-* and the Proto-Central-Sudanic **ngwi* 'to be (somewhere)' > Central Sudanic **-i* (Ehret 2001:371). In neighboring Teso-Turkana languages, two of the three Ik copula verbs have what appear to be close cognates: Ik *i-* ↔ Teso-Turkana *(a)yákáŷ* 'to be somewhere' and Ik *ir-* ↔ *(a)rakay* 'to be something/ somehow'.

Ik also has a pair of negative copula verbs: *bení-* ‘not be (something)’ and *birá-* ‘not be (somewhere)’. The first negates *mit-* and *ir-*, while the second negates *i-*. Both verbs have other, lexical meanings. The verb *bení-* can mean ‘be unique’, while *birá-* can mean ‘lack’. In their capacity as negative copula verbs, these two verbs take complements with a variety of cases:

(71) *Negative copula verbs*

| | Copula | CS | CC |
|-------------|--------------|-----|---------|
| Identity | <i>bení-</i> | NOM | COP/OBL |
| Possession | <i>bení-</i> | NOM | GEN |
| Attribution | <i>bení-</i> | NOM | adverb |
| Location | <i>birá-</i> | NOM | ABL/ACC |
| Existence | <i>birá-</i> | NOM | (ABL) |

And the following examples illustrate actual usage of the negative copulae:

- (72) *Mita bi.* *Benia buk.*
 mit-a bi beni-á bu-k°
 be-REAL you.SG[OBL] not.be-REAL you.SG-COP
 It's you. It's not you.
- (73) *Ira ti.* *Benia ti.*
 ir-a tí beni-a tí
 be-REAL like.this not.be-REAL like.this
 It's like this. It's not like this.
- (74) *Iya nee na.* *Biraa nee na.*
 i-a néé = na bira-a néé = na
 be-REAL here = DEM.SG not.be-REAL here = DEM.SG
 She's here. She's not here.

9.7 Subordinate clause structure

Subordinate (dependent) clause structure differs from that of unmarked main clauses. How it differs depends on the type of clause involved. Conditional and hypothetical subordinate clauses contain sequential verbs that, by definition, must follow in sequence from a preceding verb (see §10.2). This condition is satisfied in subordinate clauses by the subordinating conjunction being placed in the clause-initial verbal slot, followed by a subject in the nominative case, followed by the sequential verb which is actually the main verb of the subordinate clause.

In (75), the conjunction *na* = ‘if’ fills the syntactic verbal slot (V), while *ceɪɔ*, the clause’s real verb, is ‘co’-subordinate to it (V2). In this way, sequential subordinate clauses attempt to preserve surface-level VSO order, although there is a mismatch between deep and surface structure. This analysis tries to account for why an otherwise preverbal subject is in the nominative case, when all other preverbal subjects in the language take accusative case:

- (75) *Na soreima ceyoo poposaa...*
 [na =]_Vsoré-ím-a_A cɛɪ-ɪ-ɔ_{V2} pɔpɔsa-á_O
 CONJ = boy-child-NOM kill-3SG-SEQ lizard-ACC
 If a boy kills a lizard,...

Apart from ones with sequential verbs like in (75), all other subordinate clauses in Ik have an SVO constituent order—SV for intransitive and AVO for transitive. This SVO order recalls the Surmic language Tennet which also has a VSO order in main clauses but SV in intransitive subordinate clauses (Dimmendaal 2010:33). And like in Dhaasanac (Tosco 2001:14) and Teso-Turkana languages, many subordinate clauses in Ik have the structure of a relative clause, with the subordinating conjunction being based on relative pronouns. For example, in the next two sentences, the conjunction *noo* introducing them is identical to the remote past relative pronoun. Note the respective constituent orders in these two temporal dependent clauses:

- (76) *Noo ηokia epad,...*
 [noo ηókí-a_S ep-á = d_V^e]_{TEMP...} INTRANSITIVE = SV
 CONJ.PST3 dog-ACC sleep-REAL = DP
 When the dog was sleeping,...

- (77) *Noo ηokia ats'ee okak,...*
 [noo ηókí-a_A áts'-é = ε_V ɔká-k^a_O]_{TEMP...} TRANSITIVE = AVO
 CONJ.PST3 dog-ACC gnaw-REAL = DP bone-ACC
 When the dog gnawed the bone,...

Complement clauses (§9.13.1), though subordinate themselves, make another exception to the SVO order. Since they are embedded main clauses, they retain the VSO constituent order of non-embedded main clauses. Such clauses are introduced by the complementizer *toimena/toimeni-* 'that', which, since it is a noun and argument of the matrix clause, takes case suffixes:

- (78) *Hyeiyaa toimena epa ηok.*
 fiye-í-á toimen-a [ep-a_V ηók-a^a_S]_{COMPL}
 know-1SG-REAL COMPL-NOM sleep-REAL dog-NOM
 I know that the dog is sleeping.

- (79) *Hyeiyaa toimena ats'a ηoka oka.*
 fiye-í-á toimen-a [áts'-á_V ηók-á_A ɔká-k^a_O]_{COMPL}
 know-1SG-REAL COMPL-NOM gnaw-REAL dog-NOM bone-ACC
 I know that the dog is gnawing the bone.

Another defining property of Ik subordinate clauses is that all core arguments (A/S/O) are marked with the accusative case. Again, this is similar to Tennesse, where main clauses have a nominative-accusative case-marking system, while in dependent clauses, this switches to ergative-absolutive (Dimmendaal 2010:33). Also in this connection, the Saharan language Tubu, which has Differential Object Marking, an object is more likely to be marked accusative if not expressed in its normal position (König

2008:40, cited in Dimmendaal 2010:32). In other words, accusative case is reserved for pragmatically marked positions. So in Ik, the accusative marking on subjects (A/S) may have something to do with the subject being in a pragmatically marked slot, that is, before the verb. The next two examples illustrate this with intransitive (80) and transitive (81) clauses:

- (80) *Noo ncia epiaade kuru...*
 [nóó jíci-a_s ep-í-á = de_v kurú-∅] _{TEMP}
 CONJ.PST3 I-ACC sleep-1SG-REAL = DP shade-ABL
 When I slept in the shade,...

- (81) *Noo ncia ats'iaade emek...*
 [nóó jíci-a_A áts'-í-a = de_v emé-k^a] _{TEMP}
 CONJ.PST3 I-ACC gnaw-1SG-REAL = DP meat-ACC
 When I gnawed on the meat,...

The type of case-marking neutralization exhibited in (80)-(81) violates König's typological prediction #7 for African languages with case: "If the language is verb-initial or verb-medial, then the 'no case before the verb' rule applies" (2008:281). The Surmic language Tenneset, spoken not far from Ik in South Sudan, also violates this prediction, but only partially. But as hinted at above, normal case marking is retained in Ik subordinate clauses with sequential aspect verb forms. Note that in the following example, all core arguments bear the nominative case suffix (including the object):

- (82) *Na nka ats'ia ema...*
 [na = ŋk-a_A áts'-í-a_v em-a_O] _{COND}
 CONJ = I-NOM gnaw-1SG-SEQ meat-NOM
 If I gnaw on meat,...

9.8 Relative clauses

Because many Ik subordinate clauses are based on the relative clause construction, relative clauses need to be discussed without further delay. To begin with, Ik exhibits a canonical relative clause construction having the following characteristics (the first four drawn from Dixon 2010:314):

1. The relative clause (RC) is embedded in a main clause (MC), making up one full sentence.
2. The underlying structure of the RC and MC share a common grammatical argument (CA).
3. The RC functions as syntactic modifier of the CA in the MC.
4. The RC has the basic structure of a clause, with a predicate and the required nominal arguments (as well as peripheral arguments).
5. All core arguments in the RC are marked in the accusative case, just as in all other subordinate clauses (except sequential ones).

In view of these characteristics, compare the following two sentences. The first is a simple MC in the past tense; the second is the same MC but modified by an RC:

- (83) *ŋabiya noo tukak.*
 [ŋáb-i-a = noo tuka-k^a]_{MC}
 wear-PLUR-REAL = PST3 feather-ACC
 He used to wear a feather.

- (84) *ŋabiya noo tukaa na budám.*
 [ŋáb-i-a = noo tuka-a = [na budám-Ø]_{RC}]_{MC}
 wear-PLUR-REAL = PST3 feather-ACC = REL.SG black-REAL
 He used to wear a black feather (lit. ‘a feather which is black’).

The common argument (CA) shared between the MC and RC in (84) is *tuka-* ‘feather’. In the MC, the CA is an object marked in the accusative case, while

in the RC, it is the implied 3SG subject of the adjectival predicate *budám-ón* ‘to be black’. The RC modifies *tuka-* in the MC by specifying or restricting the reference of that argument (i.e., it is no longer just any feather; it is a feather *which is black*).

Ik only has restrictive relative clauses, the kind illustrated in (84) above. As such, they can only provide information about the CA that helps restrict its reference to an individual entity. Non-restrictive relative clauses that simply provide more information about an already known CA are not grammatical in the language. In the situation where a proper noun is modified by an RC in Ik, it implies that there are two or more people, places, or things with that particular proper name. Compare the following examples:

(85) *Atsaa ama na mita ncieebam.*

[ats-á-á ám-á = [na mit-a ɲci-ebám]_{RC}]_{MC}
 come-REAL-PRF person-NOM = REL.SG be-REAL I[OBL]-friend[OBL]
 Here comes the guy that is my friend.

(86) *Atsaa Lotuka na mita ncieebam.*

[ats-á-á lotuk-a = [na mit-a ɲci-ebám]_{RC}]_{MC}
 come-REAL-PRF Lotuk-NOM = REL.SG be-REAL I[OBL]-friend[OBL]
 1) **Here comes Lotuk, who is my friend.
 2) Here comes the (particular) Lotuk that is my friend.

9.8.1 Common argument

The fullest statement of the common argument (CA) in an Ik RC construction is found in the main clause (MC). There it occurs as a noun phrase: noun, pronoun, or demonstrative. The following examples illustrate the CA as a noun, demonstrative pronoun, and a locative adverbial demonstrative, respectively. In (87), the CA is the noun *ínó-* ‘animal(s)’, while in (88), it is the demonstrative pronoun *kidiásá-* ‘others’. In (90), the CA is the deictic locative adverbial demonstrative *naí-* ‘(t)here’:

(87) *Inoa ni Icea kakiya ntuo da:*

[ínó-á_{CA} = [ni icé-á kak-í-á]_{RC} nítú-o d-a]_{MC}
 animal(s)-NOM = REL.PL Ik-ACC hunt-PLUR-REAL they-COP ones-NOM
 The animals that the Ik hunt, these are they:

(88) *Nda kidíasai ni moo imaaosai.*

ní'da kidíasai_{CA} = [ni mó-o imaar-ɔs-átⁱ]_{RC}
 and others[OBL] = REL.PL not-SEQ count-PASS-3PL
 And others who are not counted.

(89) *Kaa tsabo nayee noo itsyaketad.*

[ka-a tsábo naí-é_{CA} = [noo itsyak-et-á = d^e]_{RC}]_{MC}
 go-REAL probably where = REL.SG.PST3 begin-INCH-REAL = DP
 He is probably going to where he started from.

The CA in the main clause can have any grammatical function, being either a core argument (S/A/O) or any peripheral argument. As a result, the CA can take any case required by the clause syntax. (90) below presents the CA *jákáma* ‘elder’ as the intransitive subject of the verb *ats-* ‘come’. And (91) shows the peripheral CA *kamí-* ‘year’ in the instrumental case since it is giving the time setting for the main clause in which it is found:

(90) *Atsuo jakama noo ntanee taa ndo...*

[ats-u-o jákám-a_{CA} = [noo nt-an-é = e taa ndo]_{RC}]_{MC}
 come-3SG-SEQ elder-NOM = REL.SG call-IPS-REAL = DP QUOT who[OBL]
 And then came the elder who was called um, who...

(91) *Kaino noo iyiaade atik...*

kam-ɔ_{CA} = [nɔɔ i-í-á = de átí-k^e]_{RC}
 year-INS = REL.SG be-1SG-REAL = DP FILL-DAT
 The year in which I was at the, uh...

Likewise, in the relative clause itself, the CA can also have any core or peripheral function. Since the CA is only stated in the MC and not in the RC, it is not relevant to comment on the nominal case in which the CA in an RC may occur. If it is the subject of the RC, the CA is cross-referenced on the verb with subject-agreement pronominals. If it is the object, then it is inferred from the grammatical context. If it is a peripheral argument, it is cross-referenced on the verb with the dummy pronominal { = 'dɛ }. But regardless of what type of argument the CA is in the RC, it is represented by one of the relative pronouns which are the topic of the next section, §9.8.2.

The following three examples show the CA in relative clauses functioning as subject, object, and peripheral argument, respectively. The CA in (92), *ámá*- 'person', acts as the subject of the verb *iwák*- 'holler' in the MC, while in the RC, it is the agent of the causativized verb *tsídž-it-ét*- 'flush out':

- (92) *Ama na tsamu tsidziteta inoa iwakuk.*
 [ám-á = [na tsídž-it-et-a ínó-a]_{RC} iwák-ú-k^o]_{MC}
 person-NOM = REL.SG carry-CAUS-VEN-REAL animal-ACC holler-3SG-SEQ
 The person who flushes out an animal hollers an alarm.

By contrast, the CA in (93) is a core argument marked with the dative case in the main clause (*dakú-é*) but the object of the transitive verb *kam-ókɔt*- 'take hold of' in the relative clause. The non-CA agent of the RC, *budámóniicéá*, takes the accusative case as would any core argument:

- (93) *...dakwee sina Budamoniicea kamukota na.*
 dakú-é = [sina budám-óni-icé-á kam-ókɔt-a]_{RC} = na
 stick-DAT = PST2.REL.SG black-INF-AGT.PL-ACC hold-COMP-REAL = DEM.SG
 [Beware of] this stick that Africans have taken hold of (i.e. guns).

Lastly, the noun phrase in (94), introduced by the preposition *kóteré* 'because of', marks the CA *kamí*- 'year' as peripheral argument in the oblique case. In the relative clause, this CA is would also be a peripheral

argument but one marked with the instrumental case (since it is a time concept). Because of that, its absence in the relative clause is marked with the dummy pronoun on the transitive verb *kup-ukot-* ‘burn up’:

- (94) *Kotere kaini noo fetia kupukotee edik.*
 kóteré kaini = [nɔɔ fetí-á kup-ukot-é = ε edí-k^a]_{RC}
 because year[OBL] = REL.SG sun-ACC burn-COMP-REAL = DP grain-ACC
 Because of the year in which the sun burnt up the grains.

9.8.2 Relative pronouns

Relative clauses in Ik can be recognized by three criteria: 1) the intonation contour in which the MC and RC are treated as one sentence prosodically, 2) the presence of relative pronouns at the beginning of the RC, and 3) the non-canonical constituent order within the RC. The particles introducing relative clauses are treated here as relative ‘pronouns’ instead of ‘markers’ since they are not invariable and do communicate some information, namely the grammatical number of the common argument and the tense of the relative clause. These Ik relative pronouns are already discussed in §5.6 but warrant further mention here as well. The table below presents the relative pronouns according to number and tense:

(95) *Ik relative pronouns*

| | Singular | Plural |
|----------|----------|--------|
| NON-PAST | = na | = ni |
| PST1 | = náa | = níi |
| PST2 | = sina | = sini |
| PST3 | = nɔɔ | = nuu |

The relative pronouns are analyzed as enclitics because they form a phonological word with the preceding noun (evidenced by the post-lexical vowel harmony they participate in). And based on the forms in (95), it is evident that the Ik relative pronouns are closely related to the temporal

nominal demonstratives (see §8.2.2). Quite so, they are identical in form, the only difference being that since relative pronouns never appear clause-finally, they consequently do not have final forms. Like the demonstratives they originate from, the relative pronouns communicate number and tense.

For example, in (96) below, the relative pronoun =*na* conveys two bits of information about the RC construction's common argument *ηkáká*- 'food': 1) It is viewed as singular, and 2) the state predicated of it in the RC is in the present time or in general (gnomic). Likewise, in (97), the relative pronoun =*nuu* communicates about the CA *roba*- that 1) it is plural, and 2) the action predicated of it took place in the remote past:

- (96) *Mita daŋa nkaka Icee ne efa zuk.*
 [mit-a dāŋ-á ηkáká icé-é = [na εf-∅]_{RC}]_{MC}
 be-REAL white.ants-NOM food[OBL] Ik-GEN = REL.SG tasty-REAL
 White ants are an Ik food that is tasty.

- (97) *Atsaa roba nuu ka.*
 [ats-á-á rob-a = [nuu ka-∅]_{RC}]_{MC}
 come-3SG-PRF people-NOM = REL.PL.PST3 go-REAL
 The people who went have come.

9.8.3 Relative clause structure

Relative clauses in Ik always immediately follow the CA in the main clause, regardless of constituents before the main clause or after the relative clause. Normally, the order of constituents in a main clause is VS or VAO, but when the CA is the subject of the main clause, it can be fronted and then followed by the relative clause and the main verb, making the constituent order SV or AVO. This can be seen in (92) above as well as in the following:

(98) *Ama na cea basaurek, isokuk.*

[ám-á = [na cε-a basaúré-k^a]_{RC} || isók-ú-k^o]_{MC}
 person-NOM = REL.SG kill-REAL eland-ACC go.early-3SG-SEQ
 The person who kills an eland goes early (i.e. before others).

The sentence in (98) is a version of (99) below in which the subject has been put into special focus for pragmatic or stylistic reasons. (99) represents the unmarked constituent order for the same proposition.

(99) *Isokuo ama na cea basaurek.*

isók-ú-o ám-á = [na cε-a basaúré-k^a]
 go.early-3SG-SEQ person-NOM = REL.SG kill-REAL eland-ACC
 The person who kills an eland goes early.

The constituent order within the relative clauses themselves also departs from that of unmarked main clauses. After the relative pronoun, then comes the subject (if mentioned) and the verb followed by any other overtly mentioned core arguments, peripheral arguments, adverbs, etc., making the RC constituent orders as follows: (rel)(S)V for intransitive clauses and (rel)(A)V(O) for transitive clauses.

Core arguments (A/S/O) can only be overt in an RC if they are not the CA of the whole RC construction. For example, in (100), the CA *tuka-* ‘feather’ is recapitulated in the RC as *ntsí-* ‘it’, resulting in an ungrammaticality:

(100) ***ŋabiya noo tukaa na ntsia budam.*

**[ŋáb-i-a = noo tuka-a = [na ntsí-á budám-∅]_{RC}]_{MC}

**wear-PLUR-REAL = PST3 feather-ACC = REL.SG it-ACC black-REAL

**He used to wear a black feather (lit. ‘a feather which it is black’).

Likewise, in (101), the CA *ínó-* ‘animals’ is recapitulated in the RC as *ńtí-* ‘they’ with the resulting structure being ungrammatical:

- (101) ***Inoa ni Icea kakiya ntik.*
 **ínó-a = [ni icé-á kák-i-a n̄tí-k^a]_{RC}
 **animals-NOM = REL.PL Ik-ACC hunt-PLUR-REAL they-ACC
 **The animals that the Ik hunt them.

Ik relative pronouns are omissible but only in the non-past. In the three past tenses, they are retained because they encode the tense of the RC. This is similar to Turkana where the full form of relative markers are used only in past tenses, a truncated form being used in the non-past (Dimmendaal 1983:308). Further conditions for the omission of Ik relative pronouns include: 1) When the CA in the MC is a demonstrative pronoun (§5.5), 2) when the CA in the MC is the head of a verbless clause, or 3) when the CA in the MC is followed by an anaphoric pronoun. In (102), an RC modifies the demonstrative pronoun *dá*; note the absence of a relative pronoun:

- (101) *Tabiduo dá taba tasapetik.*
 táb-idu-o ɸ-a [táb-a tasapetí-k^a]_{RC}
 touch-2SG-SEQ one-NOM touch-REAL initiation-ACC
 And (you) touch upon those (i.e. stories) that are about initiation.

In the next example, the MC is a verbless clause whose head is a noun marked with the copulative case. This noun is functioning as the CA. Here again, no relative pronoun is present:

- (102) *Ntsuo atsimee awak.*
 ntsú-ó [ats-ím-é = e awá-k^e]_{RC}
 it-COP come-1PL.EXC-REAL = DP home-DAT
 It's (the hour) (when) we come home.

In this third and final example, the singular anaphoric pronoun =¹*dée* comes between the CA and the RC, with no intervening relative pronoun:

- (103) *ama dee bara*
 ám-á = 'dée [bar-a]_{RC}
 person-NOM = ANPH.SG rich-REAL
 that rich person (lit. 'that person (who is) rich')

The number of verb-form types allowed in an Ik relative clause is restricted. For positive polarity, only realis forms are allowed. For negative polarity, only irrealis forms are allowed. Other forms, like sequential, simultaneous, and optative, cannot function as the predicate of a relative clause.

Relative clauses can be negated. To negate one, the sequential negator *moo* (and allomorph *noo*) is used just after the relative pronoun. If the subject of the relative clause is overt, then it follows the negator. Being negated, the main verb of the RC then appears in its negative (irrealis) form, as in:

- (104) *jejeika dii nuu moo epanid*
 jéje-ik-a = 'dí = [nu-u mo-o ep-aní = d^e]_{RC}
 skins-PL-NOM = ANPH.PL = REL.PL not-SEQ sleep-IPS = DP
 those sleepings skins that were not slept on
- (105) *Iya kona iresie na moo jotoa fyeat.*
 i-a kɔn-a írésí-e = [na mo-o jɔtɔ́-á fye-átⁱ]_{RC}
 be-REAL one ceremony-GEN = REL.SG not-SEQ men-NOM know-3PL
 There is one ceremony that men do not know.

9.9 Adverbial clauses

Besides relative clauses that modify noun phrases, several other types of subordinate clause are used adverbially to modify other, main clauses. These adverbial clauses include the following nine types: temporal, simultaneous, manner, purpose, result, reason, conditional, hypothetical, and concessive clauses. The following sections discuss each type briefly.

9.9.1 Temporal

Main clauses in Ik may be modified by a subordinate temporal clause preceding or following it. Such clauses locate the proposition of the main clause in time, which is reflected grammatically in tense. Past and non-past tense are encoded by tensed subordinating conjunctions. Non-past tense is encoded by the conjunction *néé* and optionally with non-past adverbs.

Ik temporal clauses have the same structure as relative clauses and thus seem to be an adaptation from them. As a whole, the temporal clause stands in place of what would be a specific time word like ‘last year’, ‘today’, or ‘next week’, all of which would be peripheral arguments marked with the instrumental case. So temporal clauses have the structure of ‘the [X time unit] in which...’, better translated as ‘when...’. Because time concepts are peripheral arguments in Ik, their absence leaves a trace on the verb in the form of the dummy pronoun enclitic {=’de}. The verb in a temporal clause is a realis form with the dummy pronoun which indicates that the relative pronoun *qua* subordinating conjunction stands for a time concept.

(106) *Ik temporal subordinating conjunctions*

| | | Past | Past perfect |
|--------------|-------------|-------|--------------|
| Non-past | CONJ | (néé) | |
| Recent past | CONJ(.PST1) | náa | nanáa |
| Removed past | CONJ(.PST2) | sina | nábee |
| Remote past | CONJ(.PST3) | noo | nanoo |

In first example sentence below, the removed past temporal conjunction *sina* introduces the temporal clause modifying its following MC:

(107) *Sina enukotiade ntsia, ηaxetuk.*

[[sina en-ukot-í-a = de ntsí-á]_{TEMP} ηá[-ét-ɔ-kʷ]_{MAIN}
 CONJ.PST2 see-AND-1SG-REAL = DP s/he-ACC startle-INCH-3SG-SEQ
 When I saw her (yesterday), she got startled.

In the second example below, the remote past-perfect temporal conjunction *nanoo* introduces the temporal subordinate clause:

- (108) *Nanoo namatsarika kainie dee itsyaketatee,*
 [[nanoo námátsar-ika-a kamí-é = 'dǎé itsyak-et-át-e = e]_{TEMP}
 CONJ.PST3.PRF sign-PL-ACC year-GEN = ANPH begin-INCH-REAL = DP

ts'eyoo inw.

ts'e-i-o ín^{w-a}]_{MAIN}
 die[PL]-3SG-SEQ animals-NOM

When signs of that year had (already) begun, animals died.

Another type of temporal subordinate clause is introduced with the conjunction *nǎé* and follows the main clause. This type of temporal clause has an extra nuance of conditionality, making its meaning 'if/when' rather than strictly 'when'. Examples include the following:

- (109) *Mayuo kwazikaa ngwee*
 [ma-i-o kwáz-ika-a ngó-é
 give-3SG-SEQ clothing-PL-ACC we.EXC-DAT

nee tsamu nabukotanee teregik.

[nǎé tsamu ná^b-ókót-an-é = e terégi-k^a]_{TEMP}]_{MAIN}
 CONJ ADV finish-COMP-IPS-REAL = DP work-ACC

And he gave us clothing, just if/when work was finished.

- (110) *...nda koto ima nee fara zeikotad.*
 nda = koto ima [nǎé fara ze-ikót-á = d^e]_{TEMP}
 and = then child[OBL] CONJ FUT3 big-COMP-REAL = DP
 ...and then the child, when it gets big in the future.

9.9.2 Simultaneous

A main clause can also be modified by a preposed simultaneous subordinate clause. The predicate of a simultaneous clause is a verb in the simultaneous aspect, marked by the suffix {-ke}. Such clauses are introduced with the conjunction *na* = (if in a narrative) or *náá* (if in a hypothetical/conditional sense). Some examples include the following:

- (111) *Na ηabuƙotie, zikini ntsia deikao.*

[*na* = ηáb-ɔƙɔt-I-ε]_{SIML} zík-íní ntsí-á de-ika-³
 CONJ = finish-COMP-3SG-SIML tie-SEQ s/he-ACC leg-PL-ABL
 When he finished, they tied him up by the legs.

- (112) *Naa enanie ts'íkak, gonuo ama dee.*

[*náa* en-an-í-é ts'íká-k^a]_{SIML} gon-u-o ám-á = 'déé
 CONJ see-IPS-3SG-SIML bee-ACC look-3SG-SEQ person-NOM = ANPH
 When bees are seen, that guy takes a look.

Subordinate clauses with non-finite verbs in the simultaneous aspect are also attested after the matrix clause. In this position, they function in one of the language's two clause-chaining strategies (see §10.2.2). Clause-chaining is a syntactic and discursive operation. At the pragmatic level, chained simultaneous clauses can be construed as having a 'simultaneous' or 'manner' role in modifying the matrix clause. Choosing between the two is really a matter of pragmatic interpretation. Chained simultaneous clauses with a 'manner' interpretation are treated in the next section. Some examples of ones with a 'simultaneous' interpretation are given here below.

But first note that if the subject of a post-posed simultaneous clause is an overt argument in the main clause, it must take whatever case the main clause requires. This differs from the usual situation in subordinate clauses whereby the preverbal subject typically is in the accusative case. In the

following two examples, the subjects of both simultaneous clauses are in the nominative case because the main clause verbs are not 3-person:

(113) *Ogoimaa korobaikwa ts'eatik.*

ógo-ima-a kórɔ́b-a-ikw-a [ts'e-áti-k^e]_{SIML}
 leave-1PL.EXC-SEQ calf-SING-PL-NOM die[PL]-3PL-SIML
 And we left the calves dying.

(114) *Enukotia bee bia cemie tokob.*

en-ufkot-í-á = bee bi-a [cem-ídi-ε tɔ́kɔ́b-ʔ]_{SIML}
 see-AND-1SG-REAL = PST2 you.SG-NOM fight-2SG-SIML farming-INS
 I saw you farming yesterday.

9.9.3 Manner

'Manner' adverbial clauses add some detail about the way the state or activity expressed by the main clause is actualized. Ik employs two types of manner clauses: 1) A post-posed clause with a simultaneous verb form, and 2) a clause introduced by the morphologically complex conjunction *naítá* 'since, how' followed by a realis verb with the dummy pronoun { = 'dɛ }.

The following two illustrate the first type of manner clause. In (115), the addressee of the imperative is directed to eat some things in such a manner that they be one-by-one. Then in (116), the person being spoken of is described as going somewhere in a limping manner. Note that while both subordinate clauses indicate an action simultaneous to that in the matrix clause, an overall 'manner' interpretation seems most appropriate:

(115) *Nke koniatik.*

ɲk-e [kón-í-áti-k^e]_{MANNER}
 eat-IMP.SG one-PLUR-3PL-SIML
 Eat (them, they being) one-by-one.

(116) *Kaa naa itsodik.*

ka-a = náa [itsód-í-k^e]_{MANNER}
 go-REAL = PST1 limp-3SG-SIML
 He went limping.

In many instances what appear to be adverbs in Ik are actually post-matrix-clause simultaneous clauses with an impersonal 3SG subject. For example, in (117), the subject of the simultaneous verb *maráŋk^e* is neither the person giving nor receiving the command. The impersonal 3SG subject instead expresses the favorable circumstances desired in the command to ‘hold well’. Similarly, the subject of the simultaneous verb *hábie* in (118) cannot also be the subject of matrix clause. It could, however, be either the adjunct *terégo* or an impersonal 3SG subject. Either the whole process of getting to work is ‘very hot’, or the work itself is ‘hot’:

(117) *Tire maraŋik!*

tír-é [maráŋ-í-k^e]_{MANNER}
 hold-IMP.SG good-3SG-SIML
 Hold it (it being) well!

(118) *Cemetataa terego habie pun!*

cem-et-át-a-a terég-o [háb-i-e pun]_{MANNER}
 fight-INCH-3PL-REAL-PRF work-INS hot-3SG-SIML IDEO
 They have gotten busy working really hard (lit. ‘hot’)!

The second type of manner clause more precisely conveys the notion of ‘manner’. It does this through the use of the conjunction *naítá* ‘how, as’, followed by verb bearing the dummy pronoun clitic {=’de} which represents a missing argument within the subordinate clause.

In the first example (119), the speaker intends to do something in the same manner as the addressee. Then in (120), the addressee is encouraged to wait and see the manner in which some issues will become resolved:

(119) *Itiyeesia naita bia itiyaidad.*

[itíy^e-és-í-a [naítá bi-a itíyá-íd-a = d^e]_{MANNER}
 do-INT-1SG-REAL how you.SG-ACC do-2SG-REAL = DP
 I will do (it) like you do.

(120) *Ene naita menaa dii ikasiimetesataad.*

en-e [naítá mená-á = 'díí ikásí-im-et-és-át-a = d^e]_{MANNER}
 see.IMP.SG how issues-ACC = ANPH do-MID-INCH-INT-3PL-REAL = DP
 See how these issues will turn out.

9.9.4 Purpose

The notion of purpose is expressed primarily through nominalized verbs acting as complements (see §9.12.2). However, two other types of subordinate clause can also convey purpose: 1) one with a sequential verb, or 2) one introduced by the Teso-Turkana conjunction (*i*)*koteré*, which in this instance means something akin to ‘so that...’. Moreover, these two types can be combined so that a sequential clause is introduced by (*i*)*koteré*.

In the first example below, the verb is marked grammatically only with the sequential impersonal passive suffix. But semantically, it implies that when the thing in question becomes a certain way, it is for a certain purpose.

(121) *Irese koto nti?*

[ir-ese = kótó níí]_{PURPOSE}
 be-SPS = then how
 So that it's like how?

In this second example, the conjunction (*i*)*koteré* introduces a third person negative imperative whose expressed purpose is that people do not laugh:

- (122) *Taa kotere maa roba fek.*
 taa [kóteré má-á roḅ-a fek-^a]_{PURPOSE}
 QUOT so.that not-REAL people-NOM laugh-REAL
 (That) so that people don't laugh.

The last example shows (*i*)*koteré* introducing a purposive sequential clause:

- (123) *Kotere ikautoo cikam.*
 [kóteré ikáút-ᵛ-ᵛ cikám-∅]_{PURPOSE}
 so.that cool-3SG-SEQ women-NOM
 So that the women cool it (i.e. food).

9.9.5 Result

Result clauses are formed with sequential verbs and the dummy pronoun {=’de}. While the sequential aspect inherently indicates the logical and/or temporal follow-up of the preceding main clause, the dummy pronoun further emphasizes that something in the main clause yielded a particular result. It does this by marking a syntactically displaced peripheral argument that is located in the preceding clause. In the two examples below, the main clause contains the means or instrument resulting in the circumstances expressed by the second clause. For (124), money results in one being able to buy clothing; for (125), eating honey results in one getting satiated:

- (124) *Marāṅa ja kaudz, iryameidukwee kwazak.*
 maráṅ-á = ja kaúdz-∅ [iryám-é-ídu-kó = e kwaza-k^e]_{RESULT}
 good-REAL = ADV money-NOM get-VEN-2SG-SEQ = DP clothing-DAT
 Money is good, (such that) with it you get clothing.

- (125) *Nkini koto ciaakotinii jik.*
 ṅk-ini = koto [ci-áá-kot-iní = i = jik]_{RESULT}
 eat-SEQ = then sated-DISTR-COMP-SEQ = DP = also
 Then they ate (honey), (such that) they also got sated by it.

9.9.6 Reason/Cause

Causal or ‘because’ clauses in Ik are subordinate clauses introduced with the plural pronominal *dí-* in the ablative case as *dúó*. This pronoun is then followed by either a) a possessive NP (in which case it is not a clause *per se*) or b) a relative clause. Because the common argument (*dúó*) shared between the main clause and relative clause is a peripheral argument in both, the verb in the relative clause is marked with the dummy pronoun. In (79) below, *dúó* is followed by the possessive NP *ńtí*, meaning ‘because of them’. This is not a causal clause but rather a causal peripheral argument:

(126) *Gaana kija na duo nti.*

gaan-a kija-á = na [dú-ó ńtí-Ø]_{PERIPHERAL}
 bad-REAL land-NOM = DEM.SG ones-ABL they-GEN

This country is bad because of them (lit. ‘from those of them’).

The structure in (126) is expanded in (127) with a relative clause modifying *dúó* instead of a simple possessive NP:

(127) *Gaana kija na*

[gaan-a kija-á = na
 bad-REAL land-NOM = DEM.SG

duo robaa sabunosad.

[dú-ó [roba-a sáb-únós-á = d^e]_{REL.}]_{CAUSAL}]_{MAIN}
 ones-ABL people-ACC kill[PL]-RECIP-REAL = DP

This land is bad because people kill each other.

As mentioned in §9.8.2, relative clauses that modify the pronouns *dí* (sg.) and *dí* (pl.) are not introduced by a relative pronoun in non-past tenses. However, if a time/tense specification is desired for the relative clause, one of the tensed relative pronouns or tense particles is used, as in (128):

(128) *Cea neka wicea*

[ce-a ɲek-a wicé-á
kill-REAL hunger-NOM children-ACC

dúo nii nkakaa kwatsad.

[dú-ó = nii ɲkáká-a kwáts-á = d^e] _{REL.}] _{CAUSAL}] _{MAIN}
ones-ABL = REL.PL.PST1 food-ACC small-REAL = DP

Hunger is hurting the kids because food was little (earlier today).

The underlined plural tensed relative pronoun in (128) shows that the tense of the relative clause is recent past. Causal clauses can just as well be cast in a future tense, as in (129). Note the intentional suffix {-és-} on the main and relative-clause verbs, as well as the future tense *fara* just after *dúó*:

(129) *Ceesa neka wicea*

[ce-es-á ɲek-a wicé-á
kill-INT-REAL hunger-NOM children-ACC

[dú-ó [fara ɲkáká-a kwáts-és-á = d^e] _{REL.}] _{CAUSAL}] _{MAIN}
ones-ABL FUT3 food-ACC small-INT-REAL = DP

Hunger will hurt the kids because food will be little.

Semantically, what multiple things does the plural pronominal *dúó* substitute for in these causal clause constructions? It is not entirely clear, but it could be along the lines of words, thoughts, or actions on the part of the animate or inanimate entities from which the causality is emanating.

The pronominal phrases *ki = dúó = nii* or *ki = dúó = n* (see §5.5) can also be found at the beginning of main clauses instead of as a peripheral argument at the end. In this usage, the phrases have more the meaning of ‘because of that’, or more literally, ‘from those words’ or ‘from those actions’.

9.9.7 Conditional

Conditional sentences consist of a subordinate conditional clause ('protasis') and a main clause ('apodosis'). Three types of conditional clause exist in Ik: 1) one introduced by the subordinating conjunction *na'* = 'if' followed by a sequential verb, 2) one introduced by the conjunctive phrase *na = misi* 'if whether' followed by a realis verb, and 3) one introduced by *dɛmusu* 'unless/until' followed by either a realis or a subjunctive verb.

The first type of conditional clause always comes before the main clause and is first of all recognized by the conjunctive proclitic *na'* = 'if'. If the subject of the conditional clause is made explicit, it takes the nominative case. The verb in the conditional clause is in the sequential aspect:

(130) *Na atsiduk, maiduo ncik.*

[[ná = áts-idu-k^o]_{COND} ma-idu-o ɲci-k^e]_{MAIN}
 CONJ = come-2SG-SEQ give-2SG-SEQ I-DAT
 If you come, give (it) to me.

(131) *Na oja iyuo nebuk, iyee bats'.*

[[na = ɔj-á i-u-o nébu-k^e]_{COND}i-é = e báts'-^a]_{MAIN}
 CONJ = sore-NOM be-3SG-SEQ body-DAT be-REAL = DP pus-NOM
 If a sore is on the body, there is pus in it.

With the conjunction *na'* =, the type of conditional clauses shown above have a present, gnomic, or even future tense. But they may also be put in the past tenses with the addition of the past tense particles, as in:

(132) *Past-tense conditional clauses*

| | |
|----------------------------------|---------------------------------------|
| na = káyuk ^o ,... | 'If she goes,...' |
| na = náá kayuk ^o ,... | 'If she had gone (earlier today),...' |
| ná = bee kayuk ^o ,... | 'If she had gone (yesterday),...' |
| na = noo káyuk ^o ,... | 'If she had gone (a while ago)...' |

Conditional clauses may be negated through the use of the sequential negating verb *moo/noo* following the conjunction *na'*= . And whereas affirmative conditional clauses contain verbs in the sequential aspect, negated conditional clauses contain the bare negative (irrealis) verb form:

(133) *Naa noo kai, iryametima njitsanik.*

[na = n6-6 ka-ⁱ]_{COND} iryam-ét-ima njítsaní-k^e
 CONJ = not-SEQ go-3SG[IRR] get-VEN-1PL.EXC[SEQ] problems-DAT
 If he doesn't go, we'll get into trouble.

The second type of conditional clause is introduced by the conjunctive phrase *na = misi*, a combination of *na'* = 'if' and *misi* 'whether'. This type of conditional clause may precede or follow the matrix clause. Its verb is in the realis modality, while that of the matrix clause depends on the discourse context but is often in the sequential aspect as it is below:

(134) *Na misi tsidzuko ti, dukotuo ti.*

[na = misi tsíd-z-ukot-a tí]_{COND} d-ukot-u-o tí
 CONJ = whether carry-AND-REAL ADV take-AND-3SG-SEQ ADV
 If he rushes out this way, he'll then take it this way.

(135) *Kwaatetiaa bita na misi tudít,*

kwaat-et-í-a-a bit-a [na = misi tud-ít-^a
 bear-INCH-1SG-PRF you.PL-NOM CONJ = whether five-2PL-REAL

na misi leβetsit, na misi adít.

na = misi leβets-ít-^a na = misi ad-ít-^a]_{COND}
 CONJ = whether two-2PL-REAL CONJ = whether three-2PL-REAL
 I've born all of you, whether you are five, two, or three.

The third type of conditional clause is introduced by the conjunction *demusv* 'unless, until'. Instead of a sequential verb, this conjunction takes a verb in either in the realis modality or subjunctive mood. Because *demusv* also can

mean ‘before’, context must determine how it is interpreted. In the next two sentences, it is interpreted as having a temporal-conditional sense:

(136) *Biraa mena nesibetii demusu toida ncik.*

bira-a men-a nesíb-et-íⁱ [dɛmusu tó-id-a jci-k^e]_{COND}
 lack-REAL issues-NOM hear-INCH-1SG unless tell-2SG-REAL I-DAT
 There is nothing I can hear unless you tell me.

(137) *Nta koi demusu atsidi nda nc.*

ńt-á ko-í [dɛmusu ats-ídi nda jci]_{COND}
 not-REAL go-1SG unless come-2SG with I[OBL]
 I’m not going unless you come with me.

9.9.8 Hypothetical

Like conditional clauses, hypothetical subordinate clauses are also introduced by the subordinating conjunction *na’ =* and contain sequential verb forms. But in addition to this, they involve the following tensed hypothetical auxiliary particles between *na’ =* and whatever follows:

(138) *Hypothetical auxiliaries*

| | Non-final | Final |
|------|-----------|-----------------------|
| PST1 | ká-naa | ká = nak ^a |
| PST2 | ká = samu | ká = sam |
| PST3 | ká = noo | ká = nok ^o |

In simple, independent hypothetical clauses, the hypothetical auxiliaries occur once in the second position of the clause, for example:

(139) *Atsia kanaa baratso nak.*

ats-í-a ka = naa barats-o = nák^a.
 come-1SG-REAL HYPO-PST1 morning-INS = DEM.SG.PST1
 I would have come this morning.

But in complex hypothetical clauses—the kind involving a subordinate clause—the hypothetical auxiliaries in (138) first introduce the protasis and are then repeated at the end of the main clause, or apodosis:

- (140) *Na kanaa narema birayuk,*
 [[na = ká = naa nárém-a bira-u-k²]_{HYP}
 CONJ = HYP = PST1 insecurity-NOM not.be-3SG-SEQ

kaiisina kanak.

ka-í-ísin-a ka = nak²]_{MAIN}
 go-PLUR-1PL.INC-REAL HYP = PST1

If insecurity were not there, we would go regularly.

9.9.9 Concessive

Concessive, or ‘even though’ adverbial clauses consist of the particles *áta* (from Swahili *hata* ‘even’) or *toni* ‘even’, plus a simultaneous clause, as in:

- (141) *Toni fiyetukodik!*
 [toni fiyet-úkó-ídi-k^e]_{CONCESSIVE}
 even fierce-COMP-2SG-SIML
 Even though you grow fierce!

- (142) *Ata ts'íkkaa joliaakatie, efesukot.*
 [áta ts'íká-á jol-i-aak-áti-e]_{CONCESSIVE} ef-és-úkót^a
 even bees-ACC tasteless-PLUR-DISTR-3PL-SIML tasty-INT-COMP-REAL
 Even if the honey (lit. ‘bees’) is tasteless, it will become tasty.

9.10 Verbless clauses

Changing gears now from subordinate back to main clauses: Two kinds of main clause are verbless: 1) the verbless copulative clause (§9.10.1) and 2) the verbless dative/genitive clause (§9.10.2). These are described next.

9.10.1 Verbless copulative clause

Verbless copulative clauses—covered in this section—are ‘verbless’ in the sense that they put a nominal marked with the copulative case in the predicate slot. This construction differs from the verbless dative/genitive clauses which are ‘verbless’ in the sense that they exhibit no predicate slot at all in the surface structure. In verbless copulative clauses, the predicative nominal can consist of a noun, pronoun, or nominalized verb. What allows a noun phrase to function as predicate is none other than the copulative case (described in detail in §6.3.8). In the copulative case, the copulative suffix {-kɔ} affixes to the underlying form of the nominal stem:

(143) *Copulative predicates*

| Lexical | | | Copulative | |
|----------|-----------|---|------------------------|----------------|
| cekí- | ‘woman’ | → | cekú-k ^o | ‘It’s a woman’ |
| ntsí- | ‘s/he/it’ | → | ntsú-k ^o | ‘It’s she.’ |
| dód-oni- | ‘to hurt’ | → | dód-onu-k ^o | ‘It’s pain.’ |

The copulative case enables a verbless grammatical alternative to the copula of identity *mut-*. Though *mut-* expresses both identity and possession, the copulative case expresses strictly identity. Serzisko further qualifies the meaning of *mut-* as one of ascription/description’ compared to that of the copulative which expresses ‘specification’ (1992:55ff).

Just as *mut-* takes a copula subject (CS) and copula complement (CC), verbless clauses with nominal heads take a verbless clause subject (VCS) and verbless clause complement (VCC; Dixon 2010:160). Ik being an eminently argument-dropping language, the VCS is often omitted, leaving only the VCC in the copulative case. When the VCS is present, it takes the nominative case as would an S or A subject under most other conditions. In the following examples, the first clause represents a standard copular construction, while the second illustrates the verbless copula clause:

9.10.2 Verbless dative/genitive clause

A second type of verbless clause communicates possession without the benefit of an actual verb in the surface structure. This construction has also been termed ‘predicative possessive’ (Heine & König 1996:50). It is called ‘dative/genitive’ here because it is not known which case suffix it involves. That is, in their non-final forms, the dative suffix {-ε} and genitive suffix {-ε} are identical. And since verbless clauses of this type have to do with possession, either case is theoretically admissible (see discussion in §9.2).

Verbless dative/genitive clauses have a different underlying structure than verbless copulative clauses. Whereas in the latter type, a nominal element functions as the predicate, verbless dative/genitive clauses manifest no overt predicate at all. So rather than being ‘verbless’ in the sense that something other than a verb fills the predicate slot, they are ‘verbless’ in the sense that there is no predicate on the surface. In the following examples, nouns marked with {-ε} come clause-initially. Either a dative or genitive interpretation of {-ε} is possible because both can encode possession:

- (148) *Ncie ηoka na.*
 jíci-e ηók-á=na
 I-DAT/GEN dog-NOM = DEM.SG
 This is my dog.

- (149) *Roβee kurubaa ni.*
 roβe-e kúrúbá-a=ni
 people-DAT/GEN things-NOM = DEM.PL
 These are people’s things.

Depending on the analysis of the case marker {-ε}, *jície* in (148) could mean ‘to me’ or ‘of me’, and *roβee* in (149) could mean ‘to people’ or ‘of people’.

9.11 Focus and topic constructions

Ik uses three syntactic operations to alter the pragmatic status of a clausal argument. To bring a constituent NP into greater focus, a cleft construction is used. To highlight the topic of a particular sentence, a topical argument may be left-dislocated or ‘preposed’ before the main clause. And a discourse topic can also be emphasized by simply ‘apposing’ a noun phrase to a clause. Left-dislocation and apposition both emphasize the topic but differ in this regard: The left-dislocated NP is still also an argument in the main clause, while an apposed NP is not an argument in the main clause.

9.11.1 Cleft construction

Ik cleft constructions consist of a clefted clausal argument in the copulative case followed by the original main clause now in a subordinated form. As indicated by the copulative case marking, the Ik cleft construction takes the form of a verbless copula clause (§9.10.1) in which the copula complement (CC) is the clefted argument and the copula subject (CS) is the original, now subordinate main clause. It can be formulated as follows:

(150) *Ik cleft construction:* [NP-COP]_{CC} [SUBORD]_{CS}

The following pair of sentences exemplify the Ik cleft construction. The first example is a pragmatically unmarked basic clause with the canonical word order for transitive clauses (VAO). In the second example, the direct object of the clause, *mɛsɛ-* ‘beer’, gets clefted and put in the copulative case. The original main verb, *bédĩm*, then assumes its role as the predicate in a subordinate clause acting as the subject of the verbless clause *mɛsɔɔ*:

(151) *Bedĩma mes.*
 béd-ĩm-a_{VA} **mɛs-∅**_O
 want-1PL.EXC-REAL beer-NOM
 We want beer.

(152) *Mesoo bedim.*

mɛsɔ-ɔ_{CC} [béd-ím-∅_{VA} ∅_O]_{CS}
 beer-COP want-1PL.EXC-REAL
 It's beer (that) we want.

That the cleft construction involves a subordinate clause is shown by the case marking of any remaining overt arguments in the original clause. For example, the subject of the verb *bédim* in (153) is in the accusative case, the case all non-sequential subordinate clause subjects are marked with in Ik:

(153) *Mesoo ngwaa bedim.*

mɛsɔ-ɔ_{CC} [ɲgó-á béd-ím-∅]_{CS}
 beer-COP we.EXC-ACC want-1PL.EXC-REAL
 It's beer (that) *we* want.

The question remains, however, whether the subordinate clause in (153) is a relative clause. In the Kuliak language So, clefted interrogative words are said to be modified by relative clauses (Carlin 1993:135). But for Ik, a relative clause interpretation for sentences like the one in (153) is ruled out on the basis that any tense markers immediately follow the clefted argument, as in (154). Relative clauses, by contrast, are tensed by the relative pronouns themselves, as in (155):

(154) *Mesoo bee bedim.*

mɛsɔ-ɔ_{CC} = bɛɛ [béd-ím-∅]_{CS}
 beer-COP = PST2 want-1PL.EXC-REAL
 It was beer (that) we wanted (yesterday).

(155) *Mesoo sini bedim.*

mɛsɔ-o_{CC} = [sini béd-ím-∅]_{CS}
 beer-COP = PST2.REL.PL want-1PL.EXC-REAL
 a) It is the beer that we wanted (yesterday).
 b) **It's beer (that) we wanted (yesterday).

Cleft constructions are very common in Ik discourse, giving it a particular structural texture characteristic of the language as a whole, for example:

(156) *Woo noo nkian.*

wɔ-ɔ_{CC} = nɔɔ [ɲk-í-án-∅]_{CS}
 greens-COP = PST3 eat-PLUR-IPS-REAL
 It was greens (that were) eaten.

(157) *Ntsuo naa atsiaad.*

ntsú-ó_{CC} = naa [ats-í-á = d^e]_{CS}
 it-COP = PST1 come-1SG-REAL = DP
 It's why I came.

(158) *Ts'edoo koto kaitatee nkakak.*

ts'é'dó-ó_{CC} = kɔtɔ [kait-át-e = e ɲkáká-k^a]_{CS}
 there-COP = then taste-3PL-REAL = DP food-ACC
 So there is (where) they taste food.

(159) *Pakoicoo bee itsurkota awikak.*

pakó-íce-o_{CC} = bee [itsúɲ-kɔt-a aw-ika-k^a]_{CS}
 cave-AGT.PL-COP = PST2 burn-COMP-3PL-REAL home-PL-ACC
 It was the Turkana who burned down the homes.

9.11.2 Left-dislocation

Another way the language alters the pragmatic status of an argument is to left-dislocate it before the main clause. Doing so highlights the topicality of that argument. Ik left-dislocation can be formulated as follows, where S stands for the main clause and S' stands for the sentence encompassing the main clause and preposed argument (notation from Payne 1997:274):

(160) *Ik left-dislocation:* [NP-NOM S]_{S'}

The left-dislocated constituent may be a simple noun or a complex NP with modifiers like relative clauses. Unlike clefted constituents which take the copulative case, left-dislocated arguments take the nominative case. Besides being left-dislocated, the highlighted argument is set apart from the main clause by a clear pause. It may also receive solicitive intonation which consists of a rising boundary tone at the end of the NP (see §3.3.5).

In the first example below, the main clause subject *roba* ‘people’, along with its modifying relative clause, gets dislocated leftward. As predicted typologically (Payne 1997:275), the preposed agent NP is recapitulated in the main clause by means of the 3PL subject-agreement suffix {-át(i)-}:

- (161) *Roba ni uga nogolidíaa, dzigwata atik.*
 rob-a=ni úg-a ɲógólídí-aá || dzígw-at-a átí-k^a
 people-NOM = REL.PL dig-REAL gold-ACC buy-3PL-REAL FILL-ACC
 People who dig for gold, they buy um...

In the next example, it is the object of the main clause (*komos*) that is left-dislocated. It is further highlighted by a substantial pause, which can be discerned in the example by the presence of final form (no final vowel). Note, however, that the left-dislocated object is not recapitulated in the main clause. This is not surprising for two reasons: 1) Direct objects are not cross-referenced on verbs like subjects are, and 2) Ik tends to drop subjects and objects in all types of clauses (where they are understood contextually).

- (162) *Komos, dukesukoida ceɲetiaamak.*
 komos-∅ || duk-és-úkó-íd-a ceɲetí-áma-k^e
 hindquarter-NOM take-INT-AND-2SG-REAL inlaw-AGT.SG-DAT
 The hindquarter, you will take (it) to your in-law.

Peripheral arguments can also be left-dislocated. In this last example below, the preposed argument *cua* ‘water’ has the semantic role of ‘means’ in the main clause. It is recognized as topic here by the nominative case and

solicitive intonation consisting of a low-rising boundary tone. And it is recapitulated in the main clause through the dummy pronoun {-dε} which indicates that a non-core (instrumental) argument has been relocated:

- (163) *Cua dii nii, taa ntsuo epesukotanad.*
 cu-a = 'dii = nií || taa ntsú-ó ep-és-úkot-an-á = d^ε
 water-NOM = ANPH = DEM.PL QUOT it-COP sleep-INT-COMP-IPS-REAL = DP
 That water there, okay, that's what people will go to sleep on (i.e. having drunk it to satisfy their thirst).

9.11.3 Apposition

Finally, an NP can simply be apposed to a following clause in which it has no syntactic or semantic role, though a pragmatic relationship is implied. This type of pragmatic operation can be formulated as follows, where S stands for the main clause (notation borrowed from Payne 1997:274):

- (164) *Ik apposition:* [NP] [S]

Apposed noun phrases are also separated from the following clause by a pause and often solicitive intonation. And the head of an apposed NP must take the nominative case. But unlike left-dislocated arguments, apposed NPs are not arguments in the clauses that follow them. As such, they are not recapitulated in those clauses in any way. For example, in the next example, the apposed NP simply expresses the reason for the proposition that follows. It does not figure into the main clause either syntactically or semantically:

- (165) *Korobaa atsiadee, tawanaa nedeketa imak.*
 [kóróbá-a [ats-í-á = deé]_{SUBORD}]_{NP} [tawán-á-a nedεke-a imá-k^a]_S
 thing-NOM come-1SG-REAL = DP harm-REAL-PRF illness-NOM child-ACC
 What I came for, okay...Illness is harming (my) child.

9.12 Questions

Questions in Ik may be polar (yes/no) questions or content questions. Polar questions add an interrogative overlay to a sentence otherwise in the indicative mood. This overlay consists of a) the non-final form of the final morpheme in the clause and b) an interrogative intonation. Content questions, on the other hand, involve a) interrogative words that substitute for the clausal constituent they question, and optionally b) a topicalized structure where the interrogative word acts as a verbless clause (copula) complement. Each type of Ik question is described in more detail below.

9.12.1 Polar questions

Polar questions generally expect a simple confirmation or denial as a response. The response can be ‘yes’ (*éé/ee*) or ‘no’ (*ńtódódó*) or a repetition of the question in the affirmative. Such questions in Ik are recognized by two characteristics: 1) They end with the non-final allomorph of the last morpheme in the question (as opposed to the final form in an Indicative sentence), and 2) the last mora of the question takes a low boundary tone:

- | | |
|---|---|
| <p>(166) <i>Maraja?</i> <i>maráŋ-à</i> [- - \] good-REAL Is it good?</p> | <p><i>Maraj!</i> <i>maráŋ-Ø</i> [- -] good-REAL It's good.</p> |
| <p>(167) <i>Maraja jiki?</i> <i>maráŋ-á jíkì</i> [- - - \] good-REAL totally Is it totally good?</p> | <p><i>Maraja jik!</i> <i>maráŋ-á jík'</i> [- - - \] good-REAL totally It's totally good.</p> |

Besides the interrogative low boundary tone evident in (166) and (67), one may detect a slightly higher overall pitch level for the polar question. This higher pitch level does not affect tone at the lexical or phrase level but

merely raises the relative pitch of the whole sentence. The degree to which the pitch is raised seems to be tied to the level of emphasis or emotion behind the question. For more on the intonational tunes of indicative, interrogative, and ‘solicitive’ sentences, refer back to §3.3.5.

Some further examples of Ik polar questions include these below. For each clause-final element, its final form is shown in square brackets to indicate how it would look if the clause were indicative instead of interrogative:

(168) *Maa noo tsitsikoti jotea?*

| | | | |
|-----------------|-------------------|---------------------------|-----------------------|
| má-á = noo | tsits-í-íkot-i | ɔtɛ-â _{INTERROG} | [ɔtɛ-k ^a] |
| not-REAL = PST3 | roll-PLUR-AND-3SG | sisal.root-ACC | |

Did he not used to roll sisal roots?

(169) *Zekwida koto eda?*

| | | |
|---------------------------|-------------------------|-------|
| zekw-íd-a = koto | ɛdâ _{INTERROG} | [ɛdâ] |
| live-2SG-REAL = then only | | |

So then do you live alone?

(170) *Rebana nkako jii?*

| | | | |
|-------------------|----------|------------------------|---------------------|
| réb-an-a | ɲkák-ó | ji _{INTERROG} | [jik ^e] |
| withheld-IPS-REAL | food-INS | also | |

Is food also withheld (from him)?

(171) *Bona neryaŋa njinia?*

| | | | |
|---------------|----------------|-----------------------------|-------------------------|
| bon-a | ɲeryaŋ-a | ɲjíní-â _{INTERROG} | [ɲjíní-k ^a] |
| care.for-REAL | government-NOM | we.INC.-ACC | |

Does the government care for us?

In principle, any word, phrase, clause, or sentence in the language can be questioned in a way that expects a confirmation or denial. Whatever grammatical category the questioned element belongs to, it will be in its non-final form together with the low boundary tone of interrogative

intonation. In (172) and (173), it is a simple NP that has been questioned, whereas in (174), a simultaneous subordinate clause is under query:

- | | | |
|-------|--|---|
| (172) | <i>Ntsa?</i> nts-à _{INTERROG} s/he-NOM She? | <i>Ee, nts.</i> ee nts-Ø yes s/he-NOM Yes, she. |
| (173) | <i>Awa ne erutsa?</i> aw-a = na erúts-à _{INTERROG} home-NOM = REL new-REAL A new home? | <i>Ee, awa ne eruts.</i> ee aw-a = na erúts- ^a yes home-NOM = REL new-REAL Yes, a new home. |
| (174) | <i>Gaanatie naa?</i> gaan-áti-e = náâ _{INTERROG} bad-3PL-SIML = ADV They really being bad? | <i>Gaanatik.</i> gaan-áti-e = nák ^a bad-3PL-SIML = ADV They being really bad. |

When a particular clausal constituent is questioned rather than the whole clause, it is fronted into a cleft construction. In this construction, the focused element acts as a verbless clause complement and takes the copulative case. The rest of the clause then shifts into a subordinate clause structure. This syntax of this construction is the same as is used for content questions. The following examples compare non-focused polar questions (175 and 176) with their respective clefted equivalents (177 and 178):

- | | |
|-------|---|
| (175) | <i>Atsia naa kaudzoe?</i> ats-íd-a = naa kaúdzò-è _{INTERROG} come-2SG-REAL = PST1 money-DAT Did you come for money? |
|-------|---|

(176) *Kaudzoo naa atsidee?*

kaúdzoo-o = náa ats-íd-e = è
 money-COP = PST1 come-2SG-REAL = DP_{INTERROG}
 Was it money you came for?

(177) *Enita bee boroka?*

en-ít-á = bee borok-à_{INTERROG}
 see-2PL-REAL = PST2 bushpig-NOM
 Did you see a bushpig (yesterday)?

(178) *Borokuo bee enita?*

boroku-ó = bee en-ít-à_{INTERROG}
 bushpig-COP = PST2 see-2PL-REAL
 Was it a bushpig that you saw (yesterday)?

The true morphological marker of polar questions in Ik is the final, low boundary-tone comprising the interrogative intonational tune. In this, Ik differs from neighboring Teso-Turkana languages like Turkana which append the invariable question particle *-à* to utterances to make a polar question (Dimmendaal 1983:429). Heine & König posited *-a* as an interrogative particle in Ik too (1996:116), but this must be based on an incorrect analysis of the suffix *{-a}* which marks both nominative case and realis modality. If either of these morphemes came clause-finally in a polar question, it would definitely resemble the Teso-Turkana question particle.

9.12.2 Content questions

Content questions in Ik involve clauses in which a constituent has been replaced with an interrogative word. Unlike in some languages, only one interrogative word per question is permitted in Ik. Ik Interrogative words—see (179) below—include those corresponding to (and therefore standing in place of) (pro)nouns, adverbs, and verbs. Besides the interrogative words themselves, no other special morphological or intonational means are used.

(179) *Ik interrogative words*

| INTERROG | Meaning | Word class |
|--------------|--------------------------------------|------------|
| ndo- | ‘who?’ | (pro)noun |
| ndaí-/ńtá | ‘where?’ | (pro)noun |
| ńté-éńí- | ‘which (sg.)?’ | (pro)noun |
| ńtí-éńí- | ‘which (pl.)?’ | (pro)noun |
| ńté-éńí-/ńt- | ‘when (+ specified unit of time)?’ | (pro)noun |
| isi- | ‘what?’ | (pro)noun |
| | ‘why (with DAT or ABL case)?’ | (pro)noun |
| ńtí | ‘how?’ | adverb |
| kitós- | ‘what quality (color, shape, etc.)?’ | verb |
| taná- | ‘how many?’ | verb |

As can be seen from (179), most Ik interrogative words are (pro)nouns and thus inflect fully for case. Some others, like *ńté-éńí-* ‘which (sg.)?’ are compound nouns. The adverbial interrogative *ńtí* ‘how’ is an invariable particle, and the words *kitós-* ‘what quality?’ and *taná-* ‘how many?’ are both intransitive verbs.

The word *ndo-* ‘who’ can be pluralized with the possessive plural suffix making *ndo-íní-* ‘who (pl.)?’. In isolation, *ńtá* is the word used for ‘where?’, while *ndaí-* is used when a case inflection is required. This latter form is likely a combination of the proto-interrogative **nd/nt-* and *aí-* ‘side, place’ but should probably now be considered lexicalized (see §8.2.4 for a discussion of *aí-*’s role in the formation of locative demonstratives).

The singular and plural forms of ‘which’ are also based on the proto-interrogative morpheme **nd/nt-* plus the possessum pronominal *-éńí-*. The concept of ‘when’ in Ik is usually expressed through a combination of *ńté-éńí-* ‘which’ plus the appropriate unit of time as its modifier in the genitive case, as in *ńté-éńí-ɔ ńásáatí* ‘which hour?’ or *ńté-éńí-ɔ arágwaní* ‘which month?’. A shortened form has arisen alongside *ńté-éńí-ɔ ódowí* ‘which day?’—*ńtó-odów* ‘when (which day)?’ (noted by Heine & König 1996:120).

Some paradigmatic similarity can be seen between the interrogative words and specific indefinite pronouns (as predicted by Dixon 2012:401):

(180) *Comparative interrogative/indefinite paradigm*

| Interrogative | | Indefinite | |
|---------------|----------------|---------------|-----------------|
| nd-aí- | ‘where?’ | kɔ́n-áí- | ‘somewhere’ |
| ńtẹ́-éńí- | ‘which (sg.)?’ | kɔ́né-éńí- | ‘a, some (sg.)’ |
| ńtí-éńí- | ‘which (pl.)?’ | kíní-éńí- | ‘some (pl.)’ |
| ńtó-odów | ‘which day?’ | kón-(i)t-ódoi | ‘some day’ |

The main demonstrable difference between the word classes in (180) is that the first term in the interrogatives is the interrogative proto-form **nd/nt-*, while in the indefinite pronouns, it is various forms of the root *kɔ́nɪ-* ‘one’. It should be clear from the table in (180) and these preceding notes that the etymological basis for Ik interrogatives is a proto-form like **nd/nt-* (with variable tone). This fits well with Ehret’s lexical reconstruction of proto-Nilo-Saharan in which he posits **nda* and **ndi* as proto-NS roots for ‘what?’, **ndé* for ‘which?’, and **ndo:* for ‘who?’ (2001:310-311). The word *isi-* ‘what’ is more mysterious in that it has no watertight parallels in Kuliak or Teso-Turkana, nor is it mentioned in Ehret 2001. One possible link may be to the Kuliak So’s interrogative particle *ii/ic* ‘who?’ (Heine & Carlin 2010:17).

The interrogative verbs shown in (180) conjugate fully as an other verb. This is illustrated next with a paradigm of the verb *taná-* ‘be how many?’:

(181) *Conjugation of the interrogative verb taná-*

| | | |
|---------|----------------------|---------------------------|
| 1SG | taná-í | ‘How many am I?’ |
| 2SG | taná-íd ^a | ‘How many are you?’ |
| 3SG | taná | ‘How many is s/he/it?’ |
| 1PL.EXC | taná-ít ^a | ‘How many are you (pl.)?’ |
| 1PL.INC | taná-ím | ‘How many are we (exc.)?’ |
| 2PL | taná-ísin | ‘How many are we (inc.)?’ |
| 3PL | taná-át ^a | ‘How many are they?’ |

The concept of ‘why?’ is typically expressed with the word *isi-* ‘what?’ plus a) the dative case marking the semantic role of ‘purpose’ or b) the ablative case marking the ‘cause/reason’ semantic role. In this function, *isi-* acts as a peripheral argument within the clause. Even in this role it can fall in the canonical post-VS or post-VAO position or be fronted:

(186) *Keesida isik?*

ke-es-íd-a isi-k^e
go-INT-2SG-REAL what-DAT

Why are you going (lit. ‘You are going for what (purpose)’)?

(187) *Keesida isu?*

ke-es-íd-a isu-∅
go-INT-2SG-REAL what-ABL

Why are you going (lit. ‘You are going from what (cause)’)?

(188) *Isio keesidad?*

isi-o ke-es-íd-a = d^e
why-COP go-INT-2SG-REAL = DP

Why are you going (lit. ‘It is what you are going for/from’)?

Another way of expressing ‘what?’ is with the compound noun *isi-ení-k^e*. This compound combines *isi-* ‘what?’ with the possessum suffix *-ení-* into a compound marked with the dative case. This form of ‘why?’ is often used in isolation without other words, as in the stand-alone *isi-ení-k^e* ‘Why?’.

9.12.3 Alternative questions

So-called ‘alternative questions’ (Dixon 2012:398-400) are made possible in Ik through the use of the disjunctive conjunction *kedé* ‘or’. This conjunction joins noun phrases in a series or whole clauses into a complex sentence. Apart from *kedé*, Ik alternative questions are not marked by any overt morphological or prosodic means. In the examples below, *kedé* joins two

clauses that could each constitute polar questions on their own. Together they make up a content question whose answer will be the affirmation of one or the other. Note that the final constituent remains in its final form:

(189) *Maraja kede gaan?*

[maráŋ-á] kede [gaan-Ø]
 good-REAL or bad-REAL
 Is it good or (is it) bad?

(190) *Giriana kede dzigwiikotan?*

[gir-í-án-a] kede [dzígw-i-ikót-an-Ø]
 keep-PLUR-IPS-REAL or sell-PLUR-AND-IPS-REAL
 Were they regularly kept or regularly sold?

9.12.4 Tags

Ever given to rhetorical flourishes, Ik speakers may use one of several interrogative ‘tags’ to solicit a response from those listening to their speech. Each of the tags is a negated polar question to which the expected response is in the affirmative. The following two are representative:

(191) *Benia ntia?*

beni-a níti_{INTERROG}
 not.be-REAL like.that
 Is it not so?

Nti.

níti
 like.that
 (It is) so.

(192) *Nta kamatii?*

ńt-á kám-átí = ì_{INTERROG}
 not-REAL be.like-3PL = DP
 Are they (i.e. words) not like that?

Kamatad.

kám-át-a = d^e
 be.like-3PL-REAL = DP
 They are like that.

9.13 Complementation

Complementation—a clause filling a slot in the argument structure of another clause—is handled in Ik in two ways: 1) with a special type of complement clause and 2) with other ‘complementation strategies’ (Dixon 2010:405). An Ik complement clause has the following five characteristics (the first three of which are definitive according to Dixon 2010:370):

- (193) 1) It has the internal structure of a clause.
 2) It functions as the core argument of another clause.
 3) It describes a proposition: fact, activity, or state.
 4) Its complementizer is an argument in the matrix clause.
 5) It takes the form of reported speech.

9.13.1 Complement clauses

Complement clauses (CoCL) in Ik are recognized by the initial complementizer *toimena-* that introduces them. This complementizer is a lexicalization of two roots: *tód-* ‘speak’ and *mená-* ‘words, issues’, resulting in a compound that means something akin to ‘saying (that)...’. Despite its verblike meaning, *toimena-* behaves grammatically as a noun: a) It fills an argument slot in the matrix clause, and b) it inflects for case.

Ik complement clauses evolved out of reported speech constructions (see §9.14). Technically, it is the quotative complementizer *toimena-* ‘saying’ that functions as the core argument of a matrix clause, while the ‘complement clause’ itself is treated as a direct quotation, i.e. the complement of *toimena-*. So point #2 of (193) is only true insofar as one considers the whole construction to be grammaticalized such that *toimena-* plus the direct quotation fill the argument slot of the matrix clause.

In terms of functional possibilities, *toimena-*clauses can fill the syntactic slots for object (O), copula subject (CS), copula complement (CC), and oblique peripheral argument. In (194), the complementizer *toimena-* is in the

accusative case, indicating that it and the clause it complementizes is the object (O) of the transitive verb *fiye-* ‘know’ in 3SG:

- (194) *Nta fiyei toimena sítá'a noo tatatieakwa nti.*
 nítá fiye-i [toimena-a [sítá'-á=noo tátáti-ɛakw-a nítí]_{CoCl}]_O
 not know-3SG COMPL-ACC engage-REAL=PST3 aunt-man-NOM ADV
 He doesn't know that (his) uncle got engaged like that.

In the next example, a *toimena*-clause is functioning as the copula subject (CS) of a verbless clause. The copula complement (CC) of the verbless clause is *ntsí-* ‘it’ which appears as *ntsú-ó* ‘it is...’ in the copulative case:

- (195) *Ntsuo toimena tezetoo menaicika mup.*
 ntsú-ó [toimena-a [téz-ɛt-ɔ-ɔ mená-íčík-á mup^u]_{CoCl}]_{CS}
 it-COP COMPL-NOM end-INCH-3SG-SEQ issues-PL-NOM all
 It's that all the issues have ended.

The next example features a complement clause functioning as the copula complement (CC) of the negative copula verb *bení-*. With this verb, CCs typically take the copulative case, and this sentence is no exception:

- (196) *Benia toimenoo mitida ceki na gaan.*
 beni-a [toimena-ɔ [mit-íd-a ceki=ná gaan-∅]_{CoCl}]_{CC}
 not.be-REAL COMPL-COP be-2SG-REAL woman[OBL]=REL.SG bad-REAL
 It's not that you are a bad woman.

In the next example, the complement clause is treated morphologically (with the oblique case suffix) and syntactically (noun in a series following *ńda*) as a peripheral argument. The origin of *toimena-* as an introducer of reported speech comes out clearly in this example: a) An audience for the reported speech is encoded as the extended object *cikámée* ‘to the women’ which even separates the complementizer from the quotation, and b) the quotative particle *taa*, otherwisely used in quotative formulae, is present:

- (196) *Nda toimena cikamee taa koyuo koto sedikak.*
 nda [toimena cikámé-e taa [kó-yúo = koto séd-ika-k^e]_{CoCl}]_{OBL}
 and COMPL[OBL] women-DAT QUOT go-IMP.PL = then garden-PL-DAT
 And saying to the women that ‘you go then to the gardens’.

Because *toimena*-clauses can express either factual or potential propositions, they exhibit a wide range of possible verb and clause types. With some verbs, like *béd-* ‘want’, even hortatives and optatives can occur:

- (197) *Bedá toimena taa gokaaketano.*
 béd-á [toimena-a taa [gok-aak-ét-ano]_{CoCl}]_o
 want-REAL COMPL-ACC QUOT seated-DISTR-VEN-HORT
 He wants us to all be seated (lit. ‘He wants that let’s all be seated’).

- (198) *Bedida toimena yumetine ceki?*
 béd-íd-a [toimena-a [úm-ét-me ceki]_{CoCl}]_o
 want-2SG-REAL COMPL-NOM engage-VEN-1SG[OPT] woman[OBL]
 Do you want me to engage a woman (lit. ‘that let me engage...’)?

As seen in (196) and (197), the quotative particle *taa* (a phonologically reduced form of *kuta* ‘s/he says’) often accompanies *toimena-*. This particle functions as an optional introducer of reported speech (see §9.14). The Ik ‘saying’-words *toimena-* and *taa* can be compared to similar forms in neighboring Teso-Turkana languages. For example, in Karimojong, the complementizer *a-tamar* is also the verb ‘to say’ and the quotative particle *ebé* is an irregular 3SG form of the verb *ábala*, also meaning ‘to say’.

Lastly, complement clauses are negated just like non-complement clauses:

- (199) *Nesibia toimena nta zekwidi atik.*
 nesíb-i-a [toimena-a [nt-á zekw-ídrí átí-k^e]_{CoCl}]_o
 hear-1SG-REAL COMPL-NOM not-REAL live-2SG FILL-DAT
 I hear that you don’t live in, um...

9.13.2 Complementation strategies

Besides the *toimena*-clause types described above, Ik also uses two further complementation strategies: 1) nominalization and 2) clause chaining.

The verbal element of a complement clause can be nominalized instead of appearing as a full finite verb. This is a commonly used complementation strategy in Ik. Nominalized verbal complements can fill any core or non-core argument slot and thus take any required case ending. If the subject of the nominalized verb needs to be specified, for example if it differs from the main clause subject, it directly follows the complement verb in the genitive case. And if the nominalized verb is transitive, then its object also follows it (and the subject) in the genitive case. This means that if the complement clause is transitive and has a different subject than the matrix clause, the nominalized verb may be followed by two nouns in the genitive case.

For example in (200), the nominalized verb *sáb-és* ‘to kill (pl.)’ is the subject (S) of the intransitive verb *gaan-ón* ‘to be bad’ and therefore takes the nominative case. Within the nominalized complement clause, *sáb-és* is a transitive verb with an object marked in the genitive case:

- (200) *Gaana sabesa robae.*
 gaan-a_v [sáb-és-a_{vA} [roba-^e]_s]
 bad-REAL kill[PL]-INF-NOM people-GEN
 Killing people is bad (lit. ‘The killing of people is bad’).

The next example presents a nominalized transitive clause filling the object slot of a matrix transitive clause. The transitive verb *bol-és-úkot* ‘to stop (doing something)’ has the nominalized clause *mɔd-és-á wicé* as its object, with *mɔd-és* marked with the accusative case (since the subject of the main verb in the matrix clause is 3-person). Then, within the complement clause itself, the nominalized verb *mɔd-és* ‘to deceive’ has its direct object encoded as a possessive modifier in the genitive case:

(201) *Bolukotataa imodesia wice.*

bol-ukot-át-a-a_{VA} [imɔɔf-ɛsí-á_{VA} [wicé-Ø]_O]_O
 stop-COMP-3PL-REAL-PRF deceive-INF-ACC children-GEN
 They've stopped deceiving children.

Nominalized verbs can also fill peripheral argument slots. In the next example, the nominalized verb *iráb-ɛs* 'to harvest millet' is filling the slot of a peripheral argument in the dative case, denoting purpose:

(202) *Botuo cikama rebeakok, irabesik.*

bot-u-o cikám-á rébe-akɔ-k^ɛ [iráb-ɛsí-k^ɛ]_{PERIPHERAL}
 move-3SG-SEQ women-NOM millet-inside-DAT harvest.millet-INF-DAT
 And the women moved to the millet for harvesting (it).

The peripheral argument can be a complex complement clause appended to a main clause as if it were the last in series of noun phrases. In this next example, an entire transitive clause is encapsulated in multiple embedded noun phrases that fill an oblique argument slot in a preceding matrix clause:

(203) *...nda ja sabesi ntsie loɔotae.*

ń¹da=ja [sáb-ési_V ntsí-é_A loɔótá-^ɛ_O]_{PERIPHERAL}
 and=ADV kill[PL]-INF[OBL] he-GEN enemies-GEN
 ...and then he killed the enemies ('the killing of him of enemies').

Finally, a nominalized complement clause can occur as a predicative nominal in a verbless copula clause like the one in (204). This clause was uttered to an elder as an explanation for the aches and pains of growing old:

(204) *Dunesio ata dee.*

dún-ési-o át-á= 'déé
 age-INF-COP FILL-NOM = ANPH.SG
 That thing (i.e. feeling ill) is ageing.

A second complementation strategy employed by Ik is clause chaining. After a main verb there may follow a sequential or simultaneous clause acting in a complementary role. If the subordinate clause is sequential, then it expresses an activity occurring after the main verb, either logically or chronologically. If the subordinate clause is simultaneous, then it expresses an activity loosely cooccurring with the main verb (see §10.2).

The deontic verb *itámáán-* ‘behoove, necessitate’ (cognate with Teso-Turkana *itamakna*) serves to illustrate both types of clause chaining since it can occur with either one. In first example (205), *itámáán-* acts as the main verb in the initial main clause, followed directly by the sequential verb *déíduo* ‘and you (sg.) bring’ which is complementary to it:

- (205) *Itamaana deiduo boniticika muṅ.*
 [itámáán-a [dé-ídu-o boniti-icík-á muṅ]_{SEQ}]_{MAIN}
 behoove-REAL bring-2SG-SEQ kind-PL-NOM all
 You must bring all the various kinds.
 (‘It behooves, and you bring all the various kinds.’)

The next example involves *itámáán-* again but this time with a simultaneous clause containing the simultaneous verb form *bédétíík^e* ‘I looking for’:

- (206) *Itamaana bedetiike konienia awee bik.*
 [itámáán-á [béd-ét-íí-ke kóní-éní-a awé-é bi-k^e]_{SIML}]_{MAIN}
 behoove-REAL want-VEN-1SG-SIML one-PSSM-ACC home-GEN you.SG-DAT
 I must look for another home for you.
 (‘It behooves, I looking for another home for you.’)

9.13.3 Complement-taking verbs

The table in (207) presents a representative sample of Ik verbs that can take a *toimena*-complement as an argument. If any of these verbs uses other complementation strategies as well, these are also shown:

(207) *Complement-taking verbs*

| | | <i>toimena-</i> | Nominalization | Sequential clause chain | Simultaneous clause chain |
|-------------|-----------|-----------------|----------------|----------------------------|------------------------------|
| béd- | ‘want’ | ✓ | ✓ | | ✓ |
| en- | ‘see’ | ✓ | ✓ | | ✓ |
| ikoŋ- | ‘swear’ | ✓ | | | |
| itámáán- | ‘behoove’ | | | ✓ | ✓ |
| fiye- | ‘know’ | ✓ | ✓ | | |
| kut- | ‘say’ | | ✓ | | |
| nesíb`- | ‘hear’ | ✓ | | | ✓ |
| tam- | ‘think’ | ✓ | | | |
| tód`- | ‘speak’ | ✓ | | | |
| tɔnɔp- | ‘believe’ | ✓ | | | |
| tópéd-úkót- | ‘be able’ | | ✓ | | |

9.14 Reported speech

The Ik quote formula for reported speech consists of the verb *kut-* ‘say’ with a subject-agreement suffix cross-referencing the speaker. This is then followed by the addressee in the dative case if mentioned. After this may come the quotative particle *taa* (a reduced and grammaticalized form of *kuta* ‘s/he says’, like the Turkana irregular verb form *ebé* used as a quotative; Dimmendaal 1983:470), and then of course the quotation itself:

(208) *Reported speech:* *kut*-SPEAKER (ADDRESSEE-DAT) (*taa*) S_{QUOTE}

A couple of examples of this quotative formula in context are as follows:

(209) *Kutia ntsie, “Itemat.”*

kut-ia-a ntsí-é [itém-át-^a]_{QUOTE}
 say-1SG-SEQ s/he-DAT benefit-3PL-REAL
 And I said to her, “They are right.”

(210) *Kutata biraa koróbaa ηabat.*

kut-át-a [bira-a kóróbá-a ηáb-at-^a]_{QUOTE}
 say-3PL-REAL lack-REAL thing-NOM wear-3PL-REAL
 They say there is nothing they are wearing.

As Serzisko correctly pointed out, both direct and indirect speech can be reported with the direct quote formula given above (1987:72-73). In other words, when the verb *kut-* is involved, both types of reported speech are encoded grammatically as if they were direct quotations. An indirectly encoded quotation would require that the quotation be a complemental argument of the verb. But this is not possible with the *kut-* formula.

Rather, as expected crosslinguistically (Kroger 2005:226), a quotation found in the formula above is not treated as an argument of the verb *kut-*. Instead, it is an extra-syntactic sentential ‘complement’. This can be seen in Ik from two angles. First, unlike the complementizer *toimena-* (§9.13.1), the quotative particle *taa* is invariable, that is, not inflected for case. Second, when the content of an indirect quotation is the interrogative pronoun *isi-* ‘what?’ instead of a full sentence, *isi-* takes the oblique case, the case that is used for, well, oblique arguments. This can be seen in the next example:

(211) *Kutana taa isi roba?*

kut-an-a táá [isi]_{QUOTE} [roba]_{VOCATIVE}
 say-IPS-REAL QUOT what[OBL] people[OBL]
 It is said (that) what, people?
What shall we say, folks?

If a quote in Ik were treated grammatically as an argument of the verb (as in indirect quotes), nominative case (for 1st and 2nd person subjects) and accusative case (3rd person subjects) would have to be indicated somewhere, e.g. on a complementizer or on *isi-* if it was filling the quotation slot. Compare the following grammatical and ungrammatical sentences:

- | | | | |
|-------|--------------------|-----------------------|--|
| (212) | <i>Kuta is?</i> | | ** <i>Kuta isik?</i> |
| | kut-a | [is] _{QUOTE} | **kut-a [ísi-k ^a] _{QUOTE} |
| | say-REAL | what[OBL] | **say-REAL what-ACC |
| | What does she say? | | What does she say? |

From the examples above, it can be seen, then, that a quotation in Ik is not a core argument—nominal or complemental—of the verb *kut-*. Nevertheless, both direct and indirect speech can be reported, as the following show:

- | | | | |
|-------|--------------------------------|------------|---------------------------------------|
| (213) | <i>Kuta Lomeria, "Atsesi."</i> | | |
| | kut-a | lomerí-a | [ats-és-í-∅] _{DIRECT.SPEECH} |
| | say-REAL | Lomeri-NOM | come-INT-1SG-REAL |
| | Lomeri says, "I'm coming." | | |

- | | | | |
|-------|---------------------------|------------|---------------------------------------|
| (214) | <i>Kuta Lomeia atses.</i> | | |
| | kut-a | lomerí-a | [ats-és-∅] _{INDIRECT.SPEECH} |
| | say-REAL | Lomeri-NOM | come-INT-REAL |
| | Lomeri says he's coming. | | |

Both (213) and (214) are directly encoded, though they encode direct and indirect speeches, respectively. Because of this structural ambiguity, both sentences are 'opaque' (Serzisko 1987:72) with regard to the reference of the subjects within each quotation. Without context, it is not known which of the following translations would best represent the data above:

- | | | |
|-------|------------|---|
| (215) | For (213): | Lomeri _A says, "I _A am coming." |
| | | Lomeri _A says I _B am coming. |

- (216) For (214): Lomeri_A says he_A is coming.
 Lomeri_A says he_C is coming.
 Lomeri_A says, “He_C is coming.”

Serzisko suggests that the quotative particle *taa* is obligatory for indirect quotations (1987:74), but this has not been confirmed in my data. It seems, rather, that its use is optional and flexible. For example, it even shows up before the main verb, as in *taa kutaná taa* ‘That it is said that...’.

In his 1987 study of the verb *kut-*, Serzisko insightfully traces out the various paths of development the verb has taken in Ik. Besides merely reporting speech, it is also used as a verb for thinking, naming, intending, wanting, and communicating a sound or even an event. Each of these developments is given one example in the following sentences:

- (217) Thinking: *Kutia kedē buo nak.*
 kut-í-á kedē bu-o = nák^a
 say-1SG-REAL or you.SG-COP = PST1
 I thought maybe it was you.

- (218) Naming: *Kutana edie ntsie is?*
 kut-an-a édi-e ntsí-é is
 say-IPS-REAL name-DAT s/he-GEN what[OBL]
 What is she called/what is her name?

- (219) Intending: *Kutia kone awak.*
 kut-í-á kó-ne awá-k^e
 say-1SG-REAL go-1SG[OPT] home-DAT
 Well, I’m about to go home.

With regard to its intending function, the verb *kut-* may have grammaticalized into the So future time marker *kɔ-* (cf. Carlin 1993:58).

(220) Sound: *Kutini wir!*
 kut-ɪɪ wir
 say-3PL[SEQ] IDEO
 And they went *zoom!*

(221) Event: *Kutoo kija lej.*
 kut-ɔ-ɔ kɪj-á lej
 say-3SG-SEQ land-NOM IDEO
 And the land caught on fire.

All the examples above retain the surface structure of a quotative sentence, even though they have developed semantically in various ways. One further development of *kut-*, however, takes as an argument a noun or a nominalized verb in the dative case. Perhaps in the surface structure, the nominalized argument takes the slot of an addressee (hence the dative case) instead of the quotation. In this usage, *kut-* acts as a sort of modal verb, expressing desire/intention in (222) and action toward something in (223):

(222) Modal 1: *Kutata idzesie...*
 kut-át-a ídz-esi-e... (Serzisko 1987:82)
 say-3PL-REAL shoot-INF-DAT
 Then they shot...

(223) Modal 2: *Kwiidoo moderipak.*
 ku(t)-ídɔ-ɔ módé-ripa-k^e (Serzisko 1987:85)
 say-2SG-SEQ ground.bee-hole-DAT
 And you jumped in the ground-bee hole.

9.15 Comparative constructions

Ik has two types of comparative construction. One is a mono-clausal construction and the other bi-clausal (types A2 and F, respectively, in Dixon's system of classification; 2012:350, 358). The discussion here uses the following terms, borrowed from Dixon (2012:344):

(224) *Comparative construction terminology*

| | |
|-----------|--|
| COMPAREE | that which is being compared |
| STANDARD | what the comparee is being compared to |
| PARAMETER | the gradable property shared in the comparison |
| INDEX | degree to which the comparee differs from standard |
| MARK | marker of the grammatical function of the standard |

Accordingly, the following table lays out the components of Ik's two types of comparative construction, each of which are then described below:

(225) *Ik comparative constructions*

| | Type A2 (mono-clausal) | Type F (bi-clausal) |
|-----------|-----------------------------------|--|
| COMPAREE | S in NOM case | A in NOM case |
| STANDARD | NP in ABL case | NP in ACC case |
| PARAMETER | head of intransitive predicate | head of initial predicate (intrans. or trans) |
| INDEX | — | transitive medial verb (e.g. <i>il̥</i> - 'defeat') |
| MARK | ABL case | ACC case |

9.15.1 Mono-clausal comparative construction

The Type A2 comparative construction in Ik is mono-clausal: All its components fall within a simple clause. The comparee is the subject of an intransitive predicate, usually an adjectival verb. The standard against which the comparee is compared is a peripheral argument in the ablative case. In this type of comparative construction, there is no index:

(226) *Zeia nka bu.*

[ze-í-á]_{PARAMETER} [ńk-a]_{COMPAREE} [bu-Ø]_{STANDARD}
 big-1SG-REAL I-NOM you.SG-ABL
 I am older than you (lit. 'I am big from you.').

(227) *Marą̃a ńa na*

[marą̃-ń] _{PARAMETER} [ń-a = na] _{COMPAREE}
 good-REAL one-NOM = DEM.SG

kidoo ke.

[ki = ńń-ń = ke] _{STANDARD}
 DIST = one-ABL = DEM.SG.DIST

This one is better than that one (over there).

This type of construction is susceptible to some ambiguity. When the head of an intransitive predicate is an adjectival verb followed by a non-core argument in the ablative case, the sentence can have a different meaning than comparison. Note the two possible interpretations of this statement:

(228) *Gaana ncu.*

gaan-a ńcu-Ø
 bad-REAL I-ABL

- a) S/he/it is worse than me.
- b) S/he/it is bad to me (according to me).

The ambiguity lies in the fact that the ablative can encode the experiencer role as well as the standard of comparison. The choice between the two interpretations must be made on pragmatic, contextual grounds.

9.15.2 Bi-clausal comparative construction

Type A2 comparative constructions in Ik serve to compare two entities in terms of a gradable property (parameter). Type F constructions can do the same thing, as well as compare in terms of any parameter, be it a state or an action. Type F constructions are bi-clausal. The first clause is the initial clause in a bi-clausal chain, either intransitive or transitive, for example:

- | | | |
|-------|------------------|--------------------------|
| (229) | <i>Kwatsa...</i> | <i>Tokobiya edia...</i> |
| | kwáts-á | tokob-i-a edí-á |
| | small-REAL | farm-PLUR-REAL grain-ACC |
| | It's small... | He farms grain... |

To such simple clauses as these can be added a comparative clause with a medial verb, either sequential or simultaneous. One medial verb Ik uses is *iló-* 'defeat' which has close parallels in Karimojong (*-ló*) and Turkana (*-láŋ*). (The Teso-Turkana infinitive form *akí-ló* is often used in Ik instead of *iló-*; besides comparison, it can be used to mean 'instead (of)'). In this comparative chained clause, the comparee is still the subject as in the main clause but must be A even if it is an S in the main clause. This is because *iló-* is a transitive verb. Its O then is the standard of the comparison. So the simple clauses in (229) may be extended as follows:

- | | | |
|-------|---|--|
| (230) | <i>Kwatsa ntsa iloyee ncik.</i> | |
| | [kwáts-á nts-a] _{INITIAL} | [iló-í-é jíci-k ^a] _{MEDIAL} |
| | small-REAL he-NOM | defeat-3SG-SIML I-ACC |
| | He's smaller than me (lit. 'He's small, he defeating me'). | |
| | | |
| (231) | <i>Tokobiya edia iloyoo ngwaa mun.</i> | |
| | [tokob-iy-a edí-á] _{INITIAL} | [iló-í-ɔ ŋgó-á mun] _{MEDIAL} |
| | farm-PLUR-REAL grain-ACC | defeat-3SG-SEQ we.EXC-ACC all |
| | He farms grain more than all of us (lit. 'and defeats us all'). | |

Some verbs like *kwáts-* ‘small, young’ and *ze-* ‘big, old’ can appear in either type of comparative construction but with different meanings. For example, the sentence *kwátsía bu* can only mean either a) ‘I am younger than you’ or b) ‘I am lower than you in status’. To get the meaning ‘I am smaller than you’, a Type F construction must be used: *kwátsía ilóíaa bi*.

9.15.3 Equative clauses

To compare two equal or nearly equal entities, Ik uses two verbs instead of a special syntactical construction. These verbs are *ikwáán-ón* ‘to be the same, similar in quality’ and *iryáán-on* ‘to be the same, similar in physical characteristics (like size or shape)’. Both of these verbs have Teso-Turkana parallels in *aki-kwaan* and *a-rian* ‘to be equal’ (Barrett 1988:70).

(232) *Ikwaanida nda babo.*

ikwaan-íd-a ní'da bábo
 be.same-2SG-REAL with your.father[OBL]
 You resemble your father.

(233) *Nta dakwitina ni iryaanat.*

nít-á dakw-itín-á = ni iryaan-átⁱ
 not-REAL tree-PL-NOM = DEM.PL be.similar-3PL
 These trees are not the same.

9.15.4 Superlative clauses

Ik also has no special construction to express superlativeness either. Instead, it simply adds the adjective *muṇu* ‘all’ to modify the standard in Type F comparative constructions, making the standard a universal plural, e.g.:

(234) *Toda marañje iloyoo robaa muṇ.*

tód-a maráñ-í-e iló-í-ᵛ roba-a muṇ
 speak-REAL good-3SG-SIML defeat-3SG-SEQ people-ACC all
 He speaks better than everyone else (lit. ‘and defeats all people’).

9.16 Negation

Negation in Ik is signaled by a combination of highly irregular, paradigm-less negator verbs (235 below) and irrealis marking on the negated verb. The negator verbs show agreement for an impersonal 3-person subject. One of them, *ńt-*, always appears in the realis modality with a negated complemental main verb in the irrealis modality. The other, *ma-/na-*, can appear in either the realis or irrealis modalities (in the sequential aspect as *moo/noo*). For past and present perfect tenses, its verbal complement is in the irrealis modality, while for prohibitives (negative imperatives), the complement is in the realis modality. Beyond these two negator verbs, two lexical verbs, *birá-* and *bení-*, are used to negate copula of location and copula of identity verbs, respectively. The table in (235) presents the negator verbs with the verb and clause types they can negate:

(235) *Ik negator verbs*

| | Verb type | Clause type |
|---------|------------------------------------|-------------|
| ńt- | Non-past realis | Main |
| ma-/na- | a) Past realis | Main |
| | b) Present perfect | Main |
| | c) Imperative | Main |
| | (as <i>mo-o/no-o</i>) d) Irrealis | Subordinate |

The negating morphemes presented in (235) are analyzed here as defective verbs rather than merely negating particles for the following reasons:

1. They fill the clause-initial slot, which is reserved for the main verb.
2. They take modal suffixes (e.g. realis {-a} and sequential {-(k)ɔ}).
3. The negator *ma-/na-* can be modified by tense enclitics, which only modify the clause predicate.
4. The irrealis (sequential) negator *moo/noo* can bear the dummy pronominal enclitic { = 'dɛ }, which otherwise attaches only to verbs.

In terms of etymology, the Ik negator verbs can be traced to ancient proto-Nilo-Saharan forms (Ehret 2001:218-223). The realis-negating verb *ńt-* likely originates in the proto-‘Northern Sudanic’ suffix **-to* that is believed to have also negated indicative clauses. Though perhaps this ancient negator crossed phyletic boundaries into Afroasiatic, if the Cushitic language Afar’s defective negating morpheme *-innio* is any indication (Mahaffy, n.d., p. 33). According to Ehret, the prefix *n-* in the Ik *ńt-* developed as an independent morpheme, though its function may not be reconstructable today.

For its part, the Ik negator verb *ma-/na-* seems obviously related to the proto-‘Eastern Sahalian’ prefix **má-* that is said to also have negated irrealis clauses (Ehret 2001:218-223). It too has widespread Nilo-Saharan and Afroasiatic reflexes. For example, Turkana’s defective negator *mɛɛɛ́* is believed to consist of the morphological sequence **ma-ɛ-ra-i* of which the first is the negator **ma-* (Dimmendaal 1983:453). A parallel is also found in the Lowland Cushitic languages Afar and Saho: In Afar, the ‘principal negator’ is *ma-* (Mahaffy, n.d., p. 20), while in Saho, the negator of imperative and imperfective clauses is *ma-* or *mi-* (Banti & Vergari 2005:7).

And although the Ik parallel usually appears with H-tone as *máa* or *náa*, it is analyzed as *ma-/na-* on the hypothesis that it was (is?) used with the present perfect suffix {-ka} with its floating H tone. This was first postulated by Heine & König (1996:89) and is corroborated by Ik’s sister Kuliak language So’s ‘perfective negator’ that has the form *mak* (Carlin 1993:58). The Ik negator *ma-* together with its present perfect suffix {-ka} would produce the final form **má-k^a* and the non-final form *má-a*. A form like **má-k^a* is preserved in So but lost in Ik because: 1) Negator verbs never occur clause-finally (where the final form of {-ka} could appear), and consequently, 2) the /k/ is lost in clause-initial positions leaving only *má-a*. This analysis would also help explain why the sequential form is *mo-o* and not *mó-o*. But because the analysis is still a bit speculative, the form *má-á/ná-á* or *má-a/ná-a* is glossed throughout the grammar as *NOT-REAL* instead of *NOT-PRF*.

9.16.1 Indicative and interrogative

Non-past, indicative, realis clauses are negated with *ńt-*, which then takes the morphologically negated verb as a complement in the irrealis modality:

- | | | | | |
|-------|-------------------|---|--|-----------------------------|
| (236) | <i>Kod.</i> | | | <i>Nta kod.</i> |
| | ƙó-d ^a | → | | ńt-á ƙó-d ⁱ |
| | go-2SG-REAL | | | not-REAL go-2SG[IRR] |
| | You're going. | | | You're not going. |

Indicative and interrogative clauses are both negated the same way:

- | | | | | |
|-------|--------------------|--------------------|--|--|
| (237) | <i>Nta kaat.</i> | | | <i>Nta kaati?</i> |
| | ńt-á | ƙá-át ⁱ | | ńt-á ƙá-át ⁱ _{INTERROG} |
| | not-REAL | go-3PL[IRR] | | not-REAL go-3PL[IRR] |
| | They aren't going. | | | Are they not going? |

The only difference between the two sentences in (237) is phonological: The final vowel of the 3PL suffix is fully voiced in the interrogative mood.

Past tense realis clauses are negated with *ma-/na-* in the realis modality (and/or present perfect aspect?; see last paragraph on p. 583), with the negated verb as a complement in the irrealis modality:

- | | |
|-------|-----------------------------------|
| (238) | <i>Maa naa kod.</i> |
| | má-á = naa ƙó-d ⁱ |
| | not-REAL = PST1 go-2SG[IRR] |
| | You didn't go (earlier today). |

Subordinate clauses and sequential medial clauses are negated with *moo/noo*, which is analyzed here as the negator verb *ma-/na-* plus the sequential aspect suffix $\{-(k)ɔ\}$. As with the realis *máa/náa*, the negated verbal complement of *moo/no* is in the irrealis modality. Examples include:

(239) Relative clause: *da moo kodid*
 d-a mó-o kó-di = d^e
 one-NOM not-SEQ go-2SG[IRR] = DP
 the one (that) you don't go to

(240) Chained clause: *...moo kod.*
 mo-o kó-dⁱ
 not-SEQ go-2SG[IRR]
 ...and you don't go.

An interesting structural feature of Ik negation is that while the negator verbs function as the main verb of the clause and are marked for an impersonal 3SG subject, the subject of the negated verb, if overt, fills the normal syntactic slot for subject. Compare the following sentences:

(241) *Koyaa bee nk.*
 kó-í-a = bee nk-a^a
 go-1SG-REAL = PST2 I-NOM
 I went (yesterday).

(242) *Maa bee nka koi.*
 má-á = bee nk-a kó-íⁱ
 not[3SG]-REAL = PST2 I-NOM go-1SG[IRR]
 I didn't go (yesterday).

In (241), a normal VS intransitive clause, the removed past tense clitic = *bee* follows the verb and is then followed by the overt subject *nk^a* 'I'. Then, in (242), the tense clitic follows the negator verb as it would a main verb. The clause's semantic subject, *nk^a*, then follows the tense clitic as if it were the subject of the negating verb. However, it is in fact the subject of the complement verb *kóíⁱ* that follows it. It is interesting to note that in most types of subordinate clauses, any overt preverbal subject would take the accusative case. So in (242) there seems to be a mismatch between syntax

and semantics: The syntax treats *ɲka* like the main clause's subject, while semantically, it is the subject of the following complemental verb *ƙóti*.

Ik can only negate full dependent and independent clauses. It has no derivational processes for creating negative lexemes. Neither can smaller clausal constituents like noun phrases be negated morphologically. They can be negated syntactically and semantically by first being topicalized. To illustrate this, the verb *birá-* 'not be' in the following sentences negates various clausal arguments that are modified by headless relative clauses:

(243) *Biraa ama iya naye na.*

bira-a ám-á i-a naí-é = na
not.be-REAL person-NOM be-REAL here-DAT = DEM.SG
Nobody is here (Lit. 'There is no person (who) is here.').

(244) *Biraa ama ntsia ijaaresad.*

bira-a ám-á ntsí-á ijaar-es-á = d^e
not.be-REAL person-NOM s/he-ACC help-INT-3SG = DP
He is helping nobody (Lit. 'There is no one he is helping.').

(245) *Biraa keda kaad.*

bira-a kéd-a ƙá-á = d^e
not.be-REAL place-NOM go-REAL = DP
He's going nowhere (Lit. 'There is no place he is going to.').

9.16.2 Prohibitive

The structure of imperative versus prohibitive clauses is quite different in Ik. In an imperative clause, the bare verbal stem is given the singular imperative suffix {-é} or the plural imperative suffix {-íó}. But in a prohibitive clause, no special morphemes are involved. Instead, the prohibitive construction consists of the negator verb *ma-/na-* with a conjugated verbal complement in the realis modality, for example:

- (246) *Kae!* *Maa kod!*
 ka-e^r → má-á k-ód^a
 go-IMP.SG not-REAL go-2SG-REAL
 Go! Don't go!
- (247) *Ogoe kai.* *Maa ka.*
 ógo-e ka-i' → má-á ka-∅
 let-IMP.SG go-3SG[OPT] not-REAL go[3SG]-REAL
 Let him go. Don't let him go.

Semantically, these prohibitives are ‘irrealis’ in the sense that the predication has not happened and is even forbidden from happening. However, grammatically, the Ik prohibitive is marked as ‘realis’ with the realis suffix {-a} (implying temporal actuality) on both the negating verb and the complemental main verb. This kind of ‘polarity reversal’—where negative imperatives occur with realis suffixes—is reportedly only rarely attested in other languages around the world (Dixon 2012:112).

9.16.3 Copula clauses

Although the copula of identity (*mit-*) and the copula of cocation (*i-*) can be negated with either negator verb, Ik also has two lexical verbs that function as negative copulae. These negative copulae seem to have been (partly) grammaticalized from the synchronic lexical verbs *birá-* ‘lack’ and *bení-* ‘be unique’. The sentences below illustrate both ways copular verbs can be negated—first with negator verbs and second with negative copulae. Note how morphological case suffixes change going from one type to the other:

- (248) *Nta ntsa iyi awak.*
 ní-t-á nts-a i-i awá-k^e
 not-REAL s/he-NOM be-3SG home-DAT
 She's not at home.

(249) *Biraa ntsa awao.*

bira-a nts-a awá-°
 not.be-REAL s/he-NOM home-ABL
 She's not at home (lit. 'She lacks from home.').

(250) *Nta nka mitii waanaam.*

ńt-á ŋk-a mɪt-íí wáána-am
 not-REAL I-NOM be-1SG visitor-AGT.SG [OBL]
 I am not a visitor.

(251) *Benia nka waanaamak.*

beni-a ŋk-a wáána-ama-k°
 not.be-REAL I-NOM visitor-AGT.SG-COP
 I am not a visitor (lit 'It is not, I am a visitor.').

As described earlier (§9.10.1), Ik verbless copulative clauses consist of nouns inflected with the copulative case suffix {-k°}. These clauses are negated with the negative copula *bení*. When this occurs, the complement of the negative copula can take either the nominative or copulative case.

(252) *Nekek.*

ɲɛkɛ-k°
 hunger-COP
 It's hunger.

Benia nekek.

beni-a ɲɛkɛ-k°
 not.be-REAL hunger-COP
 It's not hunger.

(253) *Ncuk.*

ɲcu-k°
 I-COP
 It's me.

Benia ncuk/nk.

beni-a ɲcu-k°/ŋk-a°
 not.be-REAL I-COP/I-NOM
 It's not me.

In (252), the noun *ɲɛkɛ-* receives a H tone on its first syllable as a result of high-tone insertion disrupting a sequence of more than three L tones.

9.16.4 Negative tags

Ik has two negative ‘tags’ that can be used following either positive or negative statements. When they are used, the speaker normally expects a corresponding positive reply. These tags and their replies are as follows:

- (254) *Nta kamatii?* *Kamatad!*
 ñt-á kám-átì = ì_{INTERROG} kám-át-a = d^e
 not-REAL be.like-3PL[IRR] = DP be.like-3PL-REAL = DP
 Are they (i.e. words) not like that? They are like that!
- (255) *...kede benia nti?* *Ntia ja!*
 kede beni-a ñtí ñtí-a = ja
 or not.be-REAL like.that like.that = ADV
 ...or is it not like that? Just like that!

Finally, Ik has both positive and negative independent polarity particles: *ee/éé* ‘yes’ and *ńtódó* ‘no’. The particle *ńtódó* seems to be morphologically complex, though it cannot be fully parsed out. In any case, it seems to incorporate the negator verb *ńt-*. In Ik, contrary to English, a negative reply to a negative question can be preceded by *ee/éé* ‘yes’, and positive reply to a negative question can be preceded by *ńtódó* ‘no’. Consider the following:

- (256) Negative question: *Nta bedidi?*
 ñt-á béc-í-í_{INTERROG}
 not-REAL want-2SG[IRR]
 Don’t you want (it)?
- (257) Possible answers:
Ee, nta bedi. *Ntoodo, bedi.*
 ee ñt-á béc-í-í ñtódó béc-í-∅
 yes not-REAL want-1SG[IRR] no want-1SG-REAL
 Yes, I don’t want (it). No, I want (it).

10 Sentences and Beyond

Up to this point, the discussion of syntax has been concerned with the formation of individual noun phrases and clauses, main and subordinate. It has also covered the formation of complex sentences that combine a matrix clause with a subordinate clause. The present chapter moves beyond clause-level syntax to examine the joining of two or more main clauses (§10.1) and Ik's primary clause-linking strategy—clause chaining (§10.2).

10.1 Clause coordination

Clause 'co-subordination', or clause chaining, is the language's preferred method for linking clauses. However, the coordination of two independent clauses is also observed. Such coordination, the topic of the following section, can be used to communicate a relationship of addition, contrast/counter-expectation, or disjunction between two or more clauses.

10.1.1 Additional

The addition of one independent clause to another is usually handled by first nominalizing the second clause and then joining it to the first clause with the connective *nda* 'and'. Once the second clause is nominalized, it is then treated syntactically as a peripheral, oblique argument. This is reflected morphologically by the fact that the main verb of the nominalized clause takes the oblique case. Here are some examples:

- (1) *Hodetuo bilikeretea nda imojiresi fiyukumui.*
hód-ét-u-o bílíkereté-á nda imójír-ésí fiyukumú-¹
free-INCH-3SG-SEQ spurfowl-ACC and twist-INF[OBL] neck-GEN
He then freed the spurfowl and twisted its neck.
(‘And he freed the spurfowl and the twisting of its neck.’)

- (2) *Gameese ja gwee na nda ats'esukot.*
 gám-é-ese = ja gwé-é = na nda áts'-és-úkot'
 kindle-INCH-SPS = ADV bird-DAT = DEM.SG and eat-INF-COMP [OBL]
 So then a fire was made for the bird, and it was eaten.
 ('And it was kindled for this bird and the eating.')
- (3) *Keesia Kaabonje ts'oo nda poroni barats.*
 ke-es-í-a kaabónje-ε nda pór-óni barats-°
 go-INT-1SG-REAL Kaabong-DAT and proceed-INF [OBL] morning-INS
 I'm going to Kaabong and will proceed in the morning.
 ('I'm going to Kaabong now and the proceeding in the morning.')

If the subject of an added second clause needs to be made explicit (same or different from the first clause), it can appear in one of two positions: 1) before the nominalized verb in the oblique case or 2) after the nominalized verb in the genitive case. In position (1), it takes the oblique case because the preposition *nda* interprets it as a peripheral argument of the first clause (see example 4). In position (2), it takes the genitive case because it modifies the NP head which is the nominalized verb (see example 5):

- (4) *...nda ja nci atsoni awak.*
 nda = ja nci ats-oni awá-k^e
 and = ADV I [OBL] come-INF [OBL] home-DAT
 ...and then I came home ('and I to come home').
- (5) *...nda ja atsoni ncie awak.*
 nda = ja ats-oni nci-e awá-k^e
 and = ADV come-INF [OBL] I-GEN home-DAT
 ...and then I came home ('and to come of me home').

From the position of *nci* in (4), one might suspect that it is the first term in a compound with *ats-on* 'to come'. However, the first term in a compound often changes the tone of the second term. In light of this, compare the

- (9) *Benia ncuk, buo kot.*
 bení-á j̄cu-k° || bu-o = kót°
 not.be-REAL I-COP you.SG-COP = ADV
 It's not me, rather it's you.

- (10) *Ogoe ntsi yeti bi.*
 ógo-e ntsi j̄ét-í bi
 let-IMP he[OBL] save-3SG[OPT] you[OBL]

Naa koto moo bed̄...

náá = koto mo-o béd̄-í

CONJ = ADV not-SEQ want-3SG

Let him save you. But if he doesn't want to,...

Some Ik speakers, especially those having learned other languages, find alternative ways to express contrast. This may be for example, by borrowing a contrast word from Karimojong (*naít*) or Swahili (*lakini*).

10.1.3 Disjunctive

Disjunction is signaled by the presence of the disjunctive *kedé* (which has the parallel *kori* in Teso-Turkana). Like *n̄da* 'and/with', *kedé* 'or' can link both noun phrases and independent clauses. The following examples illustrate disjunction with *kedé* and variety of verb and clause types:

- (11) *...paka deese yaŋa kedé kwaatese nk.*
 paka d-é-ese yáŋ-a kedé kwaát-é-ese ŋk^a
 until bring-VEN-SPS my.mother-NOM or birth-VEN-SPS I-NOM
 ...until my mother is brought (i.e. married) or I am born.

- (12) *Ogoe ŋaŋosik...*
 ógo-e ŋáŋ-ós-i-k^e
 let-IMP.SG open-PASS-3SG-SIML

kede egee koneeni korobadi.

kede egé=e kóné-éní kóróbádi-Ø
 or put-IMP.SG = DP one-PSSM[OBL] thing-GEN
 Leave it open, or put something on it.

(13) *Kamiya noo die kede maa noo kamiyid?*

kám-i-a=noo dí-é kede máá=noo kám-i-í=d^e
 like-PLUR-REAL = PST3 ones-DAT or not-PRF = PST3 like-PLUR-3SG = DP
 Was it like these, or was it not like these?

10.2 Clause chaining

Clause chaining is the linchpin of Ik discourse. As defined here, it is the linking of one or more clauses with non-finite verbs to a clause with a finite verb. The syntactic relationship between the initial or controlling clause and the chained clauses is the subject of debate; some describe it as ‘quasi-coordinate’ (Haiman & Monroe 1983:xii) and others as ‘co-subordination’ (Van Valin & LaPolla 1997:455). It is not clearly coordinative or subordinative and thus may be considered a hybrid of the two (Schröder 2013a:2). In Ik, chained sequential clauses are more coordinative, while chained simultaneous clauses seem more subordinative.

In many languages, particularly outside of Africa but also in Ethiopia, a clause chain begins with a sequence of non-finite clauses culminating in a final clause that bears the TAM specifications of the whole chain. But in Ik, as in neighboring Teso-Turkana languages like Toposa, the clause chain begins with the controlling finite clause and is then followed by one or more non-finite clauses (Schröder 2013b:5). This ‘post-nuclear’ orientation of the clause chain is well-attested in Africa but rarer elsewhere (Payne 1997:321)

Ik exhibits two kinds of chained clause: sequential and simultaneous. The markers or indicators of these clauses are the verbal inflectors that bear the same labels (§7.8.1 for sequential, §7.8.2 for simultaneous). As the label

implies, sequential clauses in a clause chain carry the sequence of mainline or foregrounded information in any kind of text with sequential events. Simultaneous clauses, on the other hand, convey offline contextual circumstances that cooccur with events or states in clauses preceding them. The initial, controlling element that creates the TAM setting for a clause chain may consist of any non-chained verb or even an adverbial phrase.

10.2.1 Sequential clause chains

The analysis of sequential clause chaining in this grammar is only preliminary. But it should serve as an introduction to what could turn out to be a fruitful topic. Sequential clause chains communicate sequential states or events. As such, they are the predominant clause type found in narratives. Because of that, the sequential aspect had previously been called the ‘narrative mood’ (e.g. Heine & König 1996:76). But sequential clauses are found in many types of discourse, from narrative to procedural to expository to exhortatory, even imperative. Sequential clauses are marked with a combination of high-tone suppression and an eclectic paradigm of special subject-agreement suffixes (see also §7.7.1). The following table presents the sequential paradigm for *béd-* ‘want’ and *wet-* ‘drink’. Note the inclusion of the sequential impersonal passive (SPS) marked by {-ese’}:

(14) *Sequential verb paradigm*

| | Non-final | Final | Non-final | Final |
|---------|-------------|--------------|-------------|--------------|
| 1SG | béd-ia-a | béd-ia-kʷ | wet-ia-a | wet-i-a-kʷ |
| 2SG | béd-ídu-ɔ | béd-ídu-kʷ | wet-idi-o | wet-idu-kʷ |
| 3SG | béd-ú-ɔ | béd-ú-kʷ | wet-u-o | wet-u-kʷ |
| 1PL.EXC | béd-íma-a | béd-íma-kʷ | wet-ima-a | wet-im-a-kʷ |
| 1PL.INC | béd-ísinɔ-ɔ | béd-ísinu-kʷ | wet-isini-o | wet-isinu-kʷ |
| 2PL | béd-ítɔ-ɔ | béd-ítu-kʷ | wet-iti-o | wet-itu-kʷ |
| 3PL | béd-ínɪ | béd-ín | wet-ini | wet-in |
| SPS | béd-ése | béd-és | wet-ese | wet-esʷ |

The following excerpt from a 3-person narrative serves to illustrate some of the morphological, syntactic, and discourse characteristics of chained sequential clauses. Note the sequential markers in bold print and the introductory temporal phrase *na kónító ódoue baratso* ‘One day, in the morning...’ that sets the temporal context for the clause chain that follows:

- (15) *Na konto odowue baratso,*
 [na = kón-ít-ó ódou-e barats-oó]_{ADV}
 CONJ = one-SING-INS day-GEN morning-INS
 One day, in the morning,

ipuo takaiak,
 [ip-u-**o** taká-íka-k^a]_{SEQ1}
 cast-3SG-SEQ shoe-ACC
 he cast (his) shoes (in divination),

eguo takaika ebak,
 [eg-u-**o** taká-ík-a éba-k^a]_{SEQ2}
 put-3SG-SEQ shoe-PL-NOM gun-ACC
 and the shoes made (the shape of) a gun,

ipuo nabo,
 [ip-u-**o** nabó]_{SEQ3}
 cast-3SG-SEQ again
 and he cast (them) again,

egini ebak.
 [eg-**ini** éba-k^a]_{SEQ4}
 put-SEQ gun-ACC
 and they made a gun.

The chained clauses in (15) carry no TAM information apart from the sequential aspect that shows the semantic relationship of sequentiality with

all preceding clauses, starting with the temporal NP *baratsoó* ‘in the morning’. What is not shown in (15) (for reasons of space) is that at the beginning of the narrative, the tense of the narrative is set in the remote past first of all with the adverbial phrase *kam-ɔ = nɔɔ lopiarié* ‘In the year of Lopiar,...’, in which the relative pronoun *nɔɔ* marks remote past tense.

The clause chain in (15) is taken from a narrative, but sequential clauses are also found in other texts, for example one with an imperative controller:

(16) *Kae Kaabɔŋik,*

[ká-e kaaɓɔŋi-k^e]_{IMP}

go-IMP.SG Kaabong-DAT

Go to Kaabong,

dzigweiduo riy,

[dzígw-e-idú-ɔ ri-^a]_{SEQ1}

buy-VEN-2SG-SEQ goat-NOM

buy a goat,

deiduo awak,

[d-é-ídu-ɔ awá-k^e]_{SEQ2}

bring-VEN-2SG-SEQ home-DAT

bring (it) home,

toŋoliduk,

[toŋól-ídu-k^ɔ]_{SEQ3}

slaughter-2SG-SEQ

slaughter (it),

ilakasitukodukoo jak.

[ilák-ás-it-ɔkɔ-ídu-kɔ = ɔ ják-^a]_{SEQ4}

happy-ABST-CAUS-COMP-2SG = DP elders-NOM

and make the elders happy with it.

The sequential impersonal passive (SPS; §7.9.4) is found in the same types of discourse as the non-passive sequential forms. Like the impersonal passive (§7.9.3), the SPS omits and depersonalizes the subject (A/S) of the verb to which it affixes. It is found on both transitive and intransitive verbs, as in *ηκ-es* ‘And it is/was eaten’ and *κε-es* ‘It is/was gone (i.e. ‘people went’)’.

The following excerpt from an expository/procedural text illustrates the use of the suffix {-εσε} encoding sequential passivized activities. In this text, part of the procedure for grinding snuff tobacco (a favorite among the Ik) is laid out in a step-by-step sequence. The agent carrying out the procedure is not in view, though all sequential verbs in this excerpt are transitive. In lines 2, 4, 6 & 7, the objects of the passivized verbs are overt, encoded as subjects in the nominative case. In line 5, they are left implicit:

- (17) 1 *Naa iryametanie gwasak,*
 [náá iryám-ét-an-í-é gwasá-k^e]_{ADV}
 CONJ get-VEN-IPS-SIML stone-DAT
 When a stone is gotten,
- 2 *ηweese nabalarjit.*
 [ηυ-εσε nabálarjit-^a]_{SEQ1}
 grind-SPS soda.ash-NOM
 soda ash is ground.
- 3 *Naa nabalarjitia iwidiimetik,*
 [náá nabálarjití-á iwíð-ím-et-i-k^e]_{ADV}
 CONJ soda.ash-ACC pulverize-MID-INCH-3SG-SIML
 When the soda ash is finely ground,
- 4 *egesee lotob,*
 [eg-esé=e lótób-^a]_{SEQ2}
 put-SPS = DP tobacco-NOM
 tobacco is put in it,

- 5 *nda ηweese paka napudumukotuk,*
 [ńda ηu-εεe páka napúć-úm-ukot-u-k^o]_{SEQ3}
 and grind-SPS until powdery-PHYS2-COMP-3SG-SEQ
 and it's ground until it becomes powdery,
- 6 *ikakeese dakwin,*
 [íkáké-εεe dakw-in-∅]_{SEQ4}
 separate-SPS wood-POSS.PL-NOM
 and its woody stems are separated out,
- 7 *ogweese nayaa napudim,*
 [ógo-εεe nay-á napúć-úm-∅]_{SEQ5}
 leave-SPS where-NOM powdery-PHYS2-REAL
 and the powdery part is left,
- 8 *nda ipapeesi cuo misi mes.*
 [ńda ipápé-éśi cu-o mísi mes-[?]]_{NORMALIZED COMPL}
 and moisten-SPS water-INS either beer-INS
 and it is moistened with either water or beer.

As (17) shows, sequential clause chains can be interrupted and reinitiated by adverbial clauses expressing simultaneity, marked by the conjunction *náá*. Such clauses encode temporality relative to the sequential clauses that follow them, not the absolute temporality set by the controlling clause.

On a continuum between coordination and subordination, sequential clauses are more coordinative. This is reflected syntactically in their invariable VSO constituent order and canonical case marking, both characteristics of unmarked main clauses. The next examples—the first a non-past realis clause and the second a sequential clause—both have VAO order with nominative-marked subjects and accusative-marked objects:

Non-finite simultaneous verbs appear in both a) preposed adverbial clauses introduced by a conjunction and b) post-posed chained clauses without a conjunction. It is only the latter type that is considered a chained clause, though both types are common in discourse. In the following excerpt from the same narrative sampled above (15), both types of simultaneous clauses are present, but only the chained clauses are indicated with bold print:

(20) *Na ηabuƙotie, zikini ntsia deikao,*

[na = ηáb-ókɔt-I-ε]_{ADV} [zík-ínI ntsí-á de-ika-³]_{SEQ}
 CONJ = finish-COMP-3SG-SIML tie-SEQ he-ACC leg-PL-ABL

When it finished, they tied him up by the legs,

nda xikesukoti ntsie dakuk,

[nda ʃík-és-ókɔtI ntsí-é dakú-k^e]_{NOMINALIZED}
 and hang-INF-AND[OBL] he-GEN tree-DAT

and they hung him in a tree,

ikaa iyie kijee

[iká-á i-i-e kǎjé-e]_{SIML1}
 head-ACC be-3SG-SIML ground-DAT

his heading (being) down,

tudúlik.

[tudú-l-í-k^e]_{SIML2}
 upside.down-3SG-SIML

(being) upside down.

In (20), the first chained simultaneous clause, *ikáá iie kǎjé* ‘his head (being) down’ is controlled by the directly preceding clause with the nominalized verb *ʃíkésukɔt^e*. The second chained clause, *tudúlik^e*, consists only of the verb and is controlled by the simultaneous clause directly preceding it.

On a continuum between coordination and subordination, simultaneous clauses fall closer to subordination. This is evident syntactically in that a) they exhibit the SVO constituent order of other subordinate clauses and b) any overt core arguments, regardless of the grammatical person and number of the subject, take the accusative case as in other subordinate clauses. The third line from (20) is repeated in (21) to illustrate these points. Note that the constituent order is SV, and the overt subject, *ikáá* ‘head’ is both preverbal and marked in the accusative case:

- (21) ...*ikaa iyie kijee,*
iká-á_s i-i-e_v kǐjé-e_{PERIPHERAL}
 head-ACC be-3SG-SIML ground-DAT
 ...(his) head (being) down,

The subordinate nature of simultaneous chained clauses is also seen discursively in that they take the sequence of events temporarily ‘offline’. For example, in a narrative, they interrupt the mainline to provide contextual details like the fact that the guy’s head was hanging down, upside-down. To get back to the mainline sequence, a pre-posed simultaneous clause is often used. This occurs a few lines later in the story of (20), after the man’s wife got worried and went to look for him:

- (22) *Na kayie, itayoo amee ineenosik.*
 [na = ka-i-e]_{ADV} ita-I-ɔ́ ámé-e [inénó-ós-í-k^e]_{SIML}
 CONJ = go-3SG-SIML reach-3SG-SEQ person-DAT hang-PASS-3SG-SIML
 When she went, she found the guy hanging.

Lastly, chained simultaneous clauses may function in specific ways: as adverbial manner clauses (§9.6.2), as one of the complementation strategies (§9.11.2), and in bi-clausal comparative constructions (§9.13.2). These three functions are reiterated here with one example each. In (23), the simultaneous clause relates the manner in which a fire climbed up a hill:

- (23) *Toriteta naa ts'ad,*
 totir-et-a = náa ts'ad^a
 climb-VEN-REAL = PST1 fire-NOM
 The fire climbed up

nkie dakwitiniicikaa muj.

[ŋk-i-ε dakw-itíni-iciká-a muj]_{SIML}
 eat-COMP-3SG-SIML tree-PL-VAR.PL-ACC all
 consuming all the various types of trees.

In this second example, the chained simultaneous clause acts as a complement to the main verb *itámáán-* 'behoove/necessitate':

- (24) *Itamaana*
 itámáán-a
 necessitate-REAL
 It is necessary (that)

bedetiike koneenia awee bik.

[bécf-ét-íi-ke kóni-éni-a awé-é bi-k^e]_{SIML}
 want-VEN-1SG-SIML one-PSSM-ACC home-GEN you.SG-DAT
 I look for another home for you.

And in this last example, the chained simultaneous clause acts as an adverbial manner clause in a bi-clausal comparative construction:

- (25) *Kwatsa ntsa iloyee ncik.*
 kwáts-á nts-a [iló-i-é jíci-k^a]_{SIML}
 small-REAL he-NOM defeat-3SG-SIML I-ACC
 He's smaller than me.

Appendix A—Sample Texts

The following five sample texts exemplify different genres of Ik discourse: narrative, procedural, expository, animal fable, and proverbial. The texts are presented mostly clause by clause (with some exceptions) and are interlinearized in four lines with: 1) the popular orthography, 2) the linguistic orthography (morphologically analyzed), 3) analytical glosses, and 4) translation into English. The translation is a balance between idiomatic and literal. An attempt has been made to render the Ik into natural English, for the most part, with clarifying comments were necessary.

1 **ᐱᓃᓃᓃ^a (Enemies)**

This first text is a written narrative, mostly in the third person but intertwined with a first person perspective (that of the narrator). The author is Longoli Philip from Timu. The story is about a time when Turkana warriors ambushed the author's village, threatening people's lives and stealing food and other belongings. It describes a typical scenario, one that is unfortunately still too often repeated to this day (i.e. 2014).

Kono kainie noo iyaanee Mayee Dīw,

kɔn-ɔ kamí-é = nɔ-ɔ i-án-é = e máyé-ε dīw-^a
one-INS year-GEN = DEM.SG.PST3 be-IPS-REAL = DP reedbuck-DAT red-REAL
One year when (we were) at Red Reedbuck,

mita noo kija otae,

mit-a = noo kǐj-á ɔtái
be-REAL = PST3 land-NOM dry.season[OBL]
it was dry season,

nda iyiima noo Baratiawak.

ńda i-í-ím-a = noo baratí-áwa-k^e
 and be-PLUR-1PL.EXC-REAL = PST3 fig.tree-home-DAT
 and we were at Fig Tree Place.

Mita noo kija odow, didia watik.

mit-a = noo kíj-á ódo^u didi-a wát-i-k^e
 be-REAL = PST3 land-NOM day[OBL] weather-ACC rain-3SG-SIML
 It was daytime, pouring rain.

Na didia watie,

na = didi-a wát-i-e
 CONJ = weather-ACC rain-3SG-SIML
 As it was raining,

iya noo gozowa jii, budámie tik.

i-a = noo góʒow-a = jii budám-í-e tikⁱ
 be-REAL = PST3 mist-NOM = also dark-3SG-SIML EMPH
 there was also mist, totally dark.

Na sariane epa hoikoo,

na = sár-ání-é ep-a hó-íko-o
 CONJ = still-IPS-SIML sleep-REAL hut-PL-ABL
 When people were still sleeping in (their) huts

duo nuu didia watee,

dí-ó = nuu didi-a wat-é = e
 ones-ABL = REL.PL.PST3 weather-ACC rain-REAL = DP
 because it was raining,

enese eba arutetik.

en-ese éb-a arút-ét-i-k^e
 see-SPS gun-NOM sound-INCH-3SG-SIML
 a gun was heard going off.

Arutetona ebee,

arút-ét-on-a ébe-ε
 sound-INCH-INF-NOM gun-GEN
 At the sounding of the gun,

ηatiyoo loηota awo xaino gai,

ηat-í-í-o loηót-á aw-o ʃa-in-o ˈgái
 run-PLUR-3SG-SEQ enemies-NOM home-INS direction-POSS.PL-INS both
 the enemies ran by the home in both directions,

mitie imanon nda kurukotuo imanona ntia

mit-í-ε imán-ón n̄da kur-úkót-i-o imán-ón-a ntí-a
 be-3SG-SIML meet-INF[OBL] and defeat-COMP-3SG-SEQ meet-INF-NOM they-ACC
 it being (an attempt) to meet, but meeting stymied them

duo nuu ηeriwia na ηixa

dí-ó = nuu ηeríwí-á = na ηíʃ-a
 ones-ABL = REL.PL.PST3 outer.fence-ACC = REL.SG strong-REAL
 because the strong outer fence

iyee ayee noo itoma

i-é = e aí-é = noo itóm-á
 be-REAL = DP side-DAT = REL.SG.PST3 next.to-REAL
 was on the side next

fatarakee xaino gai.

fátára-ake-e ʃa-in-o ˈgái.
 vertical.ridge-mouth-DAT direction-POSS.PL-INS both
 to the top of the vertical ridge in both directions.

Enesa ntie toimenaa

en-és-á nítí-e toimena-a
 see-INF-NOM they-GEN COMPL-ACC
 Upon their seeing that

ityoonukotaa imanona ntie awoo xaino myuu,

itíón-ukot-á-á imán-ón-a nítí-e awó-ó ʃa-in-o mup
 difficult-COMP-REAL-PRF meet-INF-NOM they-GEN home-ABL dir.-POSS.PL-INS all
 their meeting around the home from all directions had become difficult,

damatini awaa bubuno kontiaak.

damat-ini awá-á bubun-ɔ kón-t-íák^e
 pelt-SEQ home-ACC coals-INS one-SING-?
 they opened fire on the home straightaway.

Bunumoo ja roba

bun-úm-ɔ-ɔ=ja roβ-a
 split-MID-3SG-SEQ=ADV people-NOM
 So then people scattered

nuu iyata koo kwaro awae.

= nuu i-át-a kóó kwar-o awá-^e
 = REL.PL.PST3 be-3PL-REAL there:DAT mountain-INS home-GEN
 who were on the far upper side of the home.

Naita noo mitee ayi

naítá = noo mit-é = ε ai
 degree = REL.SG.PST3 be-REAL = DP side[OBL]
 Since that was the side

lorjotaa kedia zea iyee kidfaa,

lorjótá-a kédí-á ze-a i-é = e kí = d'á-á
 enemies-ACC amount-ACC big-REAL be-REAL = DP DIST = one-NOM
 that most of the enemies were on,

dukotini mora awo gigirok.

d-ukót-ini mora-a aw-o gígiro-k^e
 take-AND-SEQ fear-ACC home-INS down-DAT
 they (the Ik villagers) fled downward by way of the home.

Ntsuo koto kidia jii enesatad.

ntsí-ó = koto ki = d'í-á = jii en-és-át-a = d^e
 it-COP = then DIST = ones-ACC = also see-IPFV-3PL-REAL = DP
 That then is what those too were going to see.

Nda kidí jii iduzon kedo kon

ń'da ki = d'í = jii idúzoni kéd-o kɔn-a
 and DIST = ones[OBL] = also flee-INF[OBL] unit-INS one-REAL
 And those ones too fled together

nda kidiasai robae,

ń'da ki = d'í = sai róba^e
 with DEF = ones = other[OBL] people-GEN
 with the other people,

kaatie muɲu fataraakak.

ká-áti-e muɲu fátára-aka-k^e
 go-3PL-SIML all vertical.ridge-mouth-DAT
 going all to the top entrance of the vertical ridge.

Napei robaa bunumee,

napei róba-a bun-úm-é = ε
 from people-ACC split-MID-REAL = DP
 From the time people dispersed,

ama na tsamu gooza imaa kanee nda dzeron,

ám-á = na tsamu góóz-a imá-á kané-é nda dzer-ɔn
 person-NOM = REL.SG just throw-REAL child-ACC back-DAT and tear-INF
 anyone who just threw (their) baby on (their) back and tore off,

kaini kaatie mariɲikagwariik.

ka-ini ká-áti-e mariɲ-íka-gwarí-ík-^o
 go-SEQ go-3PL-SIML inner.fence-PL[OBL]-top-PL-INS
 went going by way of the tops of the inner fences.

Toni wice, na mitoo di dakwaa dzera,

toni wice na = mít-ɔ-ɔ di dakú-á dzer-a
 even children[OBL] CONJ = be-3SG-SEQ one[OBL] wood-ACC tear-REAL
 Even the children, if it was one that (a piece of) wood tore,

moo weretsukot, naikotuk.

mo-o weréts-úkt-¹ na-íkt-ú-k²
 not-SEQ cry.out-AND-3SG endure-COMP-3SG-SEQ
 he did to cry out but endured it.

Keesukoo ja roba budesia fataraakao.

ke-es-ú-kó = o = ja roḅ-a bud-ésí-a fátára-aka-°
 go-IPFV-3SG-SEQ = DP = ADV people-NOM hide-INF-ACC vert.ridge-mouth-ABL
 So then people were going to hide themselves at the entrance of the ridge.

Cemesoo didia wat.

Cem-és-ḵ-ḵ didi-a wat-°
 fight-IPFV-3SG-SEQ weather-NOM raining-INS
 And it kept on raining.

Naikotoo roba didia

na-íkót-ḵ-ḵ roḅ-a didi-a
 endure-COMP-3SG-SEQ people-NOM weather-ACC
 And people endured the weather;

mitoo loḵotamena eḵa ityoon.

mit-ḵ-ḵ loḵótá-men-a eḵá ition-∅
 be-3SG-SEQ enemies-issues-NOM only difficult-REAL
 it was only the issues of the enemies that were difficult.

Iya nanoo kona eakwee

i-a ná = noo kón-a eakwé-é
 be-REAL PRF = PST3 one-NOM man-GEN
 There had been one man

moo nanoo eni roḅaa bunumatik,

mo-o na = noo en-i róḅa-a bun-úm-áti-k^e
 not-SEQ PRF = PST3 see-3SG people-ACC split-MID-3PL-SIML
 who had not seen people dispersing

duo nanoo epee mododok.

dí-ó na = noo ep-é = e mɔdɔ́dɔ́-k^a
 ones-ABL PRF = PST3 sleep-REAL = DP cocoon-ACC
 because he had been sleepily soundly.

Arutona ebitinie,

arút-ón-a éb-ítíní-ε
 sound-INF-NOM gun-PL-GEN
 The sounding of the guns,

ntsuo tukureta ntsia nda ja ntsi jii dzeron,

ntsí-ó tukur-et-a ntsí-á nda = ja ntsi = jii dzεr-ɔn
 it-COP jolt-INCH-REAL he-ACC and = then he[OBL] = also tear-INF[OBL]
 that's what jolted him, and then he too tore off

tubie mucea tajaikinie awo gigirok.

túb-i-e muce-á tanjá-ík-ini-ε aw-o gígíro-k^e
 follow-3SG-SIML path-ACC cohort-PL-POSS.PL-GEN home-INS down-DAT
 following the trail of his companions downwards by way of the home.

Moo fiyei toimena

mo-o fiye-i tóimena-a
 not-SEQ know-3SG COMPL-ACC
 And he did not know that

buketa nabee loṛota awaakok.

buk-et-a ná = bee loṛót-á awá-ákw-k^e
 enter-VEN-REAL INFR = PST1 enemies-NOM home-inside-DAT
 the enemies had apparently entered inside the home.

Na lojotaa saratie ibolibola hoikaa,

na = ɔŋɔ́tá-a sár-áti-e ibolibol-a hó-íka-a
 CONJ = enemies-ACC still-3PL-SIML pillage-REAL hut-PL-ACC
 While the enemies were still pillaging the huts,

loduruikaa nda ikamesukotini jokokoroa,

lodúrí-íka-a n'áda ikám-és-úkot-imí jókòkòró-á
 granary-PL-ACC and catch-IPFV-COMP-SEQ chickens-ACC
 granaries, and as they caught chickens,

enini amaa na kutie pir nda dubes.

en-ini áamá-a = na kut-i-ε pir n'áda dúb-εs
 see-SEQ person-ACC = DEM.SG say-3SG-SIML IDEO and catch-INF[OBL]
 they saw this guy appearing, and they caught him.

Zikini amaa, iriresukotini kuruɓadik.

zík-iní áamá-a írír-és-úkot-imí kúrúbádi-k^a
 tie-SEQ person-ACC gather-IPFV-COMP-SEQ things-ACC
 They tied the guy and kept on gathering up belongings.

Maa inomati jik.

má-á móm-áti = jík^e
 not-REAL beat-3PL = also
 Neither did they beat (him).

Mitoo tsamu dí kutatee ntsie

mít-ɔ-ɔ tsamu dí kut-át-e = e ntsí-é
 be-3SG-SEQ just ones[OBL] say-3PL-REAL = DP he-DAT
 It was just a matter of them saying to him,

“Kaa naa roba ndaik?”

ka-a = náa roβ-a ndaí-k^e
 go-REAL = PST1 people-NOM where-DAT
 “Where did the people go?”

Rajetuo ntsa kutoo “Nta fiyeii.”

ráj-ét-i-o nts-a kut-ɔ-ɔ ñt-á fiye-í
 return-VEN-3SG-SEQ he-NOM say-3SG-SEQ not-REAL know-1SG
 He replied and said, “I don’t know.”

Na konia lojotomee kwatsa atsie,

na = kɔní-á lojót-ómε-ε kwáts-á ats-i-e
 CONJ = one-ACC enemies-SING-GEN small-REAL come-3SG-SIML
 When a small one of the enemies came,

noo moo iyi, ikametanie ntsia,

= noo mó-ó i-i ikám-ét-aní-é ntsí-á
 = REL.SG.PST3 not-SEQ be-3SG catch-VEN-IPS-SIML he-ACC
 who was not there when he (the Ik) was caught,

idafoo ntsik,

ídáf-ɔ-ɔ ntsí-k^a
 slap-3SG-SEQ he-ACC
 he slapped him (the Ik),

dóduo ebo idzesik

dód-u-o éb-^ɔ ídz-esi-k^e
 point-3SG-SEQ gun-INS shoot-INF-DAT
 aimed with the gun to shoot,

nda ama weretsonukot.

ń'da ámá weréts-ón-úkót'
and person[OBL] cry.out-IMP-AND[OBL]
and the (Ik) guy cried out.

Kutuk, "Ogoe nci, abarj!"

kut-u-k^o ógo-e jíci abáŋ-Ø
say-3SG-SEQ leave-IMP.SG I[OBL] my.father[OBL]
He said, "Leave me, my father!"

Nesibesa kidiasayee lojotee

nesíb-es-a ki = díá = saí-é lojóté-ε
hear-IMP-NOM DEF = ones = other-GEN enemies-GEN
When the other enemies heard

amaa weretsukotie,

ámá-a weréts-úkót-i-ε
person-ACC cry.out-AND-3SG-SIML
the guy crying out,

kutini diimee ne,

kot-imí dí-íme-e = ne
say-SEQ one[OBL]-child-DAT = DEM.SG.MED
they said to that little (Turkana) guy,

"Eja ceida lojotoma ngoe!"

ej-á cé-íd-a lojót-óm-a ŋgó-^e
not-REAL kill-2SG-REAL enemies-SING-NOM we.EXC-GEN
"Don't kill our enemy (the captured Ik man)!"

Benia naa bi.

beni-a = náa bi
 not.be-REAL = PST1 you.SG[OBL]
 It wasn't you.

Ngoo naa ikametim

ngó-ó = naa ikam-et-ím-∅
 we.EXC-COP = PST1 catch-VEN-1PL.EXC-REAL
 It was we who caught (him),

nda ngoo aminio ceesim.”

ń'da ngó-ó ám-íní-o ce-es-ím-∅
 and we.EXC-COP person-POSS.PL-COP kill-INT-1PL.EXC-REAL
 and it is we, the ones responsible for him, who will kill (him).”

Nesibesa amee lojotee ni todetatie,

nesíb-es-a ámé-e lojóté-e = ni tód-et-áti-e
 hear-INF-NOM person-GEN enemies-GEN = DEM.PL speak-INCH-3PL-SIML
 When the guy heard these enemies talking (this way),

tođuyoo gured.

tođú-í-o gúr-éd-^a
 stop-3SG-SEQ heart-POSS.SG-NOM
 his heart stopped.

Kutoo guro, “Badukotia kontiaak!”

kut-ɔ-ɔ gúr-ó bad-ukot-í-a kón-t-íák^e
 say-3SG-SEQ heart-INS die-COMP-1SG-REAL one-SING-?
 He thought (lit 'said by heart'), “I'm going to die straightaway!”

Itsunetini koto kurubadia ni tobetata kedia kon.

itsún-ét-ini = koto kúrúbádi-a = ni toβ-et-át-a kédi-e kón
 collect-VEN-SEQ = then things-ACC = REL.PL raid-VEN-3PL-REAL unit-DAT one
 Then they collected the things they plundered in one place.

Hodini amaa nda kutini ntsie, “Itiŋes!”

hođ-ini áamá-a n̄da kut-ini ntsí-é itiŋ-és-∅
 free-SEQ person-ACC and say-SEQ he-DAT cook-IPFV-IMP.SG
 And they freed the guy and said to him, “Cook!”

Kutini nabo ntsie, “ŋwees!”

kut-ini nabó ntsí-é ŋu-és-∅
 say-SEQ again he-DAT grind-IPFV-IMP.SG
 And again they said to him, “Grind!”

Na nabukotie ŋweesia, koŋesuk.

na = náb-ukɔt-i-ε ŋu-ésí-a kɔŋ-és-ú-k²
 CONJ = finish-COMP-3SG-SIML grind-INF-ACC cook-IPFV-3SG-SEQ
 When he finished grinding, he cooked (posho).

Koŋesia nabukotie, kutini amee,

kɔŋ-ésí-a náb-ukɔt-i-ε kut-ini ámé-e
 cook-INF-ACC finish-COMP-3SG-SIML say-SEQ person-DAT
 The cooking finished, they said to the guy,

“Kae zekwe yekatakee nkakee dii.”

ka-e zekw-ε ɣekatake-e ŋkáké-e = ‘díí
 go-IMP.SG sit-IMP.SG near-DAT foods-GEN = ANPH.PL
 “Go sit beside that food.”

Garesini koto nta amina nda nkaka nti,

gar-és-íni = koto ñt-á ám-ín-a ñ'da ñkáká ñtí-Ø
 serve-IPFV-SEQ = then they-NOM person-POSS.PL-NOM and food[OBL] they-GEN
 Then they served themselves with their food,

rebini amak.

réb-ini áamá-k^a
 deny-SEQ person-ACC
 but denied the (Ik) guy (any food).

Na ciaakotatie, kisanini kurubadiicikaa nti.

na = ci-áá-kot-áti-e kisán-íni kúrúbádi-icíká-a ñtí-Ø
 CONJ = sated-DISTR-COMP-3PL-SIML divide-SEQ things-VAR.PL-ACC they-GEN
 When they got full, they divided up their possessions.

Na enatie toimena isesukotataa,

na = en-áti-e toimena-a is-és-úkót-át-a-a
 CONJ = see-3PL-SIML COMPL-ACC heavy-IPFV-3PL-REAL-PRF
 When they saw that they had got overloaded,

kutini amee, "Menaicikoo bitie kidaa.

kut-ini ámé-e mená-icíkó-o bitie-e ki = d'á-á
 say-SEQ person-DAT things-VAR.PL-COP you.PL-GEN MED = ones-NOM
 they said to the (Ik) guy, "Your things are those.

Kaed, ñapei duo aea nda ñi ts'agwa."

ka-é = d^e ñapei d'í-ó aě-a ñ'da ñi ts'ágwa-Ø
 go-IMP.SG = DP from ones-ABL ready-REAL and ones[OBL] raw-REAL
 Go with them, from the ready (cooked) ones to the raw ones."

Dodini ja muceek.

dócf-íni = ja muceé-k^a
 point-SEQ = then path-ACC
 Then they took off.

Kutini amee, “Imaxane ja birobak!

kut-ini ámé-e imáśán-e = ja bi-róbá-k^e
 say-SEQ person-DAT greet-IMP.SG = then you.SG-people-DAT
 And they said to the guy, “Greet your people then!

Atsima naa

ats-ím-á = naa
 come-1PL.EXC-REAL = PST1
 We came (earlier today),

mitie iŋaalesi bitie iriametonie nkakee

mit-i-ε iŋaal-ésí bitie-e iríám-ét-oni-e ŋkáké-e
 be-3SG-SIML frighten-INF[OBL] you.PL-GEN acquire-VEN-INF-DAT food-DAT
 it being (a matter of) frightening you to get food

duo rebitee ngwaa

dí-ó réb-i-it-é = e ŋgó-á
 ones-ABL deny-PLUR-2PL-REAL = DP we.EXC-ACC
 because you deny us (food)

nee kutimee bitie

née kut-ím-é = ε bitie-e
 CONJ say-1PL.EXC-REAL = DP you.PL-DAT
 when we say to you

'Biroo ngo odoiciko ni atsiimad'."

bír-ᓃᓃ ngo ódo-icík-ó = ni ats-í-ím-a = d^e
 assist-IMP.PL we[OBL] day-VAR.PL-INS = REL.PL come-PLUR-1PL.EXCL-REAL = DP
 'Assist us on the days that we usually come'."

Na koto enie toimena kaa loḡota muḡu,

na = kótó en-i-e toimena-a ká-á loḡót-á muḡu
 CONJ = then see-3SG-SIML COMPL-ACC go-REAL enemies-NOM all
 So when he (the Ik man) saw that all the enemies were going,

woyuo robaa fataraakao.

ó-í-o roba-a fátára-aka-^o
 call-3SG-SEQ people-NOM vertical.ridge-mouth-ABL
 he called the people from the entrance of the vertical ridge.

Kutoo, "Ee, roba noo fataraakee,

kut-ᓃᓃ éé roba nᓃᓃ fátára-ake-e
 say-3SG-SEQ yes people[OBL] there:DAT vertical.ridge-mouth-DAT
 He said, "Hey, people at the top of the vertical ridge,

itetuo kaa loḡot!"

it-et-úó ká-á loḡót-^a
 return-VEN-IMP.PL go-REAL enemies-NOM
 come back, the enemies are going!"

Atsesukoo ja roḡ.

ats-és-ú-kó = o = ja roḡ-^a
 come-IPFV-3SG-SEQ = DP = ADV people-NOM
 So people started coming back from there.

Itini kurubadia ni bira ntiawikao,

ít-íni kúrúbádi-a = ni bira-a n̄tí-aw-íká-°
 discover-SEQ things-ACC = REL.PL lack-REAL they-home-PL-ABL
 They discovered the things that were missing from their homes,

itaini die iya nda di biraat.

ita-ɪni dí-é i-a n̄'da dí birá-át-^a
 reach-SEQ ones-DAT be-REAL and ones[OBL] lack-3PL-REAL
 and found those that were there and those that were not.

Na koto fara cemanie emutiko diyo widzoo,

na = kótó fara cem-aní-é emút-ík-o diyo-o wídz-oó
 CONJ = then FUT fight-IPS-SIML story-PL-INS sitting.place-ABL evening-INS
 So later when people were telling stories at the sitting place in the evening,

kutoo kona jakamee,

kut-ɔ-ɔ kɔn-a ják-áme-e
 say-3SG-SEQ one-NOM elders-SING-GEN
 one of the elders said,

“Ee roba, isio naa moo wicea kodati

éé roba isi-o = náa mo-o wicé-á kóǎ-áti
 yes people[OBL] what-COP = PST1 not-SEQ children-ACC cry-3PL
 “Hey people, why did the children not cry

naa moranee mariŋia dzeretiatik?

na-a mor-an-é = e mariŋí-a dzer-et-í-áti-k^e
 CONJ-PST1 flee-IPS-REAL = DP inner.fence-ACC tear-INCH-PLUR-3PL-SIML
 when we fled, the inner fence tearing (us) up?

Ikwa fiyea wika jii badonia toimenaa gaana?"

íkwa fiye-a wik-a = jii bad-oni-a tóimena-a gaan-a
 so know-REAL children-NOM = also die-INF-ACC COMPL-ACC bad-REAL
 So (does this mean) children also know that death is bad?"

Fekuo roba detedetanin.

fek-i-o roḅ-a detédét-án-ín
 laugh-3SG-SEQ people-NOM scatter-STAT-SEQ
 And people fell all over laughing.

Ita noo koto emuta

ít-á = noo = kótó emut-a
 amount-REAL = PST3 = then story-NOM
 So the story

noo loṅotaa waakatee ngo ts'edee.

= noo loṅótá-a wáák-at-e = e ṅg-o ts'édé-é
 = REL.SG.PST3 enemies-ACC play-3PL-REAL = DP we.EXC-INS there-DAT
 of the enemies playing with us amounted to that.

2 Rókés (Beekeeping)

This second text is an example of the ‘procedural’ genre in Ik. Its author is again Longoli Philip. The text describes various procedures involved with beekeeping. Beekeeping is an activity central to Ik culture as it provides a high-energy food as well as a source of income. In the surrounding areas, the Ik are known as expert beekeepers or wild-honey gatherers.

Mita rokesa iritsesi ts'íkæe nda nkaka dadae.

mít-a rók-és-a irits-ésí ts'íká-^e n'da nkáká dada-^e
 be-REAL beekeep-INF-NOM tend-INF[OBL] bees-GEN and eating[OBL] honey-GEN
 Beekeeping is tending bees and eating honey.

Bunetana kanaxa, sotes,

bún-ét-an-a kanaʃa-∅ sot-es
 cut.cylindrical.object-VEN-IPS-REAL beehive-NOM carve-SPS
 A beehive is cut (from a hollow tree), carved,

nda beretesi makulikæe.

n'da ber-et-ésí makúl-íka-^e
 and braid-INCH-INF[OBL] grass.hive.cover-PL-GEN
 and grass beehive covers are braided.

Na itayee rokesik,

na = ita-i-ε rók-ési-k^a
 CONJ = reach-3SG-SIML beekeep-INF-ACC
 When it reaches (time for) beekeeping,

kaweese kodotik, titirik nda rikwitin.

káw-é-ese kóđót-ík-^a titír-ík-∅ n'da rikw-itín
 cut-INCH-SPS hooked.stick-PL-NOM forked.stick-PL-NOM and pole-PL[OBL]
 hooked sticks, forked sticks, and long poles are cut down for use.

Kaweese nabo mizig,

káw-é-ese nabó míziz-Ø
 cut-INCH-SPS again vine.rope-NOM
 Moreover, vine rope is cut for use,

nda jurutietesi kakee

ń'da jur-ut-i-et-ésí kaké-é
 and cut-CAUS-PLUR-INCH-INF[OBL] leaves-GEN
 and leaves are all diced up

ni sisibesie kanaxae.

=ni sisib-ésí-é kanafa-e
 =REL.PL rig.with.leaves-INF-DAT beehive-GEN
 that are for rigging the beehive with leaves (to lure bees).

Itsekeese koto dakwa

itséké-ese = kótó dakw-a
 prepare-SPS then tree-NOM
 Then the tree is prepared

na mita ntsi rokesanee kanaxaak,

=na mit-a ntsi rók-és-an-é=e kanafaa-k^a
 =REL.SG be-REAL it[OBL] beekeep-INT-IPS-REAL = DP beehive-ACC
 that is the one the beehive will be kept in,

nda ipeteesi naye epitesukotanee kanaxaak.

ń'da ipété-ésí naí-é ep-ít-és-ukot-an-é=e kanafaa-k^a
 and form-INF[OBL] there-GEN lie-CAUS-INT-AND-IPS-REAL = DP hive-ACC
 and the place is 'platformed' where the beehive will be laid down.

Zikese kanaxa nda ineesukoti dakuk.

zík-εσε kánaʃa-∅ ńda inéné-és-úkoti dakú-k^e
 tie-SPS beehive-NOM and hang-INF-AND[OBL] tree-DAT
 The beehive is then tied and hung up in the tree.

Epitukwese nda zikes.

ep-ít-úko-ese ń'da zík-és
 lie-CAUS-AND-SPS and tie-INF[OBL]
 It's laid down and tied down.

Na nabukotik, kokese akina makuliko

na = náb-ókot-ɪ-k^e kók-εσε ák-in-a makúl-ík-o
 CONJ = finish-COMP-3SG-SIML shut-SPS mouth-POSS.PL-NOM hive.cover-PL-INS
 When (that's) finished, its openings are shut with grass hive covers,

nda sisibesí egesee koto irurubesik.

ń'da sisib-εσι eg-esé = e = koto irúrubes-ik^a
 and rig.with.leaves-INF[OBL] put-SPS = DP = then support.stick-PL-NOM
 it's rigged with leaves, and then sticks are put in it to support the covers.

Kokesukota akinie,

kók-és-ókot-a ák-ini-ε
 shut-INF-COMP-NOM mouth-POSS.PL-GEN
 After the openings are closed up,

idofidofese dakuimo gwariedeo.

idofídof-εσε dakú-ím-o gwarí-éde-^o
 rap-SPS wood-DIM.SG-INS top-POSS.SG-ABL
 it is rapped on its top with a little stick.

Kutoo koto rokesiama,
 kut-ɔ-ɔ = kɔtɔ rɔ́k-éSI-am-a
 say-3SG-SEQ = then beekeep-INF-AGT.SG-NOM
 And then the beekeepers says,

“*Wowooj, atse Rojotu, Lopuwaa,*
 wɔwɔ́ɔ́ɔ́ ats-e rojotu-∅ lopúwaa-°
 whistle[IDEO] come-IMP.SG rojotu-ABL lopuwaa-ABL
 “(Whistling), come from Rojot, from Lopuwa,

Lopokoko, Moruɔolee, mmm...”
 lopokóko-∅ morúɔoleé-° mmm
 lopokoko-ABL moruɔolee-ABL hum[IDEO]
 from Lopokok, from Moruɔole, (humming).”

Nda ja kanaxaa ineton
 n'da=ja kanaɟaa in-ét-ón
 and = then beehive[OBL] inhabit-VEN-INF[OBL]
 And then the beehive is inhabited

nee itaee odeedek.
 néé ita-é = ε óde-edek-a
 CONJ reach-REAL = DP day-POSS.SG-ACC
 when it reaches its day.

Zekoo koto aragwaniko kede kainiko ni zekwad.
 zek-ɔ-ɔ = kɔtɔ aráɟwan-ik-o kede káin-ík-o = ni zekw-á = d^e
 sit-3SG-SEQ = then month-PL-INS or year-PL-INS = REL sit-REAL = DP
 And then it sits for (however many) months or years that it sits.

Na ts'íkkaa efiakotatie,

na = ts'íká-á ef-i-áá-kot-áti-e
 CONJ = bees-ACC sweet-PLUR-DISTR-COMP-3PL-SIML
 When the bees (i.e. honey) get sweet,

keese koto gones.

ke-ese = kótó gon-és-Ø
 go-SPS = then look-INF-NOM
 one goes to have a look (at them).

Naa kaanie gonesia, tirese kurubaa ni:

náa ka-aní-é gon-ésí-a tír-ese kúrúbá-a = ni
 CONJ go-IPS-SIML look-INF-ACC hold-SPS things-NOM = DEM.PL
 When one goes to look, one carries these things:

eo, ts'ad, miziz, nda koon.

eo-Ø ts'ad-Ø míziz-Ø nda ko-on
 leather.bag-NOM fire-NOM vine.ropes-NOM and go-INF [OBL]
 a leather bag, fire, a vine rope—and then one goes.

Naa itaanie kanaxadeak,

náa ita-aní-é kanaʃa-dɛa-k^a
 CONJ reach-IPS-SIML beehive-foot-ACC
 When the base of the beehive is reached,

fiyeitiese kodotika misi maraḡaakat.

fiye-it-i-ese kóǎt-ik-a mísi maraḡ-aak-át-Ø
 know-CAUS-PLUR-SPS hooked.stick-PL-NOM whether good-DISTR-3PL-REAL
 the hooked sticks are confirmed (to see) if they are in good shape.

Kaikeetona kijee, gameese ts'adik,

kaiká-ét-on-a kǐjé-e gám-é-ese ts'adí-k^e
 dark-INCH-INF-NOM land-GEN kindle-INCH-SPS fire-DAT
 When it has started getting dark, fire is kindled,

otsesukotuo gonesiama dakuk.

ots-és-úkót-i-o gon-ésí-am-a dakú-k^e
 climb-IPFV-AND-3SG-SEQ look-INF-AGT.SG-NOM tree-DAT
 and the honey-checker climbs up into the tree.

Zikoo koto ama na iya kijee eoa

zík-ó-ó = kótó ám-á = na i-a kǐjé-e ɛo-a
 tie-3SG-SEQ then person-NOM = REL.SG be-REAL land-DAT leather.bag-ACC
 And then the man on the ground ties the leather bag

nda kaka ni sisibesie

n'nda kaka = ni sisíb-ésí-é
 and leaves[OBL] = REL.PL rig.with.leaves-INF-DAT
 and the leaves that are for rigging the hive (to lure more bees)

nabukotie dusesik,

náb-ókót-i-ɛ dús-ésí-k^a
 finish-COMP-3SG-SIML scoop-INF-ACC
 when scooping (the honey) is over with,

iyesuo cebena kedé naparika eoakok.

i-és-í-o ceben-a kedé nápár-ík-a ɛo-akó-k^e
 be-IPFV-3SG-SEQ spatula-NOM or flat.lid-PL-NOM leather.bag-inside-DAT
 (all the while) there is a spatula or flat lids inside the leather bag.

Na jiroo zikoo kazok, inenekotuk.

na = jíř-ǵ zík-ǵ-ǵ kazó-k^a inéné-ikot-u-k^o
 CONJ = after-INS tie-3SG-SEQ torch-ACC hang-AND-3SG-SEQ

Later, he (the honey-checker) ties a torch and hangs it up (in the tree).

Itoona kazoe, ipukukod,

itǵ-ǵn-a kázó-e ipúk-ú-kó = d^e
 reach-INF-NOM torch-GEN fan-3SG-SEQ = DP

When the torch reaches (the hive), he (the checker) fans it (lit. 'on it')

nda ηqnesi akoo na moo ts'uwid.

ní'da ηǵn-ési akó-ó = na mó-o ts'uw-í = d^e
 and open-INF[OBL] mouth-ABL = REL.SG not-SEQ come.and.go-3SG = DP
 and opens (the hive) at the opening that bees aren't coming and going from.

Ntsuo mita ntsi dádaa iyad.

ntsí-ó mít-a ntsi dáda-a i-á = d^e
 it-COP be-REAL it[OBL] honey-ACC be-REAL = DP

It's the one (opening) that the honey is at.

Na mitie aka na ts'uwad,

na = mít-i-ε aka = na ts'uw-á = d^e
 CONJ = be-3SG-SIML mouth[OBL] = REL.SG come.and.go-REAL = DP

As for the opening that bees come and go from,

mita kidaa sed.

mít-a kI = dá-á séd
 be-REAL MED = one-NOM field[OBL]

that one is the 'field' (where bees raise larvae).

Italiana nkaka dadee dakugwario,

itál-í-an-a ɲkák-á dade-e dakú-gwaría-^o
 prohibit-PLUR-IPS-REAL eating-NOM honey-GEN tree-top-ABL
 Eating honey from the treetop is customarily prohibited,

nee gonanee kanaxaak.

néé gon-an-é=e kanafaa-k^a
 CONJ look-IPS-REAL=DP beehive-ACC
 whenever a beehive is being checked.

Na nkese dada dakugwario,

na = ɲk-ese dád-a dakú-gwarí-oó
 CONJ = eat-SPS honey-NOM tree-top-ABL
 If honey is eaten from the tree top,

imasetoo ama asik, nataloo Ice.

más-ét-ɔ-ɔ ám-á así-k^a nataló-ó icé-∅
 throw-VEN-3SG-SEQ person-NOM self-ACC custom-ABL Ik-GEN
 the person (who did it) throws himself down, according to Ik custom.

Naa koto nabukotie dusesik,

náa = koto náb-ukɔt-I-e dús-és-í-k^a
 CONJ = then finish-COMP-3SG-SIML scoop-INF-ACC
 Then when scooping (the honey) is over with,

ineneetuo koto eoa kijak.

inéné-et-i-o = koto ɛo-a kǐjá-k^e
 hang-VEN-3SG-SEQ = then leather.bag-ACC land-DAT
 he (the checker) slings the leather honey bag down to the ground.

Ikamukotoo koto da kijoo eook,

íkam-úkót-ɔ-ɔ = kɔtɔ d-a kíjó-o ɛoo-k^a
 catch-AND-3SG-SEQ = then one-NOM land-ABL leather.bag-ACC
 And then the one on the ground catches the leather bag

kidzimetesuo dusesiama kijak.

kídzim-et-és-í-o dús-ésí-am-a kíjǎ-k^e
 descend-VEN-IPFV-3SG-SEQ scoop-INF-AGT.SG-NOM land-DAT
 while the scooper man descends back to the ground.

Naa koto nee kidiakonia itetee kijaa,

náa = koto néé kí = díá-kóní-á it-et-é = ε kíjǎ-a
 CONJ = then CONJ DEF = one-one-ACC reach-VEN-REAL = DP land-ACC
 Then when that one reaches the ground,

dusetini koto dia mita nkam,

dús-ét-ini = koto dí-á mít-a nk-am
 scoop-VEN-SEQ = then one-ACC be-REAL eat-PAT [OBL]
 they scoop out the eatable (honey),

nda atsoni awee nee awaa fiyotogad.

ń⁴da ats-oni awé-é néé awá-á fiyótóg-a = d^e
 and come-INF [OBL] home-DAT CONJ home-ACC near-REAL = DP
 and come home if home is near.

Naa awaa yekie, epin.

náa awá-á ɪék-I-ε ep-in
 CONJ home-ACC far-3SG-SIML sleep-SEQ
 If home is far, they sleep.

3 Cɛŋ (Woodpecker)

This third text, also written by Longoli Philip, is an example of the ‘expository’ genre. It gives insight into the Ik practice of divination, in this case a combination of *Angang* ‘seeing a bird or an animal on a journey’ and *augury* ‘watching the flight of birds’ (Hiebert, Shaw, & Tiénou 1999:184). In this text, it is the woodpecker that reveals impending good or bad fortune to the traveler according to the direction from which its call is heard.

Mita ceŋa gwaa

mit-a cɛŋ-á gwaa
be-REAL woodpecker-NOM bird[OBL]

A woodpecker is a bird

na dɔdɔya nabaatikaa robak.

=na dɔdɔ-i-a nabaát-íká-a roba-k^e
=REL.SG show-PLUR-REAL luck-PL-ACC people-DAT

that typically shows fortunes to people.

Iwiya nee bekeseanee muceeo.

iw-í-á néé bek-és-án-é=e muceé-^o
strike-PLUR-REAL CONJ walk-IPFV-IPS-REAL=DP path-ABL

It usually calls (lit. ‘strikes’) when one is walking on the way.

Iya koto bacikika ts’aguse

i-a = kótó bákík-ík-á ts’agúsé
be-REAL = then area-PL-NOM four

So there are four areas

ni ceŋaa iwiyad:

=ni cɛŋá-á iw-í-á = d^e
=REL.PL woodpecker-ACC strike-PLUR-REAL = DP

that the woodpecker typically calls from:

Bacikika dii, ntuo da:

bácík-ík-á = 'díí ní-tí-o d-a
 area-PL-NOM = ANPH.PL they-COP ones-NOM
 Those areas, they are these:

wax, jir, nkakakwet, betsinakwet.

waf-∅ jir-∅ ñkáká-kwet-∅ betsiná-kwet-∅
 ahead-NOM behind-NOM eating-hand-NOM left-hand-NOM
 ahead, behind, righthand side, lefthand side.

Na koto ama kedé roba bekesin,

na = kótó ám-á kedé roba ðék-és-ín
 CONJ = then person-NOM or people[OBL] walk-IPFV-SEQ
 So when a person or people go walking,

iwoo ceŋa waxu,

iw-i-o ceŋ-a wafu-∅
 strike-3SG-SEQ woodpecker-NOM ahead-ABL
 and a woodpecker calls from ahead,

ntsuo toimena,

ntsí-ó toimɛn-a
 it-COP COMPL-NOM
 it means (lit. 'it is') that

koda waxie biraa mena iy.

ko-d-a wafɪ-ɛ bira-a mɛn-a i-^a
 go-2SG-REAL ahead-DAT lack-REAL issues-NOM be-REAL
 you're going ahead and there are no problems.

Naa iwie jiru, ntsuo toimena

náa iw-i-e jírú ntsí-ó toimen-a
 CONJ strike-3SG-SIML behind-ABL it-COP COMPL-NOM

If it calls from behind, it means that

iya kinimena waxie

i-a kíní-men-a wafɪ-ε
 be-REAL some-issues-NOM ahead-DAT

there are some problems ahead

ni rajetesata bia jirik.

=ni raj-et-és-át-a bi-a jiri-k^ε
 =REL.PL return-VEN-INT-3PL-REAL you.SG-ACC behind-DAT

that will return you back.

Naa moo miti nti,

náa mo-o mit-i ntí
 CONJ not-SEQ be-3SG so

When it's not like that,

kwiidoo iya kinimena ni iyata jirie

ku(t)-ɪɔɔ i-a kíní-men-a =ni i-át-a jiri-ε
 say-2SG-SEQ be-REAL some-issues-NOM =REL.PL be-3PL-REAL behind-DAT

you (can) say there are some problems behind

ni rajesukotata bik.

=ni raj-és-úkot-át-a bi-k^a
 =REL.PL return-INT-AND-3PL-REAL you.SG-ACC

that will return you back (that way).

Naa iwie nkakakwetao,

náa iw-i-e ηkáká-kweta-^o
 CONJ strike-3SG-SIML eating-hand-ABL
 When it calls from the righthand side,

kwiiidoo iya kinimena

ku(t)-ido-ɔ i-a kíní-men-a
 say-2SG-SEQ be-REAL some-issues-NOM
 you (can) say there are some problems

takanetesa kwetoo dee,

takan-et-és-á kwetɔ-ɔ = ¹déé
 appear-VEN-INT-REAL hand-ABL = ANPH.SG
 that will appear on that side (lit. ‘hand’),

kede koneena korobadie na enesukoid,

kede kóní-én-á kórɔbádi-e = na en-és-úkó-íd-^a
 or some-PSSM-NOM thing-GEN = REL.SG see-INT-AND-2SG-REAL
 or some thing that you will see,

mi si inoo kede amak.

mísi ínó-o kede áamá-k^o
 whether animal-COP or person-COP
 whether it’s an animal or a person.

nda nabo mita toimena

ń¹da nabó mit-a toimena
 and again be-REAL COMPL[OBL]
 And furthermore it means that

imanesida nda koneeni amee waxoo

iman-és-íd-a ń'da kóní-éni ámé-e wafu-ɔ
 meet-INT-2SG-REAL with some-PSSM[OBL] person-GEN ahead-ABL
 you will meet with someone ahead

kede kinimen.

kede kíní-men
 or some-issues[OBL]
 or some problems.

Naa iwie betsinakwetoo,

náa iw-i-e betsíná-kwetɔ-ɔ
 CONJ strike-3SG-SIML left-hand-ABL
 When it calls from the lefthand side,

kwiidoo nabaatuo na da

ku(t)-idɔ-ɔ nabaáti-o = ná da-∅
 say-2SG-SEQ luck-COP = REL.SG nice-REAL
 you (can) say it's the good fortune

na nkakee kede menaicikee

= na ɲkáké-e kede mená-ícíké-e
 = REL.SG food-GEN or things-VAR.PL-GEN
 that is of food or of things

ni maraŋaaka ni takaneta bie waxu.

= ni maraŋ-aák-á = ni takan-et-á bi-e wafu-∅
 = REL.PL good-DISTR-REAL = REL.PL appear-VEN-REAL you.SG-DAT ahead-ABL
 that are good that (will) appear to you ahead.

4 *Ámázea Máw^a* (Mr. Lion)

This fourth text is one of many Ik ‘animal fables’. Its author is still Longoli Philip, though this is only his version of a tale well-known by many. Most Ik animal fables involve one animal being particularly clever and deceptive. In this story, told by Tortoise, Rabbit deceives all the animals into going to visit Mr. Lion, who has fallen ill. But Mr. Lion is well enough to eat every animal that comes into his cave. Tortoise realizes this before committing the same fatal error. Only Rabbit and Tortoise survive Mr. Lion’s feeding spree.

“Kainiko nuk”, kutoo Kaea,

káín-ík-o = nuk^u kút-ɔ-ɔ kaě-a
 year-PL-INS = DEM.PL.PST3 say-3SG-SEQ tortoise-NOM
 “Years ago,” Tortoise said,

“Mitiya noo Mawa amazeama inoe.

mit-í-á = noo máw-á ámá-ze-áma ínó-^e
 be-PLUR-REAL = PST3 lion-NOM person-big-person[OBL] animals-GEN
 “Lion was the master of the animals.

Epiya noo pakwee mitie awa ntsi.

ep-í-a = noo pakó-é mít-I-ε awa ntsí-∅
 sleep-PLUR-REAL = PST3 cave-DAT be-3SG-SIML home[OBL] he-GEN
 He used to sleep in a cave as his home.

Konto odowe, inuukotoo neba ntsik.

kón-t-ó odou-e inó-úkwɔt-ɔ-ɔ néb-a ntsí-k^a
 one-SING-INS day-GEN weigh.down-COMP-3SG-SEQ body-NOM he-ACC
 One day, he fell ill (lit. “the body weighed him down”).

Kutoo Tulua,

kut-ɔ-ɔ tulú-a
say-3SG-SEQ rabbit-NOM
Rabbit said,

“Inwa mynu kaini enimosia nda Amazea Maw.”

ínw-á muɲu ka-ini én-ímósí-a n̄'da áamá-zea-má°
animal(s)-NOM all go-SEQ see-RECIP-ACC with person-big-lion[OBL]
“All the animals (should) go visit with Mr. Lion.”

Kot, na mitoo ino

kot na = mit-ɔ-ɔ ínó
but CONJ = be-3SG-SEQ animal[OBL]
But, as for the animal

na kaa enimosia nda Amazea Maw,

= na ka-a én-ímósí-a n̄'da áamá-zea-má°
= REL.SG go-REAL see-RECIP-ACC with person-big-lion[OBL]
that goes to visit with Mr. Lion,

ats'ukotoo kidíá!

áts'-úkɔt-ɔ-ɔ kɪ = dí-á
eat-COMP-3SG-SEQ DEF = one-ACC
he (Mr. Lion) eats that one all up!

Konto odowe,

kón-t-ó odou-e
one-SING-INS day-GEN
One day,

kayuo kaea enimosia nda Amazea Maw.

ka-i-o kaě-a én-ímósi-a n'da áma-zea-má°
 go-3SG-SEQ tortoise-NOM see-RECIP-ACC with person-big-lion[OBL]
 Tortoise went to visit with Mr. Lion.

Na itayee pakwaasakaa,

ná = íta-i-ε pakó-ásáká-a
 CONJ = reach-3SG-SIML cave-door-ACC
 When he reached the cave entrance,

enuo deikaa kaatie akwedee muṅ,

en-i-o de-ika-a ká-áti-e ákw-éde-ε muṅ
 see-3SG-SEQ foot-PL-ACC go-3PL-SIML inside-POSS.SG-DAT all
 he saw all the footprints going inside,

bireesoo kida itetata biyak.

bire-εs-ǝ-ǝ ki = d-a it-et-át-a biá-k^e
 lack-IPFV-3SG-SEQ DEF = ones-NOM return-VEN-3PL-REAL outside-DAT
 without any of them coming back out.

Enuo toimena kaa deika muṅ akwedee,

en-i-o toimena-a ká-á de-ik-a muṅ ákw-éde-ε
 see-3SG-SEQ COMPL-ACC go-REAL foot-PL-NOM all inside-POSS.SG-DAT
 He saw that all the footprints go inside;

biraa kida atsa biyak. Isienik?

bira-a kí = d-a ats-a biá-k^e isi-ení-k^e
 lack-REAL DEF = one-NOM come-REAL outside-DAT what-PSSM-DAT
 not a one comes back out. Why?

Tametoo toimenaa

tám-ét-ǝ-ǝ toimena-a
 think-INCH-3SG-SEQ COMPL-ACC
 He thought that

iya kinimena itiyooosa pakwaako,

i-a kíní-mén-a itíyá-ós-á pakó-áko-∅
 be-REAL some-issues-NOM do-PASS-REAL cave-inside-ABL
 there are some strange things being done inside the cave,

diuo inoa

dí-ó ínó-a
 ones-ABL animals-NOM
 because the animals

ni kaa enimosia nda Amazea Maw,

=ni ka-a én-ímósi-a n'da áamá-zea-má°
 =REL.PL go-REAL see-RECIP-ACC with person-big-lion[OBL]
 that go to visit with Mr. Lion,

biraa kida iteta biyak.

bira-a kí=d-a it-et-á biá-k°
 lack-REAL DEF = one-NOM return-VEN-REAL outside-DAT
 not a one comes back outside.

Enuo Kaea toimenaa

en-i-o kaě-a toimena-a
 see-3SG-SEQ tortoise-NOM COMPL-ACC
 Tortoise saw that

te ats'ukotaa ts'oo Amazea Mawa inoa

té áts'-ók'ot-á-á ts'oo ámá-zea-máw-á ínó-a
 EMPH eat-COMP-REAL-PRF now person-big-lion-NOM animals-ACC
 of course, Mr. Lion has likely eaten up the animals

ni kaiya enimosia nda nts!

=ni ka-í-á én-ímósí-a nda ntsⁱ
 =REL.PL go-PLUR-REAL see-RECIP-ACC with he[OBL]
 that are continuously going to visit with him!

Tametoo nabo kutuk,

tám-ét-ɔ-ɔ nabó kut-u-k^ɔ
 think-INCH-3SG-SEQ again say-3SG-SEQ
 He thought again and said,

“Nka jii, na koyaa pakwaakwee na

ńk-a = jii na = kó-ia-a pakó-ákwe-ε = na
 I-NOM = too CONJ = go-1SG-SEQ cave-inside-DAT = DEM.SG
 “I too, if I go inside this cave

enimosa nda Amazea Maw,

én-ímós-á n'nda ámá-zea-má^o
 see-RECIP-NOM with person-big-lion[OBL]
 to visit with Mr. Lion,

ats'esukotana nka jik,

áts'-és-ók'ot-an-a ńk-a = jik^e
 eat-INT-COMP-IPS-REAL I-NOM = too
 I too will be eaten all up,

nda tezetoni fyekesie jci!

ń'da téz-et-ɔni fyek-esí-é jci-∅
 and end-INCH-INF[OBL] live-INF-GEN I-GEN
 and my life will end!

Ts'edoo tametoo itionik,

ts'édó-ɔ́ tám-ét-ɔ-ɔ ití-óni-k^e
 there-ABL think-INCH-3SG-SEQ return-INF-DAT
 From there he thought about going back,

nda kooni ntsie ntsiawak.

ń'da ko-oni ntsí-é ntsí-áwa-k^e
 and go-INF[OBL] he-GEN he-home-DAT
 and he went to his home.

Na mitie Tulu

na = mít-i-e tulú
 CONJ = be-3SG-SIML rabbit[OBL]
 As for the Rabbit

noo imoda kidiasayaa inoe,

= noo imóɔ-á ki = díá-saí-á ínó-^e
 = REL.SG.PST3 trick-REAL DEF = ones-other-ACC animals-GEN
 who tricked the other animals,

moo kai enimosia nda Amazea Maw,

mo-o ka-i én-ímósí-a ń'da áma-zea-má^o
 not-SEQ go-3SG see-RECIP-ACC with person-big-lion[OBL]
 he didn't go to visit with Mr. Lion

duo nuu fyyee toimena

dí-ó = nuu fyye-é = e toimena-a
 ones-ABL = REL.PL.PST3 know-REAL = DP COMPL-ACC
 because he knew that

ats'íya Amazea Mawa kidiasayaa inoe.

áts'-í-a ámá-zea-máw-á ki = díá-saí-á ínó^e
 eat-PLUR-REAL person-big-lion-NOM DEF = ones-other-ACC animals-GEN
 Mr. Lion was eating up the other animals.

H'yekukoo noo Tulua nda ino kidiasai

fiyék-ú-kó = o = noo tulú-a n'nda ínó ki = díásai
 live-3SG-SEQ = DP = PST3 rabbit-NOM and animals[OBL] DEF = others[OBL]
 Rabbit lived from then on, as did the other animals

nuu moo kaati enimosia nda Amazea Maw.

= nuu mó-o ká-áti én-ímósi-a n'nda ámá-zea-má^o
 = REL.PL.PST3 not-SEQ go-3PL see-RECIP-ACC with person-big-lion[OBL]
 who didn't go visit with Mr. Lion.

5 Tadápítotósí-icík^a (Sayings)

The following community aphorisms were compiled by Longoli Philip at my request for ‘Ik proverbs’. As such, they may exemplify the ‘proverbial’ genre, though they convey less timeless wisdom than prohibitive superstition.

Maa podéida ema okoo mup,

má-á pod-é-íd-a em-a ɔkó-ɔ mup
not-REAL peel-VEN-2G-REAL meat-NOM bone-ABL all

Don’t peel the meat from all the bone,

itia nedékea bia paka ikarukoiduk.

iti-a nedéke-a bi-a páka ikár-úfɔ-ɪdu-kʷ
???-REAL sickness-NOM you.SG-ACC till thin-COMP-2SG-SEQ

(lest) sickness will ??? you until you grow thin.

Ima na xeɓa ntsikwaatetesiiicoo

im-a = na ʃɛɓ-a ntsí-kwáát-ét-ésí-icó-ó
child-NOM = REL.SG fear-REAL s/he-bear-VEN-INF-AGT.PL-ABL

A child who fears his or her parents

iryameta fiyekesie na zikib.

iryam-et-a fiyek-esí-é = na zikíb-Ø
acquire-VEN-REAL live-INF-DAT = REL.SG long-REAL

gains a long life.

Na natoloka takanetuk,

na = nátolok-a takán-ét-u-k^o
CONJ = rainbow-NOM appear-VEN-3SG-SEQ

If a rainbow appears,

kwaataa ɲarama gwaak

kwaat-á-a ɲar-am-a gwaá-k^e

bear-REAL-PRF girls-SING-NOM bird-DAT

a girl has given birth out of wedlock (lit. “in the birds”, i.e. in the air)

kijoo na takanetad.

kijó-o = na takan-et-á-d^e

land-ABL = REL.SG appear-VEN-REAL-DP

in the land that it (the rainbow) appears.

Cema cikoroikoo sedikee

cem-a cíkóro-iko-o séd-ike-é

fighting-NOM boundary-PL-ABL garden-PL-GEN

Fighting over the boundaries of gardens

ɲura didia sedikoo dii.

ɲur-a didi-a séd-iko-o = ‘díí

break-REAL rain-ACC garden-PL-ABL = ANPH.PL

cuts off the rain from those gardens.

Na soreima ceyoo poposaa,

na = soré-ím-a ce-I-ɔ pɔpɔsa-á

CONJ = boy-child-NOM kill-3SG-SEQ lizard-ACC

If a boy kills a lizard,

tsayaakota iditina ɲwaati.

tša-i-áá-kot-a íd-itín-á ɲwááti-∅

dry-PLUR-DISTR-COMP-REAL breast-PL-NOM his.mother-GEN

his mother’s breasts dry up.

Na ts'íkà inukotuo lodiruaa,

na = ts'ík-a ín-úkot-i-o lodúrú-aá
 CONJ = bees-NOM colonize-AND-3SG-SEQ granary-ACC
 If bees colonize a granary,

badukota koneena amee awoo dee.

bad-ukot-a kóní-én-á ámé-e awó-ó = 'dée
 die-COMP-REAL some-PSSM.SG-NOM person-GEN home-ABL = ANPH.SG
 someone dies from that home.

Na ceidoo amaa,

na = cé-ido-ɔ ám-aá
 CONJ = kill-2SG-SEQ person-NOM
 If you kill a person,

dúketa sea ntsie bik.

dúk-et-a se-a ntsí-é bi-k^a
 hinder-INCH-REAL blood-NOM he-GEN you.SG-ACC
 his blood hinders you.

Na idema goruo bia nee maidee,

na = ídem-a gór-í-o bi-a néé ma-íd-e = é
 CONJ = snake-NOM go.over-3SG-SEQ you.SG-ACC CONJ sick-2SG-REAL = DP
 If a snake goes over you when you are sick,

marañkoid.

marañ-ukó-íd-∅
 good-COMP-2SG-REAL
 you get well.

Na dzuesiduo daŋa,

na = dzu-es-idi-o dáŋ-á
 CONJ = steal-IPFV-2SG-SEQ white.ants-NOM
 If you steal white ants,

nta bia hakweidi hakwesio na far.

ńt-á bi-a hakw-é-ídi hakw-ésí-o = na far
 not-REAL you.SG-NOM collect.ants-VEN-2SG collect.ants-INF-ABL = REL FUT3
 you do not collect (white ants) at the next collecting.

Na ima na kwatsa zekwetoo karatsie babatie,

na = im-a = na kwáts-á zékw-ét-ɔ-ɔ karatsi-e bábati-e
 CONJ = child-NOM = REL small-REAL sit-VEN-3SG-SEQ stool-DAT his.father-GEN
 If a small child sits on his or her father's stool,

ipeđa ntsia badonik.

ipéd-á ntsí-á bad-oni-k^e
 jinx-REAL he-ACC die-INF-DAT
 he or she is jinxing him to die.

And lastly, an Ik tongue-twister:

Zike zina zoto zuku

zík-é zina zɔt-ɔ zuku
 tie-IMP.SG zebra[OBL] chain-INS very
 Tie the zebra tightly with a chain,

zeíkotuo zizukotukwee zuku zekok.

ze-íkót-i-o zíz-ukot-i-kó = e zuku zekó-k^e
 big-COMP-3SG-SEQ fat-COMP-3SG-SEQ = DP very sitting-DAT
 and he will get big and get very fat for staying around.

Appendix B—Ik Root Lexicon

The following list of Ik lexical roots and their English glosses has been extracted from a larger computer (FLEX) database. The goal behind the formatting of this lexicon has been to make Ik lexical roots, mostly nouns and verbs, available for historical-comparative studies that may yield further insights about the internal and external classification of Kuliak. As such, every effort has been made to allow the lexical roots themselves to come to the fore. For nouns, this means an abstract (hyphenated) lexical form that reveals the unpredictable root-final vowel which every noun has. For verbs, this means that if the infinitive form skews the underlying root tone, the verbal root is then presented in parentheses after the headword. High tone on the lexemes is marked with an acute accent (´), while low tone is left unmarked (see §3.2.1 for details on tone realization).

In many instances, a particular root is only attested in combination with one or more other derivational affixes. To the degree that these derivational affixes have been described, they are separated out to reveal the bare root. No doubt in the process of separating putative morphemes errors have been made, but hopefully future research can help fix the incorrect parses.

The glosses or definitions found in this lexicon have been continually worked on but still leave a lot to be desired. For example, there is still an appalling number of glosses of biological species that reveal almost no information. Most of the information on plantlife comes straight out of Heine 1999, to which I am indebted. Several new tree names have been added since then, but their English and/or scientific names are yet unknown. Another problem is when glosses reveal very little about the actual usages of a word. A definition like ‘to be rough’ sounds fine but lacks precision. Thus, refining and expanding the written Ik lexicon will continue to be a major need and goal for the documentation and development Ik.

Aa

ábadz-et-ésí- *v.* to cast down
 abáñi- *n.* (my) father
 abeta- *n.* sitatunga
 abúba- *n.* spider
 ábubuk-ésí- *v.* to scoop water out
 ábubuk-oni- *v.* 1) to roar
 ábut-et-ésí- *v.* to sip
 aǎfíl-án-óni- *v.* to roll around
 aǎfílúk-án-óni- *v.* to fall off/down
 adabia- *n.* medicinal plant sp.
 adenesa- *n.* bird sp.
 áduduk-ésí- *v.* to pour from a
 small opening
 adádáá- *n.* ringworm
 ade- *quant.* three
 adúngúu- *n.* indigenous harp
 aě-*oni-* *v.* 1) to be lit 2) to be ripe
 agita- *n.* metal bead(s)
 águj-ésí- *v.* to gulp liquid
 aji- *n.* white-ant pestle
 aká- *n.* 1) mouth 2) opening
 aká-kúñu- *n.* jaw
 akaréri- *n.* white-ant hole trap
 akatátí- *n.* gourd lid
 ákát-*oni-* *v.* to clear the throat
 akílíka- *n.* mind, intelligence; fr.
 Swa. *akili*
 akínó- *n.* greater kudu
 akóníkóní- *n.* bird sp.
 akúkúr-*oni-* *v.* to crawl, creep
 akwétékwt-án-óni- *v.* to slither
 ákáf-*oni-* *v.* to yawn

akáró- *n.* palate
 akatí- *n.* 1) nose 2) nostril
 akólá-án-óni- *v.* to swing
 akókúr-oni- *v.* to creep; cf. *akúkúr-*
 ‘crawl’
 akó- *n.* inside, inner part
 aláláa- *n.* augur buzzard
 alámáár-án-óni- *v.* to sway
 aláraa- *n.* shrub sp. (*Gweria*)
 álifú- *n.* thousand; from Swa. *elfu*
 alóló-ésí- *v.* to handle
 alólóñ-*oni-* *v.* 1) to worry
 áamá- *n.* person
 amóza- *n.* rain termite
 amótsá- *n.* debt, often of labor
 amóts-an-ésí- *v.* to owe (labor)
 anásí- *n.* male kudu
 anee- *n.* plant sp. (*Vigna*
 frutescens)
 an-et-ésí- *v.* to remember
 añañá- *n.* sorghum var.
 añarásá- *n.* gravel
 añaú- *n.* yellowish tobacco leaves
 añir-ésí- (añír-) *v.* to turn, steer
 apápán-oni- *v.* to be hopeless
 apéléléí- *n.* tapeworm
 apétépét-án-óni- *v.* 1) to be
 strewn about 2) to have a
 seizure
 apír-*oni-* *v.* to jump
 arágwaní- *n.* 1) moon 2) month
 ar-*oni-* *v.* to cross over
 arírá- *n.* flame

aríé- *n.* small intestine
 arúrúb-*oni-* *v.* to stalk
 arút-*óni-* *v.* to make a sound
 asaka- *n.* 1) door 2) clan
 3) chapter
 asínít-*oni-* *v.* to dream
 asonání- *n.* African pencil cedar
 (*Cupressus lusitanica*)
 át(í)- *n./v.* general ‘filler’ word
 atᵛᵛᵛ- *n.* spotted hyena
 ats-*oni-* *v.* to come
 áts’á- *n.* Sycamore fig
 áts’-ésí- *v.* 1) to gnaw, eat chewy
 foods 2) to cause sharp pain
 aúg-*oni-* *v.* to feed at night
 awá- *n.* 1) homestead 2) place
 auk-esí- (aúk-) *v.* to inhale food;
 cf. *aúg-*
 aí- *n.* 1) side 2) place

Bb

babaa- *n.* armpit
 babatí- *n.* his/her father
 báboo- *n.* your father
 badi- *n.* giant
 bad-irétí- *n.* wizardry, witchcraft
 bad-*oni-* *v.* 1) to die 2) to collapse
 3) to be broken
 bakutsí- *n.* chest
 bakúlúm-*oni-* *v.* to be thick (of
 thread)
 bal-ésí- *v.* 1) to ignore, overlook
 ban-ésí- *v.* to sharpen

baro- *n.* 1) livestock 2) wealth
 baráj-*óni-* *v.* to recline, relax
 baratí- *n.* fig tree (*Ficus*
 platyphylla)
 baratsó- *n.* 1) morning 2)
 tomorrow
 báritsoní- *n.* tiny ant species
 barísá- *n.* male rock hyrax
 bar-ᵛᵛᵛ- *v.* to be wealthy; cf. *baro-*
 basaúré- *n.* lesser eland
 basa- *n.* 1) ray 2) dot, spot
 batán-*óni-* *v.* 1) to be easy 2) to
 be kind 3) to be cheap
 báts-ésí- *v.* to scrape off outer
 layer
 báts’á- *n.* pus
 béber-ésí- *v.* to pull, draw out
 bédíbedúu- *n.* 1) butterfly 2)
 paper letter; cf. *bódíbodúu-*
 be-em-*óni-* *v.* to crack slightly
 beku- *n.* male warthog
 bení-*óni-* *v.* 1) to not be
 something 2) to be unique
 betsín-*óni-* *v.* to be on the left side
 béúr-et-*oni-* *v.* to cry (of
 predators)
 bezek-án-*óni-* *v.* to fail to cross
 paths
 beď-éd-ᵛᵛᵛ- *v.* to be delicately thin
 beď-ésí- *v.* 1) to want 2) to look
 for 3) to almost do
 befá- *n.* puff adder
 bef-ód-ᵛᵛᵛ- *v.* to be hefty

- bef-ók-óm-ɔni- v. to be hefty
 bel-ér-ém-ɔni- v. to be bug-eyed
 ber-ésí- v. 1) to build 2) to braid
 3) to spear many times
 bi- *pro.* you (sg.)
 bíba- *n.* dove, pigeon
 bíroó- *n.* bird species
 bisáká- *n.* appetite for meat
 biti- *pro.* you (pl.)
 bítési- v. 1) to spray 2) to blow
 bubbles
 bits-ét-óni- 1) to die 2) to be worn
 out
 biá- *n.* outside
 bíz-esi- v. to press
 bibijí- *n.* chicken bone
 bída- *n.* gall bladder
 bílíkeretéé- *n.* Yellow-necked
 spurfowl
 bílɔɔrɔ- *n.* bird species
 bíɲ-ésí- v. to give grudgingly
 bíɲi- *n.* red water worm
 bíráút-ɔni- v. to be inadequate
 bír-ési- v. to help by giving
 bírɔ-ɔni- (bírá-) v. to lack, not be
 bíɾ-ét-ɔni- v. to multiply
 bobáa- *n.* my grandfather
 bobatí- *n.* his/her grandfather
 bóboo- *n.* your grandfather
 bódíbodúu- *n.* 1) butterfly 2)
 paper letter; cf. *bédíbedúu-*
 bóɔ-esi- v. to catch by surprise
 boketi- *n.* plant stem
- bokiboki- *n.* outer throat
 bok-ím-óni- v. to get stuck
 bol-on-ukotí- v. to stop doing sth.
 bom-oni- v. to be thickly-rooted
 bonita- *n.* 1) kind 2) matriline
 boɲóréni- *n.* clay
 boreni- *n.* 1) chicken tail 2) small
 gourd
 boroku- *n.* bushpig
 bosí- *n.* ear
 bós-án-oni- v. to be blue-gray
 botá- *n.* 1) load 2) migration
 bot-oni- v. to move, migrate
 bóts-óni- v. to be empty, hollow
 bóǰá- *n.* 1) nightjar 2) idiot
 boǰokoréetí- *n.* *Cussonia arborea*
 bódíbódóǰsí- *n.* fontanelle
 bóɔ- *n.* large intestine
 bóǰókó- *n.* 1) bark, husk 2) gun
 safety mechanism
 bóǰ-óǰ-ɔni- v. to be puffy
 bóǰókóré- *n.* he-goat
 bóǰbó-ɔni- v. to be red-brown
 bóǰókó- *n.* chewy honeycomb
 bóǰókó- *n.* spinal column
 bóǰ-át-íní- *n.* bride
 bóǰǰ- *n.* latrine
 bóǰ-ési- v. 1) to care for, feed 2)
 to domesticate
 bóǰ-óǰ-ɔni- v. to be brittle
 bóǰ-ɔni- v. to be orangish
 bóǰ-óǰ-óm-ɔni- v. to be sleepy-
 eyed

bɔɔɔkɔkɔ- *n.* cone of tobacco
 bɔɔɔ-ɔni- *v.* 1) to be tired, bored
 bɔɔɔ-ɔni- *v.* to be expansive
 bɔɔɔɔ-ɔni- *v.* to cry out in fear
 bɔɔɔy-ɔni- *v.* to be gapped
 bɔs-ési- *v.* to contribute
 bɔt-ési- *v.* to shave
 bu-an-óni- *v.* to get lost, disappear
 búá- *n.* cloud of dust; cf. *búré-*
 bubua- *n.* 1) belly 2) underneath
 bubuɔ-án-óni- *v.* to blister
 bud-ési- *v.* to hide oneself
 búd-esi- *v.* to hide sth.
 buɔama- *n.* darkness
 buɔ-ám-óni- *v.* to be dark, black
 buɔ-úd-óni- *v.* to be soft
 buf-úd-óni- *v.* to be spongy
 buk-óni- *v.* to lie prostrate
 bukuk-ánóni- *v.* to lose sleep
 bukur-esí- (*bukúr-*) *v.* 1) to cover
 up 2) to spill
 bukú- *n.* marriage (all aspects)
 bul-óni- *v.* 1) to be empty, vacant
 bulukétí- *n.* container for liquids
 bulúkúm-óni- *v.* to be thick
 bun-óni- *v.* to join up with
 búɔeni- *n.* moss
 buré- *n.* dust; cf. *búá-*
 bur-ád-óni- *v.* to be soft
 buratsi- *n.* bat-eared fox
 burukái- *n.* Turkana-land
 burukutsi- *n.* kneecap
 busubusi- *n.* water lily

bút-ési- *v.* to drink like a cow
 butsa- *n.* bird playground
 búúbu-an-óni- *v.* to be scarce, rare
 bubuná- *n.* 1) hot ember 2) bullet
 buláj-ám-ɔni- *v.* to be weak
 bulobolátí- *n.* *Drimia Altissima* pl.
 bur-ɔni- *v.* 1) to jump 2) to fly

B6

ɔaaɔ-án-óni- *v.* to be cracked
 ɔaɔar-án-óni- *v.* to sit waiting
 ɔajɔ- *n.* *Boscia angustifolia* tree
 ɔakɔbák-ɔni- *v.* to be bitter
 ɔalájí- *n.* toothbrush tree
 (*Salvadora persica*)
 ɔal-íd-ɔni- *v.* to glisten
 ɔaɔ-ɔni- *v.* to be loose
 ɔárik-ík-óni- *v.* to be piquant
 ɔarɔbár-ɔni- *v.* to be medium-sized
 ɔar-óni- *v.* to be sour
 ɔáts-ési- *v.* to stir to cool
 ɔatsil-ár-óni- *v.* to have an
 unpleasant taste
 ɔek-án-óni- *v.* to be immoral
 ɔel-ém-óni- *v.* 1) to crack 2)
 daybreak
 ɔets'-óni- *v.* 1) to be white, clear
 2) to be clean
 ɔéɔél-ési- *v.* to divide
 ɔeɔé-ɔni- *v.* to have a burning
 sensation
 ɔek-ét-ɔni- *v.* to hatch
 ɔekɔbék-ɔni- *v.* to rustle

- βεκ-έσι- *v.* to walk
 βεκ-ετ-έσι- *v.* to accost
 βελ-έσι- *v.* to crack
 βετ-έλ-έμ-ωνι- *v.* to be shallow and wide
 βετς'-ιδ-ζδ-ζνι- *v.* to be whitish
 βιβα- *n.* egg
 βιλ-έσι- *v.* to cut out
 βιλ-ίμ-όνι- *v.* to get punctured
 βιρ-ίδ-ονι- *v.* to be soggy
 βιρ-ίμ-όνι- *v.* to break
 βιβίτ-έσι- *v.* to drink by sucking
 βιλίβιλ-έσι- *v.* to break into pieces
 βισά- *n.* spear
 βοό- *n.* escarpment
 βοβ-ονι- *v.* to be deep
 βοβόσα- *n.* perfume made from the *Terminalia brownii* tree
 βoko-άν-ετ-ονι- *v.* to be purple
 βολιβόλι- *n.* 1) goiter 2) waddle 3) hood of a vehicle
 βόλισο- *n.* *Croton dichogamus* plant
 βολόο- *n.* small red gourd
 βολokotsi- *n.* small oblong gourd
 βολ-óm-όνι- *v.* to break off
 βολόη-óm-ονι- *v.* to be circumcized
 βοηι- *n.* edible plant species (*Balanites pedicellaris*)
 βóρέ- *n.* livestock corral (kraal)
 βotoηυ- *n.* 1) pounded white ants 2) bunch of bananas
 βotsátí- *n.* chisel, drill
 βots-ετ-έσι- *v.* to pluck out
 βóκωηι- *n.* slope, bank
 βóλέ- *n.* shin
 βóη-ζνι- *v.* to be nearly ripe
 βóρίτ-ωνι- *v.* to have pus
 βorót-ζm-ωνι- *v.* to be thick, of blood
 βoróts-ζm-ωνι- *v.* to be wet
 βotú- *n.* dry leftover maize mush
 βυκ-έσι- *v.* to lift up
 βύκ-όνι- *v.* 1) to enter 2) to commit adultery
 βυλúr-úm-ονι- *v.* to scar over
 βúrukúk-όνι- *v.* to sprout
 βutúr-úm-ονι- *v.* to short and thick
 βu-um-όνι- *v.* to get dislocated
 βυkúláa- *n.* Gerrard's acacia (*Acacia gerrardii*)
 βυλ-εσι- *v.* to rush out
 βυν-εσι- *v.* to cut a tubular object
 βυν-ωνι- *v.* to pass by
 βυν-úm-ζνι- *v.* to scatter
Cc
 caalí- *n.* cooking stone
 ceímá- *n.* oil
 cédicedíi- *n.* game of hopscotch
 cekí- *n.* woman, wife
 céηά- *n.* joke
 ceβení- *n.* wooden spatula
 céb-εσι- *v.* to shape stone
 ce-εσι- *v.* 1) to kill 2) to injure

cemeri- *n.* herb
 cem-ɔni- *v.* to fight
 ceɲá- *n.* woodpecker
 cici-an-óni- *v.* to repent
 cicidea- *n.* bird species
 cíkóroí- *n.* boundary
 cíkó- *n.* male
 cikámá- *n.* women, wives
 ci-ɔni- *v.* to be satiated
 cook-ési- *v.* to shepherd
 coorí- *n.* bangle
 cu-an-óni- *v.* to be liquid
 cucué- *n.* moist chill
 cucu-an-óni- *v.* to feel compassion
 cué- *n.* 1) water 2) girl
 cúkúǵumu- *n.* male mountain
 reedbuck
 cúrúku- *n.* 1) bull 2) male

Dd

dabija- *n.* bird species
 dab-úd-oni- *v.* to be mushy
 dadáɲi- *n.* my grandmother
 dadati- *n.* his/her grandmother
 dádo- *n.* your grandmother
 dakú- *n.* 1) tree, plant 2) wood
 dalisa- *n.* *Dolichos oliveri* plant
 dájá- *n.* white ants (termite sp.)
 deké- *n.* leather hind-apron
 deku- *n.* quarreling
 demio- *n.* Wild olive (*Olea europaea africana*)
 d-et-ési- *v.* to bring

dew-oni- *v.* to be strong
 deá- *n.* 1) foot, leg 2) footprint 3)
 wheel
 dedesa- *n.* willow warbler
 dég-em-ɔni- *v.* to bend down
 deɲ-éd-ɔni- *v.* to be squat
 deɲel-esí- (deɲél-) *v.* to raise the
 leg to kick
 der-éd-ɔni- *v.* to be anemic, feeble
 deréki- *n.* 1) wasp 2) desert rose
 (*Adenium obesum*)
 didii- *n.* 1) weather 2) rain
 didisá- *n.* female pudendum
 dikwá- *n.* dance, song
 dililits'á- *n.* biting gnat species
 dim-ési- *v.* to refuse, reject
 diridír-óni- *v.* to be sugary sweet
 dir-íd-oni- *v.* to be hard when full
 dirijjǵi- *n.* gums (in the mouth)
 diyo- *n.* sitting place, courtyard
 díkw-ési- *v.* to rest the head on a
 stool as a pillow
 dodíkí- *n.* plant sp. (*Canthium*)
 dódoku- *n.* malnutrition,
 kwashiakoor
 dód-oni- *v.* to hurt, ache
 dodí- *n.* vagina
 dokira- *n.* old honeycomb
 dol-ési- *v.* 1) to blossom 2) to pull
 back the foreskin
 dololots'í- *n.* soaked sorghum
 dómá- *n.* pot
 dón-ési- *v.* to donate

do-oni- (da-) *v.* 1) to be nice 2) to be beautiful
 dos-ésí- *v.* to thatch
 doj-ésí- *v.* to attempt
 dɔdɔmɔr-óni- *v.* to look timidly
 dɔdɔr-ɔni- *v.* to scoot on buttocks
 dokof-i-esí- *v.* to express hatred
 dóba- *n.* mud
 doja- *n.* eye drainage
 doj-és-úkotí- *v.* to berate
 duk-és-ukotí- *v.* to take
 duláts'ám-oni- *v.* to be juicy-fat
 dúlúkukúu- *n.* small round gourd
 dul-úm-óni- *v.* to have sudden diarrhea
 dún-ésí- *v.* to be old
 dununú-oni- *v.* to be tiny
 dujúl-úm-oni- *v.* to be blunt
 dúsé- *n.* plains below escarpment
 duj-úd-oni- *v.* to be mushy
 dób-ésí- *v.* to mix with water
 dób-esi- *v.* to catch with hands
 duǎǎre- *n.* water beetle
 dúg-um-ɔni- *v.* to be paralyzed
 dum-éǎ-ém-ɔni- *v.* to be talkative
 domóná- *n.* dung beetle
 durudurá- *n.* 1) black boring insect 2) radio 3) phone
 dzabula- *n.* female lesser eland
 dzál-óni- *v.* to cry for no reason
 dzara- *n.* red-billed oxpecker
 dzer-ésí- *v.* to tear
 dzibéri- *n.* axe

dzígwa- *n.* commerce
 dzinjá- *n.* base of slope
 dzóga- *n.* *Pappea capensis* tree
 dzoni- *n.* well, source
 dzɔɔ-ét-óni- *v.* to be greedy
 dzolug-án-óni- *v.* to leave angrily
 dzuú- *n.* theft, thievery
 dzúkudzuk-i-esí- *v.* to keep promising but postponing

Dɔ

dáda- *n.* honey
 dáǎít-ésí- *v.* to eat or drink indiscriminantly
 dáǎk-óni- *v.* to talk thickly
 dáǎút-ésí- *v.* to hit, strike
 dámu- *n.* brain
 dámat-ésí- *v.* to pelt
 dámidám-óni- *v.* to dance happily
 dámusu *adv.* 1) fast 2) *conj.* unless 3) before
 dápál-ám-ɔni- *v.* to be flat-sided
 dáráǎár-án-óni- *v.* to shed
 dáráám-óni- *v.* to scratch bloody
 dáas-oni- *v.* to be flat (e.g. an area)
 dátáǎát-án-óni- *v.* to be rotten
 dátáǎ-ám-oni- *v.* to be flat-sided
 dátólóǎ-oni- *v.* to purge
 dáu- *n.* 1) knife 2) propeller blade
 déretú- *n.* Sudam gum arabic/Three-thorned acacia (*Acacia senegal*)
 déró- *n.* rat, mouse

desédés-án-óni- *v.* to be cracked
in pieces
dewení- *n.* *Berchemia discolor* tree
dede-an-óni- *v.* 1) to rush, gush 2)
to flare 3) to pitter-patter
dǎfǎ- *n.* small animal skin
dǎge- *n.* Tamarind tree seeds
dǎka- *n.* butter churn
dǎkw-ɔni- *v.* to be tasteless
dǎl-ém-óni- *v.* to continue
dǎl-ɔni- *n.* to latch onto with teeth
dǎm-éd-ɔni- *v.* to be talkative
dǎpɔdɔp-ɔsí- *v.* to lie around
dǎp-éd-ɔni- *v.* to be thin and flat
dǎɛtsa- *n.* pieces of kindling
dǎs-ém-óni- *v.* to be cut off
detédét-án-óni- *v.* 1) to be
scattered 2) to laugh
hysterically
dǎt-ési- *v.* to blow a blowgun
dǎtsidǎts-óni- *v.* to stink badly
dǎudǎw-óni- *v.* to be hollow
dǎ- *pro.* ones
dǎaká- *n.* infant, baby
dǎde- *n.* 1) donkey 2) vehicle
dǎití- *n.* bird species
dǎp-ím-óni- *v.* to sediment
dǎró- *n.* semen, sperm
dǎribó-óni- (dǎribá-) *v.* to be too
heavy to move
dǎsá- *n.* underworld, hell
dǎt-ési- *n.* to transplant seedlings

dǎw-óni- *v.* 1) to be red 2) to be
well-worn (of footpaths)
dǎ- *pro.* one
dǎdít-ɛt-ési- *v.* to pick-pocket
dǎdít-ɔni- *v.* to take final breaths
dǎn-ósí- *v.* 1) to be stopped up 2)
to be stone-deaf
dǎpɔɔ- *n.* 1) animal bed 2) open
air market
dǎt-óni- *v.* to be higher
dǎdǎ-ési- *v.* 1) to point 2) to show
dǎdoo- *n.* sheep
dǎdóba- *n.* baby sling
dǎkótsi- *n.* sorghum variety
dǎoli- *n.* abandoned beehive
dǎoɔn-óm-óni- *v.* to have a bad eye
dǎoridór-óni- *v.* to be first-fruits
dǎoróge- *n.* roan antelope
dǎosi- *n.* 1) tree gum 2) candle
dǎotídót-óni- *v.* to be strewn about
dǎow-óni- *v.* to be unspoiled
dǎoɔ-ód-óni- *v.* to be healthy
dǎɔkɔ- *n.* gourd pulp
dǎan(i)- *n./v.* weeding
dǎfá- *n.* shrew
dǎgɔdǎgɔ- *n.* yellow sugar ant
dǎk-ód-ɔni- *v.* to be yummy
dǎkól-óm-ɔni- *v.* to stammer
dǎk-ɔni- *v.* to be wet
dǎle- *n.* 1) small pumpkin 2) ulcer
dǎm-ód-ɔni- *v.* to be gooey
dǎr-ód-ɔni- *v.* to be slippery
dǎsɔ- *n.* *Vigna* plant species

ɔ̄s-ɔ̄d-ɔ̄ni- *v.* to be gummy
 ɔ̄tɔ̄- *n.* rubber
 ɔ̄ts-ésí- *v.* to add, combine
 ɔ̄ʃeati- *n.* star
 ɔ̄ʃ-ɔ̄d-ɔ̄ni- *v.* to be wobbly,
 unstable when walking
 ɔ̄u-esí- *v.* to uproot
 ɔ̄ukesí- *n.* 1) pollen 2) egg yolk 3)
 anything yellow
 ɔ̄uk-ésí- *v.* to walk stiffly
 ɔ̄uk-ú-d-óni- *v.* to be round
 ɔ̄uk-úm-óni- *v.* 1) to give off
 smoke, steam 2) to
 disintegrate from overcooking
 ɔ̄ukúk-óni- *v.* to be secretly sick
 ɔ̄úlút-ésí- *v.* to flatulate loudly
 ɔ̄úra- *n.* fetus
 ɔ̄us-ésí- *v.* to scoop out
 ɔ̄us-úm-óni- *v.* to snap apart
 ɔ̄uta- *n.* big gourd for water
 ɔ̄ut-ú-d-óni- *v.* to be utterly rotten
 ɔ̄okái- *n.* honey-beer mash
 ɔ̄om-ésí- *v.* to pick up
 ɔ̄om-ú-d-ɔ̄ni- *v.* to be well-cooked
 ɔ̄úr-ésí- *v.* to pull out

Ee

ɛakwá- *n.* man, husband
 ɛaŋan-esí- *v.* to be happy, joyful
 ɛasí- *n.* truth
 ɛbet-i-esí- *v.* to insult, mock
 ɛbút-óni- *v.* to roar
 ec-óni- *v.* to move out of the way

édi- *n.* name
 éd-esi- *v.* to carry on the back
 edí- *n.* grain(s)
 eg-ésí- *v.* to put
 eí- *n.* chyme
 é-it-et-ésí- *v.* to fill up
 ekú- *n.* 1) eye 2) seed 3) headlight
 emin-ésí- *v.* to pull
 em-óni- *v.* to swell
 émúr-óni- *v.* to suffer from pain
 emusia- *n.* *Euclea schimperi* plant
 emutí- *n.* 1) story 2) news
 en-ésí- *v.* 1) to see 2) to
 understand
 eŋúnú- *n.* lastborn
 ɛoo- *n.* leather bag
 ɛód-óni- *v.* to be full
 ep-óni- *v.* 1) to lie down 2) to
 sleep 3) to have sex
 erég-esí- *v.* 1) to use 2) to send
 érit-óni- *v.* to fill white-ant
 trapping holes
 eruméní- *n.* spear shaft
 erúná- *n.* nocturnal termite
 erut-án-óni- *v.* to low (of cows)
 erúts-óni- *v.* to be new, fresh
 erúʃ-óni- *v.* to have loose stool
 eset-ésí- *v.* to ask
 ets'í- *n.* feces
 eúze- *n.* male cape buffalo
 ewédi- *n.* small, bitter, white wild
 potato sp. (*Dioscorea*)

Εε

ξάνι- *n.* a woman's sister-in-law

έβα- *n.* 1) animal horn 2) gun

εδά *adv.* only

εφ-ωνι- *v.* 1) to be tasty 2) to be fun 3) to be funny

εκεύ- *n.* muscle fiber

εkw-ωνι- *v.* to be ahead

έμίτ-ωνι- *v.* 1) to wheeze 2) to groan in pain

έν-ές-υκωτί- *v.* to take by force

εom-ώδ-ωνι- *v.* to be weak

έςά- *n.* drunkenness

εsά- *n.* termite(s)

Ff

φάδο- *n.* scale

φάδ-ικό- *n.* pangolin

φαδ-ετ-έςι- *v.* to remove a thorn

φαδ-έτ-όνι- *v.* to feel well-being

φαδ-ονι- *v.* 1) to be bitter 2) to prophesy

φαιδο- *n.* ebony tree species

φak-άδ-ονι- *v.* to be broad

φαl-ονι- *v.* to go without food

φάτara- *n.* vertical ridge

φάts-ώνι- *v.* to lie face-up

φέ-έςι- (φά-) *v.* to boil

φέι- *n.* bath

φεk-ονι- *v.* to laugh

φενί- *n.* 1) digging stick 2) horn hoe

φeni- *n.* breaking wind

φέ-όνι- *v.* to bathe

φετί- *n.* 1) sun 2) thirst 3) clock

φεtifeτι- *n.* nape of neck

φεν-έδ-ωνι- *v.* to be gorged

φετέλ-έμ-ωνι- *v.* to be shallow

φif-ονι- *v.* to pester, annoy

φiifí-όνι- *v.* to be a cool breeze

φirifir-án-όνι- *v.* to come and go as a vagabond

φir-ím-όνι- *v.* to be so full it hurts

φίrits'ári- *n.* bird species

φίrits'-έςι- *v.* to trample

φίρ-όνι- *v.* to be thick like a full sack of grain

φίт-ési- *v.* to wash, clean

φit-íd-ονι- *v.* to be dull

φófóta- *n.* path

φój-όνι- *v.* to whistle

φolól-óm-ονι- *v.* to be unobstructed

φol-ονι- *v.* to shed

φotól-όνι- *v.* to be a clear pathway

φotsa- *n.* gorge, steep valley

φóδέ- *n.* 1) loincloth 2) mudflap

φófód-ώνι- *v.* 1) to be flakey

φok-ώδ-ωνι- *v.* to be lightweight

φót-ési- *v.* to winnow

φots'-ώδ-ωνι- *v.* to be barren (land)

φujúl-úm-ονι- *v.* to be sloped

φúlukurúu- *n.* turaco

φur-έςι- *v.* to scavenge

φút-ési- *v.* to blow

futs'áts'-ési- v. to put down
carelessly
fúts'-i-esí- v. to resuscitate
fúút-oni- v. to breathe

Gg

gaan-óni- v. 1) to be bad 2) to be
dangerous 3) to be angry
gaďára- n. slime
gaď-ési- v. to not be enough
gaď-oni- v. 1) to vandalize 2) to
be commit domestic violence
gafar-i-esí- v. to scoop up and eat
with fingers
gafigafi- n. 1) lung 2) radiator
gaga-an-óni- v. to laugh while
talking
gái *quant.* both
gaj-ád-oni- v. to talk thickly
gak-ím-óni- v. to be invalid
gák-óni- v. to leave before dawn
gakúr-úm-oni- v. to be bad-
tempered
gam-ési- v. to kindle a fire
garaji- n. *Sterculia stenocarpa* pl.
gár-ési- v. to serve food
gasara- n. cape buffalo
gasoo- n. warthog
gats-ád-oni- v. to be rocky
gaús-úm-oni- v. to be shaggy
gázadı- n. red-pod terminalia
(*Terminalia brownii*)
gég-esi- v. to guzzle

gebejí- n. *Boscia coriacea* plant
gefá- n. 1) blemish 2) ascites
gefer-esí- (gefér-) v. to stab
gida- n. cloud
giga- n. elephant trunk
gígiro- n. down
gijita- n. razor
gir-ési- v. to keep
girúu- n. locust, cricket
gíj-ési- v. to shave hair
gızár- n. concave surface of
grinding stone
gob-ét-óni- v. to look like rain
godíi- n. *Diospyros scabra* tree
góg-esi- v. to pierce, perforate
gogoroji- n. 1) spine 2) midrib
gógor-om-oni- v. 1) to be spinal
2) to be ridge-like
gok-oni- v. 1) to be awake, alert
2) to have sexual relations
with a sleeping partner
gók-óni- v. to be seated
gomóía- n. *Maerua pseudopetalosa*
plant
gomojoji- n. *Cyperus distans* plant
gone *prep.* until, up to
gon-ési- v. to look, check on
gon-és-ét-oni- v. to wake up
góóz-ési- v. 1) to throw 2) to
neglect 3) to vote
gór-ési- v. 1) to go over 2) to pass
an examination
gózou- n. mist, fog

gəb-ʒd-ɔni- *v.* to be impenetrable
 gəfɛɛ- *n.* bee larva
 gəgɔmɔ- *n.* breastbone
 gəgɔr-ɔni- *v.* to be very old
 gɔka- *n.* larynx, voicebox
 gɔk-ʒd-ɔni- *v.* to be stiff, unsupple
 gɔlɔgɔl-án-ɔni- *v.* to wind around
 gɔmɔrú- *n.* Nubian acacia (*Acacia nubica*)
 gɔné- *n.* 1) stump 2) splinter
 gɔrɔgɔrɔ- *n.* 1) hoof 2) bare foot
 gubesi- *n.* thigh
 gub-ési- *v.* to cover
 gúfús-amá- *n.* burnt piece of wood
 gufá- *n.* foam, froth
 guje- *n.* *Commelina* plant sp.
 gúró- *n.* 1) heart 2) abdomen 3) soul, spirit 3) engine 4) battery
 gúr-án-ɔni- *v.* to be quick-tempered
 guðérá- *n.* leopard
 gura- *n.* Sickle bush (*Dichrostachys cinerea*)
 guts'ur-esí- (guts'úr-) *v.* to chase angrily
 gwaá- *n.* bird
 gwaa- *n.* stomach
 gwaít-ɔni- *v.* to leave angrily
 gwaíts'í- *n.* 1) giraffe 2) camel
 gwajɔ- *n.* belly
 gwalátí- *n.* lip plug

gwám-ɔni- *v.* to stand
 gwaní- *n.* 1) lesser galago (bushbaby) 2) trousers
 gwar-ési- *v.* to throw downward
 gwaría- *n.* top
 gwarie- *n.* top
 gwasá- *n.* 1) stone, rock 2) grinding mill 3) nugget 4) battery 5) medal
 gwegwer-it-i-esí- *v.* to scribble
 gwel-ɔni- *v.* to forget
 gwéts'-ɔni- *v.* to be sweet
 gweréj-éj-ɔni- *v.* 1) to be dishevelled 2) to be gaunt
 gwié- *n.* grove, stand of trees
 gwid-íd-ɔni- *v.* to be limber
 gwir-ɔni- *v.* to jump up and down

Hh

haak-on-ukotí- *v.* 1) to lose one's way 2) to fail 3) to be sorry
 habu- *v.* beehive in a tree
 háb-ɔni- *v.* 1) to be hot 2) to be stingy
 hádaad-án-ɔni- *v.* to be a poor shot
 hádol-om-ɔni- *v.* to not match, fit
 haj-ád-ɔni- *v.* to be loosely tied
 hakaik-ési- *v.* to forget
 hákát-ɔni- *v.* to be boastful
 hakw-ési- *v.* to gather wild game, esp. white ants
 hamuj-ési- *v.* to grind finely

háré- *n.* diarrhea
 harít-óni- *v.* to have diarrhea
 haúu- *v.* hyena
 ha-úd-ɔni- *v.* to be cooked tough
 heḃúl-úm-oni- *v.* to be pot-bellied
 hir-oni- *v.* to see quickly
 híjɔ *adv.* 1) slowly 2) carefully
 híkɔɔ- *n.* chameleon
 híwƙónɔ- *n.* bedroom
 hoo- *n.* house, hut
 hoɔ-ésí- *v.* 1) to free 2) to take off
 (clothing) 3) to divorce
 hoɔ-óm-óni- *v.* to come free, loose
 ho-esí- *v.* 1) to cut 2) to butcher,
 dress an animal
 hɔn-ésí- *v.* to drive
 hón-ési- *v.* to chase animals
 hótɔɔ- *n.* bustard, heron
 húbut-ésí- *v.* to step deep into
 hurémú- *n.* leaves eaten raw

H'fi

fiye-esí- (*íjɛ-) *v.* to know
 fiɛga- *n.* bone marrow
 fiyɔɔ- *n.* cow, cattle
 fiyɔtɔg-ɔni- *v.* to be near, close
 fiyéɔ-ón-ɔkɔtí- *v.* to step aside
 fiyek-esí- *v.* to live, be alive
 fiyena- *n.* vomit
 fiyet-ɔni- *v.* to be fierce
 fiyɔkɔmú- *n.* neck

Ii

iálólóŋ-óni- *v.* to be worried
 íban-oni- *v.* to leave in late
 afternoon or evening
 íbétí- *n.* *Commiphora africana* tree
 íboboí- *n.* bird species
 íbob-ot-osí- *v.* to be tied together
 íboɔól-ésí- *v.* to put aright
 íbof-oni- *v.* to make an alarm call
 (of antelopes)
 íbok-ésí- *v.* to keep for
 tomorrow's collection
 íbotá- *n.* 1) pumpkin sp. 2) dried
 pumpkin or cucumber peel 3)
 wrist-knife
 íbot-oni- *v.* to jump
 íbuɔ-ésí- *v.* to trample
 íbunuts-ésí- *v.* 1) to sprain 2) to
 set a bone fracture
 íburubur-oni- *v.* to sprinkle flour
 íbuts-ésí- *v.* 1) to beat out 2) to
 collect firewood after a fire 3)
 to look for sth. lost
 íbélé-ésí- *v.* 1) to change 2) to
 turn (over) 3) to roll a hen
 over a sick person
 íbérá-án-óni- *v.* to be energetic
 íbílé-oni- *v.* to be forgetful
 íbóból-ésí- *v.* to strip off bark,
 skin
 íbóbór-ósí- *v.* to be hollow
 íbok-esí- (íbók-) *v.* to dangle
 íbol-et-ésí- *v.* to promise

- íbolífból-i-esí- *v.* to rummage
 íbólóŋ-ésí- *v.* to circumcise
 íbonífbón-i-esí- *v.* to touch affectionately
 íbóŋ-óni- *v.* to repeat, redo
 íbóót-án-ósí- *v.* to be unfriendly
 íbúbú-ésí- *v.* to clear land early
 íbúlí-án-óni- *v.* to have nothing
 íbúŋé-ésí- (íbúŋá-) *v.* 1) to punish severely 2) to torture
 íbur-esí- (íbúr-) *v.* to replant
 íbut-esí- (íbút-) *v.* 1) to give aid 2) to pay dowry
 íbuts-úm-ét-óni- *v.* to be mistaken
 íbutúbút-ésí- *v.* to dump
 íbutúbút-óni- *v.* to be thick like a tree trunk
 íbwat-esí- (íbwát-) *v.* to handle roughly
 ícé- *n.* Ik people
 ícé-áma- *n.* Ik person
 ídeme- *n.* 1) snake 2) tapeworm
 ídir-ésí- *v.* to knock
 ídul-óni- *v.* to be a wave
 íduludul-ésí- *v.* to knead
 ído- *n.* 1) breast, teat 2) milk
 ídzan-an-esi- *v.* to be well-off
 ídz-esi- *v.* to shoot
 ídz-óni- *v.* to ooze clear liquid
 íďaiy-esí- (íďaí-) *v.* to keep back
 íďás-óni- *v.* to lie in silent ambush
 íďéďéŋ-ésí- *v.* to swell (lymph nodes)
- idékee- *n.* airplane; fr. Swahili *ndege* 'bird, airplane'
 iden-esí- (idén-) *v.* to take on credit; fr. Swahili *deni* 'debt'
 idenǵidén-ésí- *v.* to do on purpose
 idík-óni- *v.* to coagulate, clot
 idíl-esí- (idíl-) *v.* to beat severely
 idíl-óni- *v.* 1) to be halfway through 2) to be full
 idódók-ésí- *v.* 1) to heap in one place 2) *n.* outer baby sling
 idok-esí- (idók-) *v.* 1) to add on top 2) to pour in drops
 idókól-i-esí- *v.* to collect the remainder
 idolídól-óni- *v.* 1) to be patched or spotted 2) to get rusty 3) *n.* blight
 idómé-ésí- *v.* to take turns
 idómó-ésí- *v.* to toss in the mouth
 idon-esí- (idón-) *v.* to beat
 idos-esí- (idós-) *v.* to neuter by crushing spermatid cords
 idót-óni- *v.* to hop, jump
 idúkó-ós-óni- *v.* to stay put
 idúz-óni- *v.* to run away
 idyat-esí- (idyát-) *v.* to put contributions together
 ifáfúk-óni- *v.* to resuscitate
 ifófó-ésí- *v.* to eat crops early
 ifúkúfuk-ésí- *v.* to sniff
 ifúl-óni- *v.* to go before dawn

- ifulúfúl-*oni*- *v.* to have explosive
diarrhea
- ígom-*oni*- *v.* 1) to bark 2) to strut
- ígor-*ésí*- *v.* to jump or go over
- ígujuguj-*oni*- *v.* to be busy
- ígulaj-*oni*- *v.* to bubble, boil
- íguma- *n.* unripe, inedible crops
- ijáká-*án-óni*- *v.* to get rich
- ijíñá-*án-óni*- *v.* to ignore someone
- ijok-*esí*- (ijók-) *v.* to lend, entrust
- ijók-*óni*- *v.* to drool
- ijúrúr-*oni*- *v.* to look down shyly
- iká- *n.* head
- ikábur-*ésí*- *v.* to wrap the body
- ikábób-*oni*- *v.* to be skeleton-like
- ikádó-*ésí*- *v.* to mix randomly
- ikaiké-*ésí*- (ikaiká-) *v.* 1) to
remove chaff 2) to whip
- ikálájáár-*án-óni*- *v.* to be unable
to make ends meet
- ikásí-*ésí*- *v.* 1) to work 2) to do;
fr. Swahili *kazi* ‘work’
- ikázane-*esí*- (ikázana-) *v.* to be
determined; fr. Swahili
-*kazana* ‘persevere’
- iked-*osí*- (ikéd-) *v.* to be angry at
relatives
- ikékép-*oni*- *v.* 1) to be steady 2)
to be hard-working
- ikok-*esí*- (ikók-) *v.* to crack bones
to remove marrow
- ikókí-*án-óni*- *v.* to be an orphan
- ikókór-*ésí*- *v.* to walk up a tree
- ikokót-*ésí*- *v.* to follow secretly
- ikókóyaa- *n.* ceremony to initiate
seasonal dances
- ikólíp-*án-óni*- *v.* to be childless
- ikómó-*oni*- (ikómá-) *v.* to hurry
ahead, go ahead
- ikonjókón-*ésí*- *v.* to knock at
- ikonjókón-*oni*- *v.* to live long
- ikón-*óni*- *v.* to swear
- ikópí-*oni*- *v.* to condense
- ikórím-*ésí*- *v.* to side-step
- ikóteré *conj.* because of
- ikudúkúd-*ésí*- *v.* to pick the nose
- iku-*esí*- (ikú-) *v.* to warm up
- ikújí-*án-óni*- *v.* to do miracles
- ikúkúr-*ésí*- *v.* to dig with claws
- ikúrúf-*án-óni*- *v.* to be poor
- ikuts-*esí*- (ikúts-) *v.* to ostracize
- ikutúkút-*oni*- *v.* 1) to walk
backwards 2) to be talkative
- ikwá-*án-óni*- *v.* to be the same
- ikwár-*ét-óni*- *v.* to revive
- ikwílíl-*oni*- *v.* to cry, scream
- ikwó-*óni*- (ikwá-) *v.* to crow
- ikóf-*óni*- *v.* to avoid
- ikók-*í-ósí*- *v.* to be doubtful
- ikól-*és-ukotí*- *v.* to make a score
- ikolota- *n.* gourd without a cover
- ikórúu- *n.* 1) centipede 2)
millipede 3) long semi-trailer
- ikúkúr-*ésí*- *v.* 1) to erode 2) to
scratch (of fowl)
- ikulúkúl-*oni*- *v.* to walk around

- ikúm-únósi- *v.* to hate each other
 ikú-óni- *v.* to cry out
 ikur-esí- (ikúr-) *v.* to stir
 ilábú-ési- *v.* to smoothen with
 water
 iláfúk-óni- *v.* 1) to be nauseated
 2) to have a heart attack
 ilákíz-óni- *v.* to be nauseated
 ilálé-ési- (ilálá-) *v.* to be unfit to
 live with
 ilámáár-án-óni- *v.* to scatter
 ilaη-ési- *v.* to evade
 ilébileb-et-óni- *v.* to float
 iléér-án-óni- *v.* to be clearly seen
 ílegúgu- *n.* black ant species
 iléjí-án-óni- *v.* to work part-time
 ílekóo- *n.* plant species
 iléléb-ési- *v.* 1) to carry in a group
 2) to winnow
 ilélé mú-óni- *v.* to shout
 ilēη-esí- (iléη-) *v.* to be taller
 ilép-óni- *v.* to dance toward the
 girls/women
 ilerílér-óni- *v.* to rap on the head
 ilér-óni- *v.* 1) to be naked 2) to
 sway while walking
 ilérúmó-óni- *v.* to argue over s.b.
 iléúr-ési- *v.* to use a tool to look
 inside something
 ilíán-óni- *v.* to smell of blood
 ílibédé- *n.* green snake sp. (maybe
 Blue racer?); cf. *ilíb-*
- ili-esí- (ilí-) *v.* to smoothen, e.g.
 with beeswax
 ilílí-ósi- *v.* to be seamless,
 unbroken
 ilíít-ési- *v.* to spew a lot of words
 ilííts-ési- *v.* 1) to shake to remove
 dust or water 2) to bite,
 shake, and release
 ilim-esí- (ilím-) *v.* to dip in liquid
 ilímít-ési- *v.* to mention
 ili-osí- (ilí-) *v.* 1) to be hard-of-
 hearing 2) to be patched with
 mud
 ilíré-et-óni- (ilírá-) *v.* to complain
 ilódfīη-án-óni- *v.* to be segregative
 ilókóts-ési- *v.* to exchange equally
 ilor-esí- (ilór-) *v.* to space
 ilots-esí- (ilóts-) *v.* 1) to change,
 transform 2) to translate 3) to
 mistake sth. for sth. else
 ilujúlúj-óni- *v.* 1) to be filled to
 the brim 2) to be divided
 equally
 ilúk-án-et-óni- *v.* to be pointed
 downward (of horns)
 ilúkúts-ési- *v.* 1) to turn 2) to
 barter
 ilúkúr-óni- *v.* to coil up
 ilúlúw-ési- *v.* to go in and out
 ilúη-óni- *v.* to pass by (e.g. time)
 ilúr-óni- *v.* to stay in a hut of
 mourning
 imá- *n.* child

| | |
|---|--|
| imáfíη-án-óni- v. 1) to be impossible 2) to fail to see game on the hunt | iniη-esí- (iníη-) v. to try, test |
| imákó-oni- v. 1) to be twisted up 2) to have a difficult labor | inip-esí- (iníp-) v. to beat severely |
| imámácf-ósi- v. 1) to hang around food 2) to escape cleverly | inípón-oni- v. to be slow |
| imánímán-i-esí- v. to weave | inísó-oni- v. to be arrogant, proud |
| imáúr-oni- v. to be dizzy | ínó- n. animal(s) |
| imedféméd-án-óni- v. to crack | ijal-esí- (ijál-) v. to mix |
| iméník-án-óni- v. to agree but not follow through | ijat-i-esí- v. to bump against |
| imets-esí- v. 1) to overtake 2) to inherit | ijek-és-ukotí- v. to break |
| imímj-esí- v. 1) to raise eyebrows 2) to wink | ijη-esi- v. to knock over |
| imíηó-oni- v. to trespass in a house | ijéts'éy-ooni- (ijéts'éi-) v. to pretend |
| imítír-oni- v. to be blurry, hazy | ijík-óni- v. to show negative emotions on one's face |
| imóníke-esí- (imóníka-) v. 1) to cut upper branches 2) to tangle | ijíηí-esí- v. to rub off, erase |
| imúnúkukú-óni- v. to clench | ijip-esí- (ijíp-) v. to trim (hair or grass) |
| imutúmút-oni- v. to refuse food when angry | ijok-esí- (ijók-) v. to repeat, redo |
| imwáη-óni- v. 1) to look around fearfully 2) to avoid see one's mother-in-law | ijáβól-esí- v. to leave bottom open |
| inákwi-esí- (inákú-) v. to destroy | ijáβúk-esí- v. to grind after pounding |
| inéné-esí- v. to hang, dangle | ijálé-et-oni- v. to get well |
| ín-esi- v. to inhabit, colonize | ijárúr-oni- v. 1) to sprout 2) to have shaving bumps |
| inyám-án-óni- v. to be escorted | ijátsátsó-oni- (ijátsátsá-) v. to straddle |
| inin-esí- v. to get reliable news | ijáwá-án-óni- v. to be open |
| | ijáyé-esí- v. to doubt |
| | ijókí-án-óni- v. to be poor |
| | ijolíηól-ósi- v. to be alert for danger |
| | ijom-esí- (ijóm-) v. to gulp down |
| | i-oni- v. to be (somewhere) |

ipájke-esí- (ipájka-) *v.* to hire,
rent; fr. Swahili *-panga*
ipájw-éesí- (ipájó-) *v.* to move
away
ipár-í-ésí- *v.* to break in, vandalize
ipásó-oni- *v.* to have free time
ipeď-esí- (ipeď-) *v.* to jinx, hex
ipelet-amá- *n.* wood-chip
ip-ésí- *v.* 1) to thresh 2) to thrash,
whip 2) to cast in divination
ipeyé-ésí- *v.* to confirm or initiate
into men's age-group
ip-í-és-ukotí- *v.* to defeat, outdo
ipiipí-oni- *v.* to be air
ipiipíy-eesí- (ipiipí-) *v.* to level
ipír-oni- *v.* to jump and kick
ipík-ésí- (ipíká-) *v.* to beat s.b. on
the rear who is lying down
ipol-esí- (ipól-) *v.* to pull out of
the ground
ipúk-ésí- (ipúká-) *v.* to rule
ipuk-esí- (ipúk-) *v.* to fan, wave
ipúné-ésí- (ipúná-) *v.* to eat a
funeral goat
ipuŋ-esí- (ipún-) *v.* 1) to tilt 2) to
carry in a sheet
ipún-ét-oni- *v.* to find to be so-so
ipúré-ésí- (ipúrá-) *v.* to smoke out
ir-amá- *n.* jerky (dried meat)
iráká-án-óni- *v.* to be jealous
ireŋ-esí- (ireŋ-) *v.* to clear
irepí-án-óni- *v.* to be a ruffian

irer-esí- (irér-) *v.* to observe
closely
ir-ésí- *v.* to slice into strips
ír-ési- *n.* ceremony
irejí- *n.* water-snail shells
irían-oni- *v.* to equal, the same
iríít-ésí- *v.* to ferry, transfer
iriji-osí- *v.* to be tight
irikírík-oni- *v.* to glitter
iriké-ésí- (iriká-) *v.* 1) to polish
with sth. 2) to drag noisily
irikírík-ésí- *v.* to saw
irim-esí- (irím-) *v.* 1) to go in
circles 2) to spy
irío-oni- (iría-) *v.* 1) to stay all
day 2) to fast for a day
irip-et-ésí- *v.* to skim off top layer
iriré-ésí- (irirá-) *v.* to gather up
irírík-ésí- *v.* to reduce heat
iriw-esí- (iríw-) *v.* to fence around
irój-í-ésí- *v.* to search for
unsuccessfully
irok-et-ésí- *v.* to invent, compose
irókó-oni- *v.* to be near death
ir-oni- *v.* to be a certain way
irórík-ésí- *v.* to ceremonially open
the harvest season
irórób-esí- *v.* to do controlled
burning
irórók-ésí- *v.* to hollow out
iróró-oni- *v.* 1) to have a whitish
color 2) to fade in color 3) to
rust through

- irot-esí- (irót-) v. 1) to do
 repeatedly 2) to delegate 3)
 to transfer
 iruḅ-esí- (irúḅ-) v. to chew hard
 foods
 iruk-et-esí- v. to heap in one place
 irúk-óni- v. to sing
 irúpó-oni- v. to rain sporadically
 between wet and dry seasons
 irúrúk-esí- v. to move in and out
 irúrúmó-oni- v. 1) to moan 2) to
 roar, 3) to swarm 4) to hum
 irutuméní- n. front wing or leg
 irúút-esí- v. to break off piece by
 piece
 irwan-esí- (irwán-) v. to multiply
 irwáp-óni- v. to droop shut (of
 eyes)
 irwat-esí- (irwát-) v. to sprinkle
 iryám-ét-oni- v. to get
 iryéṅ-és-ukotí- v. to clear a place
 isi- *interr. pro.* 1) what 2) why
 isálfí-óni- v. to have bad teeth
 isép-óni- v. to flow
 isérá- n. jackal
 isérér-oni- v. 1) to be upright 2)
 to move straight ahead
 isésél-esí- v. to prune, trim
 isídó-oni- v. to remain behind
 isipísíp-oni- v. to jog
 isir-esí- (isír-) v. 1) to decorate 2)
 to dress up 3) to embroider
 isísé-esí- (isísá-) v. 1) to practice
 2) to hum
 isísí-éesí- v. to narrate, recount
 isítíye-esí- (isítíya-) v. to use
 ísó- n. flood, flow
 isókói- n. *Euphorbia* tree sp.
 isók-óni- v. to go early
 isómé-esí- (isómá-) v. to read; fr.
 Swahili *-soma* 'read'
 is-oni- v. to be heavy
 isó-óni- (isá-) v. 1) to do first 2) to
 eat first, before elders
 isuč-esí- (isúč-) v. to lie
 isw-eesí- (isu-) v. to break wind
 silently
 isyón-óni- v. 1) to have pity 2) to
 forgive
 ifukúfúk-esí- v. to bend down and
 shake
 itálé-esí- (itálá-) v. to menstruate
 itál-í-án-óni- v. to be forbidden
 it-amá- v. carrion
 ítán-oni- v. to hope, daydream
 itárákáṅ-esí- v. to pretend
 itébúk-oni- v. 1) to swell 2) to be
 stuffed 3) n. rabies
 ited-esí- (itéč-) v. to section a
 fallen tree
 itékél-esí- v. to dam up
 itékíték-esí- v. to nod the head
 itel-esí- (itél-) v. 1) to look (at) 2)
 to watch 3) to care for

itém-óni- *v.* 1) to fit 2) to be right,
 fitting 3) to be enough
 iterítér-óni- *v.* to move with
 balance
 ít-ési- *v.* 1) to find 2) to check on
 itétém-ési- *v.* 1) to describe 2) to
 evaluate 3) to copy
 it-ét-óni- *v.* to come back
 itífb-esi- *v.* to pack, arrange
 itífbítífb-ési- *v.* to cut into planks
 itík-ési- (itík-) *v.* to hold down
 itík-i-es-úkotí- *v.* to rape
 itíkítík-óni- *v.* to feel faint
 itíη-ési- *v.* to cook
 ití-óni- (ité-) *v.* to go back
 itíón-óni- *v.* 1) to be difficult 2) to
 be important 3) to be
 expensive
 itípé-ési- (itípá-) *v.* to pacify
 itírák-ési- *v.* 1) try 2) to catch in
 the act 3) to skid to a stop
 itírítír-ési- *v.* to stomp
 itírón-óni- *v.* to be fast
 itítík-ési- *v.* to hold back
 itítíη-óni- *v.* to be brave-hearted
 itítír-ési- *v.* to protect, defend
 itíyé-ési- (itíyá-) *v.* to do, make
 itób-ési- (itób-) *v.* to interrupt
 itodítód-ési- *v.* to peck
 itókóko-óni- *v.* to be thin
 ít-óni- *v.* to be a certain size or
 quantity
 itoη-et-ési- *v.* to change

itóηíl-ési- *v.* to make teeth ache
 with coldness
 itóηó-óni- *v.* to doubt, be unsure
 itópén-óni- *v.* to be ugly
 itosítós-ési- *v.* to peck
 itówé-ési- (itówá-) *v.* to bless
 seeds to mark the new year
 itóyé-ési- (itóyá-) *v.* to cut after
 spearing
 itsádén-ési- *v.* to witness
 itsedítséd-óni- *v.* to hop
 itsékó-óni- (itséká-) *v.* to climb on
 itséléli-óni- *v.* to perch
 itsen-ési- (itsén-) *v.* to beg
 manipulatively
 itsód-óni- *v.* 1) to limp 2) to split
 up in search of game
 itsó-ít-és-ukotí- *v.* to satisfy
 hunger for meat
 itsókó- *n.* sunbird
 itsólá- *n.* bird sp.
 itsópó-óni- *v.* to have sharp eyes
 itsudútsúd-ési- *v.* to plant close
 together
 itsulútsúl-ési- *v.* to mix, mingle
 itsúm-ési- (itsúm-) *v.* to pierce
 itsúr-óni- *v.* to keep boiling
 itsúrú-ési- *v.* to spear a cow
 itsw-eesí- (itsu/itso-?) *v.* to
 cauterize
 itsyák-ét-óni- *v.* to begin
 itsyát-óni- *v.* 1) to be resistant 2)
 to recover from illness

- its'ópó-*oni-* *v.* to be attentive
 itúbá- *n.* 1) trough 2) boat, canoe
 itudútúd-*ésí-* *v.* 1) to be multi-colored 2) to plait patterns
 ituk-*ésí-* (*itúk-*) *v.* to gather up
 itúkúf-*oni-* *v.* to bend
 itúlákáη-*ésí-* *v.* to gulp liquid
 itúlér-*on-ukotí-* *v.* to utterly forget
 itúlúm-*oni-* *v.* to hurdle
 itúm-*ét-oni-* *v.* to spend time with
 itúmúr-*án-óni-* *v.* to be unaware
 itúr-*óni-* *v.* to be proud
 itúrúm-*ésí-* *v.* to treat unfairly
 iturútúr-*ésí-* *v.* 1) to pitter-patter
 2) to burp a baby
 itúts-*óni-* *v.* 1) to be blackish 2) to give off a musky odor
 itútú-*ésí-* *v.* to dust off
 itútúr-*ósí-* *v.* to be round, circular
 itúúm-*ésí-* *v.* to act abruptly
 itwáη-*óni-* *v.* to lose the way
 itwar-*ésí-* (*itwár-*) *v.* to chase off
 itwelítwél-*ósí-* *v.* to be black with spots
 itweńítweń-*oni-* *v.* to twinkle
 ityak-*ésí-* (*ityák-*) *v.* to forge
 ĵukúúk-*ésí-* *v.* to ram in
 iwák-*óni-* *v.* 1) to make an alarm
 2) to weep loudly 3) to ring (of ears)
 iwakúwák-*oni-* *v.* to flap wings
 iwálíl-*oni-* *v.* to go off course
 iwaη- *v.* to get warm by a fire
 iwásí-*oni-* *v.* to be first/last in line
 iwatíwát-*ésí-* *v.* to bite and toss
 iwe-*ésí-* (*iwá-*) *v.* to cool with a big spoon
 iw-*ésí-* *v.* 1) to hit, strike 2) ring
 3) to take a picture
 iwéwér-*ésí-* *v.* to whistle to locate a honey-guide (bird)
 iwíη-*ésí-* *v.* to singe
 iwítíwít-*oni-* *v.* to swerve, dodge
 iwítsíwíts-*ésí-* *v.* to wag
 iwíts-*óni-* *v.* to fly noisily
 iwodíwódf-*ésí-* *v.* to insert into a hole
 iwol-*et-ésí-* *v.* to be a page
 iwóη-*óni-* *v.* to praise oneself
 iwór-*óni-* *v.* to wander from home
 iwós-*ét-oni-* *v.* to be impassably steep
 iwótsí- *n.* mortar
 iwots-*ésí-* (*iwóts-*) *v.* to pound with mortar and pestle
 iwóts-*óni-* *v.* to be pointed
 iwówé-*ésí-* (*iwówá-*) *v.* to dust
 iwówór-*ésí-* *v.* 1) to whistle 2) to make a large hole
 iwúlák-*ésí-* *v.* to arrate, loosen soil
 iwúp-*óni-* *v.* 1) to walk, swaying the head 2) to bow
 iyalíyál-*oni-* *v.* to feel sleepy all the time
 iyaη-*ésí-* (*iyáη-*) *v.* to insult

iyañíyáñ-*oni*- *v.* to feel thirsty all
the time

íye-*esí*- (*íʒe-) *v.* to know; cf. *fiye*-

iyér-*óni*- *v.* to be twisted

iyétsé-et-*esí*- *v.* 1) to pour 2) to
miscarry

iyíkíyík-*esí*- *v.* to move forward

iyíyé-*esí*- *v.* to ululate

iyolíyól-*esí*- *v.* to lower by rope

iyom-*amá*- *n.* work of art

i(y)-*oni*- *v.* to be (somewhere)

iyoníyón-*esí*- *v.* to shake buttocks

iyó-*óni*- *v.* to be right

iyopíyóp-*oni*- *v.* 1) to jump up
and down 2) to dance (of
women) 3) to see-saw

iyóp-*óni*- *v.* to bend down

iyótsó-*ósí*- *v.* to be deliberate

ízícf-*oni*- *v.* to speak little

ízokom-*esí*- *v.* to dress in rags

ízot-*amá*- *n.* solid food with gravy

ízuzu-*esí*- *v.* to sprinkle flour on
boiling water

И

íáp-*és*-*ókotí*- *v.* to handle with
care

íbad-*esí*- *v.* to knock (over)

íbañ-*esí*- (íbáñ-) *v.* to bump

íbatal-*esí*- *v.* to carry in a sling

íbat-*esí*- (íbát-) *v.* to break by
dropping

íbedíbed-*óni*- *v.* 1) open eyes
slowly 2) to sneak up

íbırıbir-*óni*- *v.* to jabber
confusedly

íbıt-*esí*- *v.* to plant

íbɔts-*amá*- *n.* milk cream

íbɔts-*esí*- *v.* to curdle

íbubuy-*esí*- *v.* to interfere with

íbááñ-*óni*- *v.* 1) to be stupid,
ignorant 2) to be illiterate

íbábé-*esí*- (íbábá-) *v.* to treat
gently

íbák-*óni*- *v.* to be next to

íbal-*esí*- (íbál-) *v.* 1) to worry 2) to
shock, appall 3) to waste

íbám-*óni*- *v.* 1) to be free 2) to be
unoccupied, unemployed 3)
to have free time

íbaníbán-*óni*- *v.* to be clumsy

íbat-*esí*- (íbát-) *v.* to mislead

íbébé-*esí*- *v.* to split into pieces

íbébí-*óni*- *v.* to lay eggs

íekífék-*esí*- *v.* to disturb

íé-*óni*- *v.* to lack self-control

íesíbé-*esí*- *v.* to shatter, splinter

íbílér-*ón*-*ókotí*- *v.* to lose sth. on
one's person

íbílí-*óni*- *v.* to be inconsistent

íbí-*óni*- *v.* to have a stomach
illness

íbıtsíbıts-*esí*- *v.* to wiggle through

íbɔt-*esí*- (íbɔt-) *v.* to strip off bark

íbúñ-*óni*- *v.* to hurry

- íbúr-óni- v. 1) to be warm
 íburúrbúr-óni- v. to do quickly
 íbúts-ésí- (íbúts-) v. to fail
 íbútúñ-óni- v. to sulk
 ídadam-ósí- v. 1) to grope, molest
 2) to go downhill slowly
 ídulídul-ésí- v. to pour from a
 small opening
 ídaar-ésí- v. 1) to ambush 2) to
 lay claim to
 ídaf-ésí- (ídáf-) v. to slap, clap
 ídaki- n. *Portulaca quadrifida* plant
 ídák-óni- v. to lack
 ídám-óni- v. to walk aimlessly
 ídañídáñ-ésí- v. to press bit by bit
 ídat-ésí- (ídát-) v. to spank
 ídé-és-ukotí- v. to drop in
 ídeíde-ésí- v. to report details
 ídem-ésí- (ídem-) v. to give
 someone the 'evil eye'
 ídé-óni- v. to strike (of a snake)
 ídep-ésí- (ídep-) v. to pick up one
 by one
 íder-ésí- (íder-) v. to decorate
 ídí-ésí- (ídíd-) v. to cut into strips
 ídíkíl-óni- v. to be about to finish
 ídím-ésí- (ídím-) v. 1) to make, do
 2) to prepare, organize 3) to
 kill using black magic
 ídín-óni- v. to be narrow
 ídí-óni- v. to fall down (of seeds
 from a plant)
- ídíp-ésí- (ídíp-) v. to put a
 slaughtered animal on fire
 ídí-óni- v. to be or move in a
 straight line
 ídíts-ésí- (ídíts-) v. to beat, whip
 ídób-ési- v. to arrange in heaps
 ídódw-éésí- (ídódw-) v. to cook an
 appetizer
 ídón-óni- v. to drip
 ídóñídóñ-ésí- v. to knock on sth.
 ídórw- n. early cultivation
 ídóts'-ésí- (ídóts'-) v. to talk
 continuously
 íéñ-óni- v. 1) to be cold 2) to be
 weak 3) to be polite
 íék-óni- v. to be far
 íén-óni- v. to converse, talk
 íéñ-óni- v. 1) to breathe 2) to rest
 í-ési- v. to clear and smoothen
 ground
 íét-ési- v. to rescue, save
 ífalífál-ésí- v. to chase away
 ífó-ésí- (ífó-) v. to drag
 ífóñ-ésí- v. to ruffle up
 ígad-ésí- v. to eat insatiably
 ígatsígats-ésí- v. to swallow
 without chewing
 ígəñ-ésí- v. to repay after a delay
 ígərb-óni- v. to jump far
 ígəj-ésí- v. to gulp down
 ígəjəgəj-óni- v. to swish water
 ígwígwíj-ésí- v. to beautify

- ígwɪɪr-ɔni- v. to leave an argument angrily
- ɪjakɪják-ésí- v. to eat like a dog
- ɪjém-óni- v. to be quiet
- ɪjíl-ɔni- v. to move in a line
- ɪjír-ésí- v. to pour to the last drop
- ɪɔkɪjók-ésí- v. to masturbate
- ɪjok-ésí- (ɪjók-) v. to push
- ɪjula-amá- n. child who sleeps with other children
- ɪjul-ésí- (ɪjúl-) v. to arrange alternately
- íkááb-ésí- v. to remove bad grain
- íkákáp-ésí- v. to scoop out
- íkáké-ésí- (íkáká-) v. to sift
- íkam-ésí- (íkám-) v. to catch, grab; cf. Swahili *-kamata* ‘catch’
- íkan-ésí- v. to negotiate for marriage
- íkáp-óni- v. to fast
- íkár-óni- v. to be thin
- íkat-ésí- (íkát-) v. to try
- íkats-ésí- (íkáts-) v. to mind, care
- íkáút-ésí- v. to chill, cool
- íkéd-ésí- (íkéd-) v. to curse s.b. with a difficult labor
- íkéét-ésí- v. to raise
- íkét-ésí- (íkét-) v. to choke
- íkétiket-ésí- v. to get someone’s attention secretly
- íkídíts-ésí- v. to enter a deep hole
- íkíl-óni- v. 1) to threaten 2) to trumpet (of elephants) 3) to crash (of close lightning)
- íkíríkír-ɔni- v. to be impatient
- íkítí- n. head-pad
- íkób-ínósí- v. to pass around to others
- íkɔɔa- n. fried beer mash
- íkuj-ésí- (íkúj-) v. to look for
- íkul-ésí- (íkúl-) v. to shave smooth
- íkwal-ésí- (íkwál-) v. to form straight poles
- íkwaríkwar-ésí- v. to scatter on the ground for drying
- íkwatíkwat-ésí- v. to touch seductively
- íkwéréf-ɔni- v. 1) to be hard-working 2) to squirm away
- íkwetíkwet-ésí- v. to round up
- íkwílkwíl-ésí- v. to tickle
- íkáál-ésí- v. to skim
- íkáké-ésí- v. to prevent
- íkálíkál-ésí- v. 1) to corral 2) to help in a fight
- íkárár-ɔni- v. to sit on a stool
- íkéké-ésí- v. to crack seeds
- íkélém-ésí- v. to remove one testicle
- íkeníkén-ésí- v. to trail a honeyguide (bird)
- íkér-ésí- (íkér-) v. to mark
- íkíɓíkíɓ-óni- v. to burn slowly
- íkí-óni- v. to shield

- íkíra- *n.* foundation
 íkír-ésí- (íkír-) *v.* to write
 íkɔb-et-ésí- *v.* to throw away
 íkɔŋ-ésí- (íkɔŋ-) *v.* 1) to lean against 2) to rely on
 íkujókúj-ɔni- *v.* to chatter (of teeth)
 íkulókúl-ɔni- *v.* 1) to circle around
 íkúól-ésí- *v.* 1) to take food out of the mouth 2) to gather up at the middle
 íkwar-ɔsí- (íkwar-) *v.* to be down-striped
 íkwɛr-ésí- (íkwr-) *v.* to comb
 ílab-et-ésí- *v.* to scoop top layer
 ílaíl-ésí- (íla-) *v.* to tend to do
 ílajíláj-ésí- *v.* 1) to loosen 2) to neglect to do sth.
 ílák-ás-ɔni- *v.* 1) to be happy 2) to be thankful
 ílak-ésí- (ílák-) *v.* to pan for gold
 íláláj-ésí- *v.* to eat hot food
 ílálát-ésí- *v.* to make wet
 ílam-ésí- (ílám-) *v.* to curse
 ílánjí- *n.* Indian jujube (*Ziziphus mauritiana*)
 íláp-ét-ɔni- *v.* to overflow
 ílár-ɔni- *v.* to be patient
 ílat-ésí- (ílát-) *v.* to add water
 ílɛf-ésí- *v.* to crush
 ílekílék-ésí- *v.* to waste
 ílékwér-ésí- *v.* to slide
 ílélé-ésí- *v.* to hate, detest
 íléŋér-ésí- *v.* to circumcise
 ílé-ɔni- *v.* to pillage, plunder
 ílép-és-ɔkɔtí- *v.* to disown with curses
 íletílét-ɔni- *v.* 1) to lie side-by-side 2) to be satisfied
 ílétúr-án-óni- *v.* 1) to be dull 2) to refuse to listen
 ílfb-ɔni- *v.* 1) to be green 2) to be new (of foliage)
 ílrf-ésí- *v.* to bind up
 ílkílk-ésí- *v.* 1) to bite and shake 2) to wobble 3) to loosen
 ílrl-ésí- *v.* to dry over fire
 ílflŋ-ésí- *v.* to nod sideways
 ílrl-ɔni- *v.* to be angry
 ílm-ésí- (ílím-) *v.* 1) to dip into liquid 2) to remove animal skin from pegs 3) to shave wood sideways
 ílŋ-ésí- (ílŋ-) *v.* to trim (e.g. hair)
 ílrr-ésí- (ílrr-) *v.* to make sth. go around
 ílrr-ɔni- *v.* to have body bulges
 ílrw-ésí- (ílrw-) *v.* 1) to have the skin 2) to press to harden
 ílɔbílɔb-ésí- *v.* to spatter with mud
 ílɔbɔt-et-ésí- *v.* to vomit, spit out
 ílɔdŋ-ésí- *v.* to take what is meant for s.b. else
 ílɔf-ɔni- *v.* to go around
 ílɔflɔ-ésí- *v.* to balance

- ɪɫɔ-ɛsí- (ɪɫɔ-) v. 1) to defeat 2) to compete with 3) to be more/less than
 ɪɫɔkɪɫɔk-ɛsí- v. to wrap around
 ɪɫɔkér-ɛsí- v. to cross the legs
 ɪɫɔk-ɛsí- (ɪɫɔk-) v. to mix flour with cold water
 ɪɫɔɫɔk-ɛsí- v. to thin out
 ɪɫɔɫɔr-ɛsí- v. to feed children first
 ɪɫɔŋ-ɛsí- (ɪɫɔŋ-) v. to chase
 ɪɫɔŋɔts-ɛsí- v. to dress inappropriately
 ɪɫɔ-ɔni- (ɪɫɔ-) v. to go
 ɪɫɔp-ɛsí- (ɪɫɔp-) v. to transfer
 ɪɫɔy-ɔni- v. to be weak
 ɪɫɔk-ɛsí- (ɪɫɔk-) v. to carry on one's person
 ɪɫɔɫɔmɔ-ɔni- v. to swim
 ɪɫɔɫɔŋ-ɛsí- v. 1) to make spherical 2) to bribe
 ɪɫɔmɔɫɔm-ɛsí- v. to munch happily
 ɪɫɔz-ɔni- v. to doze off
 ɪɫwár-ɔni- v. 1) to be unneeded 2) to be unemployed
 ɪmaar-ɛsí- v. to count
 ɪmaɔ-ɛsí- (ɪmaɔ-) v. 1) to apply topically 2) to bandage
 ɪmak-ɛsí- (ɪmak-) v. to wind around
 ɪmámé-ɛsí- (ɪmámá-) v. 1) to appease, calm 2) to sweet-talk
 ɪmánáni- n. Castor-oil plant (*Ricinus communis*)
 ɪman-ɛsí- (ɪmán-) v. 1) to vow 2) to threaten
 ɪmas-ɛsí- (ɪmás-) v. to throw
 ɪmátáŋ-ɛsí- v. to chew tobacco
 ɪmátsár-ɛsí- v. to mark
 ɪmáfán-ɛsí- v. to wave, greet
 ɪmédél-ɛsí- v. 1) to give or withhold grudgingly 2) to backbite
 ɪméd-ɔni- v. 1) to flash 2) n. lightning
 ɪmɛɫ-ɛsí- (ɪmɛɫ-) v. to flicker (the tongue)
 ɪmídíl-ɛsí- v. to look with one eye
 ɪmídímíd-ɛsí- v. 1) to squeeze through 2) to enlarge a hole
 ɪmídíts-ɛsí- v. to close up a hole
 ɪmɪɫ-ɛt-ɛsí- v. to pour in small quantities
 ɪmímíj-ɛsí- v. 1) to wiggle 2) to shrug
 ɪmɪnímín-ɛsí- v. to fiddle with
 ɪmɪs-ɛsí- (ɪmís-) v. to care, mind
 ɪmɔɔ-ɛsí- (ɪmɔɔ-) v. to deceive
 ɪmɔɔr-ɔni- v. to be sooty black
 ɪmɔjír-ɛsí- v. to twist, intertwine
 ɪmɔɫ-ɛsí- (ɪmɔɫ-) v. to organize
 ɪmɔɫŋ-ɛt-ɛsí- v. to warm sth. up
 ɪmɔmɔɔ-ɛsí- v. to smear with stomach contents
 ɪmɔrímɔr-ɔsí- v. to avoid taxation
 ɪmɔɔmɔɔ-ɔni- v. to not see well
 ɪmɔjómɔj-ɔni- v. to gather spit

- ιμόκέ-έσι- (ιμόκά-) *v.* to persevere
 ιμόμύj-έσι- *v.* 1) to rinse the
 mouth 2) to chew carefully
 ιμόμύ-ωνι- *v.* to chuckle
 ιμόμύρ-έσι- *v.* to do/eat quickly
 ιμόμw-ώνι- (ιμόμύ-) *v.* to have
 all one wants or needs
 ιμό-ώνι- *v.* to be a twin
 ιμόρ-ώνι- *v.* to be under-cooked
 ιμόςέ-ετ-ωνι- (ιμόςά-) *v.* to start
 fermenting (of grass, tobacco)
 ιμοτόμότη-όςι- *v.* to sulk, brood
 ινάb-έσι- *v.* to arrange, pack
 ινάκί- *n.* nits (lice-eggs)
 ινάp-έσι- (ινάp-) *v.* to heap up
 ινερίνεp-ωνι- *v.* to smoulder
 ινίτ-άν-όνι- *v.* to be elastic
 ινίkwίνίkw-έσι- *v.* 1) to support
 with sticks 2) to move
 sideways
 ινω-έσι- (ινώ-) *v.* 1) to coil (of
 snake, but for sleeping) 2) to
 put beads around the neck
 ινωm-έσι- (ινώm-) *v.* to beat
 ινωts-έσι- (ινώts-) *v.* to stick to
 ινω-έσι- (ινώ-) *v.* 1) to burden,
 weigh down 2) to make ill
 ινωκύνόkw-έσι- *v.* 1) to munch
 softly 2) to heap in a mound
 ινώnóm-έσι- *v.* to celebrate first
 harvest
 ινώ- *n.* milk-bush (*Euphorbia*
 tirucalli)
- ινάδότη-έσι- *v.* to chew, ruminate
 ινάβέρ-έσι- *v.* to twist the mouth in
 fear or anger
 ινάém-ώνι- *v.* 1) to bear teeth 2) to
 be easily angered
 ίη-έσι- *v.* to pound into paste
 ιηιb-έσι- (ιηίb-) *v.* to nibble
 ιηηηί-ωνι- *v.* to cry in discomfort
 (of infants)
 ιηύηύρ-ωνι- *v.* to feel annoyed
 ιηααl-έσι- *v.* 1) to poison 2) to
 intimidate, frighten
 ιηάám-έσι- *v.* to grind roughly
 ιηααρ-έσι- *v.* to help
 ιηάδέ-έσι- (ιηάδά-) *v.* to put aside
 ιηάηέ-έσι- (ιηάηά-) *v.* to chew
 carefully
 ιηελέηέl-έσι- *v.* to cut into pieces
 ιηηηίηηί-ωνι- *v.* to coo
 ιηίσίm-ωνι- *v.* to respond rudely
 ιηιτ-έσι- (ιηίτ-) *v.* to retell a story
 ιηόλββόη-έσι- *v.* to glance sideways
 ιηόπίσω-ωνι- *v.* to strut along, the
 neck bouncing
 ιηουόηύρ-ωνι- *v.* to grumble
 ιρκό- *n.* pollen, nectar
 ιρ-έσι- *v.* to throw in a spin
 ιπάδάη-ωνι- *v.* to be flat
 ιπάj-ώνι- *v.* to sit on the ground
 ιπακ-έσι- (ιπάκ-) *v.* 1) to deflect 2)
 to wipe away liquid
 ιπάλάκ-ωνι- *v.* 1) to be weak 2) to
 be unreliable in work

ipápé-ésí- (ipápá-) v. to moisten
 ipasɔ- n. stomping-feet dance
 ipás-ét-ɔni- v. to dance, stomping
 the feet
 ipéér-ɔni- v. 1) to spend many
 days 2) to starve
 ipel-ésí- (ipél-) v. to peel off
 ipépét-ésí- v. to strew about
 iperípér-ɔni- v. to move from
 person to person, in fighting,
 speaking, etc.
 ipété-ésí- (ipétá-) v. to 'platform'
 ipírí-án-óni- v. to be intelligent
 ipjúk-ésí- v. to investigate
 ipim-ésí- (ipím-) v. 1) to measure
 2) to test; fr. Sw. *ku-pima*
 ipinípín-ɔni- v. to pour or leak in
 small drops
 ipirípír-ét-ɔni- v. to rise, of the sun
 ipit-ésí- (ipít-) v. to tighten
 ipópír-ésí- v. to twist fiber
 ipókák-oni- v. to solidify when
 cooled (of heated foods)
 ipóm-ét-ɔni- v. to dash off
 ipón-óni- v. to grind quickly
 ipópúŋ-ésí- v. 1) to wrap together
 2) to stuff in a container
 iputs-ésí- (ipúts-) v. to plaster
 iráb-ésí- v. to harvest finger millet
 iráírɔ-ɔni- (irá-) v. to be shiny red
 irák-ím-ét-oni- v. 1) to have an
 orgasm 2) to get high 3) to
 have a seizure, pass out

irapí- n. small corn-cob pieces
 irar-ésí- (irár-) v. to spoil, ruin
 iráp-és-ɔkɔtí- v. to lay claim to
 irárák-ésí- v. 1) to crack grain 2)
 to mix grains while grinding
 irar-ésí- (irár-) v. to gather
 scattered material
 ireb-ésí- (ireb-) v. to chop up into
 little pieces
 irebíreb-ésí- v. to cause throbbing
 irej-ésí- (irej-) v. to clear land
 irem-ésí- (irem-) v. to scare off
 iret-ésí- (iret-) v. to prevent
 iríd-ésí- v. to keep a tight hold on
 iríd-óni- v. to die
 irít-án-óni- v. to be sticky
 irj-ésí- (irj-) v. to tie tightly 2) to
 rub
 irik-ésí- (irik-) v. 1) to surround 2)
 to divide into groups
 irin-ésí- v. to look inside
 irín-óni- v. to turn
 irits-ésí- v. to keep, care for
 irɔdíróf-ésí- v. to do controlled
 burning
 irɔɔí- n. *Maerua triphylla* plant
 irórók-án-óni- v. to get too busy
 irum-ésí- v. to cling
 irúrób-ésí- v. to insert a stick to
 hold a hive's grass cover
 isal-ésí- (isál-) v. to winnow, sift
 isál-óni- v. to be right
 iseβ-ésí- (iseβ-) v. to scarify

- isε-εσί- (isá-) v. 1) to miss 2) to survive a mishap
 isékó-án-óni- v. to be disobedient
 isél-ét-és-ukótí- v. to ricochet
 isép-óni- v. to be lame, paralyzed
 isífl-ésí- v. to pick out, sort out
 isít-ésí- v. to accuse
 isika- n. bullrush
 isíkar-εσί- v. to completely overpower, even after victory
 isík-εσί- (isík-) v. 1) to cover a hole 2) to pump a ball 3) to eat too much
 isílí-án-óni- v. 1) to be careless 2) to do dirty jobs
 isíl-óni- v. to be peaceful
 isim-εσί- (isím-) v. to peel sweet stalks
 isínák-ωνi- v. to sprout (of maize cobs)
 isω-εσί- (isó-) v. 1) to let slide 2) to swallow without chewing 3) *vulg.* to give birth
 isókísók-ωνi- v. 1) to run while kicking or bucking 2) to coast
 isóm-εσί- (isóm-) v. to cut brush carelessly
 isórób-ésí- v. to sip slowly
 isórót-ésí- v. to shove along the ground
 isósón-ósí- v. to stir (while sleeping)
 isówó-ωνi- v. to walk slowly
- isúk-εσί- (isúk-) v. 1) to pass, overtake 2) to surpass
 isomúsóm-ωνi- v. 1) to jog 2) to slowly accelerate
 isún-és-ukótí- v. to finish off
 isúsú-ésí- v. to oppose
 isut-εσί- (isút-) v. to move
 isówó-ωνi- (isówá-) v. to be overcrowded (of crops)
 isjajε-εσί- (isjájá-) v. to shake off
 isjém-ét-ωνi- v. to fall
 isjots-εσί- (isjots-) v. to exchange
 iták-ón-ukótí- v. to be confused
 itákwán-ωνi- v. to start first
 itákál-ésí- v. 1) to be closed up 2) to fit so-so
 ital-εσί- (ital-) v. to forbid, ban
 itámá-án-óni- v. to behoove, be necessary (must)
 itánját-ωνi- v. to be fussy
 itáós-ésí- v. to give a lesser share
 itátám-εσί- v. 1) to teach, train 2) to preach 3) to advise
 itáté-ésí- (itátá-) v. to walk (trans.)
 itátsám-án-óni- v. to be lazy
 itεb-εσί- (itéb-) v. to cut the ears of oxen for decoration
 itéél-ωνi- v. to sit/lie with legs straight
 itéér-ωνi- v. to stand in a line facing one direction
 itén-óni- v. to be straight

- itep-ésí- (itép-) v. to inseminate,
 copulate (*vulg.* to fuck)
 itepítép-ᵛn- v. to skip from rock
 to rock
 itétéi-ᵛn- v. to balance
 it-ét-ᵛn- v. to arrive (here)
 itıbıtıb-ᵛn- v. to have contractions
 itıfl-ésí- v. to have a negative
 effect
 itıflıfl-ᵛn- v. to hurt, of joints
 itınitın-ésí- v. to move (body part)
 itıη-ésí- (itıη-) v. to force
 itı-ᵛn- v. to delay
 itıtı- *n.* Flame tree (*Erythrina
 abyssinica*)
 itıw-ésí- (itıw-) v. to strain liquid
 itıđ-ᵛn- v. to wither
 itıđkđ-ᵛn- v. to have a stitch in
 one's side
 itıđk-ᵛn- v. 1) to hobble 2) to be
 paralyzed in both legs
 itıł-ésí- (itıł-) v. to char food
 itım-ᵛn- v. to be next to
 itıηđ-ésí- v. to assault
 itı-ᵛn- (itá-) v. 1) to reach 2) to
 find
 itırđη-ésí- v. to make ridges
 itıtđη-ésí- v. to tap (of
 woodpecker)
 itıtđr-ésí- v. to rub on a stone
 itsak-ésí- (itsák-) v. to break into
 pieces
 itsan-ésí- (itsán-) v. to disturb
 itsáru-án-óni- v. to behave badly
 itsedıtséd-ésí- v. to dig holes
 randomly
 itséér-ᵛn- v. to fall, of first rains
 itsétsé-ésí- v. to clamber up
 itsıđ-ésí- (itsıđ-) v. to clean with
 fingers
 itsık-ésí- (itsık-) v. to charge, order
 itsıpıtısıp-ésí- v. 1) to vaccinate 2)
 to have goosebumps
 itsır-ᵛn- v. to be right
 itsıđıtsıđ-ᵛn- v. to be multi-
 colored
 itsıkıtısık-ésí- v. 1) bend up and
 down 2) to crack a whip
 itsım-ésí- (itsım-) v. to pound into
 flour
 itsır-ᵛn-ıđkıtı- v. to dive down 2)
 to clamber down
 itsul-ésí- (itsıl-) v. 1) to pay for an
 impregnated girl 2) to redeem
 kids from a divorced husband
 itsun-ésí- (itsún-) v. to gather
 itsuη-ésí- (itsúη-) v. to burn
 itsúrıtısúr-ésí- v. 1) to pour out 2)
 to over-spend
 itswétıtswet-ᵛn- v. to be disgusted
 its'đk-ᵛn- v. to be nearly ripe
 itur-ésí- (itúr-) v. 1) to pour into
 2) to give rectally
 itus-et-ésí- v. 1) to wrap 2) to hog-
 tie an animal
 itıtúr-ésí- v. to sew, mend

ɹuɔ-ɛsí- *v.* to organize
 ɹum-ɛsí- *v.* to capture a bride
 ɹwár-ɛsí- *v.* to plaster with mud or
 manure
 ɹwas-ɛsí- (ɹwás-) *v.* 1) to smear,
 rub on 2) to clean with oil
 ɹwáwád-ɛsí- *v.* to dice into pieces
 ɹwáwé-ɛsí- (ɹwáwá-) *v.* to caress
 ɹwéél-ɛsí- *v.* to spread, scatter
 ɹwet-ɛsí- (ɹwét-) *v.* to sip slowly
 ɹwɪɔ-ɛsí- *v.* to grind into powder
 ɹwír-óni- *v.* to shine
 ɹwíwín-ɛsí- *v.* to quarrel
 constantly
 ɹwízil-ɛsí- *v.* to wink an eye
 ɹwɔk-ɛsí- (ɹwɔk-) *v.* to shake a
 gourd filled with water
 ɹwɔk-óni- *v.* to be proud, arrogant
 ɹwɔŋ-óni- *v.* to intend to do
 ɹwɔ-óni- *v.* to be frail and timid
 ɹwɔɹwɔɹ-ɛsí- *v.* to cut meat while
 weapon is still in it
 ɹwuɔ-ɛsí- (ɹwúɔ-) *v.* to gather
 ɹwól-óni- *v.* 1) to ignore 2) to be
 arrogantly unteachable
 ɹzɔbɹzɔb-ɛsí- *v.* to whip with small
 sticks

Jj

jejei- *n.* leather sleeping mat
 jíjei- *n.* opposite sloped bank

Jj

jábú-gwaa- *n.* helmeted
 guineafowl
 jaé- *n.* *Gramineae* grass sp.
 jagw-ede- *n.* daughter
 jáká- *n.* elders
 jákátósí- *v.* 1) to gag 2) to be
 nauseated
 jákw-ád-oni- *v.* to be cowardly
 jalán-óni- *v.* 1) to be different 2)
 to be foreign
 jálátsi- *n.* plant sp. found on
 Turkana plains (Kenya)
 jam-úd-oni- *v.* to be velvety
 janí- *v.* broom; cf *jen*
 jao- *n.* shrub sp. (*Grewia bicolor*)
 jarám-ét-oni- *v.* to freeze still
 jaul-ím-oni- *v.* to be bald
 jeɹ-ɔni- *v.* 1) to stay 2) to survive
 jení- *n.* broom; cf *jan*
 je-ɔni- *v.* to be pure white
 jijído- *n.* *Acalypha fruticosa* plant
 jíki *adv.* always
 jike *adv.* also, too
 jíki *adv.* 1) completely, totally,
 very 2) forever
 jikijík-óni- *v.* to sway gently
 jílífífi- *n.* ash starling
 jílíú- *n.* small bird sp.
 jiri- *n.* behind
 jirɔku- *n.* sharp stick
 jolílé- *n.* black kite
 jorijori- *n.* cricket

jɔb-ɔni- *v.* to be medium-sized
 jɔk-ési- *v.* to look at, watch
 jakalukaa- *n.* demonic trance
 jɔl-ɔni- *v.* to be bland, tasteless
 jɔɔde- *n.* small fiber rope
 jɔrɔrɔ- *n.* 1) army ant 2) soldier
 jɔté- *n.* small *Adenium obesum*
 sisal, whose root is used by
 boys in spearing practice
 jul-amá- *n.* chunk (e.g. of meat)
 ju-esí- *v.* 1) to roast 2) to bake
 juju- *n.* plant sp.
 jumú- *n.* soil, dirt
 jumujum-ásí- *n.* sand
 jur-án-óni- *v.* to make trouble
 júr-ési- *v.* to massage
 jurumú- *n.* branch
 jur-út-óm-ɔni- *v.* to be slippery
 jút-ési- *v.* 1) to slip out 2) to milk

Kk

kabaɔa- *n.* 1) rag 2) paper
 kabasá- *n.* flour
 kábil-an-et-óni- *v.* 1) to be multi-
 textured (of meat) 2) to be
 black and white (of livestock)
 kábusubus-án-óni- *v.* to be blue-
 gray
 kaɔa- *n.* 1) diaphragm 2) pectoral
 kaɔaɔa- *n.* oblong gourd
 kabélébel-án-óni- *v.* to bank
 (while flying)
 kabúrúts-án-óni- *v.* to be murky

kádifo- *n.* maize or sorghum
 blossoms
 kadokói- *n.* black-faced vervet
 monkey (and blue monkey?)
 kád-óni- *v.* to expect
 kadús-óm-ɔni- *v.* to be petite
 kaëa- *n.* 1) tortoise 2) tortoise-
 shell guitar 3) small vehicle
 kafu- *n.* thorn
 kaidéí- *n.* pumpkin
 kaikó-óni- (kaiká-) *v.* 1) to be dim
 2) to get dark at dusk
 kait-esí- (kaít-) *v.* 1) to taste 2) to
 test 3) to experience
 kamí- *n.* year
 kaká- *n.* leaf
 kak-áf-án-óni- *v.* to be leaf-green
 kakır-ési- *v.* to twist around
 kálé- *n.* debt
 kalápát-án-óni- *v.* to be flat
 kaléétser-án-óni- *v.* to be rickety
 kámár-án-óni- *v.* to be horizontal
 kamudurudád-óni- *v.* to be stupid
 kaná- *v.* back
 kanaɔaa- *v.* beehive
 kán-ési- *v.* 1) to lick 2) to wipe off
 kán-óni- *v.* to be cloudless
 kaɔumú- *n.* simsim
 kaɔ-ád-óni- *v.* to be hard to chew
 kaɔera- *n.* gourd
 kaporatá- *n.* *Ipomoea wightii* vine
 karámú- *n.* male lesser eland

- karám-óni- *n.* to be unable to work
- karatsi- *n.* 1) chair, stool, seat 2) political office
- karεε- *n.* *Canthium pseudosetiflorum* plant
- károko- *n.* scorched earth
- karonó- *n.* harvest season
- káruúú- *n.* unripe maize
- káruúú-óni- *v.* to be inflated
- káruts'u- *n.* carrot; fr. English?
- karúts'-óm-ɔni- *v.* to be crunchy
- kasírá- *n.* sweet-stalk sorghum
- kásíta- *n.* hook-thorn acacia (*Acacia mellifera*)
- káts-éde- *n.* front part
- kats-ésí- *v.* to look at sth. while shielding eyes from the sun
- katomání- *n.* maize variety
- kaúdzó- *n.* 1) *Craibia laurentii* plant 2) money
- káú- *n.* ash(es)
- kaw-ésí- *v.* to cut by swinging a sharp tool
- kázo- *n.* 1) tassle 2) lamp, torch
- kazaan-óni- *v.* to be scattered
- kazítí- *n.* anus
- kéaa- *n.* army; fr. K.A.R., the King's African Rifles
- kédi- *n.* 1) unit of time 2) unit of space 3) opportunity
- kedí-án-et-oni- *v.* to be black with a white rump
- kede *conj.* or
- keídzo- *n.* wild potato-like plant
- kelero- *n.* *Harrisonia abyssinica* pl.
- kémúsi- *n.* old, dry grass
- kerébe- *n.* layer of a grass-thatched roof
- keremidza- *n.* bitter melon sp.
- kerets'ú- *n.* ant-hill dirt spread on a path to deter enemies
- kesení- *n.* shield
- keða- *n.* reed
- kékém-ɔni- *v.* to cackle
- kélái- *n.* *Teclea nobilis* tree
- ker-ésí- *v.* to wrongfully accuse
- kesa- *n.* 1) cornea 2) cataract
- ketél-óni- *v.* to be clearly seen
- ketér-ém-ɔni- *v.* to be rigid
- kéj-ésí- *v.* 1) to fry 2) to dry by cooking
- kiβeβe-ama- *n.* selfish person
- kíβíβita- *n.* brown lizard sp.
- kídzim-oni- *v.* to come down
- kídođotsí- *n.* a tiny thing
- kíjájá- *n.* 1) world, earth 2) land, country 3) nation 4) down
- kíjájá-ima- *n.* fairy, sprite
- kikím-óni- *v.* to be short, stocky
- kilelebúú- *n.* ziphoid process (cartilage below breastbone)
- kilíwít-án-óni- *v.* to be cleared off
- kílootóró- *n.* bird sp.
- kimírá- *n.* red-billed quelea
- kinoroti- *n.* peg, stake

| | |
|---|--|
| kijomú- <i>n.</i> seeds | boiled milk 3) outer layer of stomach |
| kírérébúu- <i>n.</i> millet left to sprout the following year | kitóós-óni- <i>v.</i> to be what color? |
| kirotí- <i>n.</i> sweat | kítsadōsi- <i>n.</i> <i>Vigna oblongifolia</i> pl. |
| kíryooróo- <i>n.</i> white-crested helmet shrike | kiwílá- <i>n.</i> newly cleared garden |
| kisan-esí- (kisán-) <i>v.</i> to distribute | kíz-inósi- <i>v.</i> to move in single-file |
| kit-oni- <i>v.</i> to shiver, tremble | kođóo- <i>n.</i> leprosy-like skin disease |
| kitsa- <i>n.</i> pile, heap | kođós-óni- <i>v.</i> to be bent upwards (of horns) |
| kits-oni- <i>v.</i> to be undercooked | kodoú- <i>n.</i> Grant's gazelle |
| kíjó- <i>n.</i> freshly cut switch | kokíríkokó- <i>n.</i> bird sp. |
| kiyéri- <i>n.</i> bird sp. | kokóro- <i>n.</i> mountain ridge |
| kíbéz-amá- <i>n.</i> piece, chip | kokorotsi- <i>n.</i> thistle-like plant (<i>Asparagus flagellaris</i>) |
| kiđap-án-ét-óni- <i>v.</i> to be black with white cheeks | koko-esí- (kokó-) <i>v.</i> to line a hole with sisal leaves to catch ants |
| kíđo- <i>n.</i> tchagra | kol-án-ét-oni- <i>v.</i> to have a white stripe |
| kíđólé- <i>n.</i> young baboon | koliméu- <i>n.</i> patas monkey |
| kiđ-on-ókotí- <i>v.</i> to step aside | kólítsi- <i>n.</i> neck-tie |
| kífikálikáa- <i>n.</i> crested eagle | kólóro- <i>n.</i> bird sp. |
| kílírita- <i>n.</i> bull elephant | kólótsi- <i>n.</i> animal skin clothing |
| kílóđa- <i>n.</i> emerald-spotted wood dove | komol-án-óni- <i>v.</i> to have patches of color |
| kílóríta- <i>n.</i> Egyptian thorn or scented-pod acacia (<i>Acacia nilotica</i>) | kómolóo- <i>n.</i> <i>Canthium lactescens</i> tree |
| kímōđrōtsa- <i>n.</i> <i>Kleinia</i> tree sp. | komómá- <i>n.</i> 1) scale 2) cracked skin 3) plant sp. |
| kímóra- <i>n.</i> mosquito | komosí- <i>n.</i> buttock |
| kinámá- <i>n.</i> mushroom | komótsá- <i>n.</i> elephant's trunk |
| kinataá- <i>n.</i> upper grinding stone | koní- <i>n.</i> muscle, ligament, tendon |
| kípór-án-et-oni- <i>v.</i> to be red-brown | kopa- <i>n.</i> 1) vulture 2) funeral goat |
| kírapá- <i>n.</i> 1) layer of slime on stagnant water 2) skin on | kopikopí- <i>n.</i> ankle |

- korí-án-et-óni- *v.* to be spotted
 like a giraffe
 kórí-et-óni- (kər-) *v.* to wrestle,
 struggle
 kóróro- *n.* spotted eagle owl
 koryó-óni- *v.* to have labor pains
 koto *adv.* 1) so, then 2) but
 kotímá- *n.* hole in a tree
 kotoba- *n.* female greater kudu
 kots-ésí- *v.* to fetch (e.g. water)
 kots-óni- *v.* to be trapped
 koj-és-úkotí- *v.* to remove a scab
 kəb-ɔni- *v.* to be fresh and hard
 (of maize)
 kɔdza- *n.* yellow-necked spurfowl
 kɔiná- *n.* whiff, scent
 kəka- *n.* small reeds
 kək-ésí- *v.* 1) to close 2) to cover
 kəkəs-án-óni- *v.* to mature fully
 kolá- *n.* he-goat
 kolilí- *n.* cucumber-like plant
 kolɔl-án-óni- *v.* 1) to be old 2) to
 be infertile
 kɔní- *n.* one
 kɔnísi- *n.* incest
 kɔŋ-ésí- *v.* to cook
 kɔré- *n.* fried meat
 kɔr-et-ésí- *v.* to char
 kɔrɔbádi- *n.* thing
 kɔrɔɔ-óm-ɔni- *v.* to be emaciated
 kɔrɔkú- *n.* 1) finger 2) claw
 kɔt-ésí- *v.* to banish, exorcise
 kɔtɔrá- *n.* oribi
 kɔtsá- *n.* scabies
 kɔw-ɔni- *n.* 1) to be old, 2) to be
 chronic 3) to be old-
 fashioned, outdated
 kua- *n.* grass
 kúb-óni- *v.* to be unseen
 kúbura- *n.* big container
 kuɓa- *n.* hill
 kúcé- *n.* rocky home of hyraxes
 kúɔ-óni- *v.* to be short
 kukátí- *n.* young primates
 kuku-an-óni- *v.* to scamper down
 kukufetsí- *n.* bird sp.
 kukuseni- *n.* 1) underground
 storage hole 2) ground-hive
 kumuts-án-óni- *v.* to be joined
 kunétá- *n.* *Ximenia americana* tree
 kupukú- *n.* pestle
 kup-óni- *v.* to be cloudy
 kurí- *n.* 1) shade 2) shelter 3)
 assembly, meeting
 kuri- *n.* *Vepris glomerata* plant
 kur-ésí- *v.* to defeat
 kúrúbádi- *n.* things, belongings
 kurukurí- *n.* cloth-eating insect
 kúrúkúrí- *n.* 1) shadow 2) spirit,
 ghost 3) reflection 4)
 photography 5) idol
 kurukúr-óni- *v.* to avoid eye-
 contact
 kuts-ák-óni- *v.* to urinate
 kutsúbae- *n.* plant sp.
 kútúŋi- *n.* knee

- kutútá- *n.* large ant-hill
 kuḃáa- *n.* husband of my wife's
 sister
 kófá- *n.* drizzling rain
 kolaḃá- *n.* bushbuck
 kuḃ-ésí- *v.* to burn
 kórai- *n.* wait-a-bit acacia (*Acacia
 brevispica*)
 kórakı- *n.* raven, crow
 korókór-ósí- *v.* to work hard
 kut-ḃni- *v.* 1) to say 2) to name 3)
 to intend to do 4) to do
 kwaárá- *n.* troop of baboons
 kwaḃ- *n.* 1) tooth 2) edge
 kwa-íd-oni- *v.* 1) to be chewy 2)
 to be blunt (teeth)
 kwalıkwál-ḃni- *v.* to shiver
 kwanı- *n.* 1) penis 2) stinger
 kwaḃ-és-úḃḃı- *v.* to prevent
 kwará- *n.* mountain
 kwatsı- *n.* 1) urine 2) progeny
 kwáts-óni- *v.* 1) to be little, small
 2) to be young
 kwédekwed-án-óni- *v.* to be
 persistent in getting details
 kweel-ém-oni- *v.* to be big and
 pointy (of ears)
 kḃ-ésı- *v.* 1) to wait 2) to expect 3)
 to protect a garden from pests
 kwelédá- *n.* termite that appears
 after rain
 kwéréḃ-ém-ḃni- *v.* to be
 stubbornly opposed to other
 kwéréḃ-ḃni- *v.* to be gray-haired
 kwetá- *n.* 1) arm, hand 2) branch
 3) sleeve
 kwets'-ésı- *v.* 1) to damage 2) to
 cause a negative change
 kweḃ-éd-ḃni- *v.* to be delicate
 kwíd-oni- *v.* to have an erection
 kwir-íd-oni- *v.* to be slippery
 kwítsılá-dıdıı- *n.* francolin
 kwits'-íd-oni- *v.* to be juicy
 kwıj-ım-ḃni- *v.* to get dislocated
 kwılılıı- *n.* local Ik tobacco
 kwıl-ım-ḃni- *v.* 1) to grow
 suspicious 2) to be
 embarrassed
 kwınıḃı- *n.* hyrax
 kwıḃıḃı-ḃni- (kwıḃıḃı-) *v.* to
 grimace as if laughing
 kwır-ésı- *v.* to annoint in blessing
- Kk**
 kád-esı- *v.* to shoot
 kaka- *n.* hunt
 kakatesı- *n.* a brace for traps
 kálıts'i- *n.* jaw
 kalıkal-ésı- *v.* to gargle
 kám-óni- *v.* to be like
 kan-ésı- *v.* to hold
 kekérá- *n.* grasshopper
 kékéér-ésı- *v.* to mix (e.g. pounded
 white-ants and honey)
 kéı-ésı- *v.* to arrange
 kérıkéér-ḃni- *v.* to be piquant

kíri-óni- *v.* to thunder
 kíroti- *n.* upper riverbank
 kídz-esi- *v.* to bite
 kíit-ésí- *v.* to harvest by plucking
 kíí- *n.* leather strap
 kódojóo- *n.* centipede
 kókat-ésí- *v.* to do physical
 therapy
 kókóo- *n.* big gourd used as a pot
 kóko-án-ésí- *v.* to stretch (body)
 kolomú- *n.* 1) spoon 2) spade
 kol-óni- *v.* to have a nosebleed
 ko-óni- (ka-) *v.* to go
 kóré- *n.* muscle behind kneecap
 kóba- *n.* 1) navel 2) umbilical
 cord 3) pistol grip
 kóbókóbu- *n.* fig tree sp.
 kódf-óni- *v.* to cry, complain
 kódfata- *n.* hook, hooked instr.
 kó-esí- *v.* to straighten
 kófó- *n.* 1) calabash 2) plate
 kókota- *n.* hornbill sp.
 kóré- *n.* 1) calabash ladle 2) spade
 kórómóm-óni- *v.* to be brittle
 kór-óni- *v.* to strut, swagger
 kúd-esi- *v.* to pour out
 kúdukúdu- *n.* red biting ant sp.
 kúló- *n.* log used to bar gate
 kuts'ats'i- *n.* lymph node, gland
 kúz-um-óni- *v.* to be tilted over
 kódf-ésí- *v.* 1) to turn in the mouth
 with one's tongue 2) to suck

kuj-ód-óni- *v.* to be full (of mouth
 when someone is talking)
 kók-ín- *n.* derogatory name for
 young children
 kókéómán-óni- *v.* to turn one's
 back
 kulé- *n.* elbow
 kuts'á- *n.* 1) insect 2) worm
 kwáakwáa- *n.* go-away bird
 kwaatá- *n.* frog, toad
 kwaat-et-ésí- *v.* to give birth
 kwad-óni- *v.* to be few, little
 kwára- *n.* scar
 kwaza- *n.* 1) clothing 2) goat-skin
 3) wedding ceremony
 involving a goat-skin
 kwesé- *n.* 1) broken calabash 2)
 piece of junk
 kwij-ésí- *v.* to sprain, dislocate
 kwij-óni- *v.* to be bright green

Ll

labáñ-ám-óni- *v.* to have a wide
 opening
 lafu- *n.* joint of scapula to chest
 lafár-ám-óni- *v.* to be gaping
 lajám-ét-óni- *v.* 1) to collapse 2)
 to wilt, wither
 lakám-óni- *v.* to go down out of
 sight
 lakat-i-ésí- *v.* to eat quickly
 lañ-ád-óni- *v.* to be warm
 (weather)

- laŋír-óni- *v.* to be wide, stout
 lara- *n.* tobacco pipe
 lásó-ika- *n.* waterfall
 liatí- *n.* his/her brother
 lebéts-óni- *v.* to be two
 lebetse *quant.* two
 leḃ-úd-óni- *v.* to be bulgy
 lédá- *n.* lizard sp.
 lejée- *n.* 1) mental illness 2)
 demon possession
 lelemukání- *n.* handleless tool or
 weapon
 lel-ésí- *v.* to eat insatiably
 lemú-án-et-óni- *v.* 1) to be
 hornless 2) to be fat
 léó- *n.* your brother
 lerúk-úm-óni- *v.* to be medium-
 sized
 leta- *n.* beaded dress or loincloth
 létsá- *n.* tiny termites
 leúzo- *n.* charcoal
 leweŋi- *n.* 1) ostrich 2) bustard
 leḃa- *n.* liquid honey (excl. wax)
 leḃéŋ-ém-óni- *v.* to be wide open
 leḃ-óni- *v.* to be careless
 leem-ét-óni- *v.* to appear
 léj-óni- *v.* to catch on fire
 lek-ésí- *v.* to get from storage
 lél-óni- *v.* to be openly visible
 leŋá- *n.* ratel, honey badger
 leŋér-ém-óni- *v.* to be circumcised
 leŋ-ésí- *v.* 1) to hunt for wild
 honey 2) to look for food
 leŋór-óm-óni- *v.* to be naked
 lera- *n.* white-thorn acacia (*Acacia*
 seyal)
 ler-éd-óni- *v.* 1) to be dried hard
 2) to be hard-headed
 léza- *n.* parasitic plant
 lí-íd-óni- *n.* 1) to be dull 2) to be
 silent
 likíd-esí- (likíd-) *v.* to reach a
 distant goal
 lik-ésí- *v.* to nod
 lil-ét-óni- *v.* to be shocked
 liŋ-ésí- *v.* to pump
 lir-óni- *v.* to be unliftably heavy
 liri-osi- *v.* to be blocked
 likíd-ím-óni- *v.* to be narrow at
 the middle, broad at the top
 lit-óni- *v.* to be new growth
 liri-íd-óni- *v.* to be smooth
 lobáa- *n.* grandchild
 lobúruji- *n.* mold
 loḃái- *n.* bone disease
 lóḃíliwási- *n.* white-tailed
 mongoose
 loḃolia- *n.* morning glory (*Basella*
 alba)
 loḃózo- *n.* donkey snout
 lóḃúlukúŋu- *n.* HIV-AIDS
 loḃúrututu- *n.* bird sp.
 loda- *n.* 1) cowtail swisher 2) silk
 loḃedé- *n.* *Cucumis figarei* plant
 lóḃíkóró- *n.* scorpion
 lóḃíwéí- *n.* *Maerua angolensis* pl.

- lódúmélá- *n.* firefly or glowworm
 lođúm-óni- *n.* to sink down
 lóđúrúu- *n.* 1) granary 2) bank
 lofílitsíi- *n.* Sudan gum arabic
 (*Acacia senegal*)
 lófúku- *n.* owl
 logerénoó- *n.* grain-eating insect
 loibóroku- *n.* grass sp.
 lojúulúu- *n.* sorghum variety
 lokalilijí- *n.* black snake sp.
 lokemúu- *n.* thumb piano, sanza
 lókíbofóo- *n.* agama lizard
 lokíí- *n.* parrot
 lokilók-óni- *v.* to wobble
 lókílóróǵó- *n.* queen bee
 lokírídídíi- *n.* maize variety
 lokítóǵíi- *n.* hard black stone
 lokitoǵo- *n.* threshold
 lokobéle- *n.* chronic thief
 lok-ód-óni- *v.* to be unsteady
 lókóđémá- *n.* *Toddalia asiatica* pl.
 lokeití- *n.* big waist beads
 lókóko- *n.* worker ant, termite
 lokóođoó- *n.* leather water-bag
 lokososi- *n.* anthill with a large
 opening
 lókúđukudétí- *n.* *Capparis*
tomentosa plant
 lokumú- *n.* *Mimusops kummel* tree
 lokek-esí- (lokék-) *v.* to eat
 gluttonously
 lokílíi- *n.* brown parrot
 lokólé- *n.* eagle
 lokóz-om-óni- *v.* to be long-
 necked
 lokúu- *n.* drinking gourd
 lolatífóni- *n.* 1) flat stone used to
 carry rubbish 2) stone
 granary cover
 lolóm-ón-ukotí- *v.* to fail to
 germinate
 lolota- *n.* large grey mongoose
 lolot-án-óni- *n.* 1) to move in a
 group 2) to be stuck together
 lóméléwá- *n.* widow, widower
 loménio- *n.* swift, swallow
 lomerúká- *n.* plant sp.
 lomila- *n.* honeycomb formed 3-4
 days after hive colonization
 lómílimíá- *n.* glandular swelling
 lómoloróo- *n.* tip of the roof
 lomóǵiní- *n.* gunnysack
 lomucirí- *n.* type of gun
 lomukeyí- *n.* edible gourd sp.
 loǵazutú- *n.* wedding ceremony
 involving mixing seeds
 loǵiro- *n.* *Meyna tetraphylla* tree
 loǵór-óm-óni- *v.* to be bigger in a
 spherical shape
 lopemú- *n.* level, storey
 lopérení- *n.* ghost
 lopeí- *n.* pancreas
 lopótsá- *n.* 1) egg white 2) knee
 fluid
 lópúli- *n.* small edible gourd sp.
 lorídá- *n.* pain while urinating

- loriorjoni- *n.* threshold
 lorítá- *n.* plant sp.
 lorokoní- *n.* small adze
 lósínáká- *n.* smut
 lósuajá- *n.* stone anvil
 losúku- *n.* candidiasis
 lotabuseni- *n.* whirlwind
 lotádánan-esi- *v.* 1) to enter by force 2) to rebel
 lotímálem-oni- *v.* to be emaciated
 lotiwúoto- *n.* bird sp.
 lótórobétí- *n.* *Zehneria scabra* pl.
 lotsoro- *n.* red-billed firefinch
 lótsótso- *n.* fly sp.
 lótsúmu- *n.* small shack
 lots'ilot'sí- *n.* animal-hoof rattle
 lotúduzée- *n.* nickname for a hyrax: "no tail"
 loukú- *n.* 1) predator 2) monster
 loupalí- *n.* cobra
 lóúpee- *n.* *Pachycarpus schweinfurthii* plant
 loyetée- *n.* kind of barbet
 lóbabalí- *n.* drying rack
 lóbelejí- *n.* spoiled millet
 lóbiríbirá- *n.* 1) spinal cord 2) marrow of backbone
 lóbízi- *n.* roof top
 lóβ-ód-om- *v.* to have medium consistency (porridge, cement)
 lóβnjíβnjí- *n.* *Kleinia* tree sp.
 lóβúkejéni- *n.* stunted growth
 lócegere- *n.* type of stool
 lókaapíní- *n.* shoelace
 lókapetá- *n.* abdominal sickness
 lókapúrá- *n.* steam
 lókatata- *n.* African wild date palm (*Phoenix reclinata*)
 lókaudé- *n.* weevil
 lókéjú- *n.* water running down a flat surface
 lókérú- *n.* *Cassia singueana* tree
 lókisínáa- *n.* mastitis
 lókitorá- *n.* pinworms
 lókódfá- *n.* hooked stick
 lókórí- *n.* pubis, pudenda
 lókúdfá- *n.* small granary
 lókotórá- *n.* 1) funnel-like calabash stem 2) funnel
 lókodfíkódf-óni- *v.* to be tall-necked
 lókóηu- *n.* sacred tree
 lólééú- *n.* cholera
 lólowí- *n.* *Commiphora campestris* plant
 lóméjékéle- *n.* cockroach
 lómilí- *n.* lizard sp. (possibly striped skink)
 lómódaátí- *n.* *Triumfetta annua*
 lómó- *n.* inedible mushroom (*Datura stramonium*)
 lóηizeté- *n.* black fly sp. associated with warthogs
 lóηízijízá- *n.* 1) root disease 2) toe wound
 lóηótá- *n.* enemies

ɔɔɔɔɔ- *n.* glow of a fire
 ɔpɛdɛpɛdɛ- *n.* bat
 ɔpírɔpírá- *n.* wood-boring insect
 ɔpítáí- *n.* platform
 ɔr-ɔd-ɔni- *v.* to be bulbous
 ɔtafara- *n.* *Gramineae* grass sp.
 ɔtítítí- *n.* grass seeds that pierce
 clothing and poke the skin
 ɔtɔba- *n.* tobacco
 ɔtɔkɔ- *n.* garden rain shelter
 ɔtsɔgɔma- *n.* grass sp.
 ɔwɔdɔ- *n.* trap for small animals
 ɔwɔpí- *n.* small tree bee
 ɔwírɔwír-ɔni- *v.* to sprint
 ɔguma- *n.* hard maize meal
 ɔj-ɔd-ɔni- *v.* 1) to be weak-
 necked 2) to be plump
 ɔká- *n.* squirrel
 ɔkúɔkúɔ-án-ɔni- *v.* 1) to slither
 2) to meander, zig-zag
 ɔkáám-ɔni- *v.* to be insufficient
 ɔk-ésí- *v.* to swallow
 ɔl-ɔni- *v.* to be distantly seen
 ɔlɔwɔl-ésí- *v.* to rub with legs
 ɔlɔm-ɔd-ɔni- *v.* to be pliable
 ɔlɔlɔ- *n.* small pieces of
 firewood
 ɔd-ɔni- *v.* to congregate
 ɔjɔlɔj-ɔni- *v.* to be full
 ɔwá-ɔni- *v.* to drop out of sight
 ɔyam-ád-ɔni- *v.* to be powdery

Mm

maɔám-ɔni- *v.* to fall behind
 máɔɔi- *n.* 1) spleen 2)
 organization
 makúlí- *n.* grass beehive cover
 mak-és-úkotí- *v.* to give away
 malakórí- *n.* *Vigna frutescens* plant
 malori- *n.* *Sansevieria robusta* pl.
 maɔ-ád-ɔni- *v.* to be too thick
 mará-ɔni- *v.* to be good
 marí- *n.* homestead fence
 másálúká- *n.* ground white ants
 masán-ɔni- *v.* to rot, decay
 matá- *n.* cheek
 máó- *n.* lion
 máɔi- *n.* fatty lining of heart
 máyáa- *n.* common reedbuck (?)
 mayo- *n.* sickness
 mázmáz-ɔni- *v.* to be sweet-sour
 at the onset of fermentation
 me-esí- (ma-) *v.* to give
 melekeí- *n.* *Lannea schimperi* tree
 meleti- *n.* grass sp.
 meriɔ-án-ɔni- *v.* to be spotted
 métá- *n.* *Cadaba farinosa* plant
 méá- *n.* bundle of miraa wrapped
 in grass and milk-leaf leaves
 mekelél-ɔni- *v.* 1) to be
 unbreakable 2) to be
 unchewable
 mekemekání- *n.* pangolin
 mélékórá- *n.* wild cowpeas

məná- *n.* 1) words 2) issues 3)
 problems 4) *compl.* what
 méréðéðé- *n.* *Vernonia cinerascens*
 plant
 mərimér-óni- *v.* to be cowardly
 məse- *n.* homebrew beer
 məts-ésí- *v.* to erect poles
 məura- *n.* superb starling
 mǐdz-óni- *v.* to smell, stink
 mǐgiriǵír-án-óni- *v.* to be hazy
 mǐǵ-ési- *v.* to reject as
 unsatisfactory
 milékú- *n.* *Canthium*
pseudosetiflorum tree
 milíl-óni- *v.* 1) to be syrupy sweet
 2) to be watery
 misi *comp.* 1) whether 2) either
 misimís-óni- *v.* to be seen afar
 mǐdíkí- *n.* grey-headed sparrow
 mǐǵíl-ím-óni- *v.* to be tiny, narrow
 mǐlǵári- *n.* *Gramineae* plant sp.
 mǐl-íd-óni- *v.* to be sparkly
 mǐl-ǵd-óni- *v.* to be smooth
 mǐn-ési-¹ *v.* to love
 mǐn-ési-² *v.* to fix an iron
 implement on a tool/weapon
 mmǐk-ím-óni- *v.* 1) to be gummy
 2) to be frugal
 mmítá- *n.* wild cat
 mǐǵ-óni- *v.* to be deaf
 mǐǵk- *n.* green mamba
 mǐríd-ím-óni- *v.* to be smaller than
 expected (e.g. of a hole)

misái- *n.* *Rhus natalensis* shrub
 misíási- *n.* *Gnidia subcordata* shrub
 mǐmǐmít-óni- *v.* to be sweet-sour
 mǐtúr-ím-óni- *v.* to be withered
 mǐt-óni- *v.* to be (sb. or sth.)
 mǐts'á- *n.* testicle
 mǐǵǐǵ- *n.* *Hippocratea africana* pl.
 móǵa- *n.* uncut vegetation
 mókóló- *n.* *Ozoroa insignis* tree
 momóo- *n.* 1) maternal uncle 2)
 son of a sister
 momotí- *n.* his/her maternal
 uncle
 mo-óni- (ma-) *v.* to be sick
 mor-ét-óni- *v.* to grow, sprout
 morído- *n.* beans
 morókú- *n.* 1) throat 2) voice 3)
 shaft
 mor-óni- *v.* 1) to fear 2) to respect
 3) to run away
 moǵ-ési- *v.* to peel off
 mozokodí- *n.* *Ormocarpum*
trichocarpum tree
 móðé- *n.* ground bee
 mǐdǵdǵ- *n.* 1) cocoon 2) sleep
 mǐk-ési- *v.* to cover white-ant hill
 with grass and soil
 mǐkmmǐk-óni- *v.* to be about to
 rain
 mǐkǐǵ- *n.* small pool in rock
 mǐǵǵ-ési- *v.* to gossip
 mǐs-óni- *v.* to wilt, wither
 mǐza- *n.* *Grewia villosa* tree

muceé- *n.* 1) path 2) way, method
 3) destiny, luck
 muđ-ésí- *v.* to bury
 múđuđuú- *n.* Senegal coucal
 múđuđ-án-óni- *v.* 1) to be blind 2)
 to close the eyes
 mujál-ám-oni- *v.* to be bland like
 undercooked porridge
 muketí- *n.* flesh between jaws
 mukúa- *n.* night
 mukí-án-et-oni- *v.* to be brown
 mulúrán-oni- *v.* to be upset (of
 stomach)
 mumú-án-óni- *v.* 1) to be far-
 sighted 2) to be too far to see
 múmuta- *n.* *Selaginella phillipsiana*
 moss sp.
 muju *quant.* all
 múrotsío- *n.* tree sp.
 muruté-éku- *n.* open path
 mususabáa- *n.* biting grub that Ik
 children play with
 musus-án-óni- *v.* to be hung-over
 muka *adv.* 1) forever 2) never 3)
 really, totally
 mukot-esí- (mukót-) *v.* to close up
 like a fist
 múkési- *n.* tree bee
 mukúr-úm-ɔni- *v.* to be
 hunchbacked
 múlokók-óni- *v.* to have gas
 and/or nausea

múmút-ɔni- *v.* 1) to grieve in
 anger 2) to be going off
 (food)
 mur-ésí- *v.* to ferment (e.g. flour
 for beer)
 muróni- *n.* 1) *Cynodon dactylon*
 plant 2) tobacco garden
 musa- *n.* *Euphorbia grandiformis* tr.
 mutuú- *n.* wooden pin, needle

Nn

náabúsi- *n.* hedgehog
 naasejanjá- *n.* worker bee
 nabéza- *n.* allergy
 náb-ɔn-ɔkótí- *v.* 1) to finish,
 complete 2) to be enough
 nabálámorúu- *n.* mouse sp.
 nabó *adv.* 1) again 2) moreover
 nadekwela- *n.* watermelon var.
 nádzaŋa- *n.* my friend
 nadépe- *n.* flea
 nadiaka- *n.* 1) long dress 2) hair
 on back of head
 náf-óni- *v.* to call out rudely
 náganága- *n.* monitor lizard
 na-íd-oni- *v.* to be gummy
 nartakípóratá- *n.* caracal
 nakaribá- *n.* pods, husks
 nakatumání- *n.* maize var.
 nakírórí- *n.* sheath
 nakolitáka- *n.* striped snake sp.
 nakúsó- *n.* animal sleeping place
 nakútá- *n.* wooden hoe-like tool

nakafú- *n.* 1) tongue 2) language
 nákfíraa- *n.* striped hyena
 nakólítí- *n.* log brace (for gates)
 nakúlée- *n.* 1) sinus 2) room
 nakw-ésí- *v.* to suck, suckle
 nakw-íd-ɔni- *v.* 1) to be attractive
 2) to fit well
 nakwíní- *n.* stick to hold snares
 nalemuzodaa- *n.* bird sp.
 nalífilí- *n.* sorghum var.
 nalój-óni- *v.* to be loose-fitting
 nalɔɔɔɔɔɔɔɔ- *n.* desert wilderness
 nameɔɔɔɔ- *n.* back of the head
 námúúí- *n.* sister-in-law
 nanɔɔɔɔɔɔɔɔ- *n.* axe-head
 nanɔɔɔɔɔɔɔɔ- *n.* bird sp.
 napéélemú- *n.* bird sp.
 napérítí- *n.* campsite
 naperorwáa- *n.* pumpkin sp.
 napófee- *n.* namaqua dove
 naréu- *n.* viper sp.
 narúétí- *n.* neighborhood
 nasemée- *n.* big oblong gourd
 nasoropí- *n.* large intestine
 natebúu- *n.* worker termite
 natélewáa- *n.* rat sp.
 natéba- *n.* sorghum var.
 natɔɔɔɔ- *n.* hyena nickname
 natolokaa- *n.* rainbow
 natsera- *n.* striped ground rat
 nats-ésí- *v.* to cook repeatedly
 natsiko- *n.* grass granary cover
 natsíbilí- *n.* female bushbuck

natúku- *n.* group discussion
 na-úd-oni- *v.* to be flimsy
 nda prep/conj. 1) and 2) with
 ndaí- *interr. pro.* where?
 ndo- *interr. pro.* who?
 nébu- *n.* 1) body 2) self
 nes-ésí- *v.* 1) to hear 2) to listen
 ne-esí- (na-) *v.* to endure
 nepɛk-án-óni- *v.* to argue
 ner-éd-ɔni- *v.* to be wobbly
 nérinér-óni- *v.* to be unbalanced
 nesɛk-án-óni- *v.* 1) to be clean 2)
 to be healthy
 níkw-íd-ɔni- *v.* to be tough (stiff)
 níkwíník-ɔni- *v.* to be flimsy
 nin-et-ésí- *v.* to scout out
 nɔɔ-íd-ɔni- *v.* to be sticky
 nɔɔɔɔɔɔ- *n.* fatty nape of neck
 nɔk-ésí- *v.* to block off
 nɔkɔkɔk-óni- *v.* to be shaky
 nɔk-ɔd-ɔni- *v.* to flimsy
 nɔ-ɔsá- (na-) *n.* cleverness
 nɔsa- *n.* noise
 nɔts-ɔd-ɔni- *v.* to be sticky
 ńtí- *pro.* they
 ńtóondó *inter.* no
 ntsí- *pro.* he, she, it
 nts'ak-óni- *v.* to defecate
 nusu- *n.* deep sleep
 nuts-ésí- *v.* to mend with mud
 nónót-ɔni- *v.* to escape
 nusá- *n.* male leopard

Nn

ɲáɲɲúni- *n.* dormouse; means 'not seen' in Karimojong

ɲábuláni- *n.* vest

ɲábaarátí- *n.* wrist-knife

ɲabaɓaá- *n.* scaly skin

ɲáɓáɓúu- *n.* plant sp. whose leaves are pepper-red

ɲáɓáítí- *n.* dawn

ɲáɓarasáni- *n.* first layer of thatch

ɲáɓolí- *n.* 1) girls' beaded skin garment 2) beaded decoration

ɲáɓúsi- *n.* 1) painless swelling 2) plant sp. used to treat knees

ɲaɓuraí- *n.* maize

ɲáɓúrétí- *n.* sheath

ɲáɓwaá- *n.* hot scrubland

ɲáɓáɓáá- *n.* decorative animal skin

ɲáɓáɓ-ésí- *v.* to collect garden rubbish

ɲáɓúu- *n.* crater, volcano

ɲájoreé- *n.* gang

ɲájjaaráa- *n.* button

ɲákááɓɓotí- *n.* cowbell, rattle

ɲákaasóo- *n.* robe

ɲákabíri- *n.* sorghum variety

ɲákabɓwáátá- *n.* finger ring

ɲákáɓeɓoó- *n.* women's apron

ɲákakará- *n.* round cap

ɲákakuráa- *n.* metal hoe

ɲákálááta- *n.* metal basin, pan

ɲákálíríktí- *n.* metal-tipped stick

ɲakaloó- *n.* alarm

ɲákamaridúku- *n.* cotton

ɲákamúkaá- *n.* vine sp.

ɲákámusí- *n.* darkness

ɲákamuláraá- *n.* pepper plant

ɲákaparátá- *n.* aluminum earring

ɲákápirítí- *n.* whistle

ɲákáratí- *n.* fig tree sp. (*Ficus*)

ɲákátríɓaá- *n.* fruit tree sp.

ɲákláka- *n.* brassiere

ɲákolí- *n.* 1) string 2) thin body part 3) rope neck-trap

ɲakují- *n.* god, God

ɲakújáa- *n.* riverbed waterhole

ɲálaajáíti- *n.* long grass sp.

ɲalakutsí- *n.* wedding ceremony where new wife makes beer for her husband's elders

ɲálakamáíti- *n.* collarbone

ɲálamorúu- *n.* flute, pipe

ɲálemú- *n.* rooster's crown

ɲálesoó- *n.* light, thin garment

ɲal-íd-oni- *v.* to be squashy

ɲálukutújuú- *n.* caracal, serval?

ɲámáa- *n.* grass for thatching

ɲamaɓaɲí- *n.* tick

ɲámakadáa- *n.* AK-47 rifle

ɲámakadíi- *n.* soda ash

ɲamakajeé- *n.* 1) gonorrhea 2) urinary tract infection

ɲamakukú- *n.* M-shaped stool

ɲámálí- *n.* 1) arrow, bullet 2) boy

- ἡνάμάνμανί- n. Hibiscus
aethiopicus plant*
*ἡνάμαρίτόϊτι- n. 1) wire bracelet 2)
round metal earring*
ἡναματίδαά- n. type of gun
ἡνάματσαρί- n. mark, sign
*ἡνάμοδó- n. meat from front of
animal thighs*
ἡνάναμó- n. lake, sea
ἡνάναῖω- n. leather whip
ἡνάῖωῶν- n. cactus
ἡνάἷ-án-et-oni- v. to be yellow
*ἡνάἷ-óm-oni- v. to have a gap in
the teeth*
ἡνάἷ-λúrá- n. kidney
ἡνάἷ-ρúτεε- n. immature maize
ἡνάἷ-έσί- v. to avenge
*ἡνάἷ-ú- n. 1) ostracized hyena 2)
beast, monster*
ἡνάἷ-ααρού- n. slingshot, catapult
ἡνάἷ-αῤερί- n. large inedible gourd
ἡνάἷ-αά- n. red soil
ἡνάἷ-αῤῆ- n. broken pot piece
ἡνάἷ-άρι- n. flat lid
ἡνάἷ-ατςῶλέε- n. bare patch
ἡνάἷ-άγι- n. bare patch of ground
ἡνάἷ-άῤ-úm-oni- v. to be powdery
ἡνάἷ-αῤ-κάνί- n. government
ἡνάἷ-αμα- n. girl
ἡνάἷ-άκῶ-άκω- n. lonely place
ἡνάἷ-άραά- n. cheetah
ἡνάἷ-άτάτα- n. wall
ἡνάἷ-έμο- n. insecurity, unrest
- ἡνάἷ-ράκα- n. fat mashed together*
ἡνάἷ-ρúκóμó- n. 1) a cold 2) phlegm
ἡνάἷ-ρúμάα- n. injury
ἡνάἷ-ρúπεπέε- n. long blowing horn
ἡνάἷ-σαἷ- n. saddle
ἡνάἷ-σαλί- n. Cassia hildebrandtii plant
ἡνάἷ-σαἷ-ἡῖ- n. ground bee sp.
ἡνάἷ-παλί- n. 1) custom 2) taboo
ἡνάἷ-πατσί- n. trap
ἡνάἷ-πέε- n. beaded belt
ἡνάἷ-πατσί- n. tailbone
ἡνάἷ-παῤῥú- n. big oblong gourd
ἡνάἷ-παῤῥú- n. sword
ἡνάἷ-ῥ-ά- n. v. to be crystallized
ἡνάἷ-ῖ- (NOM ἡῖ) pro. I
ἡνάἷ-ῖ-βúτí- n. waterbuck
*ἡνάἷ-ῖ-βί-ρú- n. stick with a knot on
one end; *rungu* in Swahili*
ἡνάἷ-ῖ-βú- n. straw for sipping beer
ἡνάἷ-ῖ-βú- n. drum
ἡνάἷ-ῖ-βú- n. bohor reedbuck
ἡνάἷ-ῖ-βú-ρú- n. cartridge
ἡνάἷ-ῖ-βú-ρú- n. upper riverbank
ἡνάἷ-ῖ-καά- n. washing brush
ἡνάἷ-ῖ-καά- n. tree sp.
ἡνάἷ-ῖ-ῖ- n. long digging stick
ἡνάἷ-ῖ-ῖ- n. lard
*ἡνάἷ-ῖ-ῖ- n. 1) tobacco smoke
residue 2) earwax*
*ἡνάἷ-ῖ-ῖ- n. place where a clan
harvest white-ants*
ἡνάἷ-ῖ-ῖ- n. 1) leg-hairs 2) spur
ἡνάἷ-ῖ-ῖ- n. bamboo

- néjemú- *n.* bog
 nékelfí- *n.* 1) joint 2) plant segment
 nekiliriŋí- *n.* striped fox sp.
 nékilitóni- *n.* wild okra-like plant
 nekinerí- *n.* meat cut
 nékipeyési- *n.* initiation
 nekísóriti- *n.* 1) venom 2) potion
 nekúrúmu- *n.* Turkana milk gourd
 nékútama- *n.* leather oil container
 nekuluú- *n.* clay pot
 nekúruwotí- *n.* riverbed pool
 nélebulébuú- *n.* *Ochna* plant sp.
 néliwolíwoó- *n.* infertile couple
 nélúruú- *n.* quail
 némílií- *n.* salt
 némúdetsí- *n.* scum
 némúkujni- *n.* ant species
 némúketí- *n.* topi
 némurúŋguu- *n.* miraa
 nénamá- *n.* joint ligaments
 nénésoó- *n.* *Rhynchosia hirta* plant
 népíríaa- *n.* hippopotamus
 népórosí- *n.* big scar
 népulée- *n.* groundnut
 nera- *n.* girls
 néribáa- *n.* military operation
 néribiribí- *n.* mirage
 nérikiríki- *n.* earthquake
 nérimamaá- *n.* driftwood
 nérinkísi- *n.* line
 néripipíi- *n.* brick kiln
 néritáa- *n.* 1) large box trap 2) door curtain 3) slaughtering
 nériwíi- *n.* outer fence
 nérumatsí- *n.* rear spear-tip
 nérupeé- *n.* sporadic rain between wet and dry seasons
 neryanjí- *n.* 1) government 2) modernity
 nésíbalitútuú- *n.* yellow stone var.
 nésíiti- *n.* ground bee sp.
 nesokolokée- *n.* men's shorts
 nésótoó- *n.* pointed granary cover
 neteedeé- *n.* 1) headdress feather-holding spring 2) front sight
 nétélitelí- *n.* 1) bird waddle 2) earlobe scar
 nétendée- *n.* palm tree sp.
 nétépesí- *n.* 1) long lip-plug 2) small reeds used to make a granary
 nétílií- *n.* Uganda kob
 netíŋaŋa- *n.* crocodile
 nétirikáa- *n.* flat basket
 nétsúurí- *n.* watercourse
 nétúleé- *n.* flute, whistle
 néturukúkuú- *n.* chicken backbone
 netutuú- *n.* aardwolf
 néúdeé- *n.* wild carrot-like plant
 neuria- *n.* duel
 neúríanete- *n.* animal resting spot
 neḁ-ésí- *v.* to grumble to oneself
 neḁoŋí- *n.* white ibis

- ηεβουραή- *n.* snuff container
 ηεκάατι- *n.* folded cloth worn
 around the head
 ηεελεβέ- *n.* nickname for
 something black
 ηεεπιτάα- *n.* arrow
 ηεεμαά- *n.* colobus monkey
 ηεδ-έδ-ωνι- *n.* to protrude
 ηεδεκεέ- *n.* sickness, disease
 ηεδές-εδε- *n.* trigger
 ηεδία- *n.* concluding marriage
 ceremony
 ηεδίτι- *n.* 1) tsetse fly sp. 2)
 talking drum
 ηεδίρι- *n.* female beisa oryx
 ηεδώνιδ-ωνί- *v.* to be born with
 extra fingers or toes
 ηέέκιέκι- *n.* musical rattle
 ηέεσα- *n.* guy, dude
 ηέεσεέ- *n.* boulder
 ηεκέσέτε- *n.* comb
 ηεκιλάμαά- *n.* he-goat sacrificed
 for a new wife
 ηεκιλδαά- *n.* beaded bracelet
 ηεκιπετέτι- *n.* flat part of back
 ηεκιπυέε- *n.* earth spirit, demon
 ηεκισακάτέ- *n.* shelter
 ηεκιτώωω- *n.* physical exhaustion
 ηεκόκώτέε- *n.* aggregate stones
 ηεκούμεέ- *n.* wooden container
 ηεκούρααά- *n.* skin disease (e.g.
 mange or shingles?)
 ηεκωέ- *n.* swollen testicles
 (hydrocele?)
 ηεκε- *n.* 1) hunger 2) famine
 ηεκιλί- *n.* bangle
 ηεκιρικίρι- *n.* saw
 ηεκωερέτε- *n.* rake
 ηελεκερέι- *n.* roof-reed running
 horizontally under thatching
 ηελελί- *n.* corpse
 ηελέμαά- *n.* dance in which one
 holds another's waist
 ηελίμιλιμί- *n.* drizzling rain
 ηελιράτι- *n.* sword
 ηελόκιλοκι- *n.* vine
 ηεμέλεέ- *n.* aluminum jewelry
 ηεμελεκού- *n.* hoe
 ηεμεραί- *n.* sorghum var.
 ηεμίδιμιδί- *n.* ear infection
 ηεμικώ- *n.* mingling stick
 ηεnéneé- *n.* 1) bundle of crops 2)
 swarm of bees
 ηενοκονούκού- *n.* mole
 ηεηε-εσί- (ηεηέρ-) *v.* to slide apart
 ηεη-έσι- *v.* to commit violent
 crimes
 ηεηηηί- *n.* gold dust
 ηεπέδεέ- *n.* small piece of
 aluminum jewelry
 ηεπέλου- *n.* line dug in a garden
 ηεπενί- *n.* type of gun
 ηεπένεκέ- *n.* beard
 ηεπετάα- *n.* hinge
 ηεπίκίσιτί- *n.* lower arm or leg

- ηεπιτεε- *n.* manner, behavior
 ηερεετε- *n.* marsh
 ηερικυρικι- *n.* *Hoslundia opposita* pl.
 ηεσεεβω- *n.* 1) penis shaft 2)
 curved tool 3) gearshift
 ηεσεεκω- *n.* attitude
 ηεσιλιβαα- *n.* knitting needle
 ηεσιλιλι- *n.* ligaments joining ribs
 to backbone
 ηεσιυτεε- *n.* wild carrot-like plant
 (*Hypoxis obtusa*)
 ηετερεκεεεε- *n.* tetanus
 ηετιλιτιλι- *n.* earring
 ηετωκιδεε- *n.* sunflower
 ηετυνεε- *n.* chicken-pox
 ηευρεεε- *n.* sweet-smelling weed
 ηευρολασι- *n.* *Indigofera arrecta* pl.
 ηεωωκιλι- *n.* face beads
 ηικωεεε- *n.* Sugar bush (*Protea*
 gaguedi)
 ηικωαμωιυαα- *n.* starling sp.
 ηιμιηιματ-οι- *v.* to have
 gas/bloating pain
 ηιμιρ-εσι- *n.* 1) to clean hands 2)
 to give to someone's child
 ηιπι-ιδ-οι- *n.* to be soft
 ηιηι- *pro.* we (including hearer)
 ηοβοκοτο- *n.* bowl-shaped cap
 made of human hair
 ηοβοοτι- *n.* camp
 ηοδode- *n.* antbear
 ηοδομεε- *n.* plant with yellow,
 gummy fruit (*Cordia sinensis*)
- ηοδομοηολεε- *n.* maize var.
 ηοδοσι- *n.* colostrum
 ηοκοδαβυρι- *n.* gerenuk
 ηοκοδοπει- *n.* grass sp.
 ηοκολιπι- *n.* barren person
 ηοκοκοροο- *n.* game of throwing
 spears at objects
 ηοκολοκολετι- *n.* tree whose
 yellow fruits are edible
 ηοκοριμιτι- *n.* 1) terracing 2)
 garden boundary
 ηολι- *n.* dik-dik
 ηολοδοο- *n.* horizontal roof beam
 ηομοκοηοο- *n.* leftovers
 ηομονηοοο- *n.* cassava
 ηομοροτοτο- *n.* python
 ηοροιορι- *n.* mold, mildew
 ηοροκοο- *n.* thin person
 ηοροτονιτι- *n.* upper arm
 ηοσοτοο- *n.* 1) large lid 2)
 temporary shelter used in
 hunting or gardening
 ηοτα- *n.* friend from another tribe
 ηοτοβορι- *n.* swamp
 ηοτοοδοο- *n.* cane with curved
 neck used by Turkana women
 ηοωωδι- *n.* ground groundnuts
 ηωκωωωηωρι- *n.* bird sp.
 ηωκωκωρ- *n.* chicken
 ηωκωηετι- *n.* forceps
 ηωκωπεε- *n.* valley
 ηωλωλωτι- *n.* okra
 ηωμωρ-εσι- *v.* to abuse verbally

၂၀၃၁၁၁၁၁- *n. Withania
 somnifera plant*
 ၂၀၃၁၁- *v. to be dirty*
 ၂၀၃၁၁၁- *n. confusion, chaos*
 ၂၀၃၁၁- *n. tsetse fly sp.*
 ၂၀၃၁- *n. flesh below ribs*
 ၂၀၃၁- *n. famine*
 ၂၀၃၁- *n. ritual animal organs*
 ၂၀၃၁၁- *n. deep hole-trap*
 ၂၀၃- *n. men, husbands*
 ၂၀၃၁၁- *n. small lantern*
 ၂၀၃၁၁- *n. giraffe-hair cap*
 ၂၀၃- *v. to choose*
 ၂၀၃- *v. to collect (e.g. rubbish)*

၂၁

၂၁၁- *n. rib*
 ၂၁၁- *v. to wear, dress*
 ၂၁၁- *n. beads*
 ၂၁၁- *n. 1) playground 2)
 dancing floor*
 ၂၁၁- *v. 1) to finish,
 complete 2) to be enough*
 ၂၁၁- *v. to cause burning
 pain (e.g. eyes or skin)*
 ၂၁၁- *n. cent*
 ၂၁၁- *n. animal skin leggings*
 ၂၁၁- *n. solidified sheep blood*
 ၂၁၁- *n. sandal*
 ၂၁၁- *n. coconut tree sp.*
 ၂၁၁- *n. porridge*
 ၂၁၁- *n. sour milk, yogurt*
 ၂၁၁- *n. fresh milk*
 ၂၁၁- *v. to be toothless*
 ၂၁၁- *n. sorghum*
 ၂၁၁- *v. to rush into
 things*
 ၂၁၁- *n. soaked maize mush*
 ၂၁၁- *n. duiker*
 ၂၁၁- *v. to open*
 ၂၁၁- *n. leather legging*
 ၂၁၁- *n. type of local beer*
 ၂၁၁- *v. to have a rough
 texture*
 ၂၁၁- *n. dark stone ground up
 to dye women's hair*
 ၂၁၁- *n. money*
 ၂၁၁- *v. 1) to be rocky 2) to
 contain rocks (e.g. gizzard)*
 ၂၁၁- *v. to run*
 ၂၁၁- *n. pumpkin sp.*
 ၂၁၁- *n. 1) flower 2) pollen*
 ၂၁၁- *n. chaff*
 ၂၁၁- *v. to be open, frank*
 ၂၁၁- *n. placenta*
 ၂၁၁- *v. to be startled*
 ၂၁၁- *v. to be chipped, dented*
 ၂၁၁- *n. four-pronged mingling
 stick*
 ၂၁၁- *pro. we (excluding hearer)*
 ၂၁၁- *n. bird sp.*
 ၂၁၁- *v. to soften*
 ၂၁၁- *n. bird sp.*
 ၂၁၁- *n. law*
 ၂၁၁- *n. gizzard*
 ၂၁၁- *n. shame*

- ηim-án-óni- *v.* to meet
 ηímúíi- *n.* twins
 ηír-ési- *v.* to remove rubbish
 ηirots-án-óni- *v.* to be whitish-gray
 ηítsení- *n.* ghost
 ηits'eí- *n.* edible mushroom sp.
 ηiy-oni- *v.* to be damp
 ηíβáβυτῶ- *n.* waterbuck
 ηíβαλεlé- *n.* edible mushroom sp.
 ηííτ-ési- *v.* to rub off
 ηíκαεπίδέπου- *n.* flea
 ηíκαλοτῶρῶ- *n.* pumpkin sp.
 ηίλίηíl-án-óni- *v.* to be cut up
 ηímῶκῶkaá- *n.* young men
 ηísilí- *n.* 1) silk 2) optic nerve
 ηítésυρῶ- *n.* banana var.
 ηítsaní- *n.* trouble, hardship
 ηítómika- *n.* bedbug
 ηíτ-ῶni- *v.* 1) to be strong 2) to be hard 3) to be expensive
 ηíz-εσι- *v.* 1) to clear the throat 2) to hawk, peddle 3) to slander
 ηíκαεεφέι- *n.* 1) sparks 2) gold flakes
 ηíκαηόki- *n.* pimple
 ηíκαρakocói- *n.* bottlecap game
 ηíkérépe- *n.* madness
 ηkó-óni- (ηká-) *v.* to get up, stand
 ηkólía- *n.* fish
 ηkwájái- *n.* aluminum lip plug
 ηkáká- *n.* food
 ηkwaá- *n.* traditional healer
 ηodól-óm-oni- *v.* to be lame
 ηókí- *n.* 1) dog 2) poor person
 ηoré- *n.* colored soil
 ηorók-óni- *v.* to be spotted black and white
 ηoróts-án-óni- *v.* to drain (of a wound)
 ηotó- *n.* mud plaster
 ηῶ- *n.* your mother/aunt
 ηῶβ-ῶni- *v.* to look guilty
 ηῶf-ési- *v.* to stuff food in one's mouth
 ηῶr-ῶni- *v.* to be early
 ηῶρῶm-ῶni- *v.* to be soiled with dirt or food
 ηῶrῶ-ῶni- *v.* 1) to growl 2) to snore
 ηῶts-ῶni- *v.* to be tight
 ηῶz-εσι- *v.* to glare at s.b.
 ηυ-εσί- *v.* to struggle over sth.
 ηύνό- *n.* rope
 ηυs-ési- *v.* to grab, snatch
 ηúzum-an-oni- *v.* to quarrel
 ηυβ-ύd-ῶni- *v.* 1) to be brittle 2) to be stretchy, flexible
 ηύdύηύdύ- *n.* 1) waterbug 2) tadpole
 ηυdús-úm-ῶni- *v.* 1) to be short and stout 2) to be born without limbs
 ηυ-ési- *v.* to grind

ηομóηóμ-άν-όνι- *v.* to be mixed
with pockets of flour or
uncooked bits of food

ηορά- *n.* cane rat

ηορ-έσί- *v.* 1) to cut 2) to break 3)
to cross

ηορορύη-όνι- *v.* 1) to sprout 2) to
regrow (of hair)

ηορόςάι- *n.* *Justicia* plant sp.

ηοωά- *n.* female animal

ηοωάτι- *n.* his/her mother

ηοωανά- *n.* garden that has been
harvested more than once

ηοωανηοάη-όνι- *v.* to be average,
so-so, mediocre

ηοωάη-όνι- *v.* to be disabled

Oo

οβóλένι- *n.* hip

όβυο- *n.* rhino

οδίοςι- *n.* large number, multitude

όδου- *n.* day, daytime

όδζα- *n.* dry season

όδέ-εκυ- *n.* ford

οδóμορι- *n.* male bushbuck

οφυρί- *n.* 1) leather bag 2) pocket

όγοδ-έσί- *v.* to keep for later

όγο-εσί- *v.* 1) to leave, let 2) to
forgive, excuse

όιδίκ-όνι- *v.* to sing loudly

οκίλόηόρό- *n.* queen bee

οκ-ές-ύκότι- *v.* to keep aside

όκίροτί- *n.* bird sp.

ολίβόο- *n.* getting free things

without working for them

ολιότα- *n.* alpha male baboon

ολ-όδ-όνι- *v.* 1) to be lightweight

2) to be active 3) to be eager

ονί- *n.* abandoned homestead

οηερεπέ- *n.* rufous beaked snake

οηορι- *n.* elephant

οηοροβόβó- *n.* cartilage

οηεγεμ- *n.* lone male baboon

οηικηικι- *n.* 1) large container 2)

compound, homestead

οηομένι- *n.* secretary bird

οηόμóο- *n.* Bruce's green-pigeon

οηοροσί- *n.* barren woman

οη-έσί- *v.* 1) to pour 2) to put

poles in holes 3) to brew 4) to

have an abortion

οης-έσί- *v.* to climb

οησιβίλα- *n.* bird sp.

οηςυρυ- *n.* premium tobacco

οηωα- *n.* fruit of the desert date

Ό

όβα- *n.* inner cheek

όβερα- *n.* *Hibiscus cannibus* plant

όβ-εσι- *v.* 1) to occupy 2) to hold

the 'floor' when speaking

όδóκα- *n.* 1) gate 2) patriclan 3)

chapter

όφα- *n.* cough

όφ-όδ-όνι- *v.* 1) to be lightweight

2) to be easy

ᄠᄢᄢᄢᄢ- *n.* 1) dry honeycomb 2)
eggshell

ᄠᄢᄢᄢ- *n.* male monkey

ᄠᄢᄢᄢ- *n.* *Grewia tanax* shrub

ᄠᄢᄢ- *n.* 1) wound, sore 2) knot

ᄠᄢᄢ- *n.* bone

ᄠᄢᄢᄢ- *n.* 1) step 2) meter, yard

ᄠᄢᄢ- *n.* grass sp.

ᄠᄢᄢᄢ- *n.* female hyrax

ᄠᄢᄢᄢ- *n.* 1) peel 2) scab

ᄠᄢᄢᄢ-*án-et-oni-* *v.* 1) to be reddish-
brown 2) to be dirty, murky

ᄠᄢᄢᄢ- *n.* bird sp.

ᄠᄢᄢᄢ- *n.* small river, stream

ᄠᄢᄢᄢ- *n.* rainy season

ᄠᄢᄢ- *n.* bottom

Pp

paᄢᄢᄢ-*óm-oni-* *v.* to have a
sunken-in stomach

paᄢᄢ- *n.* small cave

paᄢ-*ésí-* *v.* to split in two

paᄢᄢ- *n.* cave

paᄢᄢ-*óm-oni-* *v.* to be bald

paᄢᄢ-*ósí-* *v.* to be left over

paᄢᄢᄢ-*óni-* *v.* to glisten

paᄢᄢᄢ- *n.* scout bee

paᄢᄢᄢ-*án-óni-* *v.* to flap wings

paᄢᄢᄢ-*ém-óni-* *v.* to walk in a flat-
buttocked way

paᄢᄢᄢ- *n.* short-leaf tobacco

paᄢᄢᄢ-*ét-óni-* *v.* to appear

paᄢᄢᄢ-*amá-* *n.* small piece

paᄢᄢ-*ésí-* *v.* to pass between

paᄢᄢᄢ-*óni-* *v.* to be worn smooth

paᄢᄢᄢ-*óni-* *v.* 1) to be glittery 2) to
feel fine

paᄢᄢᄢ-*óni-* *v.* to be sleek

paᄢᄢᄢ-*ím-óni-* *v.* to be squinty-eyed

paᄢᄢᄢ-*óni-* *v.* to be slippery

paᄢᄢᄢ-*ésí-* *v.* to husk

paᄢᄢᄢ-*ésí-* *v.* 1) to wedge 2) to eat
big chunks

paᄢᄢᄢ-*ósí-* *v.* to scavenge hungrily

paᄢᄢᄢ-*óni-* *v.* to proceed

paᄢᄢᄢᄢ- *n.* nearly mature maize

paᄢᄢᄢᄢ- *n.* 1) lid 2) bent stick used
to remove seeds from gourds

paᄢᄢᄢᄢ-*ésí-* *v.* to peel

paᄢᄢᄢᄢ-*óni-* *v.* to be talkative

paᄢᄢᄢᄢ-*óni-* *v.* to move gracefully

paᄢᄢᄢᄢ- *n.* lizard

paᄢᄢᄢᄢ-*óm-óni-* *v.* to move clumsily

paᄢᄢᄢᄢ-*óni-* *v.* to be slick

paᄢᄢᄢᄢ-*ésí-* *v.* to pierce, perforate

paᄢᄢᄢᄢᄢᄢ- *n.* measles

paᄢᄢᄢᄢᄢᄢ- *n.* chicken pox

paᄢᄢᄢᄢᄢᄢ- *n.* cat

paᄢᄢᄢᄢᄢᄢ-*óni-* *v.* to be short, fat

paᄢᄢᄢᄢᄢᄢ-*óm-óni-* *v.* to be stubby

paᄢᄢᄢᄢᄢᄢ-*ám-óni-* *v.* to be soft to eat

paᄢᄢᄢᄢᄢᄢ-*óni-* *v.* to survive

paᄢᄢᄢᄢᄢᄢ-*ém-óni-* *v.* 1) to be brittle 2)
to be left-over

paᄢᄢᄢᄢᄢᄢ-*óni-* *v.* to pass right
through

Rr

- rábuŋ-ɔni- *v.* to squat or crouch in an attempt to hide
- rágani- *n.* wild edible tuber
- rágo- *n.* 1) ox 2) infertile man
- raj-ési- *v.* 1) to return 2) to answer
- rakák-ám-oni- *v.* to be gravelly
- ramu- *n.* pile of dried *Euphorbia* branches
- ram-ési- *v.* 1) to remove more than one 2) to be polygamous
- rara-an-óni- *v.* to fall gently
- rárím-oni- *v.* 1) lose wealth 2) to be exhausted
- ratatáŋ-óni- *v.* to be squat
- rat-oni- *v.* to be at ground-level
- ráts-ési- *v.* to mend
- rébe- *n.* finger millet
- réb-esi- *v.* to withhold, deny
- reded-án-óni- *v.* to crackle
- régirég-oni- *v.* to chatter noisily
- reŋ-oni- *v.* to faint, collapse
- rét-óni- *v.* to be bent, slouched
- rebe- *n.* drizzling rain
- red-éd-ɔni- *v.* to be tender
- red-ési- *v.* to squeeze
- reet-ési- *v.* to defeat, conquer
- refékéŋ-ɔni- *v.* to sit down abruptly (e.g. from weakness)
- re-íd-ɔni- *v.* 1) to work without resting 2) to do what one wants
- rekéŋ-ém-ɔni- *v.* to be stunted
- rék-ési- *v.* to scrape, shave
- res-éd-ɔni- *v.* to be penetrably thin
- ríbirib-án-óni- *v.* 1) to be near-sighted 2) to be cross-eyed 3) to have shallow holes
- ríðíríð-oni- *v.* to glimmer
- rídziridz-án-óni- *v.* to be shredded
- rié- *n.* goat
- rí-ínósi- *v.* 1) to run after each other (of children) 2) to pursue in an illicit sexual relationship
- ríjá- *n.* bush, forest
- rikíríki- *n.* rocky outcropping
- riko- *n.* long pole
- rikoŋo- *n.* brewing gourd
- rim-oni- *n.* to hide, be hidden
- ripá- *n.* hole in the ground
- riri-an-óni- *v.* to be sweltering
- ririsá- *n.* tree sp.
- ris-ési- *v.* to insult
- rit-ési- *v.* to push soil away from a hole
- rit-íd-oni- *v.* to be scrumptious
- rič-ési- *v.* to sink in (e.g. teeth, needles, etc.)
- rim-ési- *v.* to take shelter in
- rís-ási- *n.* blaze
- ríts-ési- *v.* to catch up to s.b.
- roba- *n.* people
- rogirogi- *n.* 1) tortoise shell 2) tortoise shell bell

roiró-óni- *v.* to break loose
 rori- *n.* *Acacia* tree sp.
 rórói- *n.* waist
 rɔb-ʒd-ɔni- *v.* to be rubbery
 rɔbá- *n.* animal collar
 rɔd-ésí- *v.* to pierce with thorn or
 needle
 ró-ésí- *v.* 1) take remainder of
 meat home after a hunt 2) to
 enter a dark space
 róge- *n.* mountain reedbuck
 rɔj-ʒd-ɔni- *v.* 1) to be squishy,
 mushy 2) to be arthritic
 rók-ésí- *v.* to mount a beehive
 rókɔ- *n.* Tamarind (*Tamarindus*
indica)
 rókɔrɔk-án-óni- *v.* to be hoarse
 róm-ɔni- *v.* to be dense (e.g. an
 unburned thicket)
 rɔɲ-ésí- *v.* to force sth. that does
 not fit properly
 rórót-ɔni- *v.* to walked hunched
 over
 ró-ésí- *v.* 1) to spy 2) to check on
 rɔwá- *n.* flat, treeless area
 ruɓ-ét-óni- *v.* to fall (e.g. a tree)
 rúb-óni- *v.* to groan in pain
 rúgetsi- *n.* protruding part
 rúgurug-án-óni- *v.* to be uneven
 rujúr-új-án-óni- *v.* to be swollen
 and wrinkly

rukúdzɔ- *n.* *Zanthoxylum*
chalybeum tree, with sharp
 thorns that deliver poison
 rukurúk-óni- *v.* to be nervous
 rúm-án-óni- *v.* 1) to fall 2) to
 have an accident 3) to fail
 rumurúmá- *n.* sharp stubs of
 burnt grass
 rus-úd-óni- *v.* to be tender
 ruta- *n.* sweet beer
 ruts-ésí- *v.* 1) to repair again 2) to
 force s.b. to go somewhere
 rutúduma- *n.* pigeon
 rúb-ésí- *v.* to hang in the house
 rúb-ɔni- *v.* to sprout
 rúgud-um-ɔni- *v.* to be bent over
 ruj-ɔni- *v.* to have a short neck
 rukú- *n.* hump (e.g. of a cow)
 rur-ɔni- *v.* to bruise
 rút-ésí- *v.* to blow the nose
 rw-ésí- (rú-) *v.* 1) to string
 through a hole 2) to pass
 through
 rw-eesí- (ru-) *v.* to uproot

Ss

saí- *pro.* some other(s)
 sábai- *n.* fatty stomach lining
 sabaa- *n.* river
 sáb-ésí- *v.* to kill (more than one)
 ságo- *n.* snare
 sakámá- *n.* liver

- sálíl-et-óni- *v.* to go asleep (of limbs)
- sáṅamátí- *n.* soft rock
- saṅáṅó-óni- (saṅáṅá-) *v.* to be rough and bumpy (skin on tongue or plucked chicken)
- sarísarí- *n.* bridge of nose
- sár-óni- *v.* to still/not yet be
- sasara- *n.* chewed beeswax
- sátá- *n.* shallow rock pool
- saúk-úm-óni- *v.* to be fuzzy
- sawató- *n.* shoulder
- sawáts-ám-óni- *v.* to have patches of grass
- sea- *n.* blood
- séí- *n.* white or pink quartz
- séḃ-ési- *v.* to sweep
- seḃur-án-óni- *v.* to look unkempt and unhealthy
- séda- *n.* garden
- seekó- *n.* soup, broth
- sega- *n.* umbrella thorn (*Acacia tortilis*)
- segerí- *n.* soft-wood tree sp. (*Steganotaenia araliacea*)
- seíneníi- *n.* *Stereospermum kuntianum* tree
- sekán-ám-óni- *v.* to be shallowly concave
- sekwér-óni- *v.* to scurry up
- sekel-án-óni- *v.* to be thin like old dry piece of wood
- sémédéd-án-óni- *v.* to be sloped
- semél-ém-óni- *v.* to be oval
- serei- *n.* big calabash bowl
- serínaa- *n.* sorghum variety
- ses-i-an-óni- *v.* to have whispered discussions
- sekemání- *n.* chaff with seed
- sek-ésí- *v.* 1) to shave smooth 2) to peel, scrape off
- selét-ém-óni- *v.* to be slippery
- serép-esí- (serép-) *v.* to slide horizontally
- sewa- *n.* stick
- sídilée- *n.* turtle
- sigirigiri- *n.* mane
- sikwár-ám-óni- *v.* to be shabby
- sikw-ésí- *v.* to braid
- siká- *n.* dew
- síkísík-án-ét-óni- *v.* to be grainy in color or texture
- simá- *n.* fibrous string or rope
- siṅír-óni- *v.* to have a furrowed brow
- siṅ-óni- *v.* to be upset
- sírá- *n.* message, announcement
- síts'á- *n.* 1) hair 2) sacrifice
- sits'-ési- *v.* to engage, betroth
- sib-án-óni- *v.* to have an early pregnancy
- síḃo- *n.* yeast, leaven
- síb-óni- *v.* to stand around (of more than one person)
- sídɔr-ɔm-óni- *v.* to be lean

sí-ési- *v.* to smear with goat dung
 during funeral ceremony
 síkóór-ési- *v.* to winnow
 sík-óni- *v.* to hesitate
 sílaβ-án-óni- *v.* to be watery
 sílólójá- *n.* dwarf mongoose
 símídídíř- *n.* tiny invisible thing
 símídímíd-ési- *v.* to knead
 símír-óni- *v.* to rust
 sín-ési- *v.* to cover with branches
 (e.g. a corpse)
 síñfílá- *n.* small black ant sp.
 síto- *n.* large-leaf albizia (*Albizia grandibracteata*)
 síři- *n.* edema
 sísí- *n.* honey-beer, mead
 sísíβ-ési- (sísíβ-) *v.* to lure bees
 sísíká- *n.* middle
 sókol-án-óni- *v.* to be curved
 forwards (of horns)
 sómomój-óni- *v.* to be a rash
 sóreé- *n.* boy
 sósóboši- *n.* sausage tree (*Kigelia africana*)
 sot-ési- *v.* to carve, sculpt
 sóká- *n.* calabash without a stem
 sókó- *n.* 1) root 2) hoof
 sólisóli- *n.* sharp grass sp. that can
 cut the skin
 sóní- *n.* clitoris
 sóř-ési- *v.* to pluck
 sósá- *n.* beeswax
 súβ-án-óni- *v.* to prepare to go

sugurá- *n.* 1) wind 2) spirit 3)
 disease 4) telephone
 súmá- *n.* haze
 súró- *n.* shaded field
 súsá- *n.* maize cob
 sut-óni- *v.* to respond as a group
 sua- *n.* barb, spine
 súb-ési- *v.* to influence, persuade
 súb-ési- *v.* to kill with a hex
 súða- *n.* lowest (last) rib
 súk-ési- *v.* to fail to find
 sók-óni- *v.* to itch
 solót-úm-óni- *v.* to be conical
 supá- *n.* 1) breath 2) spirit
 surusúr-óni- *v.* to be lanky
 sóút-ési- *v.* 1) to brush teeth 2) to
 sand smooth

Σj

řábút-ési- *v.* to eat side dishes
 without the staple food
 řakúts-úm-óni- *v.* to be
 cavernously deep
 řák-át-óni- *v.* to draw saliva
 řáku- *n.* remains of meat on hide
 after animal has been skinned
 řáná- *n.* direction
 řara- *n.* bladder
 řats-óni- *v.* to escape, go in exile
 řa-úd-óni- *v.* to be paper-thin
 řér-óni- *v.* to burp, belch
 řeβ-éd-óni- *v.* to be tender
 řeβ-óni- *v.* to be afraid, timid, shy

ʃε-εσί- *v.* to spray, sprinkle
 ʃεʃ-ωνι- *v.* to be stuffed, bloated
 ʃikw-ama- *n.* bush bandit
 ʃík-óni- *v.* to sneeze
 ʃíd-ωνι- *v.* to be green
 ʃik-έσί- *v.* to hang up
 ʃιηατί- *n.* late evening/early night
 ʃok-óm-óni- *v.* to sprout
 ʃof-oni- *v.* to be a refugee
 ʃot-án-óni- *v.* to be perfect
 ʃούʃούu- *n.* *Asclepiadacae* vine sp.
 ʃób-ετ-έσί- *v.* to choose, select
 ʃód-ων-οκωτί- *v.* to regain normal
 color (of skin)
 ʃón-έσί- *v.* to fix a gourd handle
 ʃωνωνός- *n.* women's fur cloak
 ʃor-ód-ωνι- *v.* to be dilute
 ʃóts-έσί- *v.* to exchange, trade
 ʃut-έσί- *v.* to drive through a hole
 ʃuʃu-an-óni- *v.* to swell
 ʃuʃúbo- *n.* Forest dombeya
 (*Dombeya goetzenii*)
 ʃúr-έσί- *v.* to leave parts of soil
 undug out of laziness

Tt

taasám-óni- *v.* to be sour
 taatsa- *n.* payment
 tábu- *n.* large pink/red flower
 often worn by little girls
 tábar- *n.* West
 tabaní- *n.* 1) wing 2) fin
 tábari- *n.* pool, waterhole

tabaríbari- *n.* insect sp.
 tábas-an-et-oni- *v.* to have reddish
 spots
 táb-esi- *v.* to touch
 tabú-óni- *v.* 1) to foam up 2) to
 boil over 3) to climb all over
 each other (e.g. ants)
 táburubur-ωνι- *v.* to be hot (of the
 ground)
 tabúr-án-ét-oni- *v.* to enter
 puberty
 tabá- *n.* large rock, boulder
 tabε-εσί- (tabá-) *v.* to extend hands
 for mercy or alms
 tabak-έσί- *v.* to carry in arms
 tabal-εσί- (tabál-) *v.* to plunder
 taból-óni- *v.* 1) to dance in victory
 2) to boast in one's exploits
 tabón-óm-oni- *v.* to have flat
 buttocks
 tadádáη-oni- *v.* to be bitter but
 edible
 tadáη-óni- *v.* to persevere
 tadap-εσί- (tadáp-) *v.* 1) to mend,
 patch 2) to ambush
 tadats-án-óni- *v.* to be abandoned
 tafák- (tafak-έσί-) *v.* to spread
 under (e.g. bag to catch flour)
 taítay-óóni- (taí-) *v.* to spin
 tajak-εσί- (taják-) *v.* to hold in the
 mouth
 tajal-εσί- (tajál-) *v.* to give up,
 give in

- takád-ésí- (takáđ-) *v.* to despise
takán-óni- *v.* to be visible
takárí- *n.* face, forehead
ták-ési- *v.* to mean, intend
takw-ési- *v.* to step (on)
takáí- *n.* shoe
takám-óni- *v.* to be sudden
takata- *n.* call-and-response
prayer
talak-ésí- (talák-) *v.* to release
talali-domo- *n.* small animal that
steals food from homes
taló-óni- (talá-) *v.* to be nauseated
tame-ésí- (tamá-) *v.* to praise,
compliment (friend or bull)
tamáis-án-óni- *v.* to smile
tamán-ét-om- *v.* to pass around
tam-ési- *v.* to think
tamora- *n.* 1) beard 2) pubic hair
tanaŋ-ésí- (tanáŋ-) *v.* 1) to plaster
with mud 2) to knock or
bump 3) to box with fists
tanó-óni- (aná-) *v.* to be a number
tapé-óni- *v.* to spread out
taŋat-ésí- (taŋát-) *v.* to struggle
for a share, claim
taŋatsár-óni- *v.* to fork
táŋ-ési- *v.* to make an appeal to
tape-ésí- (tapá-) *v.* to falsely
accuse
táráb-i-ési- *v.* to check pockets
tarádáa- *n.* 1) groundnut, peanut
2) striped ground squirrel
taraŋ-ési- *v.* to place nearby
tarát-és-óni- *v.* to have bad
manners
tarí-óni- *v.* to be pregnant
tásá- *n.* 1) grave 2) ghost
tasaĉ-ésí- (tasáĉ-) *v.* 1) to add
more 2) to exaggerate
tasál-óni- *v.* to cancel, call off
tasáp-ét-óni- *v.* to initiate into
elderhood
tasó-óni- (tasá-) *v.* to stroll
tase-ésí- (tasá-) *v.* to raise (e.g. a
child)
tatí- *n.* spit, saliva
tátaa- *n.* my paternal aunt
tatanáma- *n.* so-and-so
tataŋ-ésí- (tatáŋ-) *v.* to meet
nearby
tatatí- *n.* his/her paternal aunt
tatif-í-án-óni- *v.* to be wet and
dirty (e.g. a wound)
tatíája- *n.* plant sp.
tat-óni- *v.* to spit
tatón-óni- *v.* to worry, be anxious
tátóo- *n.* your paternal aunt
tatsád-óni- *v.* 1) to go away from
others 2) to be singled out
tatsó-óni- (tatsá-) *v.* 1) to shine 2)
be crisp and clear (weather)
táts'-óni- *v.* 1) to be unused 2) to
be unobstructed
tatóná- *n.* chin

- tawad-ésí- (tawád-) *v.* to dig for water
- tawan-ésí- (tawán-) *v.* 1) hurt, harm 2) to act harshly toward
- tebelekesí- *n.* scoop made from half a calabash
- tébin-ésí- *v.* to lean on (e.g. a walking stick)
- tebús-úm-oni- *v.* to be abnormally short and plump
- tenuse- *n.* male beisa oryx
- terégi- *n.* 1) work 2) ministry
- ter-ésí- *v.* 1) to divide 2) to intervene 2) to judge
- tetíη-óni- *v.* to be thick
- téb-esi- *v.* to get, receive
- té-ét-ɔni- *v.* to fall, drop
- tekeη-ésí- (tekéη-) *v.* to check (to see if ready)
- tékéd-εm-ɔni- *v.* to be shallow
- teker-amá- *n.* soldier ant
- tékéz-εm-ɔni- *v.* to be shallow
- tele-ésí- (telé-) *v.* to spread open
- teléts-óni- *v.* to fork, split
- teηéf-únósi- *v.* to provoke each other
- teηel-ésí- (teηél-) *v.* 1) to chip, dent 2) to excise lower teeth
- téηéri- *n.* state of being culturally restricted from certain areas
- térekékeké- *n.* meningitis
- tereré-óni- *v.* to be sharply bitter
- tér-ési- *v.* to move aimlessly
- tes-ɔni- *v.* to be unfixably broken
- tets-ésí- *v.* to kick
- tewe-ésí- (tewé-) *v.* to broadcast
- tewera- *n.* bridge
- tewer-ésí- (tewér-) *v.* to blacken hair
- tézed-ɔni- *v.* to bend one leg
- téz-εt-ɔni- *v.* to get finished
- tíbolokoηi- *n.* fingernail, toenail
- tígak-oni- *v.* to crouch briefly
- tíkoηu- *n.* *Lantana trifolia* shrub
- tikorótótó- *n.* *Aloe wilsonii* plant
- tikorotsi- *n.* spurfowl, francolin
- tikóts-óm-oni- *v.* to be shallow (of tree-hole water)
- tílaηi- *n.* buffalo thorn (*Ziziphus abyssinica*)
- tiléηi- *n.* pupil (of eye)
- til-ím-óni- *v.* to cool down after boiling
- tilokotsi- *n.* African grey hornbill
- tilóts'-óm-oni- *v.* to be ill-fitting in a larger hole
- timéli- *n.* small stick for supporting a roof or trap
- timói- *n.* tail
- timu-oza- *n.* alpha male baboon
- tin-oni- *v.* to be thick and opaque
- tiηátiηáa- *n.* rat sp.
- tir-ésí- *v.* to inseminate, have sexual relations with
- tír-ési- *v.* 1) to hold 2) to have
- tiróηi- *n.* molar

- tisíl-óni- *v.* to be quiet, lonely (of a place)
- titi-an-óni- *v.* 1) to be hot 2) to be feverish 3) to be fashionable
- titik-esí- (titík-) *v.* to try to prevent
- titírí- *n.* 1) forked pole 2) ladder
- titir-esí- *v.* to support
- tits'-és-úkotí- *v.* to keep hidden
- tíbríd-és-óni- *v.* to be constipated
- tíbrídíl-óni- *v.* to summersault
- tíbí-óni- *v.* to protrude
- tíbó- *n.* tall grass sp.
- tígaramatsi- *n.* eldest child
- tíírí- *n.* *Acacia* tree sp.
- tiki-et-esí- *v.* to hang inside house
- tíkora- *n.* hail
- tílw-óni- *v.* 1) to be pure, pristine 2) to be a virgin
- tímíd-esí- (tímíd-) *v.* to lick fingers
- tijíní- *n.* black ant sp.
- tirif-esí- (tiríf-) *v.* 1) to snoop 2) to wander in a group 3) to lie in wait
- tirikíkíí- *n.* tiny person
- tírírí-óni- *v.* to have good fortune
- titújí- *n.* heel
- títim-esí- (títím-) *v.* to learn by watching
- tits'-ésí- *v.* to fill up a hole
- tíw-íd-óni- *v.* to be tiny
- tóbiribir-óni- *v.* to ascend
- toḃ-esí- *v.* 1) to strike (e.g. with spear) 2) to raid, attack
- toḃúl-óni- *v.* to fear strange happenings
- tóda- *n.* 1) speech, talk 2) language
- toḃó-óni- *v.* to start doing sth.
- toḃú-óni- *v.* to explode
- toḃórók-ét-óni- *v.* to compose bull praise-songs loudly while walking home at night
- toíd-óni- *v.* to have scoliosis
- toip-án-óni- *v.* to be a youth
- tokóp-és-ukotí- *v.* to take by force
- tokú-ét-óni- *v.* to change one's mind or behavior
- tok-amá- *n.* white ant sp. believed to cause weight loss
- tokírá- (tokíró-óni-) *v.* to rush toward
- tolép- (tolep-et-esí-) *v.* to get more than others
- tol-esí- *v.* to pull up, pull off
- tolí-óni- *v.* to creep
- tolu-esí- (tolú-) *v.* to betray
- tomaladoo- *n.* strep throat
- tomuj-esí- (tomúj-) *v.* 1) to cut the ears 2) to break bread
- tonok-esí- (tonók-) *v.* to sit, lean against
- tonyám-óni- *v.* to stalk
- toḃél-óni- *v.* to branch, fork
- to(o)míní- *n.* ten

- topét-óni- *v.* to slant gradually
outwards (of horns)
- topód-óni- *v.* to talk to oneself
when upset
- topon-esí- (topón-) *v.* to notch
animal ears
- topút-ét-*oni-* *v.* to duplicate
- torem-esí- (torém-) *v.* 1) to move
forcefully 2) to brew
- torik-esí- *v.* to lead
- torobó- *n.* breastbone
- torón-óni- *v.* to fast from food
- toróŋ-óm-*oni-* *v.* to have ridges
- torop-esí- (toróp-) *v.* 1) to link,
join 2) to move in single file
- torú-óni- *v.* to sit with legs
extended
- toryáb-óni- *v.* to be in labor
- toryóŋ-óni- *v.* to curve backwards
(of horns)
- tosíp-óni- *v.* 1) prance 2) to splash
lightly (of rain)
- totír-óni- *v.* to climb
- totóo- *n.* maternal aunt
- totok-esí- (totók-) *v.* to weave
thread going up and down
- totóti- *n.* his/her maternal aunt
- totséd-óni- *v.* to creep up
- totser-esí- (totsér-) *v.* to handle,
manage
- tots-et-esí- *v.* to grade, mark
- totw-eesí- (totú-) *v.* to take evil
charms out of the body
- touk-esí- (toúk-) *v.* 1) to cut down
2) to retch, gag
- toúm-óni- *v.* to be amazed,
awestruck
- towát-és-úkotí- *v.* to throw with a
stick
- towúry-án-*oni-* *v.* to lie down
- towúts-óni- *v.* to crash through
brush
- toyó-ón-ufkotí- *v.* to heal up
- təbɔŋɔ- *n.* maize mush, 'posho'
- təbé-óni- *v.* to be exact, correct
- təbɛl-esí- (təbél-) *v.* to split
- təbɛŋ-ét-ɔni- *v.* to elicit a
response, either good or bad
- təbɪl-esí- (təbíl-) *v.* to fold
- təbɔkɔ- *n.* 1) piece of a broken pot
2) frying pan
- təbɔrɔk-án-óni- *v.* to grow feathers
- təɖ-óni- *v.* to be emaciated
- təɖóp-óni- *v.* 1) to dance toward
s.b. 2) to follow in single file
- təfɔɖ-óni- *v.* to ooze
- təjɛm-esí- (təjém-) *v.* to mock
- təka- *n.* soft indentation between
the collarbones
- təkéeŋ-ɔni- *v.* to move in an
orderly way, place to place
- təkí-óni- *v.* to confess
- təkɔba- *n.* cultivation, agriculture
- təkɔɖ-esí- (təkóɖ-) *v.* to hold by
the handle

- ʔəkɔfʔkɔɔf-ɔni- *v.* to have
 menstrual cramps
 ʔək-ɔni- *v.* to be tall, thin, straight
 ʔəkɔr-esí- (ʔəkɔr-) *v.* to distribute
 ʔák-ésí- *v.* to contribute to a cost
 ʔəkɔʔkáká- *n.* snail, slug
 ʔələí-ɔni- *v.* to trickle
 ʔələka- *n.* trapping
 ʔələk-esí- (ʔələk-) *v.* 1) to encircle
 2) to summon to trial
 ʔələŋ-ón-ɔkɔʔí- *v.* to storm off
 after an argument
 ʔəmɛ-esí- (ʔəmɛ-) *v.* to track
 ʔəmerímér-ɔni- *v.* to suffer
 ʔəmɪn-esí- (ʔəmɪn-) *v.* 1) to love so
 much it hurts 2) to cause
 excruciating pain
 ʔəmɔr-esí- (ʔəmɔr-) *v.* to share
 ʔəməʔsək-án-óni- *v.* to be bumpy,
 pimpley (of skin)
 ʔəmúɔŋ-ésí- *v.* to wind, roll up
 ʔənoɔp-esí- (ʔənoɔp-) *v.* to believe
 ʔəŋíŋíŋ-ésí- *v.* to dice up
 ʔəŋím- (ʔəŋím-et-ésí-) *v.* to give
 just a little bit
 ʔəŋɔl-esí- (ʔəŋɔl-) *v.* to slaughter
 ʔə-ɔn-ɔkɔʔí- *v.* to set (of sun)
 ʔəʔs-ét-ɔni- *v.* to be common
 ʔəʔsŋ-óni- *v.* to be afternoon
 ʔəpírípír-ɔni- *v.* to rise in a
 circular motion (e.g. smoke)
 ʔəpɔpɔpɔŋ-esí- *v.* to make round
 (e.g. stone in sculpting)
- ʔəɛ-esí- (ʔəɛ-) *v.* to coerce
 ʔəɪ-esí- *v.* to do randomly
 ʔəɪb-esí- *v.* 1) to give gifts, esp. to
 newborn twins 2) to reward
 ʔəɪɔɔ-ɔni- *v.* to be compacted
 ʔəɪmɪŋa- *n.* porcupine
 ʔəɪp-ét-ɔni- *v.* to approach under
 cover
 ʔəɪɛ-et-ésí- *v.* to choose, prefer
 ʔəɪés-óni- *v.* to sin, err
 ʔəɪsɔfɔk-ɔni- *v.* to be pounded into
 mush
 ʔəɪá- *n.* 1) sisal plant waste, left
 over from rope making 2)
 cooked sour vegetables
 ʔəɪɛ-esí- (ʔəɪsá-) *v.* to control
 ʔəɪsɔ-óni- *v.* 1) to be careful 2) to
 be sensitive to light
 ʔəɪsɔf-esí- (ʔəɪsɔf-) *v.* to pluck
 feathers or wool
 ʔəɪts'-ésí- *v.* 1) to crush, pound
 with a stone 2) to tap a tree
 ʔəɪtɔn-esí- (ʔəɪtɔn-) *v.* to hug
 ʔəɪtɔp-óni- *v.* to be the next
 ʔəwát-esí- (ʔəwát-) *v.* 1) to
 sprinkle 2) to spy from afar
 ʔəw-ɔni- *v.* to leak
 ʔəwúróm-ɔni- *v.* to incubate
 ʔəwút-óni- *v.* to grow upward
 ʔəyɔ-óni- *v.* to bleed in a trickle
 túb-esí- *v.* 1) to follow 2) to track
 túbur-esí- *v.* to dig new ground
 tubút-és-ɔkɔʔí- *v.* to shed

- tude *quant.* five
- tud-ád-oni- *v.* to be leathery
- tudúl-óni- *v.* to bow (i.e. head)
- tudús-úm-oni- *v.* to be naked
- tuf-ád-oni- *v.* to be spongy
- tufúlá- *n.* field rat
- tuka- *n.* feather
- tukúd-óni- *v.* to be bent, crooked
- tukukúp-óni- *v.* to have a sweet
smell and/or taste
- túkulétí- *n.* small round gourd
- tukut-esí- (tukút-) *v.* to dig out
(e.g. earwax or soil)
- túkútuku- *n.* jigger, sand-flea
- tulárói- *n.* *Commiphora* plant sp.
- tuleli- *n.* 1) Sodom's apple
(*Solanum incanum*) 2) Dead
Sea fruit (*Calotropis procera*)
3) eggplant
- tulí-án-et-oni- *v.* to be white with
black eye patches
- tulúu- *n.* rabbit, hare
- tumbaba- *n.* *Dolichos*
kilimandscharicus plant
- túná- *n.* 1) flower bud 2) abscess
- turu- *n.* tree sp. in whose shade
tobacco is planted
- turu-esí- (turú-) *v.* to throw
- turúj-óni- *v.* to be coiled
- túrúkukúu- *n.* red-eyed dove
- turunetí- *n.* *Carissa edulis* tree
- turún-óni- *v.* 1) to have a bowed-
over posture 2) to mourn
- tus-úd-oni- *v.* to be blunt
- tusúk-óni- *v.* to be curled up
- tutúf- (tutuf-án-óni-) *v.* to show
signs of maturity
- tutuk-ésí- *v.* to heap up
- tuut-esí- (tuút-) *v.* to castrate
- tubun-ésí- *v.* to cover, suffocate
- tudót-esí- (tudót-) *v.* to solidify
(e.g. by stirring)
- tufereke- *n.* Black Jack weed
(*Bidens pilosa*)
- tuf-ésí- *v.* to sew
- tukur-esí- (tukúr-) *v.* to strip off
soft, green sisal bark
- tukotuk-ání- *n.* *Ipomoea spathulata*
plant
- tulon-esí- (tolón-) *v.* to abhor
- tumódun-esí- (tumódún-) *v.* to
fold
- tun-ésí- *v.* to pinch
- tonok-esí- (tonók-) *v.* to bury
- tósi- *n.* Klipspringer
- totsu-esí- (totsú-) *v.* to wring out
- tutofa- *n.* *Combretium* tree sp.
- tutuk-esí- (tutók-) *v.* 1) to hem,
knit 2) to plait 3) to squeeze
- tówá- *n.* 1) praying mantis 2) first
scoop of pounded white ants,
designated for an elder
- tow-ɔni- *v.* to germinate
- tózud-ésí- *v.* to plug holes
- tózun-esí- *v.* to carry on the
shoulders

Tsts

tsá- (tsó-óni-) *v.* to be dry

tsábatsab-án-óni- *v.* to quiver

tsábo *adv.* apparently, obviously

tsafola- *n.* tree-bark rope

tsak-ád-óni- *v.* to be watery

tsakátsák-án-óni- *v.* 1) to be

littered with sth. 2) to be

insecure 3) to be pocked

tsak-ét-óni- *v.* to fall slowly

tsakúde- *n.* firestick

tsákól-óm-óni- *v.* to be long-

legged, spindly; cf. *tsǒgr-*

tsala- *n.* *Capparaceae* plant sp.

whose seeds are eaten

tsalítsál-óni- *v.* to be wet, sticky

tsam-ésí- *v.* to like, love

tsaṅa- *n.* gap

tsáṅ-ési- *v.* 1) to annoint, smear 2)

to paint

tsap-ésí- *v.* to brew

tsarátáni- *n.* mountain cleft

tsarió- *n.* weaverbird

tsar-ín-án-esi- *v.* to be hopeless

tsarókú- *n.* oryx

tsaúǎ-ím-ṁni- *v.* to be tall and thin

tsék-óni- *v.* 1) to be bushy, hairy

2) to be full to the brim

tserededíi- *n.* *Osyris abyssinica* tr.

tsérékí- *n.* bone connecting big

toe with ankle

tsεǎék-ém-ṁni- *v.* to chew half-

cooked food

tsefa- *n.* bush cleared for
cultivation

tserekék-óni- *v.* to be stiff

tsétá- *n.* bloody drainage

tsetseku- *n.* 1) *Tarennia graveolens*

tree 2) rib cartilage

tsífila- *n.* bird sp.

tsídz-esi- *v.* to carry

tsíǎ *quant.* all, whole

tsík-óni- *v.* to be startled

tsír-án-óni- *v.* 1) to hurt 2) to

have varicose veins

tsítsa- *n.* hawk (esp. black kite)

tsítsik-esí- (tsítsík-) *v.* to roll

tsurí- *n.* narrow ridge descending

like the rib of a mountain

tsikǎ- *n.* tree sp.

tsipítsíp-óni- *v.* 1) to make tiny

bubbles 2) to be spotted

tsirimú- *n.* metal

tsír-ít-et-ésí- *v.* to set upright

tsítsí- *n.* honey-guide (bird sp.)

tsítsíná- *n.* small stick tool (e.g.

for getting honey from a

gourd)

tsóǎtsónoó- *n.* bird sp.

tsoé- *n.* wild hunting dog

tsoi- *n.* season

tsokóbo- *n.* 1) bird sp. 2) game

played by men

tsokolori- *n.* cylindrical gourd

tsokótsók-án-óni- *v.* to be a

mixture of fat and meat

tsólé- *n.* bee-eater (bird sp.)
 tsó-óni- (tsá-) *v.* to be dry
 tso-oni- (tse-) *v.* to rise (of sun)
 tsoriama- *n.* bird sp.
 tsoriti- *n.* blood vessel
 tsorokoníi- *v.* mosquito-like insect
 tsówíri- *n.* speckled mousebird
 tsóǵǵ-ǝm-ǝni- *v.* to be thin,
 weathered, and wiry
 tsón-óni- *v.* to squat
 tsórá- *n.* baboon, gorilla
 tsǝ-ésí- *v.* to bleed
 tsóts-óni- *v.* to have sharp eyesight
 tsubá-án-et-oni- *v.* to have
 virginal breasts
 tsúd-oni- *v.* to have well-endowed
 buttocks
 tsukúl-úm-oni- *v.* to be deeply
 concave
 tsulátí- *n.* tuft of hair or feathers
 tsuta- *n.* tip of circular roof
 tsútsá- *n.* fly
 tsutsuk-esí- (tsutsúk-) *v.* 1) to rub
 with hands 2) to tan leather
 tsuwaa- *n.* 1) run 2) race
 tsóbá- *n.* bird tail
 tsob-ésí- *v.* to sip
 tsudotsud-ǝsí- *v.* 1) squirm 2) to
 scope sth. out before stealing
 tsókodód-óni- *v.* 1) to shiver 2) to
 be shy 3) to move cautiously
 tsumá- *n.* desert date (*Balanites*
 aegyptiaca)

tsuród-óm-ǝni- *v.* to be conical
 tsúúra- *n.* white thorn acacia
 (*Acacia hockii*)

Ts'ts'

ts'áb-esi- *v.* to hate
 ts'adí- *n.* fire
 ts'afu- *n.* chewed chewing tobacco
 ts'ága- *n.* dirt, filth, stench
 ts'agúsé *quant.* four
 ts'ágw-ooni- (ts'ágwa-) *v.* 1) to be
 raw 2) to be uncooked
 ts'ál-ési- *v.* to remove to the side
 ts'al-íd-oni- *v.* to be oily (of food)
 ts'álób-i-esí- *v.* to touch sexually
 ts'álúb-oni- *v.* to splash in water
 ts'aní- *n.* louse, lice
 ts'anání- *n.* crop-destroying insect
 ts'e-oni- *v.* to be extinguished
 ts'é-óni- *v.* to die (of many)
 ts'ea- *n.* skin, hide
 ts'íd-ét-ǝni- *v.* to be the last
 ts'íká- *n.* 1) bee 2) honey
 ts'mǝ- *n.* taboo against husbands
 of pregnant wives hunting
 ts'írít-ǝni- *v.* 1) to spit through gap
 in teeth 2) to spurt
 ts'ír-óni- *v.* 1) to be right, proper
 2) to be upright
 ts'íts'-ési- *v.* to track
 ts'íts'-óni- *v.* 1) to be sharp 2) to
 be greedy, jealous 3) to have
 unprotected sex

ts'oli- *n.* drop
 ts'oditi-esí- (ts'od-) *v.* to put in
 small quantities (dots or drops)
 ts'ók-ésí- *v.* to mix honey with
 water until it is bitter
 ts'ókómá- *n.* *Sclerocarya birrea* tree
 ts'ólíl-óni- *v.* to be watery
 ts'úbu- *n.* grass sp.
 ts'úde- *n.* smoke
 ts'úba- *n.* grass cover
 ts'úbulátí- *n.* stopper, plug
 ts'uf-óni- *v.* to barely appear
 ts'úgoramá- *n.* medicinal tree sp.
 ts'un-ésí- *v.* to kiss
 ts'uts'ú- *n.* garbage, rubbish
 ts'óót-ésí- *v.* 1) to suck juicy fruit
 2) to absorb 3) to make a
 sucking sound in derision
 ts'ow-óni- *v.* to go in and out in
 clumps or bunches

Uu

úde- *n.* kind of smooth grass
 úg-esi- *v.* to dig
 up-án-óni- *v.* to accompany
 urémá- *n.* *Pentarrhinum insipidum*
 plant
 urúrá- *n.* deep river or pool
 ut-ésí- *v.* to blaze a trail
 útɔɔ- *n.* liquid oil

Ww

wa- (we-esí-) *v.* to harvest
 waa- *n.* greens, vegetables
 wááka- *n.* game, playing
 wáána- *n.* 1) asking, begging 2)
 prayer 3) religious service
 waat-ésí- *v.* to soak in water
 wád-óni- *v.* to boil, simmer
 waínó- *n.* hunter's call for help in
 carrying meat home
 wak-ésí- *v.* to break off (e.g. a tree
 branch or animal bone)
 waláa- *n.* sorghum variety
 wal-ám-óni- *v.* to get light (dawn)
 walíwál-óni- *v.* to wave in wind
 waríwarí- *n.* *Dombeya quinqueseta*
 tree
 was-óni- *v.* 1) to stand 2) to be
 stationary 3) to be stagnant
 wat-óni- *v.* to rain
 wats'ɔ- *n.* rock-crevice beehive
 wɔʃi- *n.* ahead, front
 wázo- *n.* young female animal
 wéés-án-óni- *v.* to be lazy
 w-éésí- (ó-) *v.* to call, name
 weléwél-án-óni- *v.* to be brittle
 weréts-óni- *v.* to cry out
 wet-ésí- *v.* 1) to drink 2) to
 smoke, snuff tobacco
 wɛdɛwɛd-óni- *v.* to flutter
 wɛɛn-óni- *v.* to move fast
 wékékí- *n.* vine rope

wela- *n.* 1) narrow animal path 2)
small gate 3) window
werék-és-ɔni- *v.* to get up quickly
wets'-ésí- *v.* to break off the edge
wídzo- *n.* evening
wicé- *n.* children; cf. *imá-*
wil-ím-óni- *v.* to have muscular
aches and pains
wír-ési- *v.* to get from various
places
witsiwíts-ét-oni- *v.* to get dark
wíziwiz-et-ésí- *v.* to scribble
wid-íd-án-óni- *v.* to clench in
teeth
wil-ɔni- *v.* to feel pain
wɪŋ-íd-ɔni- *v.* to be syrupy
wízil-il-ɔni- *v.* to retch
wórok-ók-óni- *v.* to dehydrate
wówój-ésí- *v.* to overflow
wuɔ-oni- *v.* to burn (e.g. food)
wuj-úd-oni- *v.* to be jiggly
wúrukuk-án-óni- *v.* to have birth
contractions
wut-ésí- *v.* to trespass on the
chance of not getting caught
wulók-úm-ɔni- *v.* to be
enthusiastic

Yy

yaŋ-ád-oni *v.* to be solid
yáŋi- *n.* my mother
yáyóo- *n.* your sister
yaɔyaɔ- *n.* stream

yeyáa- *n.* my sister
yeátí- *n.* his/her sister
yem-éd-ɔni- *v.* to be delicate
yidí-íd-oni- *v.* to be eager to work
yum-úd-oni- *v.* to be soft inside
yu-úd-oni- *v.* to be soft (of soil)
yúé- *n.* lie, falsehood
yúk-óni- *v.* to doubt

Zz

zadíd-ím-oni- *v.* to be arched
zamɔj-án-óni- *v.* to be wrinkly
ze- (zo-oni-) *v.* 1) to be big 2)
be old 3) to be in authority
zéb-esi- *v.* to throw overhand
zekw-ɔni- (zekɔ-) *v.* 1) to sit, be
seated 2) to stay, live
zíb-oni- *v.* to roam around idly
zikíb-oni- *v.* to be tall, long
ziláám-óni- *v.* to be exhausted
zítá- *n.* winnowing basket
zíz-oni- *v.* to be fat, healthy
zík-ési- *v.* 1) to tie 2) to arrest
zinó- *n.* zebra
zíz-esi- *v.* to blame
zo-oni- *v.* to be big; cf. *ze-*
zɔbat-i-esí- *v.* to whip two
children at the same time
zɔta- *n.* chain

33

zab-úd-oni- *v.* to be soft (e.g.
mattress, ripe fruit, soil)

Appendix C—Conjugations of Similar Verbs

| itṣóni- (ita-) ‘to reach’ | <i>Present</i> | <i>Future</i> | <i>Imperative singular</i> |
|------------------------------------|--------------------|----------------------|----------------------------|
| 1SG | itaí | iteesí | ita ^c |
| 2SG | itaíḏ ^a | iteesíḏ ^a | |
| 3SG | ita | iteés | <i>Imperative plural</i> |
| 1PL.EXC | itaím | iteesím | itayú |
| 1PL.INC | itaísín | iteesísín | |
| 2PL | itaít ^a | iteesít ^a | |
| 3PL | itaát ^a | iteesát ^a | |

| iteóni- (ití-) ‘to delay’ | <i>Present</i> | <i>Future</i> | <i>Imperative singular</i> |
|------------------------------------|--------------------|---------------------|----------------------------|
| 1SG | iteí | itesí | ití |
| 2SG | iteíḏ ^a | itesíḏ ^a | |
| 3SG | iteí | ites | <i>Imperative plural</i> |
| 1PL.EXC | iteím | itesím | iteyú |
| 1PL.INC | iteísín | itesísín | |
| 2PL | iteít ^a | itesít ^a | |
| 3PL | iteát ^a | itesát ^a | |

| itíóni- (ité-) 'to go back' | <i>Present</i> | <i>Future</i> | <i>Imperative singular</i> |
|-----------------------------|--------------------|----------------------|----------------------------|
| 1SG | itéí | iteesí | ité |
| 2SG | itéíd ^a | iteesíd ^a | |
| 3SG | ití | itees | |
| 1PL.EXC | itéím | iteesím | <i>Imperative plural</i> |
| 1PL.INC | itéísín | iteesísín | |
| 2PL | itéít ^a | iteesít ^a | itéyú |
| 3PL | itíát ^a | iteesát ^a | |

| itétóni- (ít-) 'to come back' | <i>Present</i> | <i>Future</i> | <i>Imperative singular</i> |
|-------------------------------|---------------------|-----------------------|----------------------------|
| 1SG | itétí | itetésí | itet ^e |
| 2SG | itétíd ^a | itetésíd ^a | |
| 3SG | itét ^a | itetés | |
| 1PL.EXC | itétím | itetésím | <i>Imperative plural</i> |
| 1PL.INC | iteísín | itetésísín | |
| 2PL | itéít ^a | itetésít ^a | itetú |
| 3PL | itetát ^a | itetésát ^a | |

| itétóni- (ít-) 'to arrive here' | <i>Present</i> | <i>Future</i> | <i>Imperative singular</i> |
|---------------------------------|---------------------|-----------------------|----------------------------|
| 1SG | itétí | itetésí | itet ^e |
| 2SG | itétíd ^a | itetésíd ^a | |
| 3SG | itét ^a | itetés | |
| 1PL.EXC | itétím | itetésím | <i>Imperative plural</i> |
| 1PL.INC | iteísín | itetésísín | |
| 2PL | itéít ^a | itetésít ^a | itetó |
| 3PL | itetát ^a | itetésát ^a | |

| ítóni- (ít-) 'to be a certain size' | <i>Present</i> | <i>Future</i> | <i>Imperative sg.</i> |
|-------------------------------------|-------------------|---------------------|-----------------------|
| 1SG | ítí | ítésí | — |
| 2SG | ítíd ^a | ítésíd ^a | |
| 3SG | ít ^a | ítés | <i>Imperative pl.</i> |
| 1PL.EXC | ítím | ítésím | — |
| 1PL.INC | ítísin | ítésísin | |
| 2PL | ítít ^a | ítésít ^a | |
| 3PL | ítát ^a | ítésát ^a | |

| ít-ési- (ít-) 'to get a dead animal' | <i>Present</i> | <i>Future</i> | <i>Imperative sg.</i> |
|--------------------------------------|-------------------|---------------------|-----------------------|
| 1SG | ítí | ítésí | ít ^e |
| 2SG | ítíd ^a | ítésíd ^a | |
| 3SG | ít ^a | ítés | <i>Imperative pl.</i> |
| 1PL.EXC | ítím | ítésím | ítú |
| 1PL.INC | ítísin | ítésísin | |
| 2PL | ítít ^a | ítésít ^a | |
| 3PL | ítát ^a | ítésát ^a | |

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Subject Index

- ablative case, 45, 84-85, 245,
262-266, 405-406, 477, 512,
533, 546-547
- accusative case, 15, 19, 92, 232-
234, 271-277, 305, 493-495
- active voice, 382
- addition clause linking, 559-561
- adjectivals, 301, 401-402
- advanced tongue root [ATR], 17,
41, 43, 74, 79-86
- adverbial clauses, 284, 291, 449-
450, 504, 570
- adverbs, 19, 422, 447-449
- Afroasiatic, 4, 15, 16, 20, 143,
149, 340, 479, 551
- airstream mechanisms, 17, 35
- alternative questions, 533
- ambitransitive, 18, 304-305, 323,
487
- anaphorics, 20, 46, 96, 98, 111-
112, 437-440, 444-446, 503
- apposition, 525
- archaic affixes, 143-152, 158,
188-189, 313-319
- archiphoneme, 40, 81-82
- archimorpheme, 289
- argument dropping, 304, 482,
518
- aspect, 19, 301, 361-362
- auxiliary verbs, 484-488
- boundary tone, 119, 125, 127,
129, 524-529
- bound pronominals, 201, 206-
208, 336-340
- case, 19, 132, 231-239
 allomorphy, 240-243
 grammaticalization of, 289-300
 markers of, 240
 origins of, 243-246
- causative, 75, 93, 279, 282-283,
374-377, 383-385, 483-484
- certainty, 424-425
- clause chaining, 20, 284, 348,
365, 507, 540-451, 563
 sequential, 564-569
 simultaneous, 569-572
- clause combining, 559-563
- clause structure, 20, 479-484,
493-495
- cleft construction, 286, 521-523,
528-529
- clitics, 80, 201, 220, 299, 418-
421, 424, 434-437, 451, 500
 dominant, 97-99
 recessive, 95-96
 tense, 20, 299, 419-421, 451,
 480
- clusivity, 19, 201, 203, 295, 337

- color terms, 375, 403, 530
- common argument, 20, 220, 497-500
- comparative constructions, 407, 546-549
- complement
 - copular, 236, 247-248, 286-287, 489, 492, 518
 - nominal, 210, 214, 224,
 - quotative, 249
 - similative, 268, 270-271
 - verbal, 227, 347, 360-361, 384, 392, 484, 494, 535-541
- complementation, 20, 535-541
 - strategies, 538-540
- complementizer, 535-537
- completive, 376-377, 486-487
- compounds, 19, 97, 132, 171
 - agentive, 181-183
 - diminutive, 180-181
 - grammaticalization of, 243-245
 - formal properties of, 171-176, 249, 560-561
 - pronominal, 183, 188-190, 205-206, 208-210
 - semantic properties of, 177-179, 195, 197-198, 475
- concessive clauses, 517
- conditional clauses, 234, 364, 451, 514-516
- consonants, 17, 31, 33
 - contrasts, 34-35
 - depressor, *see* depressor
 - consonants
 - inventory of, 33
 - phonetic realization of, 35-39
- constituent order, 20, 273-274, 479
 - main clause, 20, 479-482
 - subordinate clause, 20, 228, 234, 493-495
- content questions, 529-533
- coordinating conjunctions, 453-456
- copula, 236, 248, 281, 286-287, 398, 477-478, 489-492
- copula clause, 489-492
- copulative case, 131, 236, 245-246, 285-288, 290-291, 362, 489, 518-519, 521-523, 536, 556
- core argument, 227, 233, 482, 494, 496, 535
- Cushitic, 15-16, 20, 24, 33, 37, 41, 44, 79, 100, 132, 141, 143, 147-150, 166, 170, 203, 226, 262, 267, 270-271, 275, 278, 285, 288, 305, 320, 322, 340, 352, 357, 396, 412, 551
- dative case, 213, 245-246, 278-284, 290-292, 305, 367, 384, 448, 477, 483-484, 520, 533, 545
- de-affrication, 69-71, 202-203
- definiteness, 151, 219

- denominalization, 329-330
- depressor consonants, 108-114,
118-121, 158, 163, 207, 306,
309, 340, 407, 437, 444
- deverbalization, 182, 324, 329
- devoicing, 45-47, 50-53, 61, 241,
341
- dialects, 23
- Dime, *see* Omotic
- diminutive, 171, 177, 180
- diphthong, 43-44, 49-50, 58, 308
- directionals, 331-336, 372-374,
376
- direct speech, 542-544
- disjunction, 562
- distributive adjectival, 90, 416-
417
- distributive pronoun, 224
- Dodoth, *see* Karimojong
- dominant suffixes, 80, 87-92
- downdrift, 18, 116-118
- downstep, 18, 108, 111-112, 118-
119
- dummy pronoun, 213, 226-229,
233, 304, 340-342, 450-452,
505, 508, 511-512
- ejectives, 17, 21, 33, 36-37, 41,
55-57, 113-114
- epistemic qualification, 424
- equative, 549
- ethnonyms, 1, 4, 183, 195-196
- exclusive, first person, 201-203,
336-337
- existential copula, 477-478
- expository text, 564, 567, 600
- extended transitive, 304, 382,
399, 483-484
- fieldwork, 29-30
- filler particle, 359
- fricatives, 17, 21, 24, 33, 37-38,
40-41, 51, 53, 108, 190
- future time marking, 343, 349-
351, 418, 422-423
- focus, 286, 288, 291, 502, 519,
521-528
- gender, 19, 105-106, 132
- general number, 149, 170, 184
- genetic affiliation, 14-16
- genitive case, 185, 205, 233, 267-
271, 475-476, 490, 520, 538
- glottalic effects, 55-57
- grammaticalization
of compounds, 177
of definiteness markers, 219
of relative pronouns, 219-222
of case markers, 289-300
of the dummy pronoun, 340
of the optative-narrative, 354
of aspectuals, 372, 376
of demonstratives, 436-437,
441-442
of subordinating conjunctions,
450
- grammatical relations, 232-239,
479-484, 493-495
- greetings, 24, 465-470

- haplology, 57, 63-69, 75, 333, 336, 417
- hypothetical clauses, 234, 364, 452, 516-517
- iconicity, 46, 127
- ideophones, 20, 460-461
- imperatives, 236, 247-248, 302, 357-360
 infantile, 462
- imperfective, 330, 343, 349-351, 370-372
- impersonal passive, 66, 94, 391-393
- inchoative, 372-375, 396, 486
- inclusive, first person, 201-203, 336-337
- indefinite pronouns, 210-212, 219, 472, 531
- index of comparison, 405, 546
- indirect speech, 542-543
- infinitive, 123, 269, 281, 302, 304, 319-320
- instrumental case, 45, 51-52, 70, 133, 228, 256-261, 425, 442, 448, 462-464, 488
- implosives, 17, 33, 36-37, 41, 55, 57
- intensification, verbal, 282
- intentional, 330, 345-346, 349-351, 422
- interjections, 459
- interrogative, 125, 127-129, 212-216, 526
- intonation, 18, 46, 103, 125-130, 359, 500, 524-529
- intransitive, 18-19, 182, 282, 302, 304-305, 320-322, 325, 382, 402, 480
- irrealis mode, 18, 21, 294, 343-348, 360-362, 422, 504, 515, 550
- Karimojong, 1, 3, 5, 12, 29, 144, 148, 195, 465, 478, 537, 548, 562
- kinship terms, 11, 165, 167, 188-191, 268, 476
- Kuliak, 1-2, 4, 6, 14-16, 20, 25-28, 79, 100, 144, 204, 316, 336, 391, 531, 617
- language contact, 15-16, 23-25, 38, 146, 366
- laterals, 17, 21, 24, 33, 37-38, 56, 190
- left-dislocation, 523-525
- lexical causative, 384
- lexicon, 19-20, 31, 143-144, 313-319, 618
- long vowels, 42-43, 460
- manner clauses, 508-510, 571-572
- marked accusative, 245, 494
- marked nominative, 245
- medial clauses, 552, 563, *see* clause chaining
- metathesis, 18, 57, 64-65

- middle voice, 87-88, 382, 396-399
- modality, 19, 252, 343-346
- mora, 59-61, 64, 124, 152, 156, 159-163, 526
- motion verbs, 275-276, 305, 379, 451
- narrative mood, 290-291, 353-354, 362-363, 366
- narrative text, 363, 573
- nasal assimilation, 17, 40
- nasals, 17, 31, 33, 39-40, 51, 54, 58-59, 63
- negation, 360-361, 550-557
- negating verbs, 347, 360-361, 491, 550-551
- negative copula, 287-288, 492, 555-556
- Nilo-Saharan, 4, 15, 16, 79, 143, 149-150, 267, 271, 274, 322, 378, 407, 411, 430, 491, 531, 551
- Nilotic, 20, 43, 124, 134, 150-151, 158-159, 310, 314-315
 Eastern, 1, 15, 20, 33, 36, 41, 58, 79, 100, 143, 145-146, 313-314, 318, 325, 366, 479
 Southern, 15-16, 20, 24, 79, 100, 150, 160, 314, 378
 Western, 15, 20, 79, 366
- nominalization, 269, 281, 301-302, 319-320, 476, 538-539, 559-560
- nominative case, 19, 52, 89, 232-234, 252-256, 287, 293, 345, 493, 524-525, 556
- non-final deletion, 71, 448
- non-past tense, 19, 220-222, 298, 348-350, 418, 422-423
- non-spatial setting, 343, 361
- noun phrases, 20, 131, 174-175, 240, 471-474
- number marking, 132-133, 149, 152-156
- numeral system, 427-433
- Nyang'i, 6, 14, 20, 204, 208, 447
- oblique case, 22, 51, 53, 175, 205, 235-236, 246-251, 294, 354, 358, 490, 542, 559-560
- occupative aspect, 261, 488
- Omoti, 6, 16, 33, 41, 132-133, 181, 226, 256, 262, 275, 298, 305, 320, 340, 378, 436, 464
- onomastics, 193-195
- optative mood, 91, 122, 235-236, 247-248, 296, 348, 352-355, 362, 367, 537
- orthography, 27-28, 30-31, 468, 573
- particles, 212, 289, 340, 343, 360, 409, 418, 424, 429, 447, 462
- passive, 382, 385-390, 399
 impersonal, 66, 94, 388, 391-393, 491

- sequential impersonal, 365,
394-396, 510, 564, 567
- past tense, 418-421
- patient, 274-275, 283, 326-327,
391-392, 397, 413
- perfect, present, 92, 300, 378-
379, 421, 436, 550
- person-marking, 188, 206-208,
336-340
- pertensive, 475
- phonological rules, 50, 55, 57,
65, 70-72
- phonological word, 80, 95, 97,
172, 424, 434
- place assimilation, 54-55
- pluractional aspect, 87, 372, 379-
381
- pluratives, 60-61, 88, 93, 148,
155-166, 183-185
- polar questions, 526-529, 534
- politeness strategies, 129, 359,
365, 466
- possessee, 475-477
- possession, 164-168, 205, 208-
209, 268-271, 474-478
- possessor, 192, 270, 281, 475-478
- possessum, impersonal, 183, 203,
208-209, 212-213, 475, 530,
533
- pragmatically marked, 46, 103,
118, 125, 127, 205, 351, 369,
381, 406, 426, 438, 465, 495,
502, 507, 519, 521, 525, 532,
547, 561
- prefixes, 18-19, 105-106, 134,
142-152, 159, 160, 189, 194,
196-197, 298, 301, 310, 312,
313-319, 436, 464, 479, 551
- prepositions, 150, 185, 250-251,
284, 457-458
- procedural text, 363, 564, 567,
591
- proclitic, *see* clitic
- pro-drop, 201, 204, 482
- progressive aspect, *see* occupative
aspect
- prohibitive, 345-346, 360, 554-
555
- proper nouns, 192, 497
- proverbs, 612
- purpose clauses, 510-511
- quantifiers, 19-20, 427-433
- questions, 46-47, 51, 127-129,
212-216, 467, 469, 526-534
- quotative, 247, 249, 535-536
- realis mode, 18, 21, 89-90, 252,
293, 296-297, 337, 343-346,
348-349
- reason clauses, 512-513
- recessive clitics, 80, 95-96
- recessive suffixes, 80, 86, 93-95
- recipient, 229, 237, 245, 279
- reciprocal, 76, 399-401
- reduplication, 18-19, 50, 63, 140-
143, 310-313, 390, 460

- reflexive, 205, 222-224, 397
 relative clauses, 20, 192, 204,
 218, 220-221, 228-229, 338-
 339, 428, 440, 474, 496-497
 relative pronouns, 20, 95, 219-
 222, 228-229, 297-300, 500-
 501
 relational nouns, 167, 178, 185-
 187
 reported speech, 535-537, 541-
 544
 Rub, 1-2, 25, 28, 79, *see also*
 Kuliak
 semi-vowels, 44, 60-61, 64, 243,
 308
 sequential aspect, 290-291, 300,
 362-366
 simultaneous aspect, 290-292,
 367-369
 simultaneous clauses, 20, 369,
 406, 507-508, 569-572
 singulatives, 143, 147-150, 152-
 156, 166-169
 So, 14, 20, 79, 97, 100, 149, 204,
 245, 334, 366, 398, 491, 522,
 551
 solicitive intonation, 46-47, 125,
 129-130, 524-525
 speech-act participant, 188, 274-
 275, 369, 438
 split-accusativity, 19, 232, 273-
 275
 stative adjectival, 91, 412-415
 subjunctive mood, 290-291, 356-
 357, 368
 subordinate clauses, 20, 228, 234,
 255, 276-277, 291, 322, 324,
 368, 479, 493-495
 subordinating conjunctions, 121,
 368, 436-437, 450-453, 493
 subtractive morphology, 45, 70,
 133, 159, 171, 184, 240, 243,
 252, 262, 267, 293, 296-297,
 302, 337, 345, 348
 suppletive forms, 163-164, 201,
 215, 339, 352, 362, 394
 suprasegmental phonology, 79,
 125
 Surmic, 20, 36, 41, 97, 100, 143,
 150, 322, 325, 331, 386, 415,
 493, 495
 Swahili, 14, 20, 24-25, 63, 138,
 146, 195, 250, 270, 432, 447,
 452, 459, 462, 517, 562
 syllables, 17-18, 57, 97
 structure of, 58-62
 syllabification methods, 62-
 65
 tags, 534, 557
 temporal clauses, 23, 452, 505-
 506
 tense, 19, 220
 tense clitics, *see* clitics, tense
 Tepeth, *see* So
 Teso-Turkana, 1, 6, 14, 16, 19,
 23-26, 38, 43-44, 54, 79, 100,

- 104-106, 140, 143-147, 160-161, 164, 176, 193-199, 201, 204, 245, 250, 282-284, 313-318, 325, 336, 343, 353, 366, 374, 383, 385, 388, 391, 415, 448, 453, 457, 459, 462-463, 465, 478-479, 491, 493, 510, 529, 531, 537, 540, 548-549, 562-563
- time expressions, 228, 448-449, 462-464
- tone, 18, 99-100, 115, 124
 allotones, 100-103
 lexical, 103-108, 135-139, 306-310
 processes, 114-124
- toponyms, 145, 179, 197-200
- Toposa, 3, 24, 45, 51, 105, 144, 366, 388, 391, 563
- transitivity, 18, 274-275, 302, 304-305
- Turkana, 1, 3, 9-10, 12, 24, 29, 79, 40-41, 43, 45, 51, 54, 58, 61, 68, 72, 100, 105, 124, 132, 142, 144, 147-48, 150-162, 156, 159-160, 181, 193-196, 203-204, 226, 245, 274, 276, 282-284, 291, 310, 313-318, 322, 325, 331, 336, 358, 360, 366, 372, 374, 376, 379, 382-383, 391, 396, 407, 410, 412, 416, 450-453, 462, 478, 485, 493, 503, 529, 541, 548, 551, 573
- valence, 382-383, 399, 483
- verbalization, 329-330
- verbless clauses, 286, 288, 517-520
- vocabulary, *see* lexicon
- voice, 382-383
- voiceless vowels, 17, 31, 43-47, 50-53, 57, 61, 241, 257
- vowel assimilation, 72-78, 85-86, 145, 217, 221, 241-242, 263, 298-299, 314, 341, 358, 436, 441
- vowels, 17, 41
 contrasts, 42-43
 devoiced, *see* voiceless vowels
 distribution, 48-50
 inventory of, 41
 phonetic realization of, 43-48
 voiceless, *see* voiceless vowels
- vowel harmony, 17, 79-80, 172, 220, 241, 419, 434
 lexical, 81-86
 post-lexical, 97-99
- zero marked, 22, 46, 155, 240-241, 246, 273-274, 294, 302, 337, 346, 354, 356, 391

Samenvatting

Dit boek omvat een analyse van het Ik (Icé-tód), een Kuliak (Rub)-taal gesproken door 7500 mensen in noordoost Oeganda. Het levert een zo volledig mogelijke basisinventaris van de klank/vorm/betekenis-eenheden die samen de grammatica van het Ik vormen. Het boek kan voortborduren op een solide traditie van vijftig jaar taalbeschrijving. Desalniettemin vult het een aantal belangrijke gaten op. De noodzaak voor een vollediger beschrijving is nijpend gezien het feit dat de twee andere leden van de subgroep, Nyang'ia en So/Tepeth, op het punt van uitsterven staan. Een tweede doel van deze studie is dan ook een precieze en adequate geschreven weergave te bieden van het Ik voor het geval, door de krachtige neiging tot assimilatie aan het Engels en de Teso-Turkana talen uit de Oost-Nilotische (Nilo-Saharaanse) taalfamilie, ook Ik verloren gaat. Een derde doel van deze studie is een duidelijker beeld mogelijk te maken hoe Ik gerelateerd is aan de andere talen in de regio, met name door parallellen voor te stellen voor de grammaticale morfemen van het Ik.

Hoofdstuk 1 begint met een korte inleiding over het Ik-volk, hun geschiedenis, de ecologie van hun leefgebied, economie, samenleving, godsdienst en cultuur. Hierop volgt een inleidend overzicht over de taal van de Ik, waarbij onderwerpen zoals de controverse rond de genetische classificatie aan de orde komen, maar die ook een typologische karakterisering van de taal geeft en onderwerpen als variatie, invloeden door taalcontact, etnolinguïstische vitaliteit en eerdere publicaties over het Ik behandelt. Het hoofdstuk sluit af met een beschrijving van de methodologie, het veldwerk, de verzameling van de gegevens en hun beschikbaarheid, en tenslotte de spelling. Hieruit wordt duidelijk hoe het Ik dat lange tijd in haar bestaan bedreigd was maar toch kans zag voort te bestaan door aanpassing zonder zijn eigenheid op te geven.

Hoofdstuk 2 behandelt de segmentele fonologie. Hierbij komen de dertig contrastieve medeklinkers en de negen klinkers aan bod met hun allofonische realisaties zoals het stemloos worden van klanken in finale positie, assimilatie naar plaats van articulatie en glottale effecten. Bij de bespreking van lettergreepstructuur wordt een onderscheid gemaakt tussen fonetische en fonologische lettergrepen om het stemloos worden klinkers voor een pauze te verklaren. Ten slotte behandelt het hoofdstuk morfofonologische regels zoals haplogogie, ontwrijving, niet-finale deletie en klinkerharmonie. Dit laatste is een verschijnsel dat van belang is bij de morfologische analyse in alle onderdelen van de grammatica.

Hoofdstuk 3 over de suprasegmentele fonologie behandelt twee van de meest interessante verschijnselen: ATR klinkerharmonie en toon. De behandeling van de klinkerharmonie omvat de volgende onderwerpen: klinkerharmonie binnen de lexemen, waarbinnen de opake klinker /a/ soms als [-ATR] en soms als [+ATR] gespecificeerd dient te worden, dominante achtervoegels, inclusief opake, recessieve achtervoegsels, recessieve clitica en post-lexicale harmonie. De bespreking van toon in het Ik legt het fundament voor een begrip van het toonsysteem. De analyse gaat uit van twee tonen (hoog en laag) die vrijelijk combineren in alle lexicale eenheden. Deze tonen hebben contextuele varianten bepaald door depressor consonanten, morfologische conditionering en syntactische grenzen van zinsdeel en zin. Er wordt een lijst gegeven van tonale processen die relevant zijn voor de rest van de grammatica, gevolgd door een korte bespreking van de drie basale intonatiepatronen.

Hoofdstuk 4 geeft de basiseigenschappen van het naamwoord. De kenmerken van een lexicale wortel worden benoemd, aangevuld met opmerkingen over reduplicatie en archaische voorvoegsels. Daarna komen de strategieën aan bod om getal uit te drukken: singulatieven, pluratieven, suppletieve meervouden, possessieven, en naamwoorden die niet voor getal gemarkeerd zijn. Ik heeft een relatief arm systeem van nominale affixatie dat gecompenseerd wordt door de (voor)naamwoord - (voor)naamwoord-

samenstellingen die functies als agentief, verkleinwoord, interne en variërende meervoudigheid, en relationele locatieven uitdrukken. Op het eind van de hoofdstuk krijgt de lezer een overzicht over verwantschapstermen, persoonsnamen, namen voor volkeren en voor plaatsen.

Hoofdstuk 5 vervolgt met een beschrijving van de vele verschillende voornaamwoorden in de taal. Eerst behandel ik de persoonlijke voornaamwoorden, gebonden en vrije, dan het unieke bezittelijke onpersoonlijke voornaamwoord. Vervolgens komen de volgende voornaamwoorden in detail aan bod: onbepaalde, interrogatieve, aanwijzende, betrekkelijke, wederkerende, distributieve en aansporende voornaamwoorden, en tenslotte het zogenaamde “dummy voornaamwoord” dat vereist is ter vervanging van een perifeer zinsdeel dat verplaatst is.

Ieder naamwoord en voornaamwoord is verplicht gemarkeerd voor naamval. Dit wordt besproken in hoofdstuk 6. Dit hoofdstuk vormt de brug tussen de nominale woordsoorten en de andere woordsoorten omdat de naamvalmarkeerders zich in een grammaticaliseringsproces bevinden naar gebruik in andere onderdelen van de grammatica zoals het verbale systeem. Ik beschikt over een uitgebreid naamvallensysteem met acht naamvallen: obliek, nominatief, instrumentaal, ablatief, genitief, accusatief, datief, en copulatief. De naamvalsachtervoegsels met hun complexe allomorfie en hun semantische rollen worden uitgelegd in dit hoofdstuk. De mogelijke oorsprong van de naamvalsachtervoegsels en hun verdere grammaticalisatie komen eveneens aan bod.

Hoofdstuk 7 behandelt het werkwoord. Het hoofdstuk begint met een overzicht van de mogelijke segmentele en tonale stucturen van de werkwoordswortel. Vervolgens behandel ik de derivationele, directionele en subject-markerende achtervoegsels. Daarop volgt een discussie over modaliteit, die zich toespitst op het onderscheid tussen realis en irrealis, dat op de eerste plaats een vormelijke opdeling inhoudt en slechts ten dele een

semantische. Andere wijzes die behandeld worden zijn intentioneel, optatief, aanvoegend, negatie en imperatief. Op het terrein van aspect staan de sequentiële en simultane aspecten centraal, die beide veel voorkomen in de aaneenschakelijking van zinnen. Vervolgens worden de drie verschillende manieren beschreven waarop Ik een passief maakt, evenals de causatieve, mediale en wederkerige afleidingen. Ten slotte worden de bijvoeglijke achtervoegsels behandeld, de tijdsmarkeerders en de markeerders van epistemische bepaling.

Hoofdstuk 8 sluit de morfologie af met een presentatie van de overige woordsoorten. Deze omvatten kwantificeerders, demonstratieven, bijwoorden, conjuncties, voorzetsels, tussenwerpsels, ideofonen, en imperatieven gebruikt ten opzichte van kinderen. Daarna komen tijdsaanduidingen aan bod. Ten slotte worden begroetingen behandeld. Hoewel deze geen woordsoort op zichzelf vormen worden ze wel veelvuldig gebruikt, zijn retorisch van belang en hebben een ritueel karakter.

Hoofdstuk 9 maakt een begin met de analyse van de syntaxis van zinsdelen en zinnen. Eerst wordt de structuur van de naamwoordgroep uitgelegd, daarna de structuur van eenvoudige hoofdzinnen inclusief causatieve zinnen, zinnen met koppelwerkwoorden en zinnen met hulpwerkwoorden. Het omvangrijkste onderdeel van dit hoofdstuk is de bespreking van de structuur en functie van de vele soorten ondergeschikte zinnen die het Ik kent, met bijzondere aandacht voor zinnen zonder werkwoord, focus en topic constructies, vragen, complementzinnen, indirecte rede, constructies van vergelijking en negatie. Dit hoofdstuk vormt een eerste aanzet voor de verdere analyse van de syntaxis van het Ik.

Het tiende hoofdstuk overstijgt de grenzen van de zin en behandelt kort de strategieën om zinnen met elkaar te verbinden als toevoeging, tegenstelling of alternatief. Het hoofdstuk eindigt met een discussie van zinsaaneenschakeling. Ik maakt gebruik van sequentiële en simultane werkwoordsvormen om ketens van zinnen te creëren in een zogenaamd co-

subordinerend verband. Aangezien zinsaaneenschakeling een areaal kenmerk is (het komt ook in Oost-Nilotische talen voor) en steeds meer aandacht krijgt, zijn deze beschrijvende observaties over het Ik een relevante bijdrage.

De eerste appendix is een verzameling van vijf teksten in het Ik met interlineaire vertaling: “Vijanden”, “Bijenteelt”, “Specht”, “Koning Leeuw”, “Gezegden” waaronder enkele verboden en een tongbreker. De tweede appendix is een lexicon van Ik wortels. Ten slotte geef ik de vervoeging van zeven voorbeeldwerkwoorden.

Curriculum Vitae

Terrill Brian Schrock was born on August 12, 1980, in the small, southern railroad town of Atmore, Alabama, U.S.A. Though much of his childhood was spent in the American South, he also lived with his family among Bantu peoples on the shores of Lake Victoria in Tanzania, between 1987-89 and 1995-97. From 2000-2001, Terrill took part in a study-abroad program in Aktau, Kazakhstan, where he studied Kazakh and taught English. By 2003, he earned a BA degree in French and Russian languages from the University of South Alabama. In 2007, he completed an MA in Applied Linguistics from the Graduate Institute of Applied Linguistics in Grand Prairie, Texas. While working as truck-loader for UPS and an intern at the commercial translation firm RussTech Inc., Terrill joined Wycliffe Bible Translators and SIL in 2004. In 2008, he and his wife Amber were assigned by SIL to the Ik project in northeastern Uganda where they have been since, working in language development and healthcare. They are now the proud adoptive parents of two Ik/Karimojong girls, Lemu Immaculate and Kaloyang Mercy, and live with them by Timu Forest in Ikland at the edge of the Rift Valley.