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Clause Linkage In Ket

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Clause linkage in Ket

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Last and certainly not the least, I would like to thank my family who has always encouraged and supported me, no matter what choices I made.

List of abbreviations

1 first person
2 second person
3 third person
ABL Ablative
ABS Absolutive
AC animacy classifier
ACC Accusative
ACTIVE marker expressing active events
ADESS Adessive
ADJ adjectivizer
AGR agreement
AN animate
ANOM action nominal
AOR Aorist
AT atelic marker
BEN Benefactive
CAR Caritive
CAUS causative
COND conditional
COM Comitative-Instrumental
COMP complementizer
COMPL completed
CONN connector/connective
CONNEG connegative converb
COORD coordinator
CTP complement taking predicate
CVB converb
DAT Dative
DEF definite

DEM demonstrative
DIM diminutive
DS different subject
F feminine
FUT future particle
GEN Genitive
HAB habitual particle
HOD hodiernal tense (‘today’)
IC involuntary causative
ILL Illative
IMMED immediate
IMP imperative
INCH inchoative
INDEF indefinite particle
INF infinitive
INT intensive action
INTR intransitive
IRR irrealis particle
IRREAL irrealis
ITER iterative
LOC Locative
M masculine
MOM momentaneous
N neuter/inanimate
NEG negative particle
NFUT non-future
NMLZ nominalizer / nominalization
NOM Nominative
NPST non-past
O primary object
OBJ object

OPT optative particle
PFV perfect / perfective
PL plural
POSS possessive
PPT past participle
PRED predicate
PRES present
PROH prohibitive particle
PROS Prosecutive
PRS presumptive
PTC particle
PTCP participle
PST past
PURP purposive
PURPV purposive mood marker
PROX proximate
QUEST question particle / marker
R morpheme with unclear semantics
REL relative element
REM.PST remote past
RES resultative
RUS Russian loan
S subject of intransitive clause
SG singular
SBJ subject
SJNCT subjunctive
SIM simultaneous
SBRD subordinator
SS coreferential subject marker
TH thematic consonant
TOD.PST today's past

TR transitive

TRANSL Translative

VN verbal noun

VOC Vocative

WH interrogative/relative pronoun

Chapter 1. Introduction

1.1 Scope of the study

This dissertation provides a typologically oriented description of clause linkage strategies in Ket, an endangered language spoken in Central Siberia. The notion of 'clause linkage' employed in the study pertains to the means of combining two (or more) clauses together into a single whole. In the traditional sense, it is generally associated with such notions as coordination and subordination.

The theoretical background of the present study is based on the general framework developed within the functional-typological approach. This approach puts primary emphasis on the role of functional factors at all levels of grammatical analysis (Comrie 1989; Givón 1984, 1990; Croft 1990, 1991; Langacker 1991). Contrary to the formal approach (e.g. Chomsky 1957), which generally regards grammatical structures as independent of their functions and meanings, the functional approach to grammar assumes the existence of certain interrelations between morphosyntactic structures and their semantic and pragmatic functions. These interrelationships can be generally explained in functional terms such as iconicity or economy. For example, many functionally oriented typological studies (e.g. Silverstein 1976; Haiman 1985; Givón 1980) propose the existence of an iconic correlation between the morphosyntactic representation and the semantic representation of a complex sentence. It predicts that the stronger the semantic relation between two events, the tighter the syntactic integration of the two propositions will be. These semantic-syntactic interrelations can be further organized together into a certain implicational scale or hierarchy showing semantic relations between the events and the degree of their integration. Well-known examples of such hierarchies include Givón's (1980) Binding Hierarchy, Van Valin and La Polla's (1997) Interclausal Relations Hierarchy and Cristofaro's (2003) Subordination Deranking Hierarchy.

Therefore, the main goal of the present study is not only to comprehensively describe existing strategies of clause linkage in Ket, but also to reveal the underlying functional associations between the morphosyntactic properties of clause-linking strategies and the semantics that these strategies serve to express.

1.2. Ket people and their language

Ket, also known as Yenisei Ostyak or Imbat Ket, is now the only surviving member of the Yeniseian language family. The last remaining speakers of the language reside in the north of Russia's Krasnoyarsk province (the Turuxanskij district as well as the south-west of the Èvenkijskij district) along the river Yenisei and its tributaries.

1.2.1 Yeniseian languages

The Yeniseian (Yeniseic) language family are one of Siberia's oldest language families. It consists of six known languages, of which Ket is the only surviving member today. The extinct Yeniseian languages include: Yugh († 80s of the 20th century), Kott († mid19th century), Assan († 18th century), Arin († 18th century) and Pumpokol († 18th century). Of all extinct Yeniseian languages, only Yugh was rather extensively documented, especially during the 60s-80s of the 20th century by Soviet scholars such as Andrej P. Dul'zon (and his students), Eruxim A. Krejnovič and others. The only grammatical description available on Kott is owed to the Finnish scholar Mathias A. Castrén, who managed to work with the last five speakers of Kott during his trip to Siberia in 1846-8. The linguistic information on the other three extinct languages exists only in the form of short wordlists compiled by early explorers of Siberia during the 18th century. Some scarce data (a few placenames and clan names) suggest that there probably existed other Yeniseian varieties spoken by Yarins (Buklins), Yastins, Bajkotts, as well as by some groups of Bachat Teleuts (Ashkishtims) and Kojbals (Kojbalkishtims) (see Dolgix 1960; Verner 1997: 169).

The linguonym 'Yeniseian' is connected with the name of the river Yenisei in Central Siberia, whose basin was the home to these languages at the time they were discovered. The toponymic evidence, however, suggests that the Yeniseian-speaking peoples once inhabited a much broader area. The spead of hydronyms containing the Yeniseian element for 'river' or 'water' (ket. *-ses*/*-sis*, yug. *-sym*/*-sim*, kot. *-šet*/*-čet*, ass. *-ul^{j}*, ar. *-set*/*-sat*/*-kul^{j}*, pum. *-tet*/*-tom*) indicates that the Yeniseian languages were once spoken on a vast territory stretching from the basin of the Selenga river in Northern Mongolia to the Kama river near the Ural mountains in Russia (Maloletko 2002).

The question of internal classification of the Yeniseian languages remains open. The specialists agree on the existence of two separate branches – Northern (Ket and Yugh) and Southern (Assan and Kott). The scarcity of data on Arin and especially on Pumpokol complicates their classification to a great extent: while the former seems to be closer to the Southern branch, the latter can be assigned to both branches (cf. Georg 2007: 19). Verner (1997) argues that these two languages show some lexical and phonetic parallels which suggest that they might form a single group. A provisional family-internal classification is given in Figure 1.1.

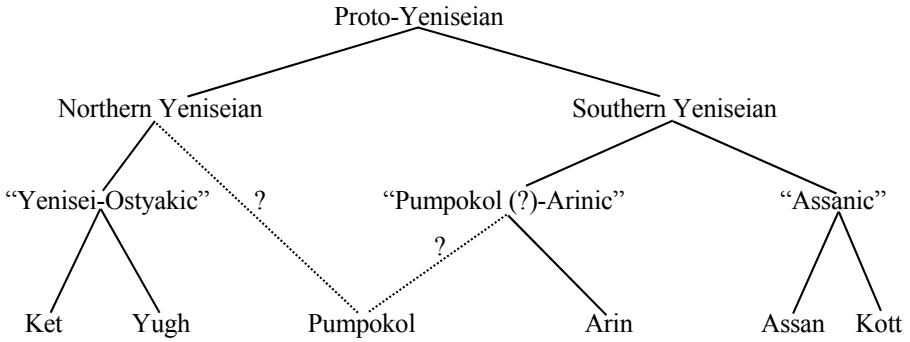


Figure 1.1. *Classification of the Yeniseian languages*

The Yeniseian family has been until recently considered as an isolate and conventionally assigned to the Paleosiberian (Paleoasiatic) group of languages.[1] The isolate status of the family gave rise to numerous hypotheses about its genetic relationships with other languages in Eurasia and North America. Among hypothetical connections most repeatedly claimed to exist are Sino-Tibetan languages, North Caucasian languages, Burushaski, and Na-Dene languages. But the evidence provided so far in support of most of these claims consists of random lexical coincidences and general typological similarity between the languages, and thus cannot be regarded as sufficient let alone convincing enough from the point of historical linguistics (cf. Georg 2007: 19). To date, the only hypothesis which has a substantial empirical

[1] 'Paleosiberian languages' is a cover term used to classify a group of genetically unrelated language families spoken in Siberia: Yukaghir, Chukotko-Kamchatkan and Nivkh, and until recently Yeniseian. It is generally believed that they were the first among current speech communities to inhabit the territory of Siberia, but later lost ground to Altaic and Uralic languages and more recently to Russian (cf. Comrie 1981a: 238).

basis is the proposed genetic link between Yeniseian and Na-Dene (excluding Haida) in Northwest America.

The first linguist to claim a genetic connection between Yeniseian and Na-Dene was Alfredo Trombetti in 1923. Since that time, many other scientists, most notably Merritt Ruhlen (1998) have repeated the same suggestion (cf. Vajda 2001: 2). The real breakthrough came in 2008, when the American linguist Edward Vajda supplemented this hypothesis with extensive evidence stemming from both a wealth of lexical cognates and striking similarities in verbal morphology (Vajda 2008). His work received a favorable reaction from the majority of specialists in Na-Dene and Yeniseian languages such as Michael Krauss, Jeff Leer, James Kari, John Bengtson, and Heinrich Werner. In addition, a number of well-known historical linguists and typologists such as Bernard Comrie, Johanna Nichols, Victor Golla, Michael Fortescue, Eric Hamp, and Bill Poser announced their support of the methods and results provided in Vajda's work (see Dene-Yeniseic Symposium 2008). The structure of the proposed Dene-Yeniseian macrofamily is the following:

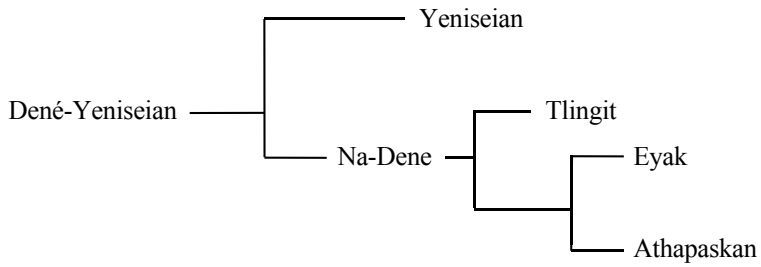


Figure 1.2. *Dené-Yeniseian macrofamily*

1.2.2 Ket

The ethnonym 'Ket' derives from the native word *ke$^{?}$d* 'person'. The Kets themselves, when speaking their native language, often use the designation *òstik* (pl. *ostìkan*) 'Ostyak' which was given to them by Russians. Notably, the only way to refer to 'Ket language' in Ket is to use the phrase *ostìkanna qa$^{?}$* 'Ostyaks' word'.[2]

[2] The term 'Ostyak' most likely originates from a Turkic word meaning 'stranger, alien'. It was used by Russians to refer to any of the non-Turkic native inhabitants of Siberia such as the Ob'-Ugric Khanty (Ostyak proper) and the Selkup (Ostyak Samoyeds). Interestingly, many Khantys and Selkups (at least nowadays) consider the use of 'Ostyak', when referring to them, as rather insulting.

Another attested self-designation is *kə́nasked* (pl. *kə́nadeŋ*) which literally means 'bright / light-colored person', but it is rarely used today, mostly by the older generation. When Kets speak Russian, they often refer to themselves as *ketó* which is a vocative form of *keˀd*. This apparently was the reason why the designation *keto* was often used in Soviet passports in the column for 'nationality' (i.e. as officially recognized ethnic group).

Over the past decade, the number of Kets has been constantly decreasing: according to the census of 2010, there are 1219 people who reported themselves as ethnic Kets (cf. the census of 2002, which reports 1494 people[3]). The sociolinguistic situation is even more deplorable as language loss among Kets has been rapidly increasing, especially in recent years (cf. Krivonogov 2003: 76; Kazakevič 2006).

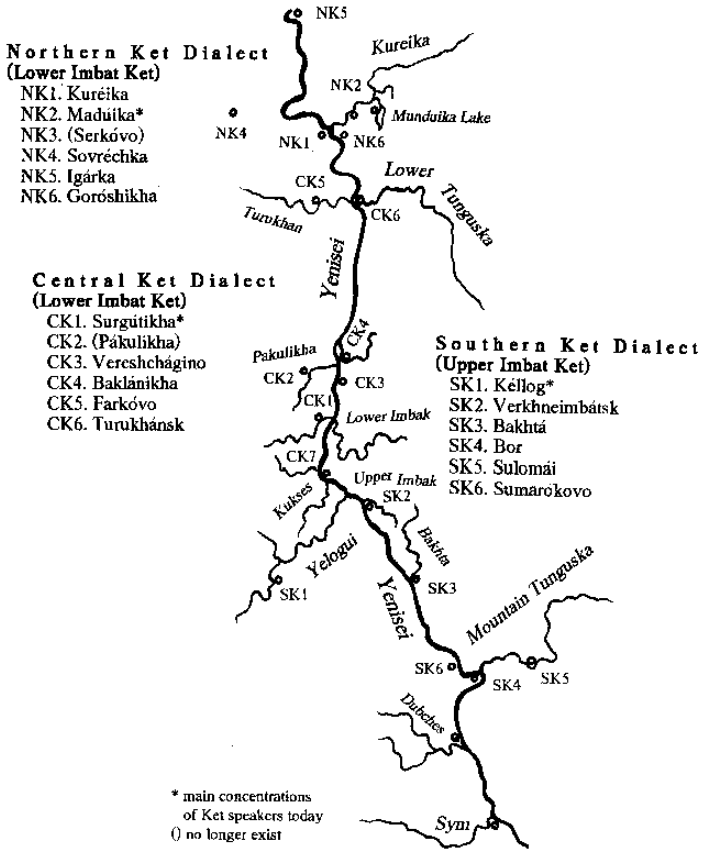
In the early 1990s, A.E. Kibrik proposed a five-tiered classification of numerically small nationalities of the Russian Federation ranging from moribund languages (first group) to those that continue to be used by the whole community for everyday communication (fifth group). He placed Ket in his fourth group, regarding it as a 'comparatively tenacious language' (Kibrik 1992: 78). Today we have to state that the situation has changed dramatically. The overall sociolinguistic situation is characterized by the lack of monolingual speakers and the predominance of Russian in all spheres of communication. Although in several local schools there are classes on Ket, it is however taught as a foreign language, i.e. the language of instruction is mainly Russian. Speaking from our fieldwork experience, the present-day number of competent speakers does not exceed 50 people.[4] The average age of the majority of competent speakers is above 60 years. Thus, according to Kibrik's classification, today Ket should be placed into his second group ('languages under direct threat of extinction') or even into the first group ('moribund languages') as it is no longer being passed to the younger generation, even in Kellog, the largest Ket-speaking community (cf. Kotorova 2003: 137-138; Kazakevič 2006).

[3] The census of 1989 reports even a smaller number of Kets, namely 1089 people, which apparently can be attributed to a low-prestige status of belonging to a Siberian language minority at that time.
[4] According to the official census of 2010, only 190 ethnic Kets reported they have a command of their native language. But even this number is far from the real linguistic situation encountered by the author (cf. also Kazakevič 2006).

1.2.3 Ket dialects

Until the 80s of the 20th century, the name 'Ket' was used to refer to two dialects – Imbat Ket and Sym Ket. At present, these varieties are considered to be two separate languages – Ket (proper) and Yugh, respectively.

Ket (proper) distinguishes three major dialects: Southern, Central and Northern.[5] They are further subdivided into subdialects named after the village each is spoken in. Map 1.1 shows the location of virtually all known villages where Ket was or is still spoken. It also indicates which general dialect a particular village belongs to.



Map 1.1. Ket settlements (after 1930) (Vajda 2001)

[5] In the linguistic literature on Ket one can often find designations *verxneimbatskij* (Upper Imbat) and *nižneimbatskij* (Lower Imbat), the former refers to the Southern dialect, the latter to both Central and Northern dialects (Vajda 2003: 4).

At present, the largest number of speakers belongs to the Southern dialect (they mainly reside in the village of Kellog), whereas the smallest number belongs to the Northern one (mainly spoken in the village of Madujka).[6]

The dialectal classification is based on geographical distribution and phonetic differences. Among the most prominent differences are, for example, truncation of the final unstressed vowel in Southern Ket (e.g. SK *sèl*, CK *sèle*, NK *sèli* 'reindeer'), rhotacism of intervocalic *d* > *r* in Southern and Northern Ket (e.g. CK *tì:də*, SK *tìr*, NK *tì:ri* 'root'), spirantization of *b* > *v* in Southern and Northern Ket (e.g. CK *dansibet*, SK and NK *dansivet* 'I think'), change of the spirant *s* to the fricative *š* in Central Ket (e.g. CK *šuˀl*, SK and NK *suˀl* 'a.k.o. salmon'). For a more detailed list of phonetic differences, see Werner (1997), Vajda (2000), Nefedov and Glazunov (2004). The existence of interdialectal variation at the lexical and morphological levels has been only occasionally addressed in the literature on Ket (e.g., Denning 1969: 64).[7] Despite the differences, the dialects are mutually understandable, though speakers of one dialect usually claim that the other dialects are "incorrect" and "not genuine".

1.3 Goals and data

The present study pursues the following goals: (i) to provide a unified morpho-syntactic account of clause-linking strategies in the Ket language; (ii) to investigate the relationship between the syntactic and semantic dimensions of complex constructions; (iii) to contribute to the research on Ket syntax; (iv) to contribute to the ongoing typological research on clause linkage with data from Ket.

The Ket data used and analyzed in the present study come from the following sources: (i) the author's own fieldwork (elicited examples and narrative texts), (ii) published studies, and (iii) Ket texts collected by other linguists (both published and unpublished).

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[6] Only a couple of competent speakers of Northern Ket were found in the village of Madujka during the fieldwork in 2004 (Nefedov and Glazunov 2004). It is likely that their number is even less nowadays.

[7] The chapter titled "Osobennosti ketskix dialektov [Peculiarities of the Ket dialects]" in Dul'zon's major work "Ketskij jazyk [The Ket language]" (Dul'zon 1968) examines differences between the Sym and Imbat varieties of Ket, i.e. between Yugh and Ket (proper), respectively.

The elicited data were primarily collected from speakers of the Southern Ket dialect (Kellog, Verxneimbatsk, Sulomaj) during several fieldwork trips within the period of 2005 – 2009 supported by the Max Planck Institute for Evolutionary Anthropology (Leipzig, Germany). The author's primary language consultant has been Valentina Andreevna Romanenkova née Tyganova (born 1948), a native Southern Ket speaker from Kellog. Other important Ket consultants the author worked with include the following people:

Southern Ket speakers

- Irikova (née Kotusova), Marija Maksimovna
    - Kellog, born in Kellog (1953)
- Kotusov, Aleksandr Maksimovič
    - Kellog, born in Kellog (1950)
- Žižina (née Koganova), Svetlana Nikolaevna
    - Kellog, born in Kellog (1953)
- Sutlin, Pavel Egorovič
    - Verxneimbatsk, born in Alinskoe (1948)
- Latikova (née Tyganova), Olga Vasilievna
    - Sulomaj, born in Sumarokovo (1917-2007)
- Tyganova (née Ljamič), Valentina Nikolaevna
    - Sulomaj, born in Baxta (1942)

Central Ket speakers

- Maksunova, Zoja Vasil'evna
    - Turuxansk, born in Pakulixa (1950)

The methodology used to collect the data includes both direct elicitation of sentences and work with narrative texts.

1.4 Notational format

The notational format used in the present study is to some extent unconventional both for general linguistic practice and Ketology, therefore, a few words of explanation are

in order. First of all, when citing Ket examples, we use a 4-tier representation of the data, as can be seen in (1.1).

(1.1) *kɛˀt dímɛsʲ*

keˀd	d{u}^{8}-i{k}^{7}-n^{2}-bes^{0}
person	3^{8}-here^{7}-PST^{2}-move^{0}

'The man came.'

The tiers provide the following information: 1) phonetic transription; 2) phonological transcription with morpheme breaks; 3) glossing; 4) free English translation. The separate representation of the phonetic and phonological levels is due to various morphophonological processes (mostly in case of verbs, as in the example above) which influence the actual "surface" form of Ket words. In addition, the phonetic transcription helps to capture certain peculiarities playing an important role in dialectal distinctions. These distinctions are leveled in the phonological variant of notation which can be far from what is actually heard, but is extremely useful in parsing the verbs. The list of phonemes for phonetic transcription is as follows: vowels: *a*, *e*, *ɛ*, *i*, *i̇*, *o*, *ɔ*, *ʌ*, *ə*, *u*; consonants: *b* (*p*), *d* (*r*), *h*, *j*, *k* (*g*, *ɣ*), *l*, *m*, *n*, *ŋ*, *q* (*χ*, *ʁ*, *ɢ*), *s*, *t*. The list of phonemes for phonological transcription is as follows: vowels: *a*, *e*, *i*, *i̇*, *o*, *ə*, *u*; consonants: *b*, *d*, *h*, *j*, *k*, *l*, *m*, *n*, *ŋ*, *q*, *s*, *t* (for more details on the phonological system of Ket, see Chapter 2). When quoting Ket examples from sources other than the author's fieldwork, the original transcription (presented in the first tier) remains unchanged.[8]

Another non-conventional feature of our transcription concerns the Ket verb. Following Vajda (2004, 2007), each Ket verb in the phonological tier is parsed into morphemes marked with superscript digits referring to particular positions they belong to, as illustrated above in (1.1) (on the position classes of the Ket verb, see Chapter 2). Other symbolic conventions used in the Ket verb's representation include:

- a </> slash sign separating functionally different morphological elements which occupy the same position slot;

[8] If the original transcription of a Ket example is in Cyrillic, it is retranscribed using the corresponding phonetic symbols from our IPA-based transcription.

- <{}> curly braces marking paradigmatically present morphemes (or parts of morphemes) which are truncated or elided due to morphotactic, morphophonological or phonological rules.

Non-morphological epenthetic elements as well as special morphotactic separators which do not occupy positions of their own are not indicated in the verb's phonological form (i.e. in the second tier).

When cited as lexical entries in the body of the text, Ket verbs are given in a special formulaic format adopted from the Comprehensive Dictionary of Ket (Kotorova and Nefedov, forthcoming). According to this format, the verb lemma is represented by a special hyphenated stem formula. The formula consists of lexical morphemes marked by superscript numerals indicating position class, e.g.: *ikbes*^{7}*-a*^{4}*-[l*^{2}*]-bed~ked*^{0} 'come (*iter*.)'. Morphemes that remain unchanged in all grammatical forms are the basis of each formula. Allomorphs are separated by (~), as in *bed~ked*, where *ked* appears in the imperative and 2nd person indicative and *bed* appears elsewhere. Elements that sporadically appear or disappear across the stem's conjugated forms are placed in parentheses. Square brackets enclose morphemes belonging to slots P4 or P2 that are regularly used in alternating combinations to mark tense-mood forms, e.g.: *assano(k)*^{7}*-a*^{4}*-[l*^{2}*]-bed*^{0} 'hunt (*iter*.)'.

The reason for using such a non-conventional citation format is due to the absence of any other citation form which could appropriately refer to the actual morphological structure of each particular Ket verb (see, for example, discussion of citation formats used for Ket verbs in Kotorova and Nefedov 2004). The transcription used for representing lexical elements in the formulaic format is phonemic. Ket words other than verbs, when quoted in the text, are given in their phonemic form as well.

Glossing in the third tier in general follows the lines of the Leipzig Glossing Conventions (available online at http://www.eva.mpg.de/lingua/resources/glossing-rules.php, accessed on 2015-02-16), with some additions specific for Ket (see List of abbreviations).

1.5 Organization of the study

This dissertation is composed of eight chapters. Chapter 2 provides a grammatical sketch of the Ket language sufficient for the understanding of the language data used in the study. It covers basic facts of phonology, morphology and syntax in Ket. Chapter 3 gives a general overview of various theoretical approaches to the problem of clause linkage. Chapter 4 is concerned with strategies used to code coordination relations. Chapter 5 considers strategies employed to code complement relations. Adverbial relations and the strategies coding them are considered in Chapter 6. Chapter 7 describes strategies used to code relative relations. Finally, in Chapter 8 we consider Ket complex constructions in the areal context.

Chapter 2. Grammatical sketch of Ket

This chapter presents a descriptive overview of Ket grammar. It is intended to provide the reader with basic facts about the phonology, morphology and syntax of the language in order to facilitate understanding of the data used in the present study. This grammatical sketch, however, does not go into exhaustive detail. Therefore, for a deeper insight into the complexities of Ket grammar, the reader is referred to the existing grammatical descriptions by Werner (1997), Vajda (2004, 2007), and Georg (2007), as well as other Ketological literature cited throughout the chapter.

The organization of the chapter is the following. Section 2.1 briefly introduces the basics of Ket phonology. Section 2.2 focuses on the morphology of the language and surveys major word-classes in Ket. Section 2.3 deals with the basic aspects of simple clause syntax in Ket.

2.1 Phonology

2.1.1 Consonants

The inventory of consonants in Ket is moderately small and comprises only twelve distinctive phonemes (Vajda 2000). They are given in the table below.

	labial	**alveolar**	**lateral**	**palatal**	**velar**	**uvular**	**laryngeal**
stop	*b*	*t d*			*k*	*q*	
fricative		*s*					*h*
continuant			*l*	*j*			
nasal	*m*	*n*			*ŋ*		

Table 2.1. *Ket consonant inventory*

Following Vajda's analysis, we do not assign phonemic status to palatalization as the distinction between palatalized vs. unpalatalized consonants shows a considerable degree of free variation and does not build minimal pairs. On the same grounds, i.e. the absence of true contrastive oppositions, the following sounds are considered to be allophonic: [p, v] to [b], [r] to [d], [g, ɣ] to [k], [χ, ʁ, ɢ] to [q], and [š] to [s][9] (Vajda 2000: 5-8).

[9] Note that [v], [r], [š, č] correspond to IPA's [β], [ɾ], [ʃ, ʧ], respectively. In this case, we keep to the notation adopted in the Ketological tradition.

Note that some of these allophones, namely [v], [r] and [š], are characteristic of certain Ket dialects (cf. Section 1.2.3).

2.1.2 Vowels

The Ket vowel inventory consists of seven distinctive phonemes as shown in Table 2.2.

	front	**central**	**back**
close	*i*	*ɨ*	*u*
close-mid	*e*	*ə*	*o*
open		*a*	

Table 2.2. *Ket vowel inventory*

Although the articulation of the central non-open phonemes is closer to central-back, i.e. [ɯ, ɤ] (cf. Krejnovič 1969), we transcribe them as [ɨ, ə] following the Ketological tradition (cf. Werner 1997; Vajda 2000, 2004; Georg 2007). The sounds [ɛ], [ʌ], [ɔ], and [æ] are regarded as allophones in this work, though they are distinguished in the official Ket orthography (cf. Vajda 2000; Georg 2007).

Ket lacks true vowel harmony, though in fast speech, a preceding [u] or [o] may cause some degree of backing and rounding of the following syllable nucleus (cf. Denning 1971b; Vajda 2000).

2.1.3 Tonemes

The most prominent characteristic of Ket phonology is a system of four suprasegmental oppositions or tonemes in the domain of monosyllabic words (Vajda 2004). In the literature these oppositions are often referred to as ‘tones’ (Verner 1974; Werner 1997; Vajda 2000), though they do not represent the type of syllabic tones found in canonical tonal languages. Tone formation in Ket involves a combination of melodic and non-melodic features; the latter include length, phonation, and vowel quality (in the case of mid-vowels). The tonemes form numerous minimal pairs and even sets which differ in lexical or grammatical meaning. Table 2.3 illustrates a relatively rare case with four phonemic oppositions involved (based on Vajda 2008).

	tonal melody	**vowel length (syllable type)**	**phonation type**	**mid-vowel quality**
sūˑl 'blood'	high-even	half-long (closed or open)	neutral	tense [e, ə, o]
suˀl 'a.k.o. salmon'	abrupt rising	short (closed or open)	laryngealized (creaky)	lax [ɛ, ʌ, ɔ]
súùl 'snowsled'	rising-falling	long (closed or open)	neutral	lax [ɛ, ʌ, ɔ]
sùl 'holding hook'	falling	short (closed only)	neutral	lax [ɛ, ʌ, ɔ]

Table 2.3. *Tonemes in Southern Ket monosyllables*

It is important to bear in mind that these prosodic oppositions are usually characteristic of monosyllabic words pronounced in isolation or under pragmatic focus. When monosyllables are turned into polysyllables through attachment of relational morphemes or other suffixal elements, tonemic distinctions usually disappear.[10] Instead, the two initial syllables in polysyllabic words receive a rising/falling pitch resembling word-initial stress, e.g. *súːl-dìŋa* 'into the snowsled', *súl-às* 'with the hook'. In fast connected speech, the tonemic distinctions in monosyllables are also usually leveled (cf. Vajda 2004: 13).

A few disyllabic words have a special rising/high falling pitch with the peak falling on the second syllable, e.g. *qɔ́pqùn* 'cuckoo' vs. *qɔ́pqǜn* 'cuckoos'. The resulting acoustic effect gives the impression of a second syllable stress. Similar to monosyllabic contours, this phonemic distinction is eroded upon suffixation: *qɔ́pqǜn* 'cuckoos' vs. *qɔ́pqùn-naŋal* 'from the cuckoos'.

In general, all Ket dialects share the same system of tonemes, but there exist a few minor differences. For example, in Central and Northern Ket words marked with the fourth toneme normally contain an excrescent, non-tonal [i], [e] or [ə] sound. To illustrate this, we repeat an example mentioned in the previous chapter: SK *sèl*, CK *sèlɛ*, NK *sèli* 'reindeer'. In addition, there are occasional differences in tonemic marking of the same lexical item across the dialects: SK *qèŋ*, CK *qēˑŋ*, NK *qáàŋ*/*qaˀŋ* 'big.PL' (Vajda 2000: 4).

[10] There are some exceptions to this principle, see Werner (1996: 66ff). Also consider Georg's (2007: 48, footnote) discussion of these deviations.

2.2 Morphology

Nominal inflectional morphology in Ket can be characterized as predominantly suffixing and agglutinating. Nominal stem creation relies primarily on compounding, due to a small number of derivational affixes.

2.2.1 Nouns

Nouns in Ket are characterized by having the grammatical categories of *number*, *class* (morphologically covert), and *possession*. They can also attach various relational morphemes (some of which were traditionally regarded as cases, see 2.2.6).

The category of number in Ket distinguishes between singular and plural. The singular is never marked overtly. The plural generally requires the presence of one of the plural suffixes *-(V)ŋ* or *-(V)n*:

SG	PL
qīm 'woman'	*qím-n* 'women'
dɔˀn 'knife'	*dɔ́n-aŋ* 'knives'

There are other means of marking plurality, though they are much less frequent. These include the following: a change of the root vowel, a change of the tonemic marking, a combination of both, and, finally, full or partial suppletion. A detailed survey of the Ket plural formation is provided in Porotova (1990), see also Georg (2007: 91-102).

Every Ket noun simultaneously belongs to one of three gender classes (masculine, feminine, or neuter) and one of two animacy classes (animate or inanimate). This distinction is only partly based on real-world biology. The class membership is not overtly expressed[11] and can be identified only by the form of verb-internal agreement markers (cf. Figure 2.9), predicate concord suffixes (cf. Figure 2.19), relational morphemes (which require the presence of a possessive linker), or demonstrative pronouns (cf. Section 2.2.2). Table 2.4 illustrates the case of how the class membership conditions the form of the Dative relational morpheme.

[11] The only exceptions are nouns containing lexical roots *ɨk-* / *hiɣ-* 'male-' and *haŋ-* / *qim-* 'female-', e.g., *ɨ́gbɛsʲ* 'he-hare', *háŋbɛsʲ* 'she-hare', *híɣdilʲ* 'boy', *qímdilʲ* 'girl'.

Animacy class→	**ANIMATE**		**INANIMATE**
Gender class→	**M**: *ōks*, pl. *aˀq*	**F**: *qīm*, pl. *qímn*	**N**: *tiˀn*, pl. *tínɛŋ*
↓Number	'tree'	'woman'	'caldron'
SG	*ɔ́ksdaŋa* oks-da-ŋa tree-POSS.M-DAT 'to the tree'	*qímdiŋa* qim-di-ŋa woman-POSS.F-DAT 'to the woman'	*tíndiŋa* tin-di-ŋa caldron-POSS.N-DAT '(in)to the caldron'
PL	*áqnaŋa* aq-na-ŋa tree.PL-POSS.AN.PL-DAT 'to the trees'	*qímnnaŋa* qim-n-na-ŋa woman-PL-POSS.AN.PL-DAT 'to the women'	*tínɛŋdiŋa* tin-eŋ-di-ŋa caldron-PL-POSS.N-DAT '(in)to the caldrons'

Table 2.4. *Gender/animacy classes of Ket nouns*

A detailed discussion of the semantic basis of the class system in Ket as well as other related issues can be found in Werner (1994).

The category of possession is signaled by means of a set of possessive markers. These markers do not differentiate between alienability and inalienability and can be used for both types of possession. They are represented in Table 2.5.

Number→	**SG**	**PL**
↓Person/Gender		
1	*=b=*	*=na=*
2	*=k=*	
3M	*=da=*	
3F	*=d=*	
3N		*=d=*

Table 2.5. *Ket possessive markers*

Prosodic behavior of these possessive markers is similar to what is called 'ditropic clitics' (cf. Cysouw 2005). When preceded by another word in the same phonological phrase, they show enclitic-like behavior:

(2.1) *ɔ́pda#būlʲ*

ob=da	būl
father=M.POSS	leg

'father's leg'

In (2.1), the masculine possessive marker *=da* attaches to the preceding noun *ōb* 'father' affecting its prosodic realization. Such cases have been traditionally regarded as the genitive case (cf. Dul'zon 1968; Vall 1970; Werner 1997). Note that the marker can likewise attach to words even outside the possessive phrase as in (2.2), where the clitic appears on the adverbial *aska* 'when':

(2.2) *ásʲkarʲa#būlʲ*

aska=da	būl
when=M.POSS	foot

'when his foot…'

If there is no preceding word or the possessum is under focus, the possessive marker behaves like a proclitic. Note that in this case it leaves the prosody of a monosyllabic word intact.

(2.3) *#dabūlʲ*

da=būl
M.POSS=foot

'his foot'

2.2.2 Pronouns

The Ket *personal pronouns* are:

	SG	PL
1	*ād* 'I'	*ət(n)* 'we'
2	*ū* 'you.SG'	*ək(ŋ)* 'you.PL'
3M/F	*bū* 's/he'	*būŋ* 'they'

The unmarked form of the third person singular pronoun, identical for masculine and feminine, cannot be used as the inanimate anaphoric pronoun (Dul'zon 1968: 103).[12]

[12] In practice, this does sometimes happen in the speech of Modern Ket speakers, but it should be attributed to the strong interference on the part of the Russian language (cf. Minaeva 2003: 46).

In this case, the inanimate form of the neutral-deixis demonstrative *tude* is used (see example (2.5)). The personal pronouns take a slightly reduced number of relational morphemes in comparison to nouns (see Section 2.2.6). Apart from that, they show in general the same behavior.

Possessive pronouns in Ket are formed with the help of the possessive markers from Figure 2.5, which encliticize directly to the personal pronouns:

	SG	PL
1	*āb* 'my'	*ətnna* 'our'
2	*ūk* 'your.SG'	*əkŋna* 'your.PL'
3M	*buda* 'his'	*buŋna* 'their'
3F	*bud(i)* 'her'	

Ket *reflexive pronouns* are formed on the basis of the root *bīn* 'self' which is quite idiosyncratically expanded by adding predicative suffixes (see Section 2.4.2):

	SG	PL
1	*bindi* 'myself'	*bindaŋ* 'ourselves'
2	*binku* 'yourself'	*binkaŋ* 'yourselves'
3M	*bindu* 'himself'	*binaŋ* 'themselves'
3F	*binda* 'herself'	

The bare root *bīn* can be used as an unmarked reflexive pronoun instead of the expanded forms as well. The reflexives take exactly the same range of relational morphemes as do the personal pronouns. When attached, relational markers built on the possessive linker yield reflexive forms redundantly marked for class/number/person, e.g. *bindudaŋa* 'to himself' [bin-**du-da**-ŋa self-**3M.PRED-3M.POSS-**DAT], *binaŋnaŋal* 'from themselves' [bin-**aŋ-na**-ŋal self-**3AN.PL.PRED-3AN.PL.POSS-**ABL], etc. The same pronoun forms are used to convey intensive or emphatic meanings.

In order to express *reciprocality*,[13] either special denominal nouns *bíkked* 'each other' (< [bīk keʔd other person]) and *kédaked* 'each other' (< [ked-da ked person-3SG.M.POSS person]) or the adverbs *qújbaŋ* 'together' or *qústiŋa* 'together' can be used (cf. Vajda 2004: 34). Another possible technique observed by Georg (2007: 178) is the use of a rather idiosyncratic and highly lexicalized phrase *qókdu qoʔk* ([< qok-du qoʔk one.AN-3M.PRED one.AN]).

Ket *demonstrative pronouns* are formed with the help of three deictic roots: *tu-*, *ki-* and *qa-*. Each of them denotes a different degree of proximity: *tu-* is a neutral-deixis root, *ki-* is used when the referent is close to the speaker, and the root *qa-* signals a significant distance from the speaker. The roots are usually augmented with an element which shows class/number distinctions. When not under emphasis, singular forms of demonstratives may be reduced to their bare root. Table 2.6 illustrates the demonstrative pronouns in Ket.

Neutral deictic stem *tu-*	**Near-deictic stem *ki-***	**Far-deictic stem *qa-***
tu-d (M)	*ki-d* (M)	*qa-d* (M)
tu-de (F/N)	*ki-de* (F/N)	*qa-de* (F/N)
tu-ne (AN.PL)	*ki-ne* (AN.PL)	*qa-ne* (AN.PL)

Table 2.6. *Demonstrative pronouns in Ket*

When used in the attributive function, demonstratives take no relational morphemes, but always agree in number/class with the modified noun (2.4 a,b).

(2.4a) *kīrʲ kétdaŋa*

kī-d ked-da-ŋa
this-M person-M-DAT
'to this person (near the speaker)'

(2.4b) *kínɛ déŋnaŋa*

ki-ne deŋ-na-ŋa
this-AN.PL people-AN.PL-DAT
'to these people (near the speaker)'

[13] *Reciprocal pronouns* are lacking in Ket.

Plural forms of inanimate nouns trigger the singular form of the inanimate demonstrative: *kíde quˀŋ* ‘these tents’ [ki-de quˀŋ this-N tent.PL]. In the anaphoric function, demonstratives behave like nouns. As already mentioned, the neutral deictic *túde* is often used as inanimate personal pronoun in the anaphoric function. This is exemplified in (2.5).

(2.5) *dɔˀnʲ baŋga tɔvúlʲut. bū túrʲɛ tkájnam.*

doˀn	baŋ-ka	t^{5}-o^{4}-b^{3}-l^{2}-qut^{0}
knife	ground-LOC	TH^{5}-PST^{2}-$3N^{3}$-PST^{2}-be.situated^{0}
bū	tu-de	d{u}^{8}-kaj^{7}-n^{2}-am^{0}
3SG	this-N	3^{8}-limb^{7}-PST^{2}-take^{0}

‘The knife was on the ground. He took it (this).’

Ket *interrogative pronouns* use suppletive stems to reflect class distinctions: *bítse* ‘who (masculine singular)’, *bésa* ‘who (feminine singular)’, and *bílaŋsaŋ* ‘who (animate plural)’. Alternatively, there is also the interrogative stem *ána/ánet* (pl. *ánetaŋ*) ‘who’ which can be used for both animate classes. The only interrogative pronoun for the inanimate class is *ákus* (often reduced to *áks*) ‘what’. The interrogative modifier *áses* (often reduced to *ás*) shows no class/number distinctions, compare: *áses quˀs* ‘what kind of tent?’, *áses qīm* ‘what kind of woman?’ and *áses deˀŋ* ‘what kind of people?’.

Indefinite pronouns are formed with the help of the indefinite particle *tām* preposed to an interrogative pronoun, therefore they share similar properties: *tām-bítse* ‘some one (masculine singular)’, *tām-bésa* ‘someone (feminine singular)’, *tām-ána* ‘someone (animate, gender uspecified’),[14] *tām-ák(u)s* ‘something’, etc. There are other particles that can be used to form indefinite pronouns: *qōd* and *nímat*, e.g. *qōd-áses* ‘any’, *áses-nímat* ‘some’, etc. Both are usually viewed as loans from Russian, the intensive particle *xot’* and the indefinite particle *nibud’* respectively.[15]

Indefinite constructions with a postposed particle *á:na* form *negative pronouns* in Ket, for example, *tām-ána-á:na* ‘no one’, *tām-ak(u)s-á:na* ‘nothing’ and so on. Note that

[14] It should be noted though, this indefinite pronoun usually triggers masculine agreement on the verb.
[15] Georg (2007: 175) notes that the indefinite *qōd* may as well be of native origin and historically identical with *qōd* ‘like, as’.

verbs used with negative pronouns are obligatorily negated with the negative particle *bən*: *tām-ána-á:na bən dímes* ‘no one came’ [no one NEG he.came].

Finally, there is also a handful of *attributive pronouns* in Ket: *bɨlda* ‘all, a whole’, *utál* ‘the whole’, *kásna* ‘each, every’,[16] *bīk* ‘other, another’, *qóksa* ‘the other’ (for singular forms only), *samla* ‘the rest, the other’, *tām-ánun* ‘some’. They are all class-neutral, cf. *bɨlde deˀŋ* ‘all people’ vs. *bɨlde quˀŋ* ‘all tents’.

2.2.3 Adjectives

In many cases, one and the same word form is capable of modifying both nouns and verbs. Traditionally, this has been regarded as a case of grammatical homonymy between adjectives and adverbs (Poljakov 1987: 58; Werner 1997: 146), though some Ketologists incline to postulate a general class of ‘modifying words’ in Ket (cf. Krjukova and Grišina 2004; Krjukova 2005).[17] For the sake of simplicity, we will continue using the traditional terms ‘adjective’ and ‘adverb’ with regard to different functions of the same lexeme. Note, however, that we do not make any theoretical claims whether this distinction is valid for the language or not.

Adjectives usually do not show any kind of agreement with the noun they modify, which is illustrated in (2.6).

(2.6) *túnɛ áqta qímnnaŋa*

tu-ne	aqta	qim-n-na-ŋa
that-AN.PL	good	woman-PL-AN.PL-DAT

‘to those nice women’

While the demonstrative stem *tu-* in (2.6) is inflected with the marker *-ne* to show agreement in class and number with the noun head, the adjective *aqta* remains unmarked for class/number and does not attach any relational morpheme.[18] The only exception is a handful of words which are capable of showing optional agreement in number (but not in class or otherwise) with the head noun, e.g. *qaˀ quˀs* ‘big tent’ >

[16] This is a loanword from Russian: *každyj* ‘each, every’.
[17] In fact, almost any word in Ket can serve modifying function without morphological modification.
[18] Adjectives may attach relational morphemes only when nominalized by the suffix *-s*: *aqtasdaŋa* ‘to the good one’ [aqta-s-da-ŋa good-NMLZ-M-DAT].

qaˀ / *qaˀŋ quˀŋ* ‘big tents’. Vajda (2004: 80) notes that these are usually adjectives denoting ‘tangible physical qualities’.

When used predicatively, adjectives require obligatory marking either by a predicative suffix (2.7) or by the nominalizer *-s* (2.8).

(2.7) *túrʲɛ qīm áqtarʲa*

tu-de	qīm	aqta-da
this-F	woman	good-3F.PRED

‘This woman is nice.’

(2.8) *túrʲɛ qīm áqtasʲ*

tu-de	qīm	aqta-s
this-F	woman	good-NMLZ

‘This woman is a nice one.’

As we can see, the predicative suffix reflects agreement with the noun head in person/class/number (cf. Figure 2.19). The nominalizer does not show any person/class distinctions, but it has a plural form (2.9).

(2.9) *túnɛ qímn áqtasin*

tu-ne	qim-n	aqta-s-in
this-AN.PL	woman-PL	good-NMLZ-PL

‘These women are nice ones.’

It is ungrammatical for adjectives marked by the predicative suffix or the nominalizer to occur attributively.

There exists a fairly productive adjectival suffix *-tu* which is used to derive relational adjectives from nouns. The suffix attaches directly to the nominal base:

(2.10) *anúŋtu kɛˀt*

anuŋ-tu	keˀd
mind-ADJ	person

‘a clever person’

Derived adjectives have basically the same properties as underived ones (i.e. no agreement with the modified noun, obligatory presence of the predicative suffix or the nominalizer, when postposed). Unlike underived adjectives, however, they

cannot be used in adverbial function. There are a few other suffixes which can be regarded as adjective-forming, for instance, -(*V*)*m* in adjectives denoting color like *sulem* 'red' (< *sūl* 'blood'). These affixes are, however, no longer productive in Ket (Georg 2007: 141).

Ket adjectives lack the grammatical category of comparison. In order to express comparison, Ket employs analytic constructions formed with the help of the ablative relational morpheme attached to the compared noun; the adjective obligatorily acquires the predicative concord suffix agreeing with the subject of the construction, as exemplified in (2.11).

(2.11) *āb ōp búraŋal qáru*

āb	ōb	bu-da-ŋal	qa-du
1SG.POSS	father	3SG-M-ABL	big-M.PRED

'My father is bigger than him.'

Superlative degree is expressed analytically as well, by preposing the word *hítiŋ* 'real, genuine' to the adjective: *hítiŋ qà* 'biggest'.

Finally, there is also the suffix *-la* 'rather' which serves to intensify the quality expressed by an adjective: *sel-la* 'worse, rather bad'. The suffix is, however, synchronically unproductive (Bibikova 1971: 51-53; Krjukova 2005: 141).

2.2.4 Numerals

Ket has cardinal and ordinal numerals. Like attributive modifiers, they cannot take relational enclitics unless nominalized and require a predicative concord suffix when placed after the noun. The numeral for 'one' idiosyncratically distinguishes between animate and inanimate class: *qoˀk seˀl* 'one(AN) reindeer' vs. *qūs quˀs* 'one(N) tent'. The non-derived roots for cardinal numbers include numerals one to seven, ten, twenty and one hundred.

Ordinal numerals are formed with the help of the suffix *-amas*: *qúsamas* 'first', *ɨ́namas* 'second', etc. These forms show no gender distinctions and can be used both attributively and predicatively.

Distributives are built with the suffix *-sa* added to the numeral in the predicative form: *dóŋaŋsa* 'three (animates) at a time' [doŋ-aŋ-sa three-AN.PL.PRED-DISTR]. This suffix can also be added to nouns: *ísa* 'daily', *dɨ́lsa* 'each child'.

2.2.5 Adverbs

Unlike adjectives, adverbs always remain unmarked regardless of whether they occur in preverbal or postverbal position, cf.:

(2.12a) *āb ōp sɔ́:lʲaŋ áqta dúbbɛt*

āb	ōb	so:laŋ	aqta	du^{8}-b^{3}-bed^{0}
1SG.POSS	father	sledge.PL	good	3M^{8}-3N^{3}-make^{0}

'My father makes sledges well.'

(2.12b) *āb ōp sɔ́:lʲaŋ dúbbɛt áqta*

āb	ōb	so:laŋ	du^{8}-b^{3}-bed^{0}	aqta
1SG.POSS	father	sledge.PL	3^{8}-3N^{3}-make^{0}	good

'My father makes sledges well.'

Apart from qualitative stems functioning both as adverbs and adjectives,[19] there are words which have apparently non-adjectival semantics. Georg (2007: 142) lists the following semantic groups: spatial/local adverbs, temporal adverbs and adverbs of manner and degree. Interestingly, even lexemes with no apparent adjectival meaning like local/spatial adverbs may, in principle, be used to modify a noun head, compare (2.13a) and (2.13b) below.

(2.13a) *āt kisʲɛ́ŋ díɣɔraq*

ād	kiseŋ	di^{8}-a^{4}-daq^{0}
1SG	here	1^{8}-NPST^{4}-live^{0}

'I live here.'

(2.13b) *kisʲɛ́ŋ kɛˀt*

kiseŋ	keˀd
here	person

'a local person'

[19] There are only a few words of this kind not used in the attributive function, for example, *qíla* 'swiftly, soon' (the adjectival counterpart is *dəkta* 'fast').

2.2.6 Relational morphemes[20]

Many grammatical descriptions of the Ket language distinguish a system of case suffixes ranging from five to thirteen members (Dul'zon 1968; Vall 1970; Werner 1997; Vajda 2004; Georg 2007). Table 2.7 illustrates these morphemes.

Animacy→	**ANIMATE**				**INANIMATE**	
Gender→	**M:** *ōb*, pl. *óbaŋ*		**F:** *ām*, pl. *ámaŋ*		**N:** *quˀs* pl. *quˀŋ*	
↓Case	'father'		'mother'		'tent'	
BASIC	*ōb*	*ób-aŋ*	*ām*	*ám-aŋ*	*quˀs*	*quˀŋ*
POSS	*ób-da*	*ób-aŋ-na*	*ám-d(i)*	*ám-aŋ-na*	*qús-d(i)*	*qúŋ-d(i)*
DAT	*ób-da-ŋa*	*ób-aŋ-na-ŋa*	*ám-di-ŋa*	*ám-aŋ-na-ŋa*	*qús-di-ŋa*	*qúŋ-di-ŋa*
ABL	*ób-da-ŋal*	*ób-aŋ-na-ŋal*	*ám-di-ŋal*	*ám-aŋ-na-ŋal*	*qús-di-ŋal*	*qúŋ-di-ŋal*
ADESS	*ób-da-ŋt(an)*	*ób-aŋ-na-ŋt(an)*	*ám-di-ŋt(an)*	*ám-aŋ-na-ŋt(an)*	*qús-di-ŋt(an)*	*qúŋ-di-ŋt(an)*
LOC	-	-	-	-	*qús-ka*	*qúŋ-ka*
PROS	*ób-bes*	*ób-aŋ-bes*	*ám-bes*	*ám-aŋ-bes*	*qús-bes*	*qúŋ-bes*
COM	*ób-as*	*ób-aŋ-as*	*ám-as*	*ám-aŋ-as*	*qús-as*	*qúŋ-as*
CAR	*ób-an*	*ób-aŋ-an*	*ám-an*	*ám-aŋ-an*	*qús-an*	*qúŋ-an*
VOC	*ob-ó*	*ob-aŋ-ó*	*am-á~am-ə́*	*am-aŋ-ə́*	-	-

Table 2.7. *Postposed relational morphemes used with Ket nouns*

The majority of the morphemes convey spatial meaning and fall into two formal groups, depending upon whether they require a possessive augment (dative, ablative, adessive) or not (the remaining forms). The case suffixes have been traditionally opposed to a much larger class of postpositions like *kúbka*, *dúgde*, etc. (Šerer 1983; Dul'zon 1968), though many researchers have noted that there is no principled formal difference between them as postpositions fall into the same two formal groups: possessive-augmented vs. non-augmented (Vall and Kanakin 1990; Vajda 2008b). For example, *qús=d kúbka* 'before the tent' and *qoˀj ásqa* 'like a bear'. In the latter case, there is no possessive linker required. Therefore, we can divide relational morphemes into two groups, 'primary' and 'secondary', depending on the presence or absence of the possessive linker. The primary relational morphemes are those

[20] The term is used in the sense of Croft (2000: 34).

attaching directly to the noun stem without any intervening element. These include the basic form (sometimes called 'nominative'), the possessive form (sometimes called 'genitive'), as well as the caritive, locative, prosecutive, instrumental, and vocative. The secondary markers include dative, ablative, and adessive (or adessive/benefactive); these require a possessive marker serving as connector between the noun and the case marker.

While a number of the traditional descriptions distinguish case markers in Ket from other types of relational morphemes, Vall and Kanakin (1990: 68-69) argues that Ket lacks a true case system, since there is no special case marking for syntactic arguments and some of these markers (formed with the possessive augment) are capable of functioning without any preceding noun or pronoun. In what follows, we likewise assume that there is no need to postulate the existence of the case system in Ket in the traditional sense of the term. Rather, we deal with a general class of grammatical function markers ranging from semantically bleached members (like dative, ablative, etc.) to those whose semantics is still transparent (like *kub-ka* 'before' [beak-LOC]). This is similar to Spencer's (2008) approach to the Hungarian case system. Note that for simplicity's sake we prereserve the generalized designations like dative, ablative, translative, etc. when referring to the semantically bleached morphemes.

2.2.7 Action nominals

Non-finite forms in Ket have been traditionally referred to as 'infinitives' (Dul'zon 1968; Belimov 1973; Vajda 2003; Georg 2007). The reason for this is rather straightforward as these forms fulfill many of the functions typical of the Russian infinitive. However, if we consider all the factors including the functional range and the morphosyntactic properties inherent to these word forms, it becomes obvious that the term 'action nominal' (as defined in Comrie and Thompson 2007) would be more justified in this case (cf. Krejnovič 1979: 338-339).

First of all, these non-finite forms are morphologically diverse and, in general, lack special marking (cf. Werner 1997: 175-180). Furthermore, they show a considerable degree of lexicalization, i.e. it is impossible in many cases to predict their form from

the semantically corresponding finite verb and vice versa; consider the following example:

(2.14) *dbíl'abak*
d{i}^{8}-b^{3}-l^{2}-bak^{0}
1^{8}-3N^{3}-PST^{2}-drag^{0}
'I dragged it.'

The corresponding non-finite form for this verb is *bákdeŋ* 'pulling', not **bak* as one could expect (Werner 1997: 176). Some non-finites are in fully suppletive relation with the semantically corresponding finite verb, for example, *éjiŋ* 'going' and *bókatn* 'I go' [bo^{6}-k^{5}-a^{4}-tn^{0} 1SG^{6}-TH^{5}-NPST^{4}-go^{0}]. Finally, some finite verbs do not have a corresponding non-finite form at all, e.g. *dabátabet* 'I understand' [da^{8}-ba^{6}-t^{5}-a^{4}-bet^{0} IC^{8}-1SG^{6}-TH^{5}-NPST^{4}-understand^{0}] – neither **bet* nor anything else is the non-finite counterpart for this verb.

From the structural point of view, Ket action nominals can be described as follows.[21] Some of them are just bare roots like *iˀl* 'singing', *bèd* 'making' (cf. *bílil* 'I sang' [di^{8}-l^{2}-il^{0} 1^{8}-PST^{2}-sing^{0}] and *díbbed* 'I make' [di^{8}-b^{3}-bed^{0} 1^{8}-3N^{3}-make^{0}], respectively). Others are compounds of two roots, usually in the form of 'noun/adjective/adverb root + action nominal root'. Both of these roots appear discontinuous in the finite verb form, e.g. *nánbed* 'bread-making' and *danánlibed* 'she bread-made' [da^{8}-nan^{7}-l^{2}-i/bed^{0} 3F^{8}-bread^{7}-PST^{2}-make^{0}]. Some action nominals consist of a root morpheme and one of the seemingly derivational suffixes like *-ej*/*-aj* in *hákej* 'cutting'. Importantly, neither of these affixes ever appear in any finite verb form semantically associated with the given action nominal, cf. *hákej* 'cutting' vs. *dahása* 'she cuts it' [da^{8}-ha^{7}-Ø^{6}-s^{4}-a^{0} 3F^{8}-cut^{7}-3N^{6}-NPST^{4}-ACTIVE^{0}].

An important feature of Ket action nominals, as we could already see from the examples above, is that they are stripped of all verbal categories like agreement and tense/mood (Werner 1997: 175). Moreover, they show basically all the properties of

[21] Werner (1997: 175) divides Ket action nominals into simple monosyllabic, simple polysyllabic and complex ones.

prototypical Ket nouns: they can take possessive attributes, trigger verb-internal agreement as a non-animate entity. Example (2.15b) below illustrates these properties.

(2.15a) *kɛˀt datīp dúsʲuɣòvilʲtɛt*

keˀd	da-tīb	du^{8}-us^{7}-u^{6}-k^{5}-o^{4}-b^{3}-l^{2}-ted^{0}
person	M.POSS-dog	3^{8}-R^{7}-3F^{6}-TH^{5}-PST^{4}-TH^{3}-PST^{2}-hit^{0}

'The man beat his dog (F) (with a stick).'

(2.15b) *kérʲa tīp tàrʲ bínut*

ked-da	tīb	tàd	b{in^{7}-b^{3}}-n^{2}-{q}ut^{0}
person-M.POSS	dog	hit.ANOM	R^{7}-3N^{3}-PST^{2}-finish^{0}

'The man's beating of the dog finished.' or 'The beating of the man's dog finished.'

As one can see, in (2.15b) the action nominal *tàd* is stripped of all grammatical information carried by the corresponding finite verb in (2.15a). Similar to nouns, *tàd* triggers the occurrence of the inanimate agreement marker *-b-* on the verb *bin^{7}-[n^{2}]-qut^{0}* 'finish' (cf. *díbbed* 'I make' [di^{8}-b^{3}-bed^{0} 1^{8}-3N^{3}-make^{0}]).[22] Furthermore, the internal structure of this action nominal turns out to be very similar to that of an ordinary Ket noun phrase with a possessive modifier, since the subject of *tàd* acquires possessive marking (cf. 2.15b). On the other hand, the object remains in its sentential form[23] (i.e. zero-marked), which confirms the hybrid nominal-verbal nature of the action nominal in Ket.

Another piece of evidence in favour of its hybrid nominal-verbal nature is the use of adjectives and adverbs with respect to action nominals. We have already stated that there are a few lexical items which function exclusively as adverbs, i.e. as verbal modifiers. Example (2.16) shows that they can also be used with action nominals.

[22] The inanimate marker can be seen in the present tense form of the verb: *bimbuʁut* [bin^{7}-b^{3}-qut^{0}]. It should be noted though that only a few finite verbs can show verb internal agreement with action nominals.
[23] In action nominals corresponding to monotransitive verbs, the argument in the possessive form may be interpreted either as subject or object. The unmarked argument is always interpreted as object.

(2.16) *abíŋa qíla éjiŋ-ɛsʲaŋ nára*

ab-íŋa	qíla	ejiŋ-esaŋ	nára
1SG.POSS-DAT	soon	go.ANOM-TRANSL	necessary

'I need to go soon.'

The adverb *qíla* 'swiftly, soon', as we have already mentioned, cannot be used to modify nouns, instead a semantically close *də́kta* 'fast' is used (e.g. *də́kta keˀt* 'a fast person'). Similarly, action nominals cannot be modified by adjectives derived with the help of the suffix *-tu*. Therefore, examples like *súltu èj* (intended: 'bloody killing') are not possible in Ket.

2.2.8 Verbs

In contrast to nominal morphology, Ket verbal morphology is more prefixing and is rather complex. Verbs are highly polysynthetic i.e. they have multiple affix slots for personal cross-referencing affixes and are capable of incorporation. The general complexity of Ket verbs observed by many authors comes from the interaction of the stem formation mechanisms with the expression of verb-internal agreement. The varying position of the verb's semantic head (right-headed vs. left-headed) adds to the overall complexity as well. In addition, a set of complex phonological rules of deletion and insertion influences the phonetic realization of a verb, which often obscures its morphological structure to a great extent.[24] In what follows, we provide a concise outline of the system's major features, based on the conception developed by Edward Vajda (2000, 2003, 2004, 2007).

2.2.8.1 Position classes in Modern Ket

The position class model for Ket verbs proposed by Vajda consists of ten slots (or positions).[25] Note that no verb form can have all the slots filled simultaneously (the maximum is nine). Table 2.8 illustrates this model (the labels are slightly adjusted).

[24] These phonological rules are left outside the scope of the present grammatical sketch. A detailed description can be found in Vajda (2004: 74-76) and Georg (2007:203-215).

[25] For other accounts based on position classes, see Butorin (1995), Rešetnikov and Starostin (1995) and Werner (1997).

P8	P7	P6	P5	P4	P3	P2	P1	P0	P-1
AGR or thematic valence reducing affix	incorporant 1) left semantic head or 2) noun/ adj./ adverb root	**AGR**	thematic consonant (most are semanti-cally opaque)	*tense/ mood* or **AGR**	**AGR** or thematic non-agreement affix	*past tense/ imperative*	**AGR** or thematic valence reducing affix	base 1) right semantic head or 2) aspect/voice auxiliary)	**AGR** (in verbs that use P8 for subject)

Table 2.8. *Position classes in Modern Ket*

All the positions can be conventionally divided into three general types: lexical (2.2.8.1.1), tense/mood (2.2.8.1.2) and agreement positions (2.2.8.1.3).[26] The basic lexical stem is formed through a combination of positions P7, P5 and P0. When present in a particular verb form, these positions remain unchanged throughout the whole paradigm, and therefore are responsible for the lexical meaning of the verb. Tense and mood distinctions are generally marked through a combination of morpheme shapes in positions P4 and P2. There are six productive tense/mood combinations in Modern Ket. Positions marked as 'AGR' are *potential* agreement positions. The choice of particular positions is a lexical idiosyncrasy inherent to a particular verb stem, not predictable by any grammatical rule. The morphological shape of the markers themselves, however, follows syntactic rules of agreement (see Figure 2.9). Modern Ket possesses seven productive combinations (called 'configurations') of agreement markers. Each of the agreement configurations uses the various AGR positions for different purposes. Below we will consider each of the position types in more details.

2.2.8.1.1 Basic lexical elements

The verb's basic lexical stem is made up of a discontinuous combination of the following three positions: P7, P5 and P0. It is not required that all of these positions be filled simultaneously in a verb form. However, all verbs, without exception,

[26] The categories of tense, mood and agreement are the only grammatical categories on the verb distinguished by all Ketologists. Other than that, different authors distinguish different categories like, for example, the categories of voice (Dul'zon 1968), aspect (Krejnovič 1968), version (Werner 1997) and some others (see Vajda 2003 for a discussion).

obligatorily require the presence of position P0.[27] This has a diachronic explanation, since P0 is historically the verb's lexical root (Krejnovič 1968, Vajda 2004). In Modern Ket, however, the verbs in which P0 or P5+P0 are the only lexical positions filled belong to unproductive stem patterns. Verbs in which P0 serves as the semantic head are conventionally called 'right-headed'. They belong to the oldest layer of Ket verbs. For example, *dáqej* 'I killed him' [d{i}^{8}-a^{6}-q^{2}-ej^{0} 1^{8}-3M^{6}-PST^{2}-kill^{0}], *dábdo* 'I cut it (hair)' [d{i}^{8}-a^{4}-b^{3}-do^{0} 1^{8}-NPST^{4}-3N^{3}-cut^{0}].

All productive patterns of verb stem formation in Modern Ket require the presence of position P7 filled with an action nominal. In this case P7 becomes the semantic head of the verb, while P0 contains affix-like morphemes expressing various derivational nuances (momentaneous vs. iterative, transitive vs. intransitive, etc.). Such verbs comprise the majority of verbs in Modern Ket and are conventionally called 'left-headed'. The following example illustrates this type of verbs: *déjbakòlbed* 'he was killing me' [d{u}^{8}-ej^{7}-ba^{6}-k^{5}-o^{4}-l^{2}-bed^{0} 3^{8}-kill.ANOM^{7}-1SG^{6}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}]. Note that in the latter case P7 contains the lexical root (cf. *dáqej* 'I killed him' above), while P0 itself is filled with the morpheme *-bed* signaling iterative aspect.[28]

In a few cases, both P7 and P0 contain elements neither of which can be regarded as semantically dominant, for example, *dasésta* 'she is seated' [da^{8}-ses^{7}-ta^{0} 3F^{8}-place^{7}-be.in.position^{0}]. Alternatively, they both can be semantically bleached, as in *déqsaq* 'I listen' [d{i}^{8}-eq^{7}-s^{4}-aq^{0} 1SG^{8}-R^{7}-NPST^{4}-R^{0}], where *-eq-* in P7 and *-aq* in P0 are not meaningful lexical units on their own (at least at the synchronic level).

Unlike P7 or P0, position P5 contains one (sometimes two) of the consonantal elements traditionally called *determinativy* (determinants) (Krejnovič 1968).[29] The exact meaning of these morphemes is not clear at the synchronic level. Following Vajda (2007), we will refer to them as 'thematic consonants' without assigning any

[27] In some rare cases the morpheme in P0 can be elided from the surface representation of a particular paradigmatic verb form, though it still appears in others. Compare: *doldaq* 'he lived' [d{u}^{8}-o^{4}-l^{2}-daq^{0} 3^{8}-PST^{4}-PST^{2}-live^{0}], but *doli:n* 'they lived' [d{u}^{8}-o^{4}-l^{2}-{daq^{0}}-in^{-1} 3^{8}-PST^{4}-PST^{2}-live^{0}-AN.PL^{-1}].

[28] In right-headed verbs, the root morpheme *-bed* retains its original meaning 'do, make'.

[29] The morpheme shape *-q-* does not belong to these semantically opaque thematic consonants, as it is more or less clearly associated with marking causativity and therefore is only formally assigned to slot P5 in Vajda's model. An alternative view is expressed in Georg (2007: 299) who treats it as a causativizing suffix added to action nominals incorporated in P7.

specific semantics to them (but see Vajda (2003: 62-64) for a possible semantic classification).

2.2.8.1.2 Tense and mood marking

Ket is not particularly rich in tense and mood categories. In general, the majority of verbs are capable of distinguishing past vs. non-past tense, as well as indicative vs. imperative mood (2.2.8.1.2.1). Other tense and mood-related meanings are conveyed either periphrastically or contextually (2.2.8.1.2.2).

2.2.8.1.2.1 Tense and imperative mood

Morphological marking of tense in the great majority of verbs is accomplished through a combination of affixes in positions P4 (-*a*-, -*s*-) and P2 (-*l*-, -*n*-). The P2 affixes -*l*-, -*n*- appear only in the past tense, while -*s*- in P4 is present only in non-past verb forms. The P4 affix -*a*- remains intact in both past and non-past tense forms, but in the former case, it is labialized to -*o*-. Some Ketologists explicitly state that the difference in distribution of -*l*- vs. -*n*- tense markers in P2 is connected with *aspect* marking (e.g., Gajer 1980, Werner 1997). Indeed, many verbs with P2 -*l*- represent atelic and iterative events, while those with P2 -*n*- are telic and momentaneous. Nevertheless, it is possible to find rather many counterexamples to this observation. Thus, at the synchronic level, the distribution of these tense markers should be regarded as lexically fixed for each single verb rather than reflecting any true grammatical opposition involving aspect (cf. Georg 2007: 282ff for some discussion).

The same P2 affix shapes are used to mark imperative mood, but there are some considerable differences. First of all, there is no labialization of P4 -*a*- in the corresponding imperative forms.[30] In addition, any agreement marker in slots P8 and P3 is obligatorily omitted. And, finally, in the case of most vowel-initial P0 roots there appears a morpheme -*d*-. The function of this morpheme is not entirely clear. Vajda (2004: 46) suggests that it signals valence-decrease in the verb form,

[30] It should be noted that there is a handful of imperative forms with a labialized P4 -*a*-. In this case, the labialization is most likely caused by the preceding velar labial (Georg 2007: 288)

whereas Georg (2007: 288) analyses it as a morphotactic element that could have been a dedicated imperative marker at an earlier stage of the Ket language.

Combinations of the P4 and P2 affixes can be conventionally organized into six productive tense-mood types (cf. Vajda 2003, 2005; Nefedov and Vajda, forthcoming):

(1) **P4 *-a-* + P2 *-l-***

Non-past indicative:	Past indicative:	Imperative:
déjaɣavɛt	*déjaɣɔlʲbɛt*	*éjaɣùllʲit*
d{i}^{8}-ej^{7}-a^{6}-k^{5}-a^{4}-bed^{0}	d{i}^{8}-ej^{7}-a^{6}-k^{5}-o^{4}-l^{2}-bed^{0}	ej^{7}-a^{6}-k^{5}-a^{4}-l^{2}-{k}ed^{0}
1^{8}-kill.ANOM^{7}-3M^{6}-TH^{5}-NPST^{4}-ITER^{0}	1^{8}-kill.ANOM^{7}-3M^{6}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}	kill.ANOM^{7}-3M^{6}-TH^{5}-NPST^{4}-IMP^{2}-ITER^{0}
‘I am killing him.’	‘I was killing him.’	‘Kill him!’

(2) **P4 *-a-* + P2 *-n-***

Non-past indicative:	Past indicative:	Imperative:
dáva	*dɔ́mna*	*án(d)a*[31]
d{i}^{8}-a^{4}-b^{3}-a^{0}	d{i}^{8}-o^{4}-b^{3}-n^{2}-a^{0}	a^{4}-n^{2}-d/a^{0}
1^{8}-NPST^{4}-3N^{3}-weave^{0}	1^{8}-PST^{4}-3N^{3}-PST^{2}-weave^{0}	NPST^{4}-IMP^{2}-weave^{0}
‘I weave it.’	‘I weaved it.’	‘Weave it!’

(3) **P4 *-s-* + P2 *-l-***

Non-past indicative:	Past indicative:	Imperative:
dílsivɛt	*díliljbɛt*	*íllʲit*
d{i}^{8}-il^{7}-s^{4}-bed^{0}	d{i}^{8}-il^{7}-l^{2}-bed^{0}	il^{7}-l^{2}-{k}ed^{0}
1^{8}-breath.ANOM^{7}-NPST^{4}-make^{0}	1^{8}-breath.ANOM^{7}-PST^{2}-make^{0}	breath.ANOM^{7}-IMP^{2}-make^{0}
‘I breathe (once).’	‘I breathed (once).’	‘Breathe (once)!’

(4) **P4 *-s-* + P2 *-n-***

Non-past indicative:	Past indicative:	Imperative:
tkísʲtɔq	*tkíndɔq*	*kíndɔq*
d{i}^{8}-k^{5}-s^{4}-doq^{0}	d{i}^{8}-k^{5}-n^{2}-doq^{0}	k^{5}-n^{2}-doq^{0}
1^{8}-TH^{5}-NPST^{4}-fly^{0}	1^{8}-TH^{5}-PST^{2}-fly^{0}	TH^{5}-IMP^{4}-fly^{0}
‘I attack.’	‘I attacked.’	‘Attack!’

[31] Some of Southern Ket speakers provide the following imperative form *anʲá.*

(5) **P2 *-l-***

Non-past indicative:	Past indicative:	Imperative:
díl^{j}ɔqŋ	*díl^{j}l^{j}ɔqŋ*	*íl^{j}ɔqŋ*
di^{8}-loqŋ^{0}	di^{8}-l^{2}-loqŋ^{0}	l^{2}-loqŋ^{0}
1^{8}-shiver^{0}	1^{8}-PST^{2}-shiver^{0}	PST^{2}-shiver^{0}
‘I shiver.’	‘I shivered.’	‘Shiver!’

(6) **P2 *-n-***

Non-past indicative:	Past indicative:	Imperative:
dél^{j}tàjtɛt	*dél^{j}tɔ̀n^{j}tɛt*	*él^{j}tàn^{j}tɛt*
d{i}^{8}-el^{7}-t^{5}-aj^{4}-ted^{0}	d{i}^{8}-el^{7}-t^{5}-a^{4}-n^{2}-ted^{0}	el^{7}-t^{5}-a^{4}-n^{2}-ted^{0}
1^{8}-harpoon^{7}-TH^{5}-3M^{4}-hit^{0}	1^{8}-harpoon^{7}-TH^{5}-3M^{4}-PST^{2}-hit^{0}	harpoon^{7}-TH^{5}-3M^{4}-IMP^{2}-hit^{0}
‘I hit him (with something).’	‘I hit him (with something).’	‘Hit him (with something)!

In addition to *-l-* and *-n-*, there also exist two other P2 affix shapes: *-j-* and *-q-*. These tense affixes are, however, quite rare. The former appears with a few stems containing the following P0 roots: *-aq* ‘give, make.go’, *-ok* ‘move’, *-a* ‘put, touch’: e.g., *dóvijaq* ‘I gave it him.’ [d{i}^{8}-o^{4}-b^{3}-j^{2}-aq^{0} 1^{8}-3M^{4}-TH^{3}-PST^{2}-give^{0}]. The latter can be found only with stems containing the P0 root *-ej* ‘kill’: *dáqej* [d{i}^{8}-a^{6}-q^{2}-ej^{0} 1^{8}-3M^{6}-PST^{2}-kill^{0}]. Some verbs do not use P2 affixes at all. Inchoative verbs built on P0 *-qan* signal past tense by double labialization: *-a-* > *-o-* in P4 and the P0 root, cf., *bisdában* ‘evening begins’ [bis^{7}-d^{5}-a^{4}-b^{3}-qan^{0} evening^{7}-TH^{5}-NPST^{4}-TH^{3}-INCH.NPST^{0}] vs. *bisdóbon* ‘evening began’ [bis^{7}-d^{5}-o^{4}-b^{3}-qon^{0} evening^{7}-TH^{5}-PST^{4}-TH^{3}-INCH.PST^{0}]. Semelfactive verbs (i.e. verbs denoting a momentary or punctual action) built with P0 *-kes* do not contain any overt tense marker: *kutólejkes* ‘a whistle resounds/resounded’ [kutolej^{7}-kes^{0} whistle.ANOM^{7}-SEMEL^{0}]. Finally, there are two irregular verbs ‘know’ and ‘say’ which do not distinguish between past and non-past forms, like semelfactives, but in contrast they appear to have a fossilized P2 affix:[32] e.g., *ítalam* ‘he knows/knew’ [it^{7}-a^{4}-l^{2}-am^{0} know^{7}-3M^{4}-PST^{2}-R^{0}],[33] *kúma* ‘you.SG say/said’ [ku^{8}-b^{3}-n^{2}-a^{0} 2^{8}-3N^{3}-PST^{2}-say^{0}].

[32] Except for the following forms: *itparam* ‘I know/knew’, *itkum* ‘you.SG know/knew’ and *bara* ‘he says/said’. These forms do not contain any presumably fossilized marker of past tense.

[33] Note also that in some cases the past tense of ‘know’ can be reinforced by adding the past tense copula *obilde* ‘was’, i.e. *italam obilde* ‘he knew’. This is rather infrequent, though.

2.2.8.1.2.2 Periphrastic tense and mood

In order to express tense/mood/aspect related meanings other than past vs. non-past tense and indicative vs. imperative mood, one can use a number of function morphemes that obligatorily appear before the finite verb form. These morphemes never form a prosodic unit with the verb itself and often encliticize to the preceding word in fast speech. Note that most of them cannot occur phrase initially. The optative particle *qān* expresses imperative meaning with non-volitional predicates: *qān avátij* 'let it grow'. The irrealis particle *sīm* is used to express conditional mood. In this case it appears in both parts of conditional sentences: *ēs sīm tájam, ə́tn sīm díntəlikin* 'If the weather had been frosty, we would have frozen' [weather IRR frosty-is, we IRR we-froze]. The prohibitive particle *átn* negates imperative forms (*átn kásnam* 'Don't take it!'), as well as indicative forms of non-volitional verbs used with a judgemental nuance: *átn kúgbinun* 'Don't slip', or 'You shouldn't slip'. The mirative particle *bīn* reports information as new and unexpected: *saˀq bīn sóòŋ də́kàdaq* 'It turns out that a squirrel is living there' [squirrel MIR there she.lives]. The tense-related particles include the following: *qām* 'immediate future', *sīn* 'indeterminate past', *bā* 'habitual past', *ān* 'habitual present', *ās* / *ásn* 'habitual future'. The latter three can distinguish single from multiple action in stems that do not overtly mark event number: cf. *ū káqasla* 'you.S chopped wood/were chopping wood' vs. *ū bā káqasla* 'you.S used to chop wood regularly'. When these three particles are used with stems that lexically convey single complete actions, the resulting construction expresses a regularly occurring event. Compare *bū èd dakájnam* 'she caught a sable (once)', and *túde séska èd bā dakájnam* 'on that river she would customarily catch a sable' [that river-LOC sable HAB.PST she-took-him]. When used with non-past indicative forms, the particles *ān* 'habitual present' and *as* 'habitual future' help to disambiguate time reference: cf. *āt ān dánista* 'I customarily play' vs. *āt ās dánista* 'I'll usually be playing'. The same is true of the particle *qām* 'immediate future': *āt qām dímbes* 'I'll come right away'.

2.2.8.1.3 Agreement marking

2.2.8.1.3.1 Regular agreement markers

The choice of agreement positions is a key component of finite verb stem creation in Ket. As we mentioned above, the agreement positions themselves are chosen lexically, but the markers that occupy them predictably reflect syntactic agreement. Table 2.9 illustrates the morpheme shapes that appear in each position, except for a handful of irregular verbs (cf. Werner 1997c: 281-7):

Position→	**P8**	**P6**	**P4**	**P3**	**P1**	**P-1**
Agreement→	(person/class)	(person/ class/number)	3 AN class	3N class	some SA	(AN-class pl)
↓Person/Number						
1SG	*di (d, t, r)*	*ba~bɔ*	-	-	*di (d, t, r)*	-
2SG	*ku (k, g, ɣ)*	*ku (gu, ɣu)*	-	-	*ku (k, g, ɣ)*	-
3M.SG	*du (d, t, r)*	*a~ɔ~bu*	*a~ɔ (aj)*	-	*a*	-
3F.SG	*da (dʌ, də)*	*i~u~bu*	*i (dit, dir, it)*	-	*a*	-
3N (SG or PL)	*da (dʌ, də)*	*Ø~i~u~bu*	-	*b (v)*	*a*	-
1PL	*di (d, t, r)*	*dʌŋ (tʌŋ, rʌŋ)*	-	-	*daŋ (taŋ, raŋ)*	*n*
2PL	*ku (k, g, ɣ)*	*kʌŋ (gʌŋ, ɣʌŋ)*	-	-	*kaŋ (gaŋ, ɣaŋ)*	*n*
3AN.PL	*du (d, t, r)*	*aŋ~ɔŋ~bu*	*aŋ~ɔŋ (aŋa~ɔŋɔ)*	-	*aŋ*	*n*

Table 2.9. *Ket agreement markers (with allomorphs)*

The choice of different agreement positions obviously lacks a one-to-one correspondence with individual semantic roles or syntactic functions, and cannot be based on any general grammatical principle.[34]

2.2.8.1.3.1 Non-agreement markers

Some agreement positions may host fossilized morpheme shapes (petrified markers in terms of Georg 2007). These morphemes are P8 *da-* (2.17), P3 *-b-* (2.18) and P1 *-a-*[35] (2.21). They do not express true grammatical agreement and therefore serve

[34] For different accounts assigning specific semantic functions to each agreement series see, for example, Belimov 1990, Vall and Kanakin 1990, Butorin 1995, and Rešetnikov and Starostin 1995.
[35] It becomes *-aj-* before the root *-bed* 'do, make'

as semi-productive derivational affixes increasing or decreasing the semantic valence of the verb (Vajda 2004: 68).

P8 *da-* is formally identical with the agreement marker for 3rd person neuter or feminine occurring in the same slot. As a non-agreement suffix it builds the type of verbs called '*da*-intransitives' in a recent paper by Vajda, Nefedov and Malchukov (2011). Vajda (2003) refers to them as involuntary causatives.

(2.17) *dasúlɛjbɔ̀ksʲa*

da^{8}-sulej^{7}-bo^{6}-k^{5}-s^{4}-a^{0}

IC^{8}-blood.colored^{7}-1SG^{6}-TH^{5}-NPST^{4}-event.occurs^{0}

'I blush. (lit. It reddens me.)'

Non-agreement P3 *-b-* is formally identical to the inanimate agreement marker. There are various accounts on possible motivations behind the presence of this marker. For instance, Vajda (2004: 66ff.) distinguishes between an applicative marker (2.18), a marker adding some intensity to the verbal action (2.19) and an involuntary causative marker (2.20). In his recent works, however, Vajda analyses it as an area prefix, which historically metathesized from the P5 slot (cf. Nefedov and Vajda, forthcoming). In what follows, we will gloss the instances of the non-agreement *-b-* in the P3 slot as 'thematic consonant', since none of the aforementioned functional labels can be justified at the synchronic level.

(2.18) *dɔ́gdɔ̀viltaɣin*

d{u}^{8}-o^{6}-k/d^{5}-o^{4}-b^{3}-l^{2}-tak^{0}-n^{-1}

3^{8}-3M^{6}-TH^{5}-PST^{4}-TH^{3}-PST^{2}-drag^{0}-AN.PL^{-1}

'They dragged him (by conveyance).'

(2.19) *bɔ́ɣavitn*

bo^{6}-k^{5}-a^{4}-b^{3}-den^{0}

1SG^{6}-TH^{5}-NPST^{4}-INT^{3}-go^{0}

'I rushed out.'

(2.20) *bɔ́gbinun*

bo^{6}-k^{5}-b^{3}-in^{2}-hun^{0}

1SG^{6}-TH^{5}-TH^{3}-PST^{2}-slip^{0}

'I slipped.'

Finally, P1 *-a-* is used to derive stative resultatives from most transitive verbs with object marking in P6. Traditionally, these derivations were termed as stative passives in the literature (see Werner 1997 for an extensive discussion). Note that any agreement marker in position P8 gets removed upon adding P1 *-a-*, cf. (2.21) below.

(2.21a) *dávrɔ*

d{i}^{8}-a^{4}-b^{3}-do^{0}

1^{8}-NPST^{4}-3N^{3}-cut^{0}

'I cut it.'

(2.21b) *ávarɔ*

a^{4}-b^{3}-a^{1}-do^{0}

NPST^{4}-3N^{3}-RES^{1}-cut^{0}

'It is cut.'

2.2.8.2 Ket agreement configurations

2.2.8.2.1 Transitive configurations

Modern Ket contains two productive transitive configurations. There also exist unproductive agreement position configurations which include two additional transitive configurations requiring multi-slot agreement for subjects.

2.2.8.2.1.1 Transitive configuration I

Table 2.10 illustrates the general positional formula for this configuration.

P8	P7	P6	P5	P4	P3	P2	P1	P0	P-1
SBJ (person/ gender class)	incorporant 1) ANOM as semantic head 2) noun/ adj./ adverb root		thematic consonant or causative marker	*tense/ mood* or **OBJ (3M/F)**	**OBJ (3N)** or thematic non-agreement affix	*past tense/ imperative*	**OBJ (1,2)** or thematic valence reducing affix	base 1) right semantic head 2) aspect/ voice auxiliary)	**SBJ (plural number)**

Table 2.10. *Transitive configuration I*

This pattern is productive with left-headed verbs belonging to morphological causatives built using the marker *-q-* in P5. In this configuration the subject is marked in P8, while

the object markers appear in P4/3/1, depending on the object's person and gender class. We illustrate this with a sample paradigm below.

daq^{7}-q^{5}-a^{4}-[l^{2}]-da^{0} 'smn makes smn laugh'

1SG/2SG	*ddaqqaɣura*	[d{i}^{8}-daq^{7}-q^{5}-a^{4}-ku^{1}-da^{0}
		1^{8}-laugh.ANOM^{7}-CAUS^{5}-NPST^{4}-2SG^{1}-ITER.TR^{0}]
2SG/1SG	*kdaqqadda*	[k{u}^{8}-daq^{7}-q^{5}-a^{4}-d{i}^{1}-da^{0}
		2^{8}-laugh.ANOM^{7}-CAUS^{5}-NPST^{4}-1SG^{1}-ITER.TR^{0}]
3M/3F	*ddaqqijda*	[d{u}^{8}-daq^{7}-q^{5}-ij^{4}-da^{0}
		3^{8}-laugh.ANOM^{7}-CAUS^{5}-3F^{4}-ITER.TR^{0}][36]
3F/3M	*dadaqqajda*	[da^{8}-daq^{7}-q^{5}-aj^{4}-da^{0}
		3F^{8}-laugh.ANOM^{7}-CAUS^{5}-3M^{4}-ITER.TR^{0}]
1PL/2PL	*ddaqqɔlkaŋdan*	[d{i}^{8}-daq^{7}-q^{5}-o^{4}-l^{2}-kaŋ^{1}-da^{0}-n^{-1}
		1^{8}-laugh.ANOM^{7}-PST^{4}-PST^{2}-2PL^{1}-ITER.TR^{0}-AN.PL^{-1}]
2PL/1PL	*kdaqqɔldaŋdan*	[k{u}^{8}-daq^{7}-q^{5}-o^{4}-l^{2}-daŋ^{1}-da^{0}-n^{-1}
		2^{8}-laugh.ANOM^{7}-PST^{4}-PST^{2}-1PL^{1}-ITER.TR^{0}-AN.PL^{-1}]
3PL/3PL	*ddaqqɔŋɔldan*	[d{u}^{8}-daq^{7}-q^{5}-oŋo^{4}-l^{2}-da^{0}-n^{-1}
		3^{8}-laugh.ANOM^{7}-3AN.PL^{4}-PST^{2}-ITER.TR^{0}-AN.PL^{-1}]

Among right-headed verbs, this agreement pattern represents the basic type (Vajda, Nefedov and Malchukov 2012: 442). It does not seem to be associated with any particular morphological or semantic feature, for example, *dúbtèd* 'he hits it' [du^{8}-b^{3}-ted^{0} 3^{8}-3N^{3}-hit^{0}], *dúdìs* 'he dresses me' [du^{8}-di^{1}-s^{0} 3^{8}-1SG^{1}-dress^{0}].

Finally, verbs denoting causatives-of-state built with the root morpheme *-sin* in P0 and a descriptive modifier in P7 also follow this pattern: *dúttabsin* 'I fill it' [di^{8}-ut^{7}-t^{5}-a^{4}-b^{3}-sin^{0} 1^{8}-full^{7}-TH^{5}-NPST^{4}-3N^{3}-cause.to.become^{0}].

2.2.8.2.1.2 Transitive configuration II

This is the basic and most frequent transitive agreement pattern for left-headed verbs in Modern Ket (cf. Vajda, Nefedov and Malchukov 2012: 442). It uses P8 (+ P-1) to mark

[36] It should be mentioned that in this configuration the P4 tense marker *-a-* (when present) gets replaced with the 3rd person singular object markers.

the subject, and P6 to mark the object. Table 2.11 illustrates the general positional formula for this configuration.

P8	P7	P6	P5	P4	P3	P2	P1	P0	P-1
SBJ (person/ gender class)	incorporant 1) ANOM as semantic head 2) noun/ adj./ adverb root	**OBJ (person / gender class / number)**	thematic consonant	*tense/ mood* or **OBJ (3M/F)**	**OBJ (3N)** or thematic non-agreement affix	*past tense/ imperative*		base 1) right semantic head 2) aspect/ voice auxiliary)	**SBJ (plural number)**

Table 2.11. *Transitive configuration II*

A sample paradigm is presented below.

taŋ^{7}-k^{5}-a^{4}-[l^{2}]-bed~ked^{0} ‘smn drags smn/smth over’

1SG/2SG *dtaŋkuɣavɛt* [d{i}^{8}-taŋ^{7}-ku^{6}-k^{5}-a^{4}-bed^{0}
1^{8}-drag.ANOM^{7}-2SG^{6}-TH^{5}-NPST^{4}-ITER^{0}]

2SG/1SG *ktaŋbɔɣavɛt* [k{u}^{8}-taŋ^{7}-bo^{6}-k^{5}-a^{4}-bed^{0}
2^{8}-drag.ANOM^{7}-1SG^{6}-TH^{5}-NPST^{4}-ITER^{0}]

3M/3F/N *dtaŋuɣavɛt* [d{u}^{8}-taŋ^{7}-u^{6}-k^{5}-a^{4}-bed^{0}
3^{8}-drag.ANOM^{7}-3F/N^{6}-TH^{5}-NPST^{4}-ITER^{0}]

3F/3M *dataŋɔɣavɛt* [da^{8}-taŋ^{7}-o^{6}-k^{5}-a^{4}-bed^{0}
3F^{8}-drag.ANOM^{7}-3M^{6}-TH^{5}-NPST^{4}-ITER^{0}]

1PL/2PL *dtaŋgʌŋgɔlvɛtin* [d{i}^{8}-taŋ^{7}-kəŋ^{6}-k^{5}-o^{4}-l^{2}-bed^{0}-in^{-1}
1^{8}-drag.ANOM^{7}-2PL^{6}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}]

2PL/1PL *ktaŋdʌŋgɔlvɛtin* [k{u}^{8}-taŋ^{7}-dəŋ^{6}-k^{5}-o^{4}-l^{2}-bed^{0}-in^{-1}
2^{8}-drag.ANOM^{7}-1PL^{6}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}]

3PL/3PL *dtaŋɔŋgɔlvɛtin* [d{u}^{8}-taŋ^{7}-oŋ^{6}-k^{5}-o^{4}-l^{2}-bed^{0}-in^{-1}
3^{8}-drag.ANOM^{7}-3PL^{6}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}]

It should be noted that transitive stems containing borrowed Russian infinitives always conform to this particular configuration. The borrowed material appears in P7, for example, *dakrásitbòkabed* ‘she colours me’ [da^{8}-krasit^{7}-bo^{6}-k^{5}-a^{4}-bed^{0} 3F^{8}-colour.RUS.ANOM^{7}-1SG^{6}-TH^{5}-NPST^{4}-ITER^{0}] (from Russian *krasit’* ‘to colour, to paint’).

A few right-headed verbs also follow this agreement configuration. They are limited to verbs of seeing, for example, *dabátoloŋ* 'she saw me' [da^{8}-ba^{6}-t^{5}-o^{4}-l^{2}-oŋ^{0} 3F^{8}-1SG^{6}-TH^{5}-PST^{4}-PST^{2}-see^{0}] and verbs in which the instrument role is overtly marked (Vajda, Nefedov and Malchukov 2012: 443).

2.2.8.2.1.3 Transitive configuration III

This configuration belongs to the unproductive ones. Similar to Transitive configuration I, verbs belonging to Transitive configuration III mark their object in P4/3/1, but in addition they mark their subject twice, in P8 and P6.[37] Table 2.12 illustrates the general positional formula for this configuration.

P8	P7	P6	P5	P4	P3	P2	P1	P0	P-1
SBJ (person/ gender class)	incorporant 1) ANOM as semantic head 2) noun/ adj./ adverb root	**SS (person/ gender class/ number)**	thematic consonant	*tense/ mood* or **OBJ (3M/F)**	**OBJ (3N)** or thematic non-agreement affix	*past tense/ imperative*	**OBJ (1,2)** or thematic valence reducing affix	base 1) right semantic head 2) aspect/ voice auxiliary)	**SBJ (plural number)**

Table 2.12. *Transitive configuration III*

As pointed out in (Vajda, Nefedov and Malchukov 2012: 443), most verbs belonging to this configuration describe actions performed without an external tool or conveyance.

əla^{7}-k^{5}-[n^{2}]-qos~am^{0} 'smn takes smn/smth out'

1SG/2SG	*dʌlabɔgguʁɔs*	[d{i}^{8}-əla^{7}-bo^{6}-k^{5}-ku^{1}-qos^{0}
		1^{8}-out^{7}-1SG.SS^{6}-TH^{5}-2SG^{1}-take^{0}]
2SG/1SG	*kʌlakugdiʁɔs*	[k{u}^{8}-əla^{7}-ku^{6}-k^{5}-di^{1}-qos^{0}
		2^{8}-out^{7}-2SG.SS^{6}-TH^{5}-1SG^{1}-take^{0}]
3M/3F	*dʌlabuɣaʁɔs*	[d{u}^{8}-əla^{7}-bu^{6}-k^{5}-a^{4}-qos^{0}
		3^{8}-out^{7}-3SS^{6}-TH^{5}-3M^{4}-take^{0}]

[37] Note that they use the generic 3rd person marker *-bu-* in P6, both for singular and plural forms. It also appears in Intransitive configuration III (cf. 2.2.8.2.2.3).

3F/3N	*daʌlabuŋnam*	[da^{8}-əla^{7}-bu^{6}-k^{5}-b^{3}-n^{2}-am^{0}
		3F^{8}-out^{7}-3SS^{6}-TH^{5}-3N^{3}-PST^{2}-take^{0}]
1PL/2PL	*dʌladʌŋggaŋɢɔsin*	[d{i}^{8}-əla^{7}-dəŋ^{6}-k^{5}-kaŋ^{1}-qos^{0}-in^{-1}
		1^{8}-out^{7}-1PL.SS^{6}-TH^{5}-2PL^{1}-take^{0}-AN.PL^{-1}]
2PL/1PL	*kʌlakʌŋgdaŋɢɔsin*	[k{u}^{8}-əla^{7}-kəŋ^{6}-k^{5}-daŋ^{1}-qos^{0}-in^{-1}
		2^{8}-out^{7}-2PL.SS^{6}-TH^{5}-1PL^{1}-take^{0}-AN.PL^{-1}]
3PL/3PL	*dʌlabuɣaŋɢɔsin*	[d{u}^{8}-əla^{7}-bu^{6}-k^{5}-aŋ^{1}-qos^{0}-in^{-1}
		3^{8}-out^{7}-3SS^{6}-TH^{5}-3PL^{1}-take^{0}-AN.PL^{-1}]

2.2.8.2.1.4 Transitive configuration IV

This is another unproductive transitive configuration. It has multi-slot subject agreement in P8 and P1, while object is cross-referenced in P6. Note that the P-1 animate-class plural suffix does not appear in this configuration. Instead, subject number is expressed by the marker in P1. Table 2.13 illustrates the general positional formula for this configuration.

P8	P7	P6	P5	P4	P3	P2	P1	P0	P-1
SBJ (person/ gender class)		**OBJ (person/ gender class/ number)**	thematic consonant	*tense/ mood*		*past tense/ imperative*	**SS (person/ gender class/ number)**	base 1) right semantic head 2) aspect/ voice auxiliary)	

Table 2.13. *Transitive configuration IV*

There is only a couple of verbs belonging to this configuration, one of them is exemplified in a sample paradigm below.

k^{5}-[s^{4}]-[l^{2}]-qa^{0} 'smn sells smn/smth'

1SG/3F/N	*dugdiʁa*	[d{i}^{8}-u^{6}-k^{5}-di^{1}-qa^{0}
		1^{8}-3F/N^{6}-TH^{5}-1SG.SS^{1}-sell^{0}]
2SG/1SG	*kbɔkkuʁa*	[k{u}^{8}-bo^{6}-k^{5}-ku^{1}-qa^{0}
		2^{8}-1SG^{6}-TH^{5}-2SG.SS^{1}-sell^{0}]

3M/3F	*daɔksaʁa*	[da^{8}-o^{6}-k^{5}-s^{4}-a^{1}-qa^{0}
		3F^{8}-3M^{6}-TH^{5}-NPST^{4}-3SG.SS^{1}-sell^{0}]
2PL/1PL	*kdaŋilgaŋɢa*	[k{u}^{8}-daŋ^{6}-{k^{5}}-l^{2}-kaŋ^{1}-qa^{0}
		2^{8}-1PL^{6}-TH^{5}-PST^{2}-2PL.SS^{1}-sell^{0}]
3PL/3PL	*dɔŋilaŋɢa*	[d{u}^{8}-oŋ^{6}-{k^{5}}-l^{2}-aŋ^{1}-qa^{0}
		3^{8}-3PL^{6}-TH^{5}-PST^{2}-3PL.SS^{1}-sell^{0}]

There is also one verb that uses this pattern for plural subjects only: *dbóktajaŋqutn* 'they lead me around' [du^{8}-bo^{6}-k/t^{5}-aj^{4}-aŋ^{1}-qutn^{0} 3^{8}-1SG^{6}-with/TH^{5}-NPST^{4}-3AN.PL.SS^{1}-many.walk^{0}] (cf. *dbóktajka* 'he leads me around' [d{u}^{8}-bo^{6}-k/t^{5}-aj^{4}-ka^{0} 3^{8}-1SG^{6}-with/TH^{5}-NPST^{4}-one.walks^{0}]).

2.2.8.2.2 Intransitive configurations

Intransitive stems in Ket can be divided into five productive intransitive configurations. In addition there are a few intransitive verbs which use unconventional agreement patterns.

2.2.8.2.2.1 Intransitive configuration I

This intransitive pattern is very common. It requires a subject agreement marker in P8 (+ P-1) for animate-class subjects, while most inanimate-class subjects are cross-referenced in P3. Table 2.14 illustrates the general positional formula for this configuration.

P8	**P7**	**P6**	**P5**	**P4**	**P3**	**P2**	**P1**	**P0**	**P-1**
SBJ (person/ gender class) or thematic valence reducing affix	incorporant 1) ANOM as semantic head 2) noun/ adj./ adverb root		thematic consonant	*tense/ mood*	**OBJ (3N)** or thematic non-agreement affix	*past tense/ imperative*		base 1) right semantic head 2) aspect/ voice auxiliary)	**SBJ (plural number)**

Table 2.14. *Intransitive configuration I*

A sample paradigm is illustrated below.

kaŋ^{7}-[s^{4}]-[l^{2}]-i/bed^{0} ‘smn makes a hole’

1SG	*dkaŋsivɛt*	[d{i}^{8}-hole^{7}-s^{4}-i/bed^{0}
		1^{8}-hole^{7}-NPST^{4}-make^{0}]
2SG	*kkaŋsivɛt*	[k{u}^{8}-hole^{7}-s^{4}-i/bed^{0}
		2^{8}-hole^{7}-NPST^{4}-make^{0}]
3M	*dkaŋsivɛt*	[d{u}^{8}-hole^{7}-s^{4}-i/bed^{0}
		3^{8}-hole^{7}-NPST^{4}-make^{0}]
3F	*dakaŋsivɛt*	[da^{8}-hole^{7}-s^{4}-i/bed^{0}
		3F^{8}-hole^{7}-NPST^{4}-make^{0}]
1PL	*dkaŋlivɛtin*	[d{i}^{8}-hole^{7}-l^{2}-i/bed^{0}-in^{0}
		3F^{8}-hole^{7}-NPST^{4}-make^{0}-AN.PL^{-1}]
2PL	*kkaŋlivɛtin*	[k{u}^{8}-hole^{7}-l^{2}-i/bed^{0}-in^{0}
		2^{8}-hole^{7}-NPST^{4}-make^{0}-AN.PL^{-1}]
3PL	*dkaŋlivɛtin*	[d{u}^{8}-hole^{7}-l^{2}-i/bed^{0}-in^{0}
		3^{8}-hole^{7}-NPST^{4}-make^{0}-AN.PL^{-1}]

It should be noted that intransitive verbs built on Russian loans conform to this pattern as well. The borrowed element appears in P7 as the verb’s semantic head: *dapílistedabed* ‘she dances’ (< Russian *pljasat’* ‘to dance’) [da^{8}-pilisted^{7}-a^{4}-bed^{0} 3F^{8}-dance.RUS.ANOM^{7}-NPST^{4}-ITER^{0}].

2.2.8.2.2.2 Intransitive configuration II

Intransitive configuration II is another widespread pattern. Intransitive verbs belonging to this pattern cross-reference their subject in P6. These include inchoatives and change-of-state verbs that have their lexical head (noun or action nominal) in P7.[38] Table 2.15 illustrates the general positional formula for this configuration.

[38] Note that some change-of-state verbs containing an adjective root in P7, however, belong to Intransitive I: *daqáɣaʁan* ‘she gets big’ [da^{8}-qa^{7}-a^{4}-qan^{0} 3F.SBJ^{8}-big^{7}-NPST^{4}-INCH.NPST^{0}], *qáɣavan* ‘it gets big’ [qa^{7}-a^{4}-b^{3}-qan^{0} big^{7}-NPST^{4}-3N.SBJ^{3}-INCH.NPST^{0}].

P8	P7	P6	P5	P4	P3	P2	P1	P0	P-1
thematic valence reducing affix	incorporant 1) ANOM as semantic head 2) noun/ adj./ adverb root	**SBJ**	thematic consonant	*tense/ mood*	thematic non-agreement affix	*past tense/ imperative*		base 1) right semantic head 2) aspect/ voice auxiliary)	

Table 2.15. *Intransitive configuration II*

A sample paradigm is provided below.

utbaŋ^{7}-t^{5}-a^{4}-[n^{2}]-aq~oq^{0} ‘smn goes blind’

1SG	*utpaŋbataq*	[utbaŋ^{7}-ba^{6}-t^{5}-{a^{4}}-aq^{0}
		blind^{8}-1SG^{6}-TH^{5}-NPST^{4}-become.NPST^{0}]
2SG	*utpaŋkutaq*	[utbaŋ^{7}-ku^{6}-t^{5}-aq^{0}
		blind^{8}-2SG^{6}-TH^{5}-NPST^{4}-become.NPST^{0}]
3M	*utpaŋataq*	[utbaŋ^{7}-a^{6}-t^{5}-aq^{0}
		blind^{8}-3M^{6}-TH^{5}-NPST^{4}-become.NPST^{0}]
3F	*utpaŋitaq*	[utbaŋ^{7}-i^{6}-t^{5}-aq^{0}
		blind^{8}-3F^{6}-TH^{5}-NPST^{4}-become.NPST^{0}]
1PL	*utpaŋdʌŋtɔnɔq*	[utbaŋ^{7}-dəŋ^{6}-t^{5}-o^{4}-n^{2}-oq^{0}
		blind^{8}-1PL^{6}-TH^{5}-PST^{4}-PST^{2}-become.PST^{0}]
2PL	*utpaŋkʌŋtɔnɔq*	[utbaŋ^{7}-kəŋ^{6}-t^{5}-o^{4}-n^{2}-oq^{0}
		blind^{8}-2PL^{6}-TH^{5}-PST^{4}-PST^{2}-become.PST^{0}]
3PL	*utpaŋaŋtɔnɔq*	[utbaŋ^{7}-aŋ^{6}-t^{5}-o^{4}-n^{2}-oq^{0}
		blind^{8}-3PL^{6}-TH^{5}-PST^{4}-PST^{2}-become.PST^{0}]

Another specific group of vebrs following this configurations are the so-called ‘*da*-intransitives’ such as, for example, *dakúdaŋbóksibed* ‘I become wrinkled’ [da^{8}-kudaŋ^{7}-bo^{6}-k^{5}-s^{4}-bed^{0} IC^{8}-wrinkles^{7}-1SG^{6}-TH^{5}-NPST^{4}-make^{0}] (cf. also 2.2.8.1.3.1). A small number of ‘*da*-intransitives’ also follow Intransitive configuration V (see below).

2.2.8.2.2.3 Intransitive configuration III

The third intransitive configuration involves multi-slot subject marking in P8 (+ P-1) and P6. Table 2.16 illustrates the general positional formula for this configuration.

P8	P7	P6	P5	P4	P3	P2	P1	P0	P-1
SBJ (person/ gender class)	incorporant 1) ANOM as semantic head 2) noun/ adj./ adverb root	**SS (person/ gender class/ number)**	thematic consonant	*tense/ mood*	thematic non-agreement affix	*past tense/ imperative*		base 1) right semantic head 2) aspect/ voice auxiliary)	**SBJ (plural number)**

Table 2.16. *Intransitive configuration III*

According to (Vajda, Nefedov and Malchukov 2011: 445), this pattern appears in certain auto-instrumental verbs, like, for example, 'to whistle (with one's lips)', as illustrated below.

kutolej^{7}-k^{5}-[s^{4}]-[l^{2}]-a^{0} 'smn whistles (with own lips)'

1SG	*tkutɔlɛjbɔksa*	[d{i}^{8}-kutolej^{7}-bo^{6}-k^{5}-s^{4}-a^{0}
		1^{8}-whistle^{7}-1SG.SS^{6}-TH^{5}-NPST^{4}-process^{0}]
2SG	*kkutɔlɛjguksa*	[k{u}^{8}-kutolej^{7}-ku^{6}-k^{5}-s^{4}-a^{0}
		2^{8}-whistle^{7}-2SG.SS^{6}-TH^{5}-NPST^{4}-process^{0}]
3M	*tkutɔlɛjbuksa*	[d{u}^{8}-kutolej^{7}-bu^{6}-k^{5}-s^{4}-a^{0}
		3^{8}-whistle^{7}-3SS^{6}-TH^{5}-NPST^{4}-process^{0}]
3F	*dakutɔlɛjbuksa*	[d{a}^{8}-kutolej^{7}-bu^{6}-k^{5}-s^{4}-a^{0}
		3F^{8}-whistle^{7}-3SS^{6}-TH^{5}-NPST^{4}-process^{0}]
1PL	*tkutɔlɛjdʌŋlan*	[d{i}^{8}-kutolej^{7}-dəŋ^{6}-{k^{5}}-l^{2}-a^{0}-n^{-1}
		1^{8}-whistle^{7}-1PL.SS^{6}-TH^{5}-PST^{2}-process^{0}-AN.PL^{-1}]
2PL	*kkutɔlɛjgʌŋlan*	[k{u}^{8}-kutolej^{7}-kəŋ^{6}-{k^{5}}-l^{2}-a^{0}-n^{-1}
		2^{8}-whistle^{7}-2PL.SS^{6}-TH^{5}-PST^{2}-process^{0}-AN.PL^{-1}]
3PL	*tkutɔlɛjbulan*	[d{u}^{8}-kutolej^{7}-bu^{6}-{k^{5}}-l^{2}-a^{0}-n^{-1}
		3^{8}-whistle^{7}-3SS^{6}-TH^{5}-PST^{2}-process^{0}-AN.PL^{-1}]

This pattern also productively builds reflexives from transitive verbs belonging to Transitive configuration II. For example, *datúkunbutakit* 'she gets combed, combs herself' [da^{8}-tukun^{7}-bu^{6}-t^{5}-a^{4}-kit^{0} 3F^{8}-comb^{7}-3SS^{6}-TH^{5}-NPST^{4}-rub^{0}] (cf. *datúkunitakit* 'she combs her' [da^{8}-tukun^{7}-i^{6}-t^{5}-a^{4}-kit^{0} 3F^{8}-comb^{7}-3F^{6}-TH^{5}-NPST^{4}-rub^{0}]). Most reciprocals follow Intransitive configuration III as well: *thatanbuksibedn* 'they hug' [d{u}^{8}-hatan^{7}-bu^{6}-k^{5}-s^{4}-bed^{0}-n^{-1} 3^{8}-close^{7}-3SS^{6}-TH^{5}-NPST^{4}-make^{0}-AN.PL^{-1}] 'they hug (each other)'. Some other intransitive verbs belonging to this configuration may express quick or intense motions, such as, for example, *daíkdabutsaq* 'she makes a quick round trip to the river' [da^{8}-igda^{7}-bu^{6}-t^{5}-s^{4}-aq^{0} 3F^{8}-to.riverbank^{7}-3SS^{6}-TH^{5}-NPST^{4}-go.MOM^{0}].

2.2.8.2.2.4 Intransitive configuration IV

The fourth intransitive configuration requires multiple marking for the subject in P8 and P1. Similar to Transitive configuration IV, subject number in this pattern is expressed by the marker in P1. Table 2.17 illustrates the general positional formula for this configuration.

P8	**P7**	**P6**	**P5**	**P4**	**P3**	**P2**	**P1**	**P0**	**P-1**
SBJ (person/ gender class)	incorporant 1) ANOM as semantic head 2) noun, adj., or adverb root		thematic consonant	*tense/ mood*		*past tense/ imperative*	**SS (person/ gender class/ number)**	base 1) right semantic head 2) aspect/ voice auxiliary)	

Table 2.17. *Intransitive configuration IV*

A sample paradigm is given below.

olaŋ^{7}-q^{5}-a^{4}-[l^{2}]-dij^{0} 'smn undresses hself'

1SG	*dɔlaŋqaddij*	[d{i}^{8}-olaŋ^{7}-q^{5}-a^{4}-d{i}^{1}-dij^{0}
		1^{8}-undress^{7}-CAUS^{5}-NPST^{4}-1SG.SS^{1}-ITER.INTR^{0}]
2SG	*kɔlaŋqaɣurij*	[k{u}^{8}-olaŋ^{7}-q^{5}-a^{4}-ku^{1}-dij^{0}
		2^{8}-undress^{7}-CAUS^{5}-NPST^{4}-2SG.SS^{1}-ITER.INTR^{0}]

3M	*dɔlaŋqajarij*	[d{u}^{8}-olaŋ^{7}-q^{5}-aj^{4}-a^{1}-dij^{0}
		3^{8}-undress^{7}-CAUS^{5}-NPST^{4}-3SG.SS^{1}-ITER.INTR^{0}]
3F	*daɔlaŋqajarij*	[da^{8}-olaŋ^{7}-q^{5}-aj^{4}-a^{1}-dij^{0}
		3F^{8}-undress^{7}-CAUS^{5}-NPST^{4}-3SG.SS^{1}-ITER.INTR^{0}]
1PL	*dɔlaŋqɔldaŋdij*	[d{i}^{8}-olaŋ^{7}-q^{5}-o^{4}-l^{2}-daŋ^{1}-dij^{0}
		1^{8}-undress^{7}-CAUS^{5}-PST^{4}-PST^{2}-1PL.SS^{1}-ITER.INTR^{0}]
2PL	*kɔlaŋqɔlgaŋdij*	[k{u}^{8}-olaŋ^{7}-q^{5}-o^{4}-l^{2}-kaŋ^{1}-dij^{0}
		2^{8}-undress^{7}-CAUS^{5}-PST^{4}-PST^{2}-2PL.SS^{1}-ITER.INTR^{0}]
3PL	*dɔlaŋqɔlaŋdij*	[d{u}^{8}-olaŋ^{7}-q^{5}-o^{4}-l^{2}-aŋ^{1}-dij^{0}
		3^{8}-undress^{7}-CAUS^{5}-PST^{4}-PST^{2}-3PL.SS^{1}-ITER.INTR^{0}]

In general, this pattern productively detransitivizes left-headed verbs belonging to Transitive Configuration I (i.e. morphological causatives). At the same time, many right-headed verbs that follow this agreement configuration are just basic intransitives (i.e. they do not have transitive counterparts or reflexive semantics). For example: *datájaraq* 'she falls' [da^{8}-t^{5}-aj^{4}-a^{1}-daq^{0} 3F^{8}-TH^{5}-NPST^{4}-3SS^{1}-fall^{0}], *daájatij* 'she grows' [da^{8}-aj^{4}-a^{1}-tij^{0} 3F^{8}-NPST^{4}-3SS^{1}-grow^{0}].

2.2.8.2.2.5 Intransitive configuration V

The majority of verbs belonging to this intransitive configuration are *habeo*-verbs with a monosyllabic possessum noun incorporated in P7 and their subjects expressed in P4/1. Table 2.18 illustrates the general position formula for this configuration.

P8	P7	P6	P5	P4	P3	P2	P1	P0	P-1
thematic valence reducing affix	incorporant 1) ANOM as semantic head 2) noun, adj., or adverb root			**SBJ (3AN)**	**SBJ (3N)**	*past tense/ imperative*	**SBJ (1,2)**	base 1) right semantic head 2) aspect/ voice auxiliary)	

Table 2.18. *Intransitive configuration V*

A sample paradigm of a *habeo*-verb is provided below.

don^{7}-[l^{2}]-bed^{0} ‘smn has a knife’

1SG	*dɔndivɛt*	[don^{7}-di^{1}-bed^{0}
		knife^{7}-1SG^{1}-have^{0}]
2SG	*dɔnkuvɛt*	[don^{7}-ku^{1}-bed^{0}
		knife^{7}-2SG^{1}-have^{0}]
3M	*dɔnajbɛt*	[don^{7}-aj^{4}-bed^{0}
		knife^{7}-3M^{4}-have^{0}]
3F	*dɔnijbɛt*	[don^{7}-ij^{4}-bed^{0}
		knife^{7}-3F^{4}-have^{0}]
1PL	*dɔnildaŋvɛt*	[don^{7}-l^{2}-daŋ^{1}-bed^{0}
		knife^{7}-PST^{2}-1PL^{1}-have^{0}]
2PL	*dɔnilkaŋvɛt*	[don^{7}-l^{2}-kaŋ^{1}-bed^{0}
		knife^{7}-PST^{2}-2PL^{1}-have^{0}]
3PL	*dɔnaŋilvɛt*	[don^{7}-l^{2}-aŋ^{4}-bed^{0}
		knife^{7}-3PL^{4}-PST^{2}-have^{0}]

Interestingly, *habeo*-verbs with polysyllabic possessum nouns usually follow the agreement pattern of Intransitive configuration II: *dónaŋbájbed* ‘I have knives’ [don-aŋ^{7}-baj^{6}-bed^{0} knife-PL^{7}-1SG^{6}-have^{0}]. There are also a few intransitive verbs belonging to other semantic groups that use this agreement configuration, for example, *sítkaŋa* ‘you.PL wake up’ [sit^{7}-kaŋ^{1}-a^{0} awake^{7}-2PL^{1}-process.occurs^{0}] or *daétijqus* ‘she jumps’ [da^{8}-et^{7}-ij^{4}-qos^{0} IC^{8}-up^{7}-3F^{3}-take^{0}] (cf. Vajda, Nefedov and Malchukov 2011: 446-447).

2.2.8.2.2.6 Rare intransitive configurations

Finally, some intransitive stems in Ket show rare or unique agreement configurations. For example, several verbs use multi-slot subject agreement only in the plural forms: *díraŋdɔqŋ* ‘we fly’ [di^{8}-daŋ^{1}-doq/ŋ^{0} 1^{8}-1PL^{1}-fly/PL^{0}] (cf. *dirɔq* ‘I fly’ [di^{8}-(ji)-doq^{0} 1^{8}-fly^{0}]). The past tense forms of the following intransitive verb have been recorded with the subject marking in P6 and P1: *éjbagbindiʁɔs* ‘I jumped up’ [ej^{7}-ba^{6}-k^{5}-b^{3}-in^{2}-di^{1}-qos^{0} up^{7}-1SG^{6}-TH^{5}-TH^{3}-PST^{2}-1SG.SS^{1}-jump^{0}]. Most of these exceptional verbs are listed in Vajda (2004: 69-71).

2.2.8.2.3 Non-agreement configurations

There is a number of configurations that do not have any verb-internal agreement. These include the majority of sound production verbs as well as verbs with incorporated subjects (usually, temporal or weather-related nouns) (Nevefov and Vajda, forthcoming). Verbs of sound production incorporate an ideophonic action nominal in P7 and indicate the sound's source by possessive marking.[39] Sample paradigms of two different sound production verbs are illustrated below.

kutolej^{7}-b^{3}-[l^{2}]-a^{1}-ta^{0} 'whistling is heard'

1SG	*bkutɔlɛjbata*	[b=kutolej.ANOM^{7}-b^{3}-a^{1}-ta^{0}
		1SG.POSS=whistle^{7}-TH^{3}-RES^{1}-extend^{0}]
2SG	*kkutɔlɛjbata*	[k=kutolej.ANOM^{7}-b^{3}-a^{1}-ta^{0}
		2SG.POSS=whistle^{7}-TH^{3}-RES^{1}-extend^{0}]
3M	*dabkutɔlɛjbilata*	[da=kutolej.ANOM^{7}-b^{3}-l^{2}-a^{1}-ta^{0}
		3M.POSS=whistle^{7}-TH^{3}-PST^{2}-RES^{1}-extend^{0}]
3F	*dbkutɔlɛjbilata*	[d=kutolej.ANOM^{7}-b^{3}-l^{2}-a^{1}-ta^{0}
		3F.POSS=whistle^{7}-TH^{3}-PST^{2}-RES^{1}-extend^{0}]

kutolej^{7}-kes^{0} 'whistling (suddenly) resounds/resounded'

1SG	*bkutɔlɛjgɛs*	[b=kutolej.ANOM^{7}-kes^{0}
		1SG.POSS=whistle^{7}-resound^{0}]
3PL	*nakutɔlɛjbata*	[na=kutolej.ANOM^{7}-kes^{0}
		3AN.PL.POSS=whistle^{7}-resound^{0}]

A paradigm of a verb with an incorporated subject (*sīl* 'summer') is presented below.

[39] It could be a possessive marker, a possessive pronoun or a possessive noun phrase. Such possessive constructions with sound production verbs are the most common way to convey the meaning 'X produces a (particular kind of) sound' in Ket. For example, *bkutolejbata* 'I'm whistling (lit. my whistling is heard)', *dɨlda kutolejbata* 'The child is whistling (lit. the child's whistling is heard)', *bkutolejkes* 'I suddenly whistle/whistled (lit. my whistling suddenly resounds/resounded)', *qimd kutolejkes* 'the woman suddenly whistles/whistled (lit. the woman's whistling suddenly resounds/resounded)'.

sil^{7}-d^{5}-a^{4}-b^{3}-qan~qon^{0} 'summer comes'

sildavʁan	[sil^{7}-d^{5}-a^{4}-b^{3}-qan^{0}
	summer^{7}-TH^{5}-NPST^{4}-TH^{3}-INCH.NPST^{0}]
sildɔvʁɔn	[sil^{7}-d^{5}-o^{4}-b^{3}-qon^{0}
	summer^{7}-TH^{5}-NPST^{4}-TH^{3}-INCH.NPST^{0}]

2.2.8.3 Derived categories

As we mentioned above, only a few categories (tense, mood, agreement) find their grammatical expression in the Ket verb. In order to express other categories like, for instance, causatives, iteratives or inchoatives, Ket typically employs various derivational means (Vajda 2004; Zinn 2005; Georg 2007: 299).

2.2.8.3.1 Causatives

Causatives belong to the left-headed verbs and are generally formed by adding the causative marker *-q-* in position P5 to the lexical head in position P7. Position P0, in this case, contains one of four distinct affixes marking the verb as transitive or detransitive and momentaneous or iterative (Vajda 2004: 71).[40] Example (2.22) illustrates the most common scenario of causative formation in Ket.

(2.22a) *tɔˀnʲ diɣaraq*

toˀn	di^{8}-k^{5}-a^{4}-daq^{0}
so	1^{8}-TH^{5}-NPST^{4}-live^{0}

'I live this way.' (Werner 1997: 221)

(2.22b) *biksʲa dadʌqqadda*

biksa	da^{8}-dəq^{7}-q^{5}-a^{4}-d{i}^{1}-da^{0}
other	3F^{8}-live^{7}-CAUS^{5}-NPST^{4}-1SG^{1}-ITER.TR^{0}

'She forces me to live the other way.' (Werner 1997: 221)

It should be noted, though, that morphological causatives from intransitives do not appear to be fully productive and the restriction cannot be fully explained by morphological structure. Morphological causatives from transitives are not built

[40] Many verbs containing the causative *-q-* in position P5 have intransitive counterparts if they denote actions that can be logically expressed as occurring spontaneously: *daúsqajarij* 'She is getting warmed up.' [da^{8}-us^{7}-q^{5}-aj^{4}-a^{1}-dij^{0} 3F^{8}-warm^{7}-CAUS^{5}-NPST^{4}-3SG.SS^{1}-MOM.INTR^{0}].

productively either. Some transitive verbs which do form causatives involve further incorporation of the original direct object into the verb as a part of an action nominal, as exemplified in (2.23).

(2.23) *ām āt danʲánʲbɛtqírit*

ām	ād	da^{8}-nanbed^{7}-q^{5}-di^{1}-t^{0}
mother	1SG	3F^{8}-bread.make.ANOM^{7}-CAUS^{5}-1SG^{1}-MOM.TR^{0}

'Mother makes me bake bread (lit. bread-bake).'

The majority of transitive verbs form causatives not morphologically, but analytically with the help of the verbs meaning 'send' and a corresponding action nominal (2.24).[41]

(2.24) *bū āt ɛslʲa dèrʲ déraqindit*

bū	ād	esla	dèd	d{u}^{8}-eda^{7}-q^{5}-n^{2}-di^{1}-t^{0}
3SG	1SG	paper	read.ANOM	3^{8}-send^{7}-CAUS^{5}-PST^{2}-1SG^{1}-MOM.TR^{0}

'He made (once) me read the book.'

2.2.8.3.2 Iteratives

Iterativity can be achieved in Ket by a variety of means.[42] Iterative verbs are always left-headed and contain one of the semantically bleached roots in position P0. In the overwhelming majority of cases, these are the following roots: *-bed~ked* or *-da*. The latter occurs mostly with causative verbs (cf. 2.22b and 2.24). Example (2.25) illustrates an iterative verb marked with *-bed~ked*.

(2.25) *daigbɛsʲavɛt*

da^{8}-ikbes^{7}-a^{4}-bed^{0}

3F^{8}-visit.ANOM^{7}-NPST^{4}-ITER^{0}

'She comes to visit (often).'

Iterativity can also be achieved by putting a (noun, usually instrumental) P7 incorporate into the plural form (2.26b).

[41] Interestingly, this is the main causativization strategy both for intransitives and monotransitives in Yugh (Werner 1997c: 150).

[42] The notion of iterativity employed here includes other cases as, e.g., habitual actions or actions performed on multiple as opposed to single objects. Morphologically, Ket blends these different "non-singulatives" by and large into a single, albeit not uniformly expressed, "category" (Georg 2007: 302).

(2.26a) *dakɔʁaulʲtɛt*

da[8]-koq[7]-a[4]-h[5]-o[4]-l[2]-ted[0]

3F[8]-fist[7]-3M[6]-TH[5]-PST[4]-PST[2]-hit[0]

'She hit him with a fist (once).'

(2.26b) *dakɔːnatavilʲtɛt*

da[8]-koːn[7]-a[4]-t[5]-o[4]-b[3]-l[2]-ted[0]

3F[8]-fist.PL[7]-3M[6]-TH[5]-PST[4]-INT[3]-PST[2]-hit[0]

'She hit him with a fist (repeatedly).'

2.2.8.3.3 Inchoatives

Inchoatives, i.e. verbs that express the notion of beginning an action or state can be formed with the help of two affixes in P0: either *-qan~qon* or *-saŋ*. Example (2.27) illustrates an inchoative formed with *-qan~qon*, while (2.28) illustrates the use of *-saŋ*, which is considerably rarer.

(2.27) *ilʲbaɣaʁan*

il[7]-ba[6]-k[5]-a[4]-qan[0]

sing.ANOM[7]-1SG[6]-TH[5]-NPST[4]-INCH.NPST[0]

'I (will) start singing.'

(2.28) *satijbaɣvisʲaŋ*

satij[7]-ba[6]-k[5]-b[3]-saŋ[0]

shame.ANOM[7]-1SG[6]-TH[5]-TH[3]-INCH[0]

'I am getting ashamed.'

2.2.8.4 Noun incorporation

Noun incorporation in Ket is lexically restricted. It occurs only with a few transitive verb stems like *-bed* 'do, make', *-ted* 'hit', *-kit* 'rub' and some others. Technically, incorporation occurs in position P7 where other types of incorporates like action nominals, adjectives, adverbials can be found (cf. 2.2.8.6). Semantic arguments which can be incorporated include patients and instruments. The latter can be seen in (2.26). Example (2.29) illustrates incorporation of a patient argument with the verb stem *-bed*.

(2.29a) *ōp dɔˀnʲ dúbbɛt*

ōb	doˀn	du^{8}-b^{3}-bed^{0}
father	knife	3^{8}-3N^{3}-make^{0}

‘Father makes a knife.’

(2.29b) *ōp ddɔnʲbɛt*

ōb	d{u}^{8}-don^{7}-bed^{0}
father	3^{8}-knife^{7}-make^{0}

‘Father makes a knife (lit. knife-makes).’

As can be seen from the examples, the inanimate marker in P3 which cross-references the core noun phrase *doˀn* ‘knife’ gets removed upon incorporation. Noun incorporation in Ket is a frequent device used to background a certain action in the discourse (Georg 2007: 236).

2.3 Simple clause syntax

2.3.1 Verbal clauses

Ket simple clauses usually consist of a finite verbal predicate and core noun phrases required by the argument structure of the given predicate, plus optional clausal adjuncts. Consider examples (2.30)-(2.33) below.

(2.30) *qiˀt dɛ́ssij*

qiˀt	d{u}^{8}-es^{7}-s^{4}-ij^{0}
wolf	3^{8}-shout^{7}-NPST^{4}-ACTIVE^{0}

‘The wolf is howling.’

(2.31) *ōp saˀq díʁɛj*

ōb	saˀq	d{u}^{8}-i^{6}-q^{2}-ej^{0}
father	squirrel	3^{8}-3F^{6}-PST^{2}-kill^{0}

‘Father killed a squirrel.’

(2.32) *kɛrʲa qīm tīp divijaq*

keˀd-da	qīm	tīb	d{u}^{8}-i^{6}-b^{3}-ijˀ^{2}-aq^{0}
person-M.POSS	woman	dog	3^{8}-3F^{6}-TH^{3}-PST^{2}-give^{0}

‘The man gave his wife a dog.’

(2.33) *ōp árʲɛndiŋa ɔŋɔn*

ōb	aden-di-ŋa	oŋ^{6}-{k^{5}}-o^{4}-{n^{2}}-{t}n^{0}
father	forest-N-DAT	3AN.PL^{6}-TH^{5}-PST^{4}-{PST^{2}}-go^{0}

'Father went to the forest.'

As we can see from the examples, the core noun phrases remain zero-marked, but they are cross-referenced verb-internally[43] by the corresponding agreement markers (see Figure 2.9). The clause in (2.32) is headed by a ditransitive verb that allows a 'double object' construction (in terms of Malchukov, Haspelmath and Comrie (2010)), therefore all three arguments are zero-marked. Note, however, that it is *qīm* 'woman' (the Recipient argument) that is cross-referenced on the verb, whereas *tīb* 'dog' (the Theme argument) does not trigger a true agreement. Instead, its presence is indicated by the so-called applicative marker (cf. 2.2.8.1.3.2).[44] Example (2.33) illustrates a simple clause with a clausal adjunct. The adjunct noun phrase *ádendiŋa* 'to the forest' is marked by the dative relational morpheme and is not cross-referenced on the verb. Although noun phrases marked by relational morphemes are typically optional, some verbs lexically require their presence, for example, the verb *qosaŋ^{7}-a^{4}-[n^{2}]-den^{0}* 'be afraid' in (2.34).

(2.34) *hígdilʲ tájdiŋalʲ bən tqɔ́sʲaŋatn*

hik-dil	taj-di-ŋal	bən	d{u}^{8}-qosaŋ^{7}-a^{4}-den^{0}
man-child	cold-N-ABL	NEG	3^{8}-fear^{7}-NPST^{4}-go^{0}

'The boy is not afraid of the cold.' (Vajda 2004: 23)

In general, core noun phrases can be freely omitted in the discourse as the presence of the cross-referencing markers makes it possible to easily recover these arguments. Therefore, any verbal predicate in the above examples can constitute a fully grammatical sentence on its own.

[43] With some complications, see below.
[44] More on ditransitive constructions in general can be found in Nefedov, Vajda and Malchukov (2010).

2.3.2 Copular elements and predicate constructions

Besides the finite verb, a simple sentence in Ket may also contain other types of predicates. These include predicate nominals,[45] predicate adjectives, predicate adverbials (of place), existential predicates, locational predicates and possessive predicates.

Ket lacks any present tense copula, therefore predicate nominals consist of two juxtaposed noun phrases (2.35a). A special copular element occurs only in the past tense (2.35b).

(2.35a) *vásja sénaŋ*

vasja	senaŋ
V.	shaman

'Vasja is a shaman.'

(2.35b) *vásja sénaŋ óvɨlʲldɛ*

vasja	senaŋ	obɨlde
V.	shaman	was

'Vasja was a shaman.'

The past tense copula *óbɨlde* does not show any person/class distinctions, but can be optionally inflected to agree in number with the subject:

(2.36) *būŋ āb híɣbisɛbaŋ óvɨlʲdɛn*

bū-ŋ	āb	hík-biseb-aŋ	obɨlde-n
3-PL	1SG.POSS	man-sibling-PL	was-PL

'They were my brothers.'

Pronouns are likewise simply juxtaposed without any morphological modification: *túde bū* 'this is him/her' and *túde bū óbɨlde* 'this was him/her'. The same concerns any nominalized form created with the help of the nominalizer *-s* (cf. ex. 2.8).

[45] We use this term in a narrow sense (cf. Payne 1997: 111) referring to the cases when the semantic content of the predication is conveyed by a noun, pronoun or any form created by the nominalizer *-s*.

Unlike predicate nominals,[46] predicate adjectives and predicate adverbials are always marked by a predicate concord suffix reflecting person, number, and class of the sentence subject. These suffixes are pronominal in origin. Table 2.19 shows the shapes of predicate suffixes attested in Ket.

Number→ **↓Person/Gender**	**SG**	**PL**
1	*-di*	*-dəŋ*
2	*-ku*	*-kəŋ*
3M	*-du*	*-aŋ*
3F	*-da*	
3N	*-am*	

Table 2.19. *Predicate concord suffixes*

The following examples illustrate predicate adjectives (2.37) and predicate adverbials of place (2.38).

(2.37) *vásja sʲélʲdu*

vasja sel-du
V. bad-M.PRED
'Vasja is bad.'

(2.38) *dɛˀŋ kisʲɛŋaŋ*

deˀŋ kiseŋ-aŋ
people here-AN.PL.PRED
'People are here.'

Predicate adjectives are generally indifferent to tense, thus *vásja séldu* in (2.38) may also be rendered as 'Vasja was bad.' Note, however, that forms marked by the predicate concord suffix can take particles used to express periphrastic tense and mood with finite verbs (cf. 2.2.8.1.2.2):

[46] In fact, according to Castrén's (1858: 100-103) records, it was apparently possible for bare nouns to be marked predicatively in his time, cf. <uob-di> ób-di 'I am (a) father', <uob-du> ób-du 'He is (a) father', etc.

(2.39) *vásja as^{j} s^{j}él^{j}du*

vasja	as	sel-du
V.	FUT	bad-M.PRED

'Vasja will be bad.'

Predicate concord suffixes can also be added to numerals, e.g. *bókdɔm qús-am* 'the rifle is one' and to nouns marked with a relational morpheme, e.g. *āt qús-ka-di* 'I am in the tent'.[47] Bare action nominals (i.e. non-nominalized by the suffix *-s*), when used predicatively, receive a corresponding predicative suffix as well. The resultant predicative construction conveys the meaning of the subject being capable of performing the action indicated by the predicate (Krejnovič 1968: 26).

(2.40) *ār^{j} él^{j}dɔri*

ād	eldo-di
1SG	fish.spear.ANOM-1SG.PRED

'I can take fish by spearing (very well).' (Krejnovič 1968: 26)

Existential predicates are formed with the help of the copular particle *úsaŋ* 'be present' (2.41), while non-existentials make use of the special particle *bə́nsaŋ* 'not be present' (2.42). Both particles never agree with the subject in class, person and number and are neutral with respect to the tense distinctions.

(2.41) *tɔ^{ʔ}n^{j} dɛ^{ʔ}ŋ ús^{j}aŋ*

to^{ʔ}n	de^{ʔ}ŋ	usaŋ
such	people	be.present

'There are (were) such people.'

(2.42) *tal^{j}ín bə́ns^{j}aŋ*

talin	bənsaŋ
flour	not.be.present

'There is (was) no flour.'

Locative and possessive existential clauses mark the logical subjects using an adessive enclitic:

[47] It is attested only with local relational enclitics as well as with the caritive one (cf. Georg 2007: 316).

(2.43) *sésʲdiŋtɛ ĭsʲ úsʲaŋ*

ses-di-ŋte	ĭs	úsaŋ
river-N-ADESS	fish	be.present

'There is fish in the river.'

(2.44) *ɔ́pdaŋt bɔ́gdɔm bʌ́nsʲaŋ*

ob-da-ŋte	bokdom	bənsaŋ
father-M-ADESS	rifle	not.be.present

'Father has no rifle.'

Locative and possessive constructions referring to the past can also be formed with the help of the copula *óbɨlde*, e.g. *ópdaŋt bókdom óbɨlde* 'father had a rifle'.

2.3.3 Questions

Interrogative sentences in Ket can be formed with the help of various means including interrogative words (pronouns, adverbs), interrogative particles and/or a special interrogative intonation (Belimov 1976: 17).

Content questions (or *wh*-questions) referring to the core arguments usually make use of the set of interrogative pronouns introduced in section 2.2.2. We illustrate this with examples (2.45)-(2.47).

(2.45) *bésʲa úɣat?*

besa	u^{6}-k^{5}-a^{4}-$t\{n\}^{0}$
who.F	$3F^{6}$-TH^{5}-$NPST^{4}$-go^{0}

'Who is coming?'

(2.46) *ánʲa kírɛ saʔq díʁɛj?*

ana	ki-de	saʔq	$d\{u\}^{8}$-i^{6}-q^{2}-ej^{0}
who	this-F	squirrel	3^{8}-$3F^{6}$-PST^{2}-$kill^{0}$

'Who killed this squirrel?'

(2.47) *turɛ aksʲ tavut?*

tu-de	aks	t^{5}-a^{4}-b^{3}-qut^{0}
this-N	what	TH^{5}-$NPST^{4}$-$3N^{3}$-lie^{0}

'What is this lying?'

Both *bésa* (or *bítse*) and *ána* show roughly equal frequency in Ket narratives and can be easily interchanged (Belimov 1976: 18). Note that the interrogatives in (2.45)-(2.47) are cross-referenced on the verb like normal core noun phrases. In the case of the interrogative particle *aj*, however, which is used to question inanimate direct objects only, transitive verbs do not show any corresponding cross-referencing marker (Krejnovič 1968: 144), whereas in questions formed with *ák(u)s* 'what' such markers are retained, cf. (2.48)-(2.49).[48]

(2.48) *áksʲ dúbbɛt?*

aks du^{8}-b^{3}-bed^{0}

what 3^{8}-3N^{3}-make^{0}

'What does he make?'

(2.49) *aj dújbɛt?*

aj du^{8}-bed^{0}

what 3^{8}-make^{0}

'What does he make?'

In order to question oblique arguments, interrogative pronouns must be marked with a corresponding relational marker, as exemplified in (2.50).

(2.50) Q: *ū anadaŋtɛ kuɣínsa:l?*

ū ana-da-ŋte ku^{8}-k^{5}-n^{2}-sa:l^{0}

2SG who-M-ADESS 2^{8}-TH^{5}-PST^{2}-spend.night^{0}

Q: 'Who did you spend the night at?

A: *āb bisɛpdaŋtɛ*

āb biseb-da-ŋte

1SG.POSS sibling-M-ADESS

A: 'At my brother's.'

Note, however, that the animate interrogatives marked by relational morphemes are very infrequent in Ket texts (Belimov 1976: 19). The inanimate interrogative *ák(u)s*, on the contrary, can attach almost any relational marker to form a wide range of

[48] Krejnovič's (1968) data are based on the Sulomaj subdialect of Southern Ket. More recent data from Southern Ket (though from a different subdialect) and Central Ket do not observe this differentiation, i.e. the inanimate marker remains intact (Georg 2007: 171).

interrogative words, e.g. *áksdiŋte* [aks-di-ŋte what-N-ADESS] 'why', *áksas* 'with what' [aks-as what-COM], etc.

Yes/no questions are usually formed using the focus question particle *ū* or its variant *bəndu* which is placed right before the element the speaker wants to question, cf. (2.51)-(2.52).

(2.51) *ārʲ u amanʲ bīn sʲibatɔnɔq?*

ād	ū	ām-an	bīn	si^{7}-ba^{6}-t^{5}-o^{4}-n^{2}-oq^{0}
1SG	QUEST	mother-CAR	MIR	R^{7}-1SG^{6}-TH^{5}-PST^{4}-PST^{2}-become.PST^{0}

'Was I (really) born **without a mother**?' (Werner 1997: 316)

(2.52) *báàt bʌnʲdu diˑmbɛsʲ?*

báàd	bəndu	d{u}^{8}-ik^{7}-n^{2}-bes^{0}
old.man	QUEST	3^{8}-here^{7}-PST^{2}-move^{0}

'Has the old man (really) **come**?' (Werner 1997: 316)

Both *ū* and *bəndu* can also be used in indirect questions, as shown in (2.53) and (2.54).

(2.53) *bū mánʲa, ātn u dáɣaksaʁan*

bū	mana	ātn	ū	{i}^{8}-aɣa^{7}-k^{5}-s^{4}-aq^{0}-an^{-1}
3SG	she.said	1PL	QUEST	1^{8}-to.forest^{7}-TH^{5}-NPST^{4}-go.MOM^{0}-AN.PL^{-1}

'She asked if we are going to the forest.' (Werner 1997: 316)

(2.54) *bū mánʲa bū bʌnʲd u diˑmbɛsʲ?*

bū	mána	bū	bənd ū	d{u}^{8}-ik^{7}-n^{2}-bes^{0}
3SG	she.said	3SG	QUEST	3^{8}-here^{7}-PST^{2}-move^{0}

'She asked if he has come.' (Werner 2002, II: 316)

2.3.4 Negation

In most cases, standard negation in Ket is conveyed analytically through the use of the invariant negative particle *bān* (cf. Werner 1997: 180). Preposed to the verb, this particle takes scope over the whole proposition expressed by the clause. This negation strategy can be considered symmetrical (in terms of Miestamo 2005), since the structure of the negative clause is identical to the structure of the affirmative one, except for the presence of the negative marker, cf. (2.55).

(2.55a) *bū vásjadaŋa dímɛsʲ*

bū	vasja-da-ŋa	d{u}^{8}-i{k}^{7}-n^{2}-bes^{0}
3SG	V.-M-DAT	3^{8}-here^{7}-PST^{2}-move^{0}

'He came to Vasja.'

(2.55b) *bū vásjadaŋa bān dímɛsʲ*

bū	vasja-da-ŋa	bān	d{u}^{8}-i{k}^{7}-n^{2}-bes^{0}
3SG	V.-M-DAT	NEG	3^{8}-here^{7}-PST^{2}-move^{0}

'He did not come to Vasja.'

Negation of some other predicate types is done in the same fashion (cf. 2.35a and 2.37 for the affirmative counterparts, respectively):

(2.56) *vásja bān sénaŋ*

vasja	bān	senaŋ
V.	NEG	shaman

'Vasja is not a shaman.'

(2.57) *vásja bān sélʲdu*

vasja	bān	sel-du
V.	NEG	bad-M.PRED

'Vasja is/was not bad.'

In the past tense, the negative particle occurs before the copula *óbɨlde*, e.g. *vásja sénaŋ bān óbɨlde* 'Vasja was not a shaman'. Note, however, that in locative and possessive existentials formed with the past tense copula (2.4.2), the particle *bān* often appears nominalized with the suffix *-s*, yielding the following construction:

(2.58) *ʌ́ʁaj buŋnaŋt škɔlan bʌ́nsʲ ɔ́bɨlʲdɛ*

əqaj	bu-ŋ-na-ŋt	škola-n	bən-s	obɨlde
in.past	3-AN.PL-AN.PL.POSS-ADESS	school-PL	NEG-NMLZ	was

'In the past they did not have schools.'

In the present tense, locative and possessive existential constructions require the special negative copular element *bə́nsaŋ*, as has been illustrated in (2.42) and (2.44) above. This copular particle presumably originates from the construction '*bān* + *usaŋ*' (cf. Minaeva 2003), but it is not entirely clear.

Negation of imperatives is different from that of declarative clauses, which is common cross-linguistically (Payne 1997: 285). Negative imperatives require the presence of the prohibitive particle *atn* (2.59b).

(2.59a) *ín^{l}tɛt*

in^{2}-ted^{0}

IMP^{2}-hit^{0}

'Hit it!'

(2.59b) *átn ín^{l}tɛt*

atn in^{2}-ted^{0}

PROH IMP^{2}-hit^{0}

'Don't hit it!'

2.3.5 Constituent order

In general, Ket shows a strong tendency for head final syntax. This tendency is clearly attested at the noun phrase level where various kinds of attributes (2.2.3) and determiners (2.2.1) always precede their heads. The lack of native prepositions in Ket (2.2.6) is another characteristic common to head-final languages (cf. Greenberg 1966). The order of constituents at the level of simple clauses likewise tends to be head final, though it is less rigid and can be regarded as relatively free. The following observation is based on the corpus of Ket narratives.

Our corpus indeed clearly shows Ket's preference for head final syntax at the clause level with 78% of all clauses being verb-final. When both core noun phrases are overtly present, the word order is APV in 66% of occurrences. Other possible orders include PAV with 18% of occurrences, AVP in 15% of cases, and just only one occurrence of VAP order. It should be noted that the fact that core arguments are often omitted in Ket discourse complicates the issues of word order (cf. 169 occurrences of transitive sentences with overt core arguments vs. 425 occurrences with one or both arguments omitted). The order of the subject and the verb in intransitive sentences likewise favors the verb-final tendency with the overwhelming majority of clauses showing SV word order (95% of occurrences). The number of occurrences of

intransitive sentences with the overt core argument is, however, higher than that of sentences without the overtly expressed subject: 592 vs. 337, respectively.

Most deviations from the prevalent APV word order seem to be associated with specific pragmatic functions. For example, the sentence initial position of the argument is usually associated with the topic. Therefore, occurrence of the object in the leftmost position before the agent (i.e. PAV) indicates its topicalization (cf. Belimov 1977b).

Postverbal occurrence of the core arguments (VS or VP) in many cases introduces a new/unknown participant to the hearer (Belimov 1977b: 77). The position of noun phrases marked by relational morphemes, either postverbal or preverbal, does not seem to be associated with any pragmatic function (Belimov 1977b: 78).

The relative freedom of word order in simple clauses can be accounted for by two factors. First of all, the core constituents of the clause are always cross-referenced in the verbal form, and thus they can be easily recovered (cf. Baker 1996: 500). Second, frequent postverbal placement of arguments in general might be the consequence of massive Russian influence, though this is hard to test in the absence of texts without substantial Russian influence.

Chapter 3. Clause linkage: Theoretical preliminaries

The last few decades witness an increasing interest among linguists towards the issue of clause combining. This interest is supplemented by extensive research into the phenomenon on the basis of typologically diverse languages. The variation in ways of combining clauses found across the languages has challenged a number of traditional concepts belonging to the realm of complex sentences (cf. Foley and Van Valin 1984; Lehmann 1988; Matthiessen and Thompson 1988; Cristofaro 2003).

The present chapter aims to outline general theoretical foundations of the notion of clause linkage, i.e. how a language deals with the task of combining two (or more) clauses into a larger unit called complex sentence.[49] In the following sections, we present an overview of some of the most influential and insightful works related to clause linkage. We also cover some earlier studies on clause combining in Ket specifically.

The chapter is organized in the following way. Section 3.1 is concerned with the traditional approach to clause linkage. Section 3.2 outlines the approach adopted within the RRG framework. Section 3.3 deals with the functional approach and section 3.4 reviews the so-called parametric approach to the problem. Finally, section 3.5 surveys the earlier studies of Ket with respect to clause linkage.

3.1 Traditional formal approach

In most traditional grammatical descriptions, clause linkage is presented in a binary fashion as divisible into two basic types: coordination and subordination. The identification of these clause linkage types within the traditional approach has always been done in purely formal morphosyntactic terms of dependency and embedding. According to the dependency criterion, coordination implies a symmetric relation between clauses that have equal syntactic status, not being dependent on one another. Subordination, on the other hand, is defined as an asymmetric relation in which one clause is grammatically dependent on the other. In other words, the dependent clause,

[49] In English linguistic literature, this term can also be used in a narrow sense referring to subordinate sentences only (Bussman 1996: 217). By contrast, in the Russian linguistic tradition, it is exclusively used as an umbrella term for both coordinate and subordinate sentences (Jarceva 2002: 471).

i.e. the subordinated one, cannot stand in isolation without its non-dependent counterpart often referred to as the main or matrix clause. The embedding criterion implies that the subordinated clause is embedded within the main clause and fulfills a certain syntactic function similar to that of a noun phrase, an adjective or an adverb in a simple sentence. Subordinate clauses can be further divided into three general types with regard to their relevant syntactic function. These types are complement clauses, relative clauses, and adverbial clauses, respectively. The clauses constituting a coordinate sentence do not fulfill any grammatical function and therefore are not considered to be embedded. The following examples from Russian (and their respective English translations) illustrate the different clause linkage types: coordinate clauses (3.1), a complement clause (3.2), a relative clause (3.3) and an adverbial clause (3.4).

(3.1) Russian

[*Vasja vstretil Mašu,*] *i* [*oni pošli na koncert*]

'Vasja met Masha and they went to the concert.'

(3.2) Russian

Vasja skazal, [*čto koncert budet klassnym*]

'Vasja said that the concert is going to be awesome.'

(3.3) Russian

No koncert, [*na kotoryj oni pošli*]*, byl otmenën*

'But the concert they went to was cancelled.'

(3.4) Russian

Koncert otmenili, [*potomu čto gruppa propustila svoj samolët*]

'The concert was cancelled, because the band missed their flight.'

Example (3.1) provides a clear instance of coordination. The bracketed clauses in (3.1) are grammatical on their own and therefore are not dependent on each other. Neither do they fulfill any particular syntactic function. This is not the case with the rest of the examples in which the bracketed clauses cannot be used in isolation. These clauses are characterized by the presence of a special element that signals dependency. In (3.2) and (3.4) it is special conjunctions *čto* 'that' and *potomu čto* 'because' whereas

in (3.3) it is the relative pronoun *kotoryj* 'which'. In addition to dependency, these bracketed clauses fulfill specific syntactic functions with respect to their main clauses. The bracketed clause in (3.2) functions as an argument of the verb *skazat'* 'say' in the main clause. In (3.3), the clause in brackets serves as a modifier to the noun *koncert* 'concert' from the main clause. And the bracketed clause in (3.4) modifies its main clause as an adverbial.

The majority of scholars criticizing the traditional approach to clause linkage emphasize the fact that it fails to suffice when applied to a typologically diverse set of languages outside the Indo-European family. For example, it is not clear how to deal with some constructions found in Amele, a Trans-New Guinea language, which exhibit a certain degree of dependency, but no embedding (see section 3.2, for more discussion). Moreover, the traditional approach may even fail within an Indo-European language, for example, in English; see (Culicover and Jackendoff 1997).

In what follows we will survey other approaches that try to avoid the shortcomings of the traditional approach by taking into account actual data from typologically diverse languages.

3.2 Role and Reference Grammar approach

One of the first studies that challenged the traditional binary opposition between coordination and subordination and laid the foundations for a new approach to clause combining was Foley and Van Valin's (1984) seminal study within the theory of Role and Reference Grammar (RRG). Unlike the traditional approach which, as we mentioned, is primarily based on the Indo-European languages, the RRG approach takes into consideration a set of languages that are different both genealogically and typologically.

There are three components that play a key role in the RRG approach to clause combining: (1) the nexus, (2) the juncture, and (3) the interclausal relation hierarchy. We consider them below in this order.

The notion of nexus is related to the type of the syntactic relation between the combined clauses. Each type is defined on the basis of the two formal criteria already

mentioned in section 3.1, dependency and embedding. Based on these criteria, RRG distinguishes the following three types of nexus: coordination, subordination and cosubordination. The first two types are defined in a way similar to the formal approach, i.e. coordinate constructions are neither embedded nor dependent and subordinate constructions are both embedded and dependent. The third type, cosubordination, represents constructions, in which one clause (or more) is dependent but not embedded. The most famous instances of cosubordination are the clause chaining constructions documented in non-Austronesian languages of New Guinea. An example from Amele, a Trans-New Guinea language, illustrates this type in (3.5) below.

(3.5) Amele, Papuan

ho busaleceb dana age qoiga

[ho	busale-ce-b]	dana	age	qo-ig-a
[pig	run.out-DS-3SG]	man	3PL	hit-3PL-TOD.PST

'The pig ran out and the men killed it' (Roberts 1988: 53)

The bracketed part of the sentence in (3.5), *ho busaleceb* 'pig ran out', does not constitute a grammatical independent sentence and its temporal interpretation depends solely on the tense of the verb in the final clause *dana age qoiga* 'the men killed it'. So it is clearly dependent. However, it is often argued in the literature (e.g. Haiman 1980; Reesink 1983; Roberts 1988) that such clauses do not seem to be embedded and differ from clearly subordinate clauses in these languages. For example, they do not allow cataphoric pronominal reference, which is often used as a test for subordination. This test is based on the ability of pronouns in initial subordinate clauses to refer cataphorically to a noun phrase in the following main clause (cf. Haspelmath 1995). Cf. the following examples in which (3.6) is a subordinate sentence, while (3.7) is a cosubordinate one.

(3.6) Amele, Papuan

(uqa)$_i$ sabjigian nu fred$_i$ hoia

[(uqa)$_i$	sab	j-igi-an	nu]	fred$_i$	ho-i-a
[he$_i$	food	eat-3.SG.FUT	PURP]	F.$_i$	come-3.SG-HOD

'Fred$_i$ came to eat food.' (Roberts 1988: 56)

(3.7) Amele, Papuan

(uqa) bibili fred jeia

[(uqa)$_i$ bi-bil-i] fred$_j$ je-i-a

[he$_i$ SIM-sit-3.SG.SS] F.$_j$ eat-3.SG-HOD

'While he$_i$ sat, Fred$_j$ ate.' (Roberts 1988: 57)

As we can see, in (3.6) it is possible to add a pronoun to the first clause, so that the pronoun could refer to the noun Fred in the second clause. It provides a solid proof that the first clause is subordinate to the second one. A different situation can be observed in (3.7). While it is possible to add a pronoun to the first clause, the pronoun does not allow for a cataphorical interpretation, which means that *uqa* 'he' and Fred refer to different persons.

It should be noted that the RRG approach distinguishes between two kinds of dependency: (1) operator dependency and (2) structural dependency. The former refers to cases in which one clause is dependent on another for the interpretation of one or several of its features, e.g., tense. The latter implies that a dependent clause cannot stand on its own as a grammatical sentence (Van Valin and LaPolla 1997). That way, while subordinate clauses display only structural dependency, cosubordinate clauses display both as shown in examples (3.6) and (3.7) above. Table 3.1 below summarizes the information related to the nexus types in RRG.

Nexus relation types→ **↓Components**	***Coordination***	***Subordination***	***Cosubordination***
Operator dependency	–	–	+
Structural dependency	–	+	+
Embeddedness	–	+	–

Table 3.1. *Types of nexus relations in RRG*

The notion of juncture is connected to the structuring of a clause in the RRG theory. According to RRG, the clause as a whole can be structured with respect to the three crosslinguistically valid semantic contrasts: nucleus, core and periphery (Van Valin 2005: 4ff). Consider, for example, the following clause in (3.8).

(3.8) English

John bought a book in the bookstore.

It consists of the following layers: (1) the nucleus consisting of the predicate (*bought*), (2) the core consisting of the predicate and arguments (*John bought a book*), and (3) the periphery, i.e., non-arguments or adjuncts (*in the bookstore*). Figure 3.1 summarizes RRG's layered structure of the clause.

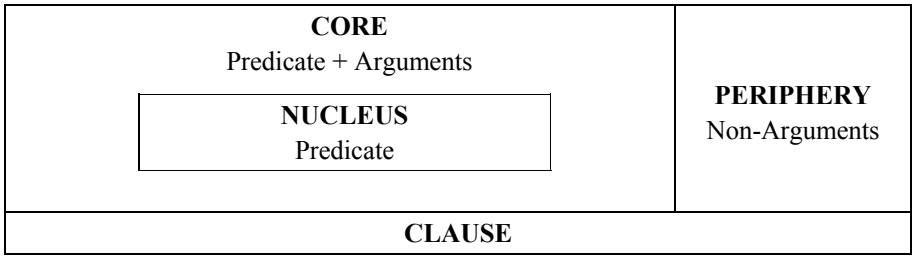

Figure 3.1. *Layered structure of the clause in RRG*

Each layer can be modified by a set of operators. In RRG, operators are grammatical categories like aspect, negation, tense, and illocutionary force. Some operators can occur at all layers of the clause, for example, negation. Others are bound to one particular layer, for example, the aspect operator occurs only at the nuclear level. Languages may not have all of these operators as grammatical categories; the absolutely universal ones are negation and illocutionary force (Van Valin 2005: 9). The operators and the layers they modify are represented in Table 3.2 below.

Layer	**Operator**
Nuclear	Aspect Negation Directionals (*only those modifying orientation of action or event without reference to participants*)
Core	Directionals (*only those expressing the orientation or motion of one participant with reference to another participant or to the speaker*) Event quantification Modality (*root modals, e.g. ability, permission, obligation*) Internal (narrow scope) negation
Clause	Status (*epistemic modals, external negation*) Tense Evidentials Illocutionary Force

Table 3.2. *Operators in RRG*

Each of the three types of nexus relations (coordination, subordination, and cosubordination) may occur at each layer of the clause structure. Therefore, it is

possible to posit nine nexus-juncture types of complex sentences: clausal coordination, subordination and cosubordination; core coordination, subordination and cosubordination; and nuclear coordination, subordination and cosubordination.[50] The operators together with the shared arguments play an important role in diagnosing to what layer each type of nexus relations in a language belongs to.

Finally, the third important component in the RRG approach to clause linkage is the interclausal relation hierarchy provided in Figure 3.2. This hierarchy links together two separate hierarchies of complex constructions, one representing syntactic relations, and the other – semantic relations. The syntactic relation hierarchy provides the nine types of nexus-juncture combinations ranked with respect to the degree of morpho-syntactic tightness they convey (cf. the left side of Figure 3.2). Semantic relations that occur between units in complex constructions can be ranked in a similar fashion as well, i.e., from the tightest to the loosest integration (cf. the right side of Figure 3.2). The important point is that RRG assumes that there is a certain implicational relationship between the morpho-syntactic continuum, on the one hand, and the semantic continuum, on the other, i.e., the stronger the syntactic integration is, the tighter the semantic bond between clauses is going to be.

SYNTACTIC RELATIONS		**SEMANTIC RELATIONS**
TIGHTEST		STRONGEST
nuclear cosubordination	↑	Causative
nuclear subordination		Phase
nuclear coordination		Psych-Action
core cosubordination		Purposive
core subordination		Jussive
core coordination		Direct Perception
clausal cosubordination		Propositional Attitude
clausal subordination		Cognition
clausal coordination		Indirect Discourse
		Conditional
		Simultaneous States of Affairs
		Sequential States of Affairs
	↓	Unspecified Temporal Order
LOOSEST		WEAKEST

Figure 3.2. *The syntactic hierarchy of interclausal relations in RRG*

[50] Van Valin (2005) suggests that coordination and subordination may also occur at the level of sentence, if we deal with a detached topic of each clause, like in *As for Sam, Mary saw him last week, and as for Paul, I saw him yesterday*.

Examples (3.9) – (3.13) illustrate some of the points along this hierarchy for the English language.

(3.9) *Harold pushed open the door*

(3.10) *Sam finished crying*

(3.11) *Yolanda heard the guests arrive*

(3.12) *John broke a glass, and then Mary entered the room*

(3.13) *Tyrone likes apples and Don likes oranges*

Examples in (3.9) and (3.10) represent the highest points on the hierarchies. The first one is a causative construction in which one state of affairs brings about another directly, so that the states of affairs are being perceived of as one sequence. The second example is the so-called phase construction in which the verb in the main clause describes a facet of the temporal envelope of a state of affair, namely, its termination. The last two examples (3.12) and (3.13) belong to the other end of the continuum and represent the lowest points on the hierarchies. Example (3.12) illustrates sequence relations in which one state of affairs takes place after another, with or without temporal overlap. The loosest type of relations is illustrated by (3.13) in which the temporal relation between two states of affairs is unexpressed (i.e. unordered). Finally, (3.11) is approximately situated in the middle of the hierarchies representing a case of direct perception, i.e. an unmediated apprehension of some act, event, etc.

It should be kept in mind that these two hierarchies do not really imply that there must be a strict one-to-one iconic correspondence between the syntactic and semantic relations. For example, a given syntactic type may convey more than one semantic relation whereas a given semantic relation may be expressed by more than one syntactic type in a certain language. However, Van Valin and LaPolla (1997) argue that it should always be the case in any language that the tightest syntactic linkage realizing a particular semantic relation is higher on the syntactic hierarchy (or at least as high) than the tightest syntactic linkage realizing a semantic relation situated lower on the semantic hierarchy. In this sense, the two hierarchies are indeed iconical.

Hence, it can be implicated that the tightest linkage type found in a language should always include causative relations. Likewise, the tightest syntactic linkage realizing, for instance, jussive relations should always be not less tight than the tightest syntactic linkage realizing, for instance, indirect discourse.

Other studies supporting the relevance of iconicity in clause combining include Silverstein (1976), Givón (1980, 1985), Kortmann (1997), and Cristofaro (2003).

3.3 Functional approach

Another approach that substantially differs from the traditional one was presented in Cristofaro's (2003) large-scale typological study of subordination based on approximately ninety languages. Later, a similar study based on the same theoretical assumptions but for coordination was done by Mauri (2008). In her study, Cristofaro adopts a strictly functional approach aimed at relating all kinds of subordination to semantic, pragmatic, and cognitive principles. According to her, the actual linguistic diversity in clause linkage constructions is too broad to fit into the traditional binary opposition between coordination and subordination. Therefore, defining the notion of subordination in morphosyntactic terms leads to exclusion of data from languages that lack certain structural features, which in turn might lead to the loss of some important typological evidence. In order to avoid the obvious shortcomings of the formal approach, Cristofaro (2003: 2) proposes the following definition of subordinate relations: a relation between two states of affairs is seen as subordinate only when 'one of them [...] lacks an autonomous profile, and is construed in the perspective of the other'. In other words, she equates subordinate clauses with clauses that do not make assertions of their own. It also implies that states of affairs can be considered coordinate if both have an autonomous profile and are not construed in the perspective of each other, i.e. can be asserted (cf. Mauri (2008: 41). The functional definition substantially broadens the range of structures that can be regarded as coordinate and subordinate in addition to the traditionally defined clause linkage types.

The assertiveness of the clause can be tested in several ways. Cristofaro (2003: 32) provides two basic types of tests. The first one is sentential negation which can target only the asserted (i.e. independent) part of a sentence. Example (3.14) illustrates this test.

(3.14) *It is not the case that, alarms ringing, the burglar fled.*

As we can see, the only thing negated in (3.14) is the fact that *the burglar fled*, the fact of *alarms ringing* remaining unaffected.

The second type of tests targets the illocutionary force of a sentence. Like sentential negation, illocutionary force can challenge only what is asserted. Cristofaro (2003: 32) illustrates it with a sentential question (3.15) and a tag question (3.16).

(3.15) *Is it the case that, alarms ringing, the burglar fled?*

(3.16) *Alarms ringing, the burglar fled, didn't he? (*didn't they?)*

In both examples, what is being targeted by questions is whether *the burglar fled*. It is not possible to apply these types of questions to the *alarms ringing* part of the sentence.

In a coordinate construction, however, these tests can challenge both parts of a sentence as illustrated in examples (3.17) – (3.19) (cf. Mauri 2008: 39).

(3.17) *It is not the case that the alarms rang and the burglar fled.*

(3.18) *Is it the case that the alarms rang and the burglar fled?*

(3.19) *The alarms rang and the burglar fled, didn't they?*

A major point made by Cristofaro (2003: 32) with regard to the assertiveness tests is that they can work for all languages.

With the functional definition of subordination, Cristofaro proceeds to examine how various types of subordinate clauses correlate with certain morphosyntactic properties. The properties she takes into consideration are the following: elimination or alternation of tense / aspect / mood (TAM) distinctions, elimination or alternation of agreement distinctions on the verb, use of case markers on the verb, and omission

or altered coding of verb arguments. Each of the parameters is measured by the deviation of a verb form in a subordinate clause from the verb in an independent declarative clause. The more the subordinate construction deviates from the basic pattern, the more it is deranked in Cristofaro's terms. The less it deviates, the more it is balanced. The difference between deranked and balanced forms as well as omission or some altered coding of verb arguments serves as a basis for formulating various implicational hierarchies. These hierarchies serve as a basis for the two general hierarchies proposed in the study: Subordination Deranking Hierarchy and Subordination Argument Hierarchy. The former is presented in Table 3.4, while the latter is in Table 3.5 below.

Phasal, Modals > Desideratives, Manipulatives, Purpose > Perception > Before, After, When, A relativization, S relativization > Reality condition, Reason, O relativization > Knowledge, Propositional attitude, Utterance, Indirect object relativization, Oblique relativization

Table 3.4. *The subordination deranking hierarchy* (Cristofaro 2003: 4)

This hierarchy holds for the distribution of deranked verb forms in general and reads as follows: If a deranked verb form is used to code the dependent state of affairs at any point of the hierarchy, it is also used for all relations to the left on the hierarchy.

Modals, Phasals, A relativization, S relativization > Desideratives, Manipulatives, Purpose > Perception > Before, When, After, Reason, Utterance, Propositional attitude, Knowledge, Reality condition

Table 3.5. *The subordination argument hierarchy* (Cristofaro 2003: 230)

The Subordination Argument Hierarchy holds for a lack of overtly expressed arguments (A and S). It reads in a similar way as the one above: If there is a lack of overtly expressed argument in a dependent state of affairs at any point of the hierarchy, it is also lacking in all relations to the left on the hierarchy.

The implicational hierarchies in Cristofaro's study also confirm the important role of iconicity in clause combining that was advocated in the RRG approach as well as in some other studies (e.g. Givón 1980, 1990). Cristofaro distinguishes between two

types of iconicity: (1) iconicity of independence, i.e. the correspondence between formal dependency (syntactic integration) and conceptual dependency (semantic integration), and (2) iconicity of distance, i.e. the correspondence between formal distance (number and type of morphemes) and conceptual distance (shared semantic features). Subordinate constructions expressing relations further to the left on the hierarchies show a tendency to both have higher syntactic integration and share more semantic features with the main clause. For example, according to Cristofaro, purpose clauses cross-linguistically are often formally reduced compared to independent clauses (i.e. less independent) and normally share the same A argument with the main clause, often absent in the purpose clause (i.e. less distant).

Cristofaro further integrates iconicity into a larger model of functional motivations underlying the syntax-semantics of clause linkage. Apart from the two types of iconicity, these functional motivations include: syntagmatic economy and the cognitive distinction between processes and things. Syntagmatic economy is used to account for the fact that subordinate clauses in relations further to the left on the hierarchies tend to avoid marking of semantic components which can be recovered or predicted from context (such as reference to participants or temporal setting). The distinction between processes and things assumes that there is a direct connection between the cognitive status of subordinate clauses and some of the morphosyntactic phenomena involved in the cross-linguistic coding of subordination such as case marking on the verb or coding of arguments as possessors. The subordinate clauses expressing relations to the left on the hierarchies show a greater tendency to be construed as things not processes and therefore have a greater ability to attract nominal features.

3.4 Parametric approach[51]

A number of approaches to clause linkage have suggested that it should not be defined in any discrete terms. Rather, it should be accounted for as a continuum consisting of mutually independent and freely combinable features or parameters (Haiman and

[51] The term is taken from Gast and Diessel (2012). In Cristofaro (2003) a similar approach is termed 'continuum approach'.

Thompson 1984; Lehmann 1988; Bickel 1991; Hopper and Traugott 1993). The first sophisticated and elaborated study that follows along these lines was provided in Lehmann (1988). Lehmann's typology proposes six parallel continua that refer to different semantosyntactic parameters. All parameters are scalar in nature and share two extreme poles (or values) along which the lexical and/or grammatical information in combined clauses may be either elaborated or compressed. Table 3.6 illustrates these parameters and their respective values.

	Parameter	Value
1	hierarchical downgrading	none: parataxis strong: embedding
2	syntactic level	high: sentence low: word
3	desententialization	weak: clause strong: noun
4	grammaticalization of main predicate	weak: lexical verb strong: grammatical affix
5	interlacing	weak: separate clause properties strong: overlapping clause properties
6	explicitness of linking	maximal: syndesis minimal: asyndesis

Table 3.6. *Parallel continua in clause linkage* (Lehmann 1988: 183)

Following Lehmann (1988), these parameters can be grouped into three pairs which will be discussed below.

The first pair includes the parameters of hierarchical downgrading and syntactic level. The two poles of hierarchical downgrading are represented by parataxis, where there is no hierarchical relation between the clauses,[52] and embedding, where one clause functions as a constituent within the other. The second parameter concerns the level at which one clause is integrated with another, the highest pole being the level of sentence and the lowest one being that of an individual word. Between these two poles there is a continuum, where go various other constituent levels (e.g. main clause, VP). This parameter is similar to Foley and Van Valin's (1984) three levels of juncture:

[52] In Lehmann's terms, parataxis is coordination of clauses, regardless of whether it is syndetic (marked overtly) or asyndetic (not marked overtly). In traditional grammars, parataxis is usually defined as asyndetic coordination of elements (cf. Crystal 1992).

nucleus, core and periphery. Examples (3.20)-(3.22) show extreme and intermediate values of these two parameters.

(3.20) *I was trimming a boomerang, there you came up* (Lehmann 1988: 183)

(3.21) Hittite

nu kwit LUGALus tezzi nu apat iyami

nu	kwit	LUGALu-s	tezzi	nu	apat	iyami
CONN	what	king-NOM	says	CONN	that	do.1SG

'And what the king says, that I do.' (Lehmann 1988: 184)

(3.22) Russian

Ja dumaju, čto ona umnaja

'I think that she is smart.'

Example (3.20) represents a juxtaposition of two clauses. Neither one is somehow dependent or embedded within the other. Thus, there is no hierarchical downgrading in this case, and the clauses are related at a high syntactic level (namely, that of text). The Hittite example in (3.21) represents the so-called correlative diptych. According to Lehmann, this construction is situated right in the middle between the two poles of hierarchical downgrading. The initial clause *nu kwit LUGALus tezzi* cannot stand in isolation and is therefore dependent. At the same time, it is not embedded into the second clause as its place is taken by the demonstrative. In (3.22), there is an example of a complement clause. The string *čto ona umnaja* is an obligatory constituent of the matrix clause and fulfills a syntactic function of object with respect to the verb *dumaju* 'I-think'. Thus, it is embedded very tightly at the level of the verb phrase.

The parameters of desententialization and grammaticalization of the main predicate both deal with the reduction of clausal properties. The difference between them is that the former concerns subordinate clauses whereas the latter matrix clauses. It should be mentioned that the way the reduction takes place is different as well. The two extremes of the desententialization parameter are represented by a fully-fledged clause at one endpoint and down to a verbal noun at the other. The common properties of a fully-fledged clause include illocutionary force, mood, tense, aspect, actants and circumstants. The more the clause is subordinated, the greater are constraints on,

or loss of, these properties. Moreover, Lehmann states that these properties show a clear tendency to be constrained/lost in a fixed order, starting with illocutionary force, and then followed by modal markers, tense/aspect markers, and arguments, respectively. Reduced clauses that appear at the lower pole of this continuum may acquire the ability to combine with prepositions and case affixes and, finally, turn to verbal nouns Thus, desententialization goes hand in hand with nominalization.

With respect to grammaticalization of the main predicate, the process of reduction works in a different way turning lexical verbs, which are the one extreme, into modals, auxiliaries and then finally into grammatical affixes, which are the other pole extreme. Such a process often affects constructions expressing causative and desiderative meanings. Example (3.23) illustrates one of the extreme poles of desententialization. The complement clause (in brackets) show clear nominal properties, which is manifested by the presence of the possessive pronoun *his*, the adjective *constant*, and the preposition *of*. The strongest extreme pole of the grammaticalization parameter is illustrated by a Ket clause in (3.24). It is a causative construction in which the causative meaning is not expressed by a separate predicate (as in the corresponding English translation), but by the marker *-q-* on the verb.

(3.23) *She objected to* [*his constant reading of magazines*]

(3.24) Ket

bū danʲanʲbɛtqirit

bū da^{8}-nanbed^{7}-q^{5}-di^{1}-t^{0}

3SG 3F^{8}-make.bread.ANOM^{7}-CAUS^{5}-1SG^{1}-MOM^{0}

'She makes me bake bread.'

The last pair of Lehmann's parameters is interlacing and explicitness of linking. The parameter of interlacing concerns sharing of properties between two clauses, such as tense, aspect, or participants (actants in Lehmann's terms). The latter is the most central type of interlacing, according to Lehmann, and there are different ways in which this type is expressed in various languages (e.g. switch-reference, raising). Example (3.25) is an illustration of a construction with the shared participants (object-to-object raising).

(3.25) Italian

Mi feci [*radere la barba*]

mi	feci	[radere	la	barba]
me	made:1SG	shave:INF	the	beard

'I had my beard shaved.' (Lehmann 1988: 209)

The final parameter is the explicitness of linking between the combined clauses. It is related to the notions of syndesis and asyndesis. The former refers to the use of any structural means that indicate a link between the clauses, whereas the latter denotes the absence of such means. It should be noted that syndesis, according to Lehmann, is a gradual phenomenon ranging between full explicitness of interclausal relations indicated by a connective phrase and its highly reduced indication in the form of a verbal mood or a change in intonation. Examples (3.26)-(3.29) illustrate various degrees of the explicitness of linking.

(3.26) *I could not enter the house yesterday, the door was locked.*

(3.27) Portuguese

O estudante comprou um monte de livros especializados, [***a fim de que*** *o professor o tivesse por inteligente*].

'The student bought a heap of specialized books in order that the professor should consider him intelligent.' (Lehmann 1988: 212)

(3.28) Latin

[*Haec* ***cum*** *Crassus dixisset*], *silentium est consecutum*.

'When Crassus had said this, silence followed.' (Lehmann 1988: 212)

(3.29) Latin

Si vis [*amar****i***], *ama*

'If you want to be loved, love.' (Lehmann 1988: 212)

The sentence in (3.26) is an example of asyndesis in which the causal relation between the two clauses is not marked explicitly but inferred from the meaning of the clauses. Examples (3.27)-(3.29) show various degrees of syndesis, from maximally to minimally explicit marking. In (3.17) it is marked by a prepositional phrase, in (3.28)

by a case form of a relative pronoun, and in (3.29) syndesis is signaled by the inflectional category of the Latin infinitive *amari*.

3.5 Clause linkage in Ket: Earlier studies

Compared to many of the world's endangered languages, Ket has a rather long and rich history of studies with the first known linguistic record dating from the beginning of the 18th century (cf. Vajda 2001: 2). However, syntactic issues and issues of clause-combining in particular still remain quite underrepresented in the existing literature on Ket (cf. Werner 1997: 320). The majority of the linguistic literature explores issues related to the domains of phonology (e.g. Hamp 1960; Dul'zon 1968; Denning 1971a; Verner 1974, 1990; Vall and Kanakin 1990; Werner 1996, 1997; Feer 1998; Vajda 2000; Georg 2007), nominal morphology (e.g. Dul'zon 1968; Vall 1970; Bibikova 1971; Živova 1978; Šerer 1983; Porotova 1990; Vall and Kanakin 1985; Werner 1994, 1997, 1998; Georg 2007) and, especially, verbal morphology (e.g. Dul'zon 1968; Krejnovič 1968; Uspenskij 1968; Kostjakov 1973; Šabaev 1984; Pavlenko 1986; Vall and Kanakin 1988, 1990; Butorin 1995; Rešetnikov and Starostin 1995; Werner 1997; Vajda 2000, 2003, 2004, 2008; Georg 2007). The latter is considered to be the most complex and controversial part of the language's grammar, which is why it has been attracting so much attention from scientists over the years. Likewise, most of the existing grammatical descriptions of Ket (for example, Castrén 1858; Karger 1934; Bouda 1957; Dul'zon 1968; Vajda 2004)[53] put primary focus on describing the Ket verbal system. They provide only a limited amount of information about Ket syntax, let alone Ket complex sentences. The only exception to date is 'Die ketische Sprache' by Werner (1997), with a chapter devoted to description of simple and complex sentences in Ket (we will consider it below).

Among the works devoted to the syntax of simple sentences, one can emphasize two major studies, namely, Tamara Kabanova's (1975) kandidatskaja degree dissertation "Sintaksis prostogo predloženija ketskogo jazyka [Syntax of the simple sentence in Ket]" and Ėduard Belimov's (1991) monograph "Ketskij sintaksis. Situacija,

[53] Georg's (2007) Ket grammar represents the first volume of his description and is devoted to the Ket phonology and morphology only. The issues of Ket syntax are planned to be dealt with in the prospective second volume.

propozicija, predloženie [Ket syntax: situation, proposition, sentence].” Kabanova’s work describes basic features and types of the Ket simple sentence. She distinguishes the following semantic types: 1) declarative sentences, 2) interrogative sentences, 3) imperative sentences, and 4) exclamatory sentences. From the structural point of view, Kabanova distinguishes one-member and two-member simple sentences in Ket. She also deals with sentence constituents and issues of word order. Her dissertation in general is heavily based on the ideas regarding the Ket verb proposed in Dul’zon (1968) and follows the Russian linguistic tradition in the analysis of Ket.

Belimov takes a different approach in his work. His main claim is that Ket belongs to the so-called ‘role-dominated’ languages (in terms of Foley and Van Valin 1984). Therefore, according to him, Ket verb agreement does not reflect notions such as subject and object, but instead reflects marking of the five semantic roles: agentive (active participant), factitive (experiencer or recipient indirectly affected by or involved in the action), reflexive, contra-agent (the active recipient of the force of the action) and patient (inactive participant or tool). Based on that, Belimov proposes that the Ket simple sentence has three basic constructions: 1) sentences with promoted Agent, 2) sentences with promoted Factitive, and 3) sentences with promoted Patient. He also provides some discussion on the parts-of-speech problem existing in Ket.

Of the studies devoted specifically to complex sentences, the majority focus on constructions formed with the help of postpositional relational morphemes. When attached to fully inflected verbs, these morphemes function as subordinating conjunctions forming a wide variety of (mostly adverbial) complex sentences.

The first scholar to notice this important feature was, presumably, the Finnish linguist Mathias A. Castrén. In his pioneering work, Castrén notes that the Prosecutive case marker *-bes* can attach to finite verb forms both in present and past tense (Castrén 1858: 56). Later, other scholars likewise pointed out the ability of relational morphemes to attach to fully inflected verbs (Krejnovič 1963: 255, 1968: 471, 1969: 20-90; Dul’zon 1968: 72-73, 1971a, 1974; Vall 1969: 96-98). In particular, Dul’zon (1974) provides a short description of various types of complex constructions

involving case markers. Another Russian scholar, Kostjakov (1976a,b, 1977), provides a more general description of (adverbial) complex sentences in Ket.

The most prominent work on this topic to date is Natalija Grišina's (1979b) kandidatskaja degree dissertation "Padežnye pokazateli i služebnye slova v strukture složnogo predloženija ketskogo jazyka [Case markers and function words in the structure of a Ket complex sentence]". This study provides a descriptive account of Ket subordinate constructions formed with the help of postpositional relational morphemes from a structural-functional perspective. Grišina proposes the following four means of combining two simple clauses into a complex one in Ket: 1) intonation, 2) conjunctions (and intonation), 3) case markers (and intonation), and 4) function words (and intonation) (Grišina 1979: 6). The author limits her study to the latter two. In respect to the traditionally distinguished case markers, the study concerns those built with the help of the possessive linker *-d-* such as the Dative *-diŋa*, the Ablative *-diŋal*, the Adessive *-diŋta* and the Benefactive *-dita*. Of the case markers which do not require the linker, only the Locative *-ka* is considered by the author. Constructions formed with the help of the other case markers without the linker like the Prosecutive *-bes* and the Comitative-Instrumental *-as* are considered by the author as simple sentences with adverbial participles (*deepričastnye oboroty*) and hence left outside the scope of the dissertation (Grišina 1979: 4). For the same reason the use of the Translative marker *esaŋ* is not considered in her work as well. The function words are divided by the author into postpositions proper and postpositional words. Among the Ket postpositional words considered in the study are *ba$^{?}$ŋ* 'earth, place, time' (and its case-marked forms *baŋka* and *baŋdiŋa*), *qaka* 'motion directed into the object', *kika* 'in the middle of, towards the middle of', *kubka* 'before' *doqot* 'for, on behalf of' and *qadika* 'after'. The postpositions surveyed in the dissertation include: *dukde* 'as long as' and *daan* 'while'. The use of the postposition *aas* 'with' is left out by the author on the same grounds as the abovementioned Prosecutive and Comitative-Instrumental case markers. The variety of semantic types of complex constructions covered in the study includes Temporal, Conditional, Reason, Purpose and Locative adverbial clauses. In addition to the survey of the relational morphemes and their functions in the domain of complex sentences, the author provides information concerning tense,

negation and word order properties of the surveyed constructions. This dissertation undoubtedly remains one of the most valuable studies related to the complex constructions formed with the help of relational morphemes in Ket.

The only study dealing solely with complement clauses in Ket is Galina Polenova's (1985) article published in an edited volume on the typology of constructions with predicate actants[54] (Xrakovskij 1985). In her article, Polenova presents a concise overview of various semantic groups of complement-taking predicates in Ket and describes what kinds of predicate actants each particular verb can take. She distinguishes the following groups of predicates: verbs of speaking and thinking, verbs of emotions and sensual perception, modal verbs and their equivalents, aspectual and phasal verbs, causative verbs, temporal verbs and verbs of motion. The types of predicate actants described in the article include: direct speech, supine, infinitive, medial infinitive and simple declarative clause. Despite being certainly informative and quite correct in many respects, this article suffers from some incorrectness in the interpretation of the morphological structure of certain verbs. Thus, for example, many constructions described as taking their predicate actants in the form of infinitives (e.g. causative verbs, temporal verbs, etc.) are actually single verb forms (see Chapter 2 for more details and discussion). The article also contains short remarks on the tense and modality interrelations between the main and dependent clauses in these constructions.

One of the few Ketologists whose research was to a large extent focused on Ket syntax is Èduard Belimov (see, for example, his monograph that we mentioned earlier). Of particular importance for the present study are the following two articles by him: "Opredelenie i ego vyraženie v enisejskix jazykax [Attributes and their expression in Yeniseian]" (1977) and "Otnošenija odnorodnosti v enisejskix jazykax [Parallel sentence elements in Yeniseian]" (1980). The first article provides a survey of morphological and syntactic means used to convey attributes in Ket. In particular, Belimov describes various types of relative clauses and discusses some of their properties. The second article deals with coordination relations both at the phrase and

[54] The definition of a predicate actant employed in Xrakovskij (1985) is somewhat similar to the notion of 'complement type' in Noonan's (2007) terms.

sentence level. The author also surveys conjunctions and particles involved in coordination.

Finally, one of the latest publications dealing with issues relating to complex constructions in Ket is the grammar by Heinrich Werner that we have already mentioned above. In the chapter on syntax, he provides, among other things, a concise overview of complex constructions in Ket distinguishing the following structural types:

(1) complex constructions formed by means of intonation only;
(2) complex constructions formed by means of the commentative form of the verb 'to say';
(3) complex constructions formed by means of conjunctions;
(4) complex constructions formed by means of pronouns and adverbs;
(5) complex constructions formed by means of case markers;
(6) complex constructions formed by means of postpositions;
(7) attributive complex constructions.

In the remainder of the chapter, Werner briefly surveys each of the indicated structural types. The survey of the fifth and sixth structural types is largely based on Grišina (1979), though, following Vall (1969: 96) and Kostjakov (1976b: 76-77), Werner treats constructions formed with the help of the Prosecutive *-bes* as complex sentences.[55] This description remains, to date, the only source providing a more or less unified overview of the majority of complex constructions in Ket.

In sum, as we can see, Ketology is still lacking a comprehensive and coherent description of strategies used for combining two clauses. Moreover, the majority of the existing studies are biased towards the most frequent structural type of complex constructions (i.e. the one involving relational morphemes) and are done mainly from a formal-structural perspective. Lastly, not of the least importance is the fact that most of these studies were done in the 70s-80s of the 20th century and lack any glossing (even Werner's grammar has no glosses). For that reason, they are quite reader-unfriendly for non-Ketologists. The present study seeks to change the situation and

[55] Nevertheless, he does not mention constructions involving the postposition *às / ās* with similar function in his survey.

provide a unified description of strategies used to form complex sentences in Ket. It incorporates all the advances made during the last decades with respect to Ketology and the study of clause linkage typology to ensure its descriptive and typological value. The study is also intended to fill in gaps where it is necessary.

Chapter 4. Coordination relations

In this chapter, we consider clause-combining strategies employed in Ket to code coordination relations. Ket lacks native coordinators whose function could be restricted to coordination only. Rather we deal with various parts-of-speech (like adverbs, particles) that extended their functions to interclausal relations. Overtly marked coordination of clauses, in general, is rather infrequent in Ket. This fact is not surprising given the lack of written tradition in the language.

The chapter is structured as follows. Section 4.1 provides a short overview of morphosyntactic and semantic aspects of coordination relations from a typological perspective. Section 4.2 discusses morphosyntactic types of coordination relations in Ket, while section 4.3 considers strategies used for coding different semantic types of coordination. Section 4.4 summarizes the chapter.

4.1 Typology of coordination relations

In Chapter 3, we defined coordination relations as relations established between two or more functionally equivalent units that are combined into a larger construction and show the same semantic and syntactic relationship with other surrounding elements (cf. Haspelmath 2007: 1). Although means of coding coordination relations vary cross-linguistically, they can be rather uniformly analyzed with respect to the following morphosyntactic parameters.

First of all, coordinating constructions can be syndetic or asyndetic. The latter is also often called 'juxtaposition'. It implies that the coordination relations in a given construction are lacking any overt marking. In asyndesis, the only means indicating the coordinated structure is intonation. This morphosyntactic parameter is illustrated by an example from Russian in (4.1).

(4.1) Russian

Ja prišël, uvidel, pobedil

'I came, (I) saw, (I) conquered.'

Syndetic coordination is signaled by the presence of an overt marker that connects two or more elements together. Following Haspelmath (2004), we will use the term

'coordinator' to refer to such a marker [56] and the term 'coordinand' to refer to each of the elements it connects.

Mauri (2008: 64) notices that a coordinator can be either a free or a bound morpheme. This distinction is exemplified in (4.2) with the Russian coordinator *i* 'and' and in (4.3) with the Hebrew coordinator *ve* 'and', respectively.

(4.2) Russian

On uvidel menja i ulybnulsja

'He saw me and smiled.'

(4.3) Hebrew

Harbè studentìm lomdìm bemèshech hayòm veovdìm baèrev

harbè	studentìm	lomdìm	bemèshech	hayòm	ve=ovdìm	baèrev
many	student:PL	study:3PL	during	day	COORD=work:3PL	at.night

'Many students study during the day and work at night.' (Mauri 2008: 64)

Depending on the number of coordinators involved in coding of coordination, it can be either monosyndetic or bisyndetic. Monosyndetic coordination has one single coordinator that can either precede or follow one of the coordinands. Both (4.2) and (4.3) above are instances of monosyndetic coordination with the coordinators preceding the second coordinand. Example (4.4) is an instance of bisyndetic coordination, since it involves the use of two coordinators, cf. the Russian pair of coordinators *ili…ili* 'either…or' both preceding its coordinands.

(4.4) Russian

Večerom on ili čitaet, ili slušaet muzyku

'In the evening he either reads, or listens to the music.'

It should be noted that the division into monosyndetic or bisyndetic types is valid for binary (i.e. with two coordinands) coordinations only (Haspelmath 2007: 2).

As many cross-linguistic studies (e.g. Haspelmath 2004, Mauri 2008) show, the choice of a particular morphosyntactic means of coding is connected with the

[56] In Haspelmath (2004) the term 'coordinator' replaces the traditional term 'conjunction' which is reserved to indicate one of the semantic types of coordination relations.

semantics expressed by coordination relations. From the semantic point of view, there are three general types of coordination: conjunctive, disjunctive, and adversative type (Haspelmath 2004: 5), or, in Mauri's (2008) terms, combination, alternative, and contrast relations, respectively. Conjunctive coordination or conjunction is also known as '*and*'-coordination. This type refers to constructions in which two or more coordinands are simply added together. Mauri (2008: 82-85) divides this type of coordinate relations into further semantic sub-types: temporal sequential (4.5), temporal simultaneous (4.6) and atemporal (4.7), illustrated below with the Russian and English examples.

(4.5) Russian

On zašel i zakryl okno

'He came in and shut the window.'

(4.6) Russian

On tanceval i pel pesni.

'He was dancing and singing songs.'

(4.7) Russian

On umnyj, i ona ne glupaja tože

'He is smart and she is not stupid, too.'

Disjunction, or '*or*'-coordination, conveys the necessity to make a choice between the available alternatives (Mauri 2008:159). It can be either choice-aimed (4.8), or simple (4.9).[57]

(4.8) Russian

My idëm tuda peškom ili voz'mëm taksi?

'Are we going there on foot or are we taking a taxi?'

(4.9) Russian

Doma ja prosto splju ili smotrju televizor

'When at home, I simply sleep or watch TV.'

[57] Interrogative and standard in Haspelmath's (2007) terms.

Choice-aimed disjunction usually occurs in alternative (or disjunctive) questions in which the addressee has to specify one of the alternatives in his/her answer. Simple disjunction, on the contrary, is declarative.[58] It presents a list of alternatives without any necessity to choose one of them.

The semantics of the adversative type, or '*but*'-coordination, usually implies some sort of conflicting expectations between the coordinands. Depending on the origin of the conflict, this type can be divided into oppositive (4.10), corrective (4.11) and counterexpectative (4.12) semantic sub-types (Mauri 2008: 122ff).

(4.10) Russian

On pošël na rabotu, a ona pošla domoj

'He went to work whereas she went home.'

(4.11) Russian

On ne pošël na rabotu, a pošël domoj

'He didn't go to work, but went home.'

(4.12) Russian

On vygljadit sil'nym, no on slabyj

'He looks strong, but he is weak.'

The oppositive sub-type refers to situations in which there is some sort of contrast, but no conflicting expectations (Haspelmath 2007: 28). The semantics of corrective contrast relations imply that the first coordinand is negated and successively substituted with the second one (cf. Rudolph 1996). The third sub-type of adversative relations is often discussed in the linguistic literature. It can be characterized by a conflict originated because of the denial of certain expectations. Finally, it should be mentioned that unlike the other coordination types, adversative relations are always binary, i.e. they involve only two coordinands.

In what follows we will provide a description of the semantic types of coordination constructions in Ket and what morphosyntactic means are employed to code them.

[58] According to Haspelmath (2007), it is not always the case, and there are languages in which simple disjunction can occur in interrogative contexts. However, it is not the case with Ket.

4.2 Morphosyntactic properties of coordinating constructions

Before proceeding to the description of the semantic types of coordination relations in Ket, let us first consider the morphosyntactic properties exhibited by coordinating constructions in the language. Where relevant, we will also provide description of the nominal coordination strategies in Ket.

4.2.1 Asyndetic constructions

The most frequent way of combining two elements together in Ket is simply by juxtaposition without any overt coordinating marker (i.e. asyndetically). This strategy can be quite commonly found in many of the world's languages, especially in those which, like Ket, have no developed written tradition (cf. Payne 1985; Mithun 1988). As we already mentioned in section 4.1, in the case of juxtaposition, coordination is usually signaled by means of intonation. There are two ways in which it can be done: either (1) without an intonation break between the juxtaposed constituents, or (2) with the so-called 'comma intonation', i.e. a pause or a non-final pitch contour, that separates the coordinands (Mithun 1988: 332). Examples (4.13)-(4.15) illustrate asyndetic coordination at the level of noun phrases in Ket.

(4.13) *kim avéŋtɛn ob am bʌnsʲaŋ*

kim	āb-aŋten	ōb	ām	bənsaŋ
then	1SG.POSS-ADESS	father	mother	not.be.present

'At that time I have no mother and father.' (Belimov 1980: 37)

(4.14) *uk am, uk op at dilʲtusin*

ūk	ām	ūk	ōb	ād	d{u}^{8}-l^{2}-tos^{0}-in^{-1}
2SG.POSS	mother	2SG.POSS	father	1SG	3^{8}-PST^{2}-raise^{0}-PL^{-1}

'Your mother and your father raised me.' (Belimov 1980: 37)

(4.15) *āt ɔ̀n īsʲ daŋɢajaɣin, qukŋ, tə́ə̀n, kɔlʲgitn, tɔtlʲgitn*

āt	ɔ̀n	īs	d{i}^{8}-aŋ^{6}-q^{2}-ej^{0}-in^{-1}	quk-ŋ	tə́ə̀-n	kolgit-n	totlgit-n
1PL	many	fish	1^{8}-3AN.PL^{6}-PST^{2}-kill^{0}-PL^{-1}	pike-PL	bass-PL	ide-PL	pollan-PL

'We caught many fish: pike, bass, ide, pollan.'

In (4.13) the nominal coordinands *ōb* 'father' and *ām* 'mother' are pronounced without intonation break. This is manifested by the voicing of the final consonant in the noun *ōb*. Normally, the sound [b] in phonological words undergoes devoicing to [p] in word-final position (Vajda 2003: 7). It retains its original quality, however, when occurring in intervocalic position within the same phonological word, as, for example, in the word *obaŋ* [*ob-aŋ* father-PL] 'parents'. Therefore, the sequence [ob am] in (4.13) can be regarded as one phonological unit, rather than two separate words.[59] The absence of intonation break between the juxtaposed constituents in (4.13) may imply that the speaker is treating them as one conceptual unit, i.e. 'parents'. Cross-linguistically, such conjunctive constructions tend to become highly lexicalized (cf. *išu-obu* 'parents' (lit. mother-father) in Khwarshi[60]) and constitute the source for the so-called 'co-compounds' (Wälchli 2005).[61] The conceptual closeness of the two nouns in (4.13) is likewise indicated by the fact that the negative existential predicate *bə́nsaŋ* has scope over both coordinands (cf. (4.16) below in which each nominal coordinand is negated separately).

(4.16) *avɛŋtɛn ɔp bʌnsʲaŋ, am bʌnsʲaŋ*

ab-aŋten	ōb	bənsaŋ	ām	bənsaŋ
1SG.POSS-ADESS	father	not.be.present	mother	not.be.present

'I have no mother and no father.' (Belimov 1980: 37)

When the speaker considers the combined constituents to be conceptually distinct, the so-called 'comma intonation' is used. This is exemplified by (4.14) and (4.15). In (4.14), the speaker refers to the hearer's mother and father as separate persons, therefore they are separated by the comma intonation. In addition, each coordinand is modified by a separate possessive pronoun. Nevertheless, the coordinands trigger plural agreement on the verb a^{4}-[l^{2}]-tos^{0} 'raise', which provides morphosyntactic evidence that the construction we are dealing with is an instance of coordination (cf. Haspelmath 2004: 18). Example (4.15) illustrates the case of enumeration.

[59] Compare also example (4.14), in which such [*b* > *p*] devoicing occurs in the noun *ōb* that precedes the vowel-initial pronoun *ād*.
[60] Zaira Khalilova, p.c. Khwarshi is a Tzezic language of the Caucasus.
[61] In Ket, however, this is not the case (cf. the native lexemes used to convey the meaning 'parents': *obaŋ* [*ob-aŋ* father-PL] and *amaŋ* [*am-aŋ* mother-PL]).

The enumerated items are right-dislocated with respect to the verb, which is typical of "heavy" constituents and afterthought constructions.

While the use of asyndetic coordination to conjoin two coordinands at the level of noun phrases does not pose any problem, it is not the case with asyndetic coordination at the interclausal level. As we already mentioned in Chapter 2, due to its polysynthetic morphology, Ket verbs can stand on their own as independent sentences. Therefore, it is difficult to know whether two clauses are combined into a complex construction or rather constitute two standalone sentences linked in discourse. The criterion of intonation does not really seem to be of much help here. For example, Werner (1997: 343) provides the piece of discourse illustrated in (4.17) that can be interpreted in two ways: either as a coordinate construction or simply two separate sentences.

(4.17) *at t-tajga qɔtbɛsʲ ap bisnimin sɛsʲbɛsʲ ɔŋɔtn*

ād	d{i}^{8}-tʲa^{4}-ka^{0}	qod-bes	āb	bisnimin	ses-bes	oŋ^{6}-k^{5}-o^{4}-tn^{0}
1SG	1^{8}-AT/NPST^{4}-walk^{0}	way-PROS	1SG.POSS	siblings	river-PROS	3PL^{6}-TH^{5}-PST^{4}-go^{0}

'I walk along the way, (and) my brothers and sisters go up the river.'

Or 'I walk along the way. My brothers and sisters go up the river.'

(Werner 1997: 343)

Werner explicitly states that there are no specific rules that can help to distinguish between the two readings, and that even the intonation can hardly play a crucial role in this distinction. A somewhat similar conclusion can be found in Zaxarov and Kazakevič (2006). The authors conducted a special study devoted to the problem of sentence boundaries in languages without written tradition on the basis of Selkup and Ket. After the analysis of the Ket spoken texts, they arrived at the conclusion that the role of intonation in division of Ket oral discourse into sentences is not really evident. Nevertheless, they note that the final syntagma in an utterance generally receives a more prominent falling intonation.

4.2.2 Monosyndetic constructions

Apart from the asyndetic coordination, Ket exhibits coordinating constructions that are overtly marked with native coordinating markers. They can be monosyndetic and bisyndetic. The monosyndetic markers include the prepositive coordinator *hāj* as well as the postpositive coordinator *-as*. The latter is applicable only to nouns and pronouns, so we will not discuss it separately. All the coordinators are still at the early stages of the grammaticalization process, and therefore the sources of their origin are quite transparent (cf. Belimov 1980). In addition, Ket speakers often used coordinators borrowed from the Russian language. We will consider them as well.

4.2.2.1 The *hāj* construction

The prepositive coordinator *hāj* represents a functional extension of the adverb *hāj* (often reduced to *ājˀ*[62]) 'more, also, again'. Its original adverbial meaning can be illustrated by the following examples (cf. also (4.19)):

(4.18) *āt haj kʌnɛsʲkɛt*

ād	hāj	kənes-ked
1SG	also	light-person

'I am also a man of this world.' (Werner 2002, I: 292)

(4.18) *haj diˑmbɛsʲ*

hāj	d{u}^{8}-ik^{7}-n^{2}-bes^{0}
again	3^{8}-here^{7}-PST^{2}-move^{0}

'(He) came again.' (Werner 2002, I: 292)

As a coordinator, *hāj* can be used to combine the majority of parts-of-speech in Ket, which is illustrated in the examples below: nouns in (4.19), adjectives in (4.20) and (4.21), adverbs in (4.22), action nominals in (4.23) and verbs in (4.24).

[62] There is a striking similarity between the Ket *haj* and the Selkup *aj* 'and' that likewise originates from the adverb meaning 'again' (cf. Kazakevič 2006). Given the intense language contact between the two peoples, it might be plausible to say that one of the languages borrowed the marker. While we do not want to make any far reaching conclusions, it should be mentioned that at least the Ket *haj* can be reconstructed to the Proto-Yeniseian stage (Werner 2002, I: 292).

(4.19) *ātn, assanɔ dɛˀŋ haj isqɔ dɛˀŋ, haj kiˀ dʌˀq dibbɛtin*

ātn	assano	deˀŋ	hāj	isqo	deˀŋ
1PL	hunt.ANOM	people	and	fish.ANOM	people

hāj	kiˀ	dəˀq	di^{8}-b^{3}-bed^{0}-in^{-1}
also	new	live.ANOM	1^{8}-$3N^{3}$-$make^{0}$-PL^{-1}

'We, hunters and fishermen, also build a new life.'

(Kotorova and Nefedov, forthcoming)

(4.20) *hʌna haj qēŋ dilʲgat kɔladiŋa ɔŋɔtn*

həna	hāj	qē-ŋ	dilkad	kola-di-ŋa	$oŋ^{6}$-o^{4}-{n^{2}}-tn^{0}
small	and	big-PL	children	school-N-DAT	$3AN.PL^{6}$-PST^{4}-PST^{2}-go^{0}

'Small and big children go to school.' (Werner 1997: 321)

(4.21) *jɛl qaŋam haj aχtam*

éèl	qa-ŋ-am	hāj	aqta-{a}m
berries	big-PL-N.PRED	and	good-N.PRED

'The berries are big and tasty.' (Dul'zon 1970: 99)

(4.22) *būŋ aqta haj dʌqtɛ t-lʲɔvɛravɛtin*

bū-ŋ	aqta	hāj	dəqta	d{u}^{8}-$lobed^{7}$-a^{4}-bed^{0}-in^{-1}
3-PL	good	and	fast	3^{8}-work.RUS.ANOM^{7}-$NPST^{4}$-$ITER^{0}$-$AN.PL^{-1}$

'They work well and fast.' (Werner 1997: 321)

(4.23) *ar isqɔ haj assanɔ itparɛm*

ād	isqo	hāj	assano	it^{7}-ba^{6}-d{i}^{1}-am^{0}
1SG	fish.ANOM	and	hunt.ANOM	know^{7}-$1SG^{6}$-$1SG^{1}$-R^{0}

'I can fish and hunt.' (Werner 1997: 368)

(4.24) *dīlʲ duɣaɣɔʁɔn hāj qɔraʁɔn*

dīl	duk^{7}-a^{6}-k^{5}-o^{4}-qon^{0}	hāj	qod^{7}-a^{6}-k^{5}-o^{4}-{qo}n^{0}
child	shout.ANON^{7}-$3M^{6}$-TH^{5}-PST^{4}-INCH.PST^{0}	and	cry.ANON^{7}-$3M^{6}$-TH^{5}-PST^{4}-INCH.PST^{0}

'The child began shouting and (began) crying.'

In (4.19) we can see two different instances of *hāj* functioning in one sentence. The first *hāj* is clearly used as a coordinator that connects the noun phrases *assano deˀŋ* 'hunters' and *isqo deˀŋ* 'fishermen'. The second *hāj* is used in its original adverbial meaning translatable as 'also'.

It is in general possible to find examples in which *hāj* can be used to connect more than two coordinands as in (4.25).

(4.25) *tɛː, anuksʲ dɔŋɔn bɛːb aj ɔqə aj čiŋanə*

te:	anuks	daŋ^{6}-o^{4}-{n^{2}}-{t}n^{0}	beˀb	āj	oqə	āj	čiŋanə
well	tomorrow	2PL^{6}-PST^{4}-PST^{2}-go^{0}	son.in.law	and	O.	and	Č.

'Well, tomorrow we went: son-in-law, and Anna[63], and Tasja'

(Kotorova and Porotova 2001: 35)

It should be mentioned, though, that the use of *hāj* in cases like in (4.25) tends to be quite rare. Much more often it is used when the speaker wants either to conjoin two coordinands as in the above examples, or to specify that the enumeration is closed or complete. In the latter case we have a co-occurrence of syndetical and asyndetical means in one construction, cf. (4.26) and (4.27).

(4.26) *bɔɣasʲ dɛjaŋavɛtin qāq, lʲamɛjgitn haj bīk hʌnɛ īsʲ*

bok-as	d{u}^{8}-ej^{7}-aŋ^{6}-a^{4}-bed^{0}-in^{-1}					qāq
morda-COM	3^{8}-kill.ANOM^{7}-3AN.PL^{6}-NPST^{4}-ITER^{0}-AN.PL^{-1}					dace.PL
lamejgit-n	hāj	bīk	həne	īs		
roach-PL	and	other	small	fish		

'With a morda (a.k.o. fish trap) they catch dace, roach and other small fish.'

(Kotorova and Porotova 2001: 121)

(4.27) *qariɣa būŋ usʲka t-halimnɛn, t-qusʲsilʲbɛtin haj dʌqaŋgɔʁɔn*

qarika	bū-ŋ	uska	d{u}^{8}-hal^{7}-b^{3}-n^{2}-a^{0}-n^{-1}		d{u}^{8}-qussej^{7}-l^{2}-bed^{0}-in^{-1}
after	3-PL	back	3^{8}-R^{7}-TH^{3}-PST^{2}-MOM^{0}-AN.PL^{-1}		3^{8}-tent.place^{7}-PST^{2}-make^{0}-AN.PL^{-1}
hāj	dəq^{7}-aŋ^{6}-k^{5}-o^{4}-qon^{0}				
and	live.ANOM^{7}-AN.PL^{6}-TH^{5}-PST^{4}-INCH.PST^{0}				

'After that they returned, put up a tent, and started to live.' (Werner 1997: 321)

In (4.26), we can see the enumeration of noun phrases, in which the first two coordinands are conjoined asyndetically. The coordinator appears only before the last noun phrase *bīk həne īs* 'other small fish', thereby "closing" the enumeration. A similar construction but involving a sequence of verbal coordinands is illustrated

[63] It is often the case that the corresponding Russian translation provides the official Russian name of a person mentioned in the text, rather than the original Ket one.

in (4.27). In this example, the first two verbs are simply juxtaposed, and only the last one is conjoined with the help of the coordinator *hāj*. In this case, the use of *hāj* assigns some resultant meaning to the last coordinand.

As we mentioned in the beginning, there is also another coordinating strategy involving the coordinator *-as*. It is a bound morpheme originating from the comitative/instrumental relational morpheme. Like the comitative marker it attaches to the second constituent only. Consider the following examples:

(4.28) *ōp hɨ́bas^{j} ísʲqɔ ɔ́ɣɔn*

ōb	hiˀb-as	isqo	o^{6}-k^{5}-o^{4}-{n^{2}}-{t}n^{0}
father	son-COM	fish.ANON	$3M^{6}$-TH^{5}-PST^{4}-PST^{2}-go^{0}

‘Father with (his) son went fishing.’

(4.29) *bárʲa bá:mas^{j} duɣín*

báàd-da	báàm-as	du^{8}-k^{5}-{daq^{0}}-in^{-1}	
old.man-M.POSS	old.woman-COM	3^{8}-TH^{5}-$live^{0}$-$AN.PL^{-1}$	

‘Old man and his wife (lit. old woman) live.’

In (4.28), the singular agreement on the verb suggests that *ōb* ‘father’ is the core participant, while *hɨ́bas* ‘with son’ is a comitative oblique phrase. In (4.29), however, the verb shows plural agreement, thereby indicating that the phrase *báda bá:mas* ‘old man with his wife’ is treated as coordinated. This is one of the basic distinctions distinguishing a coordinated structure from a comitative phrase (cf. Haspelmath 2007). Moreover, while the comitative oblique phrase can be easily placed postverbally (4.30), it is not the case with the coordinand (4.31).

(4.30) *ōp ísʲqɔ ɔ́ɣɔn hɨ́bas*

ōb	isqo	o^{6}-k^{5}-o^{4}-{n^{2}}-{t}n^{0}	hiˀb-as
father	fish.ANOM	$3M^{6}$-TH^{5}-PST^{4}-PST^{2}-go^{0}	son-COM

‘Father went fishing with (his) son.’

(4.31) **báàd duɣín dabá:mas*

báàd	du^{8}-k^{5}-{daq^{0}}-in^{-1}	da-báàm-as
old.man	3^{8}-TH^{5}-live^{0}-AN.PL^{-1}	M.POSS-old.woman-COM

Intended: 'Old man and his wife live.'[64]

The *-as* strategy is of more limited applicability than the *hāj* strategy. This is obviously due to its postpositional origin. First, it can only be used to combine two items (cf. 4.29). Second, it is confined to nouns and pronouns only. Finally, with respect to nouns, this strategy is relevant only to those belonging to the animate class, since the only way to distinguish it from a comitative phrase is the plural agreement on the verb. In the case of the inanimate class nouns the agreement marker is always the same in both singular and plural (cf. Chapter 2, Section 2.2.8.1.3.1), which makes it impossible to distinguish between the coordinate structure and the oblique phrase. Combining two noun phrases belonging to different animacy classes (i.e. animate and inanimate) in a sentence seems to be ungrammatical in general, no matter what coordination strategy is used.

Both *hāj* and *-as* coordinators[65] can be used together within one sentence, as exemplified in (4.32).

(4.32) *bat da bamasʲ haj buŋna dɔʔŋ kʌʔt dɔli:n*

báàd	da	báàm-as	hāj	bu-ŋ-na
old.man	M.POSS	old.woman-COM	and	3-AN.PL-AN.PL.POSS
doʔŋ	kəʔd	d{u}^{8}-o^{4}-l^{2}-{daq^{0}}-in^{-1}		
three	children	3^{8}-PST^{4}-PST^{2}-live^{0}-AN.PL^{-1}		

'There lived an old man and his wife, and their three children.'

(Belimov 1991: 51)

It seems rather surprising that the coordinator *-as* cannot be used to combine clauses, given that most Ket postpositional markers can attach to verbs and thereby form various types of subordinate constructions (see Chapter 5 and Chapter 6). Nevertheless

[64] Note that neither is it grammatical in the sense 'The old man lives with his wife', since the verb does not agree with the core participant *báàd* in number.

[65] It should be noted, however, that it is impossible to tell whether *báàd da ba:m-as* is an instance of comitative coordination or an oblique comitative phrase in this sentence.

we were not able to elicit such examples with the coordinator *-as* from our language consultants.[66]

Finally, it is worth mentioning that the paths of grammaticalization involving an adverb with the meaning 'also' and a comitative marker into a coordination marker are very frequent cross-linguistically (Mithun 1988: 339-340).

4.2.2.2 Constructions with the borrowed Russian monosyndetic coordinators *i*, *a*, *no*, *ili*

Apart from the emerging native monosyndetic coordinator, many cases of overt marking of coordination in Ket involve several borrowed Russian monosyndetic coordinators, which is not surprising, given the massive Russian interference. These coordinators are *i* 'and', *a* 'and/but', *ili* 'or' and *no* 'but'. Examples (4.33)-(4.38) illustrate the use of these coordinators.

(4.33) *di:ɛmbisin ɔp i hi:p*

d{u}^{8}-ik^{7}-n^{2}-bes^{0}-in^{-1}	ōb	i	hiˀb	
3^{8}-here^{7}-PST^{2}-move^{0}-AN.PL^{-1}	father	and.RUS	son	

'Father and son came.' (Dul'zon 1970: 82)

(4.34) *ām uɣɔn bān turuxanskdiŋa a krasnojarskdiŋa*

ām	u^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}	bān	turuxansk-di-ŋa	a	krasnojarsk-di-ŋa
mother	3F^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	NEG	T.-N-DAT	but.RUS	K.-N-DAT

'Mother went not to Turuxansk, but to Krasnojarsk.'

(4.35) *aksʲ tɔˀnʲ ili bʌnʲ tɔˀnʲ sijɛtaq*

aks	toˀn	ili	bān	toˀn	si^{7}-Ø^{6}-t^{5}-aq^{0}
what	so	or.RUS	NEG	so	R^{7}-3N^{6}-TH^{5}-become^{0}

'It will be like this or not like this.' (Dul'zon 1970: 120)

[66] The marker *-as* is sometimes confused with a somewhat similar looking postposition *às* / *ās* 'like, similar' which is actually capable of being attached to verbs and forming subordinate structures. Unlike the comitative marker, however, the postposition requires a possessive augment when attached to its host (cf. Chapter 6, Section 6.2.1.1.8). Note that Dul'zon (1974: 208) nonetheless argues that the comitative marker is used to form constructions resembling the Russian simultaneity converb (*deepričastie*). However, the examples provided in his article do not seem convincing, some of them clearly being instances of subordinate structures with the aforementioned *às* / *ās* and the postpositional marker *-bes*. No other existing descriptions of Ket subordination (e.g. Kostjakov 1976, Werner 1997) mention the comitative marker *-as* in the function of a subordinator.

(4.36) *qariɣa tajɔbɔn, i dɨlʲgat suɣɔŋɔndɛn*

qadika	taj^{7}-o^{4}-b^{3}-{q}on^{0}	i	dilkad	suk	oŋ^{6}-{k^{5}}-o^{4}-n^{2}-den^{0}
after	cold^{7}-PST^{4}-3N^{3}-INCH.PST ^{0}	and.RUS	children	back	3AN.PL^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

'After that it became cold, and the children went back.' (Werner 1997: 343)

(4.37) *at qā t-sɛsɔltɛ, a bisɛp kɔladiŋa uɣɔn*

ād	qā	d{i}^{8}-ses^{7}-o^{4}-l^{2}-ta^{0}		
1SG	home	1^{8}-place^{7}-PST^{4}-PST^{2}-be.in.position^{0}		
a	biseb	kola-di-ŋa	u^{6}-k^{5}-o^{4}-{n^{2}-t}n^{0}	
and.RUS	sibling	school-N-DAT	3F^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	

'I sat home, and the sister went to school' (Werner 1997: 343)

(4.38) *majqiːp ɛjiŋaɣɔʁɔn, nɔ bʌn usaban*

maj-qīb	ejiŋ^{7}-a^{6}-th^{5}-o^{4}-qon^{0}	no	bən	us^{7}-a^{4}-b^{3}-{q}an^{0}	
may-month	go.ANOM^{7}-3M^{6}-TH^{5}-PST^{4}-INCH.PST^{0}	but.RUS	NEG	warm^{7}-NPST^{4}-3N^{3}-INCH.NPST^{0}	

'The month of May has come, but it is not becoming warm.'

(Werner 1997: 343)

4.2.3 Bisyndetic constructions

In addition to the native monosyndetic coordinator, Ket has the bisyndetic coordinator *tām…tām* 'either…or' which also appears to be native.[67] This coordinator is likewise at the early stage of its grammaticalization. Apart from *tām…tām*, a similar function can be fulfilled with the help of another bisyndetic marker *qōd…qōd* 'whether…or'. The latter is likely a borrowing from the Russian language. Both bisyndetic coordinators are prepositional.

4.2.3.1 The *tām…tām* construction

The coordinator *tām…tām* is a functional extension of the indefinite particle *tām* which can be conventionally translated as 'some'. As we already mentioned in Chapter 2, this particle is used extensively in formation of indefinite pronouns and adverbs, for example, *tām-ána* 'someone', *tām-ákus* 'something', *tām-bíla* 'somehow', *tām-áska* 'someday', etc. It also can be used in adverbial function, translatable as 'probably, perhaps', cf. (4.39) below.

[67] Werner (2002, II: 233) provides a comparison with the Turkic word *tam* '(even) more'.

(4.39) *báàm tām dadijiɣɔʁɔn*

báàm	tām	dadij^{7}-i^{6}-k^{5}-o^{4}-qon^{0}
old.woman	INDEF	be.crazy.ANOM^{7}-3F^{6}-TH^{5}-PST^{4}-INCH.PST^{0}

'The old woman has probably gone crazy.'

As a coordinator, *tām* appears preposed to each of the coordinands. Example (4.40) illustrates the use of *tām…tām* with noun phrases, while (4.41) and (4.42) exemplify this particle combining adjectives in the predicative form and finite verbs, respectively.

(4.40) *bʌn in doliːn, tam qus saːl, tam ɨn saːlɨn, bis naŋa qim da qaujok*

bən	in	d{u}^{8}-o^{4}-l^{2}-{daq^{0}}-in^{-1}	tām	qūs	sáàl	tām	īn	saːl-in	
NEG	long	3^{8}-PST^{4}-PST^{2}-live^{0}-AN.PL^{-1}	INDEF	one	night	INDEF	two	night-PL	
bīs	na-ŋa	qīm	da^{8}-qa^{7}-u^{4}-j^{2}-oq^{0}						
evening	3AN.PL-DAT	woman	3F^{8}-inside^{7}-PST^{4}-PST^{2}-R^{0}						

'Not long they lived, either one night or two nights, in the evening a woman came to them.'

(Dul'zon 1962: 155)

(4.41) *tām áqtam díŋa tām bən áqtam, bən ítpɛrɛm*

tām	aqta-m	di-ŋa	tām	bən	aqta-m	bən	it^{7}-ba^{6}-d{i}^{1}-am^{0}
INDEF	good-N.PRED	3F.POSS-DAT	INDEF	NEG	good-N.PRED	NEG	know^{7}-1SG^{6}-1SG.SS^{1}-R^{0}

'Is it either good to her or not good, I don't know.'

(4.42) *ɛjɛ qaniŋa kupka tam tɛmɛn assɛn nɛ kɔssɛnɛjbɛttɛn, tam dɛŋ na sorɛjbɛttɛn*

ējе	qanaŋa	kub-ka	tām	tem-en	assen	na
island	there.side	end-LOC	INDEF	goose-PL	animal.PL	AN.PL.POSS
kossenej^{7}-b^{3}-a^{1}-ta^{0}			tām	deˀŋ	na	sodej^{7}-b^{3}-a^{1}-ta^{0}
buzz.ANOM^{7}-3N^{3}-RES^{1}-extend^{0}			INDEF	people	AN.PL.POSS	trickle.ANOM^{7}-3N^{3}-RES^{1}-extend^{0}

'At the other end of the island it's either geese buzzing or people trickling.'

(Dul'zon 1962: 179)

If both coordinands conjoined in the *tām…tām* construction are identical, it is often possible to omit the part of the second coordinand that is identical to the first one, as in (4.43).

(4.43) *kini iˀ ɔtta dɛˀŋ sarkɔvɔriŋal tam datɔjaŋgɔtn, tam bʌn, ture bʌn ɛːtparam*

kinij	iˀ	ət-na	deˀŋ	sarkovo-di-ŋal	tām	du^{8}-t^{5}-a^{4}-aŋ^{1}-qutn^{0}	
today	day	2PL-AN.PL.POSS	people	S-N-ABL	INDEF	3^{8}-TH^{5}-NPST^{4}-3AN.PL.SS^{1}-many.walk^{0}	
tām	bən	tu-de	bən	it^{7}-ba^{6}-d{i}^{1}-am^{0}			
INDEF	NEG	this-N	NEG	know^{7}-1SG^{6}-1SG.SS^{1}-R^{0}			

'Whether our people come from Serkovo today or not, I don't know it.'

(Dul'zon 1970: 106)

In (4.43), the verb *t^{5}-a^{4}-[l^{2}]-ka~qutn^{0}* is omitted from the second coordinand, since it can be logically inferred from the context.

Finally, we should mention that it is possible to find examples of subordinated structures in which the indefinite particle is used monosyndetically. Most notably in this case, it appears on the first coordinand, while the second coordinand is simply juxtaposed.

(4.44) *tam ɨn tɔq dɔŋ tɔq biːlɛvɛt*

tām	īn	toq-{ŋ}	doˀŋ	toq-{ŋ}	{du^{8}}-b^{3}-l^{2}-bed^{0}
INDEF	two	step-PL	three	step-PL	3^{8}-3N^{3}-PST^{2}-make^{0}

'(He) made two or three steps.' (Dul'zon 1962: 159)

(4.45) *buŋ tam iːn qɔmɛt taŋuɣɔlbɛtin*

bū-ŋ	tām	ìn	qomat	{du^{8}}-taŋ^{7}-u^{6}-k^{5}-o^{4}-l^{2}-bed^{0}-in^{-1}
3-PL	INDEF	long	little	3^{8}-drag.ANOM^{7}-3N^{6}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}

'They were dragging it for a while (lit. either long or shortly).'

(Dul'zon 1965: 101)

In (4.44), for example, we can see the particle *tām* preposed to the first noun phrase *īn toqŋ* 'two steps', while the second noun phrase *doˀŋ toqŋ* 'three steps' is attached asyndetically. This strategy can also be found with adverbs as shown in (4.45). It should be noted that this construction is often used in Ket story-telling as a set phrase, alongside a similar one *tām ìn hoˀl* 'either long or shortly'.[68]

[68] Interestingly, monosyndetic coordinate constructions in which only one coordinator is preposed to the first coordinand (co-A B, in Haspelmath's (2007) terms) seem to be extremely rare cross-linguistically. At least, there are no attested examples of this type with coordinators coding conjunctive relations (Haspelmath 2007: 10)

Since we could neither elicit nor find similar constructions (i.e. with *tām* occurring on the first coordinand only) for verbs, we will not consider them any further.

4.2.3.2 The construction with the borrowed Russian bisyndetic coordinator *qōd…qōd*

The bisyndetic coordinator *qōd…qōd* 'either…or' is based on the indefinite particle *qōd*. As we mentioned earlier, this particle most likely originates from the borrowed Russian intensive particle *xot'*. It seems fair to assume that *qōd* was adopted at an earlier stage of the contact with the Russian language, since its form has been phonetically changed and assimilated with respect to the Ket phonological system (for example, it has acquired a tonemic distinction[69]). It has also developed an additional meaning of 'already' that is quite different from the original one, cf. (4.46).

(4.46) *bɨ́lda dɛˀŋ qōt dímbɛsin*

bɨlde	deˀŋ	qōd	d{u}^{8}-i{k}^{7}-n^{2}-bes^{0}-in^{-1}
all	people	already	3^{8}-here^{7}-PST^{2}-move^{0}-AN.PL^{-1}

'All the people have already come.' (Werner 2002, II: 128)

Like the native indefinite particle, *qōd* is often used in formation of indefinite pronouns and adverbials (cf. Chapter 2, Section 2.2.2).

When used as a bisyndetic coordinator, *qōd* appears preposed to the coordinands. Examples (4.47) and (4.48) illustrates the use of *qōd…qōd*.

(4.47) *kasʲnɛm qōt dɔˀnʲ qōt bɔgdɔm*

kas^{7}-n^{2}-am^{0}	qōd	doˀn	qōd	bokdom
limb^{7}-IMP^{2}-take^{0}	INDEF	knife	INDEF	rifle

'Take either a knife or a rifle!'

(4.48) *kirʲ dɨ́ˀlʲ bɛˀk qōt durɛn qōt dɛ́sij*

kī-d	diˀl	beˀk	qōd	du^{8}-den^{0}	qōd	d{u}^{8}-es^{7}-{a^{4}}-ij^{0}
this-M	child	always	INDEF	3^{8}-weep^{0}	INDEF	3^{8}-shout^{7}-NPST^{4}-ACTIVE^{0}

'This child always either cries or shouts.'

[69] Edward Vajda (p.c.) notes that Russian words with palatalized codas normally take high-even tone when borrowed into Ket (cf., *kōn* 'horse' < Russian *kon'* 'steed'), which makes the Russian origin of *qōd* even more plausible.

4.3 Semantic types of coordination relations

In this section, we will consider semantic types of coordination relations between two (or more) functionally parallel clauses and what morphosyntactic means are employed to code them in the Ket language. As we already mentioned in Section 4.1, there are three general semantic types: conjunction, disjunction and adversative coordination. They will be treated in this order.

4.3.1 Conjunctive coordination

Conjunctive coordination relations occur between two or more conjoined clauses denoting related states of affair. It can be either temporal or atemporal. The temporal type can be further subdivided into sequential and simultaneous (Mauri 2008: 82ff). We will consider them respectively.

Longacre (2007: 380) defines the sequential relations ('succession' in his terms) as 'and then' relations. They indicate that the two states of affairs are "located along the same time axis at successive points" and "interconnected as part of the same overall sequence of events" (Mauri 2008: 84). The simultaneous relations (or 'overlap' in Longacre's terms) can be defined as 'meanwhile' or 'at the same time' relations (Longacre 2007: 379). They occur between two states of affairs that are "located at the same point along the time axis and can be characterized by the temporal overlap" (Mauri 2008: 84).

Both types of temporal conjunctive coordination in Ket are most frequently expressed by simple juxtaposition of fully finite verbs, as illustrated in the examples below.

(4.49) *bū qájd qágdɛqɔ̀na dáʁaj*

bū	qàj	d{u}^{8}-qakde^{7}-q^{5}-o^{4}-n^{2}-a^{0}	d{u}^{8}-a^{6}-q^{2}-ej^{0}
3SG	elk	3^{8}-chase.ANOM^{7}-CAUS^{5}-3M^{4}-PST^{2}-MOM.TR^{0}	3^{8}-3M^{6}-PST^{2}-kill^{0}

'He hunted an elk down (and) killed him.'

(4.50) *āt dímɛsʲ ə̄t sájdɔɔ̀lbɛtin*

āt	d{i}^{8}-i{k}^{7}-n^{2}-bes^{0}	ə̄t	{di}^{8}-sajdo^{7}-o^{4}-l^{2}-bed^{0}-in^{-1}
1SG	1^{8}-here^{7}-PST^{2}-move^{0}	1PL	1^{8}-drink.tea.ANOM^{7}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}

'I came (and) we drank tea.'

(4.51) *diˀlʲ dúkkʌːn dúrɛn*

diˀl	du^{8}-k^{5}-hən^{0}	du^{8}-den^{0}
child	3^{8}-TH^{5}-stand^{0}	3^{8}-weep^{0}

'The child is standing (and) crying.'

(4.52) *híɣdilʲ dúkkʌːn qímdilʲ dʌrɛn*

hik-dil	du^{8}-k^{5}-hən^{0}	qim-dil	da^{8}-den^{0}
male-child	3^{8}-TH^{5}-stand^{0}	female-child	3F^{8}-weep^{0}

'The boy is standing (and) the girl is crying.'

The examples (4.49) and (4.50) represent instances of the sequential relations, while the sentences in (4.51) and (4.52) are instances of the simultaneous relations. There is no formal difference between the sentences indicating which type they belong to, therefore the interpretation is mostly contextual. Belimov (1980: 41) notes that if the conjoined verbs are in the past tense form, then they usually denote a succession of events, while the non-past verb forms favor simultaneous interpretation.

If one needs to emphasize the sequential nature of events in a sentence, the habitual particle *bā*[70] is used. It occurs obligatorily before each verb in a sentence. The verbs are always in the past tense form, as in (4.53).

(4.53) *tʌnej qusʲ dɛla kʌma ba ra dbintɛt, bat qaujaq qusʲdiŋa, usin dɛŋ bat daŋɢaj, tulʲ ba ɔɣɔndɛn*

tənej	quˀs	d-ella	kəma	bā	d{u}^{8}-b^{3}-n^{2}-ted^{0}	bā	d{u}^{8}-qa^{7}-u^{4}-j^{2}-aq^{0}		qus-di-ŋa		
T.	tent	N.POSS-door	away	HAB	3^{8}-3N^{3}-PST^{2}-hit^{0}	HAB	3^{8}-inside^{7}-PST^{4}-PST^{2}-move^{0}		tent-N-DAT		
usin		deˀŋ	bā	d{u}^{8}-aŋ^{6}-q^{2}-ej^{0}		tul	bā	o^{6}-k^{5}-o^{4}-n^{2}-den^{0}			
sleep.ANOM		people		3^{8}-3PL^{6}-PST^{2}-kill^{0}		then		3M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}			

'Tynej removed the birch bark tent's door, entered the tent, killed the sleeping people, then left.'

(Belimov 1980: 43)

[70] In many examples from the Ket texts, sometimes even in the literature on Ket (for example, Berillo 1971), the habitual particle *bā* appears as *bat*. The reason for that is purely phonological: position 8 (the leftmost one) which hosts personal agreement markers of the so-called D-series (di-/da-/du-) has a tendency to get encliticized to the preceding word.

As we can see, in this case, the particle *bā* is devoid of its original habitual semantics which can be regarded as a sign of its grammaticalization into a conjunction. Nevertheless it is still at an early stage (Belimov 1980: 43).

Another way to mark the temporal conjunctive relations in Ket is by using the coordinator *hāj*. Nevertheless, due to its adverbial nature, it is hard to find clear-cut examples in the texts. Still we were able to elicit instances of *hāj* used to conjoin clauses from our language consultants (cf. also 4.24 above):

(4.54) *sīnʲ inaām árʲangɔlʲanʲ hāj dənɔ*

sin	ina-ām	adan^{7}-{i^{6}}-k^{5}-o^{4}-l^{2}-{d}en^{0}	hāj	də^{8}-n^{2}-{q}o^{0}
one.time	AN.PL.POSS-mother	ill^{7}-3F^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	and	3F^{8}-PST^{2}-die^{0}

'One day their mother got ill and died.'

(4.55) *diʲʔlʲ dúkkʌːn hāj dúrɛn*

diʲʔl	du^{8}-k^{5}-hən^{0}	hāj	du^{8}-den^{0}
child	3^{8}-TH^{5}-stand^{0}	and	3^{8}-weep^{0}

'The child is standing and crying.'

The sentence is (4.54) is a clear example of the sequential relation, since one cannot get ill and die simultaneously. Example (4.55) is an instance of the simultaneous relation. It is a variant of (4.51) above. It is important to mention that both examples of the *hāj* coordination involve clauses with the same subjects. Our informants felt it difficult to elicit different subject clauses coordinated by *hāj*.

Finally, we cannot but mention one specific construction that is frequently used in Ket to convey the meaning of simultaneity and is often translated into Russian by a coordinated sentence. It is formed with the help of the subordinator *bes* which is added directly to a finite verb form, as in (4.56).

(4.56) *diʲʔlʲ dúkkʌːn dúrɛn-bɛsʲ*

diʲʔl	du^{8}-k^{5}-hən^{0}	du^{8}-den^{0}-bes
child	3^{8}-TH^{5}-stand^{0}	3^{8}-weep^{0}-while.SS

'The child is standing (and) crying.'

Since this construction belongs to the domain of adverbial clauses, it will be discussed in more detail in Chapter 6.

The second type of conjunctive coordination is atemporal relations. According to Mauri (2008: 84), they are different from the temporal counterparts in that they either combine "states of affairs outside the time axis, establishing a relation that is expected to be always valid", or "combine two states of affairs within the time axis regardless of their respective location".

Since there is no dedicated conjunction or marker in Ket that can overtly signal the atemporal relation, it is usually inferred from a juxtaposition of clauses, as in (4.57).

(4.57) *Vásja sélʲd kíttɔlʲbɛt, Máša kuˀsʲ daqíuɣùlʲbɛt*

Vasja	sel	d{u}^{8}-kid^{7}-t^{5}-o^{4}-l^{2}-bed^{0}		Maša	kuˀs	da^{8}-qi^{7}-u^{6}-k^{5}-o^{4}-l^{2}-bed^{0}	
V.	deer	3^{8}-price^{7}-TH^{5}-PST^{4}-PST^{2}-make^{0}		M.	cow	3F^{8}-sell.ANOM^{7}-3F^{6}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}	

'Vasja bought a reindeer and Maša sold the cow.'

It is often not easy to decide whether the two combined states of affairs belong to the atemporal type or it is an instance of some type of the temporal relations.

4.3.2 Disjunctive coordination

As we already mentioned in section 4.1, disjunctive coordination expresses an '*or*' relation and can either be simple or choice-aimed. Simple disjunction of clauses in Ket is formed with the help of the bisyndetic coordinator *tām…tām*. Examples (4.58)-(4.59) illustrate this type of disjunction.

(4.58) *kīrʲ dɨˀlʲ bɛˀk tām dúrɛn tām déssij*

kī-d	diˀl	beˀk	tām	du^{8}-den^{0}	tām	d{u}^{8}-es^{7}-{a^{4}}-ij^{0}	
this-M	child	always	INDEF	3^{8}-weep^{0}	INDEF	3^{8}-shout^{7}-NPST^{4}-ACTIVE^{0}	

'This child always either crys or shouts.'

(4.59) *āt bən ítpɛrɛm sʲaˀj āt tām kájnɛm, bən tām tkájnɛm*

ād	bən	it^{7}-ba^{6}-d{i}^{1}-am^{0}		saj	ād	tām	{di^{8}}-kaj^{7}-n^{2}-am^{0}
1SG	NEG	know^{7}-1SG^{6}-1SG^{1}-R^{0}		tea.RUS	1SG	INDEF	1^{8}-limb^{7}-PST^{2}-take^{0}
	bən	tām	{di^{8}}-kaj^{7}-n^{2}-am^{0}				
	NEG	INDEF	1^{8}-limb^{7}-PST^{2}-take^{0}				

'I don't know whether I took the tea or I didn't (take it).'

A disjunctive construction with the coordinator *qōd…qōd* is provided in (4.60), cf. also (4.48) above.

(4.60) *árʲɛndiŋa kɔ́ɔ̀ŋ qōt tīp kásʲanɛm qōt bɔ́gdɔm kásʲnɛm*

aden-di-ŋa	kóòŋ	qōd	tīb	kas^{7}-a^{4}-n^{2}-am^{0}	qōd	bokdom	kas^{7}-n^{2}-am^{0}
forest-N-DAT	go.IMP	INDEF	dog	limb^{7}-3M^{4}-IMP^{2}-take^{0}	INDEF	rifle	limb^{7}-IMP^{2}-take^{0}

'Go to the forest tomorrow, take either a dog or a rifle.'

Unlike simple disjunction, choice-aimed disjunction implies asking for a choice, therefore it is expressed in Ket by juxtaposition of two clauses containing the focus question particle *ū* and its variant *bəndu* described in Section 2.4.3. When used in choice-aimed disjunction, these particles are added to each one of the juxtaposed clauses, as exemplified in (4.61) and (4.62).

(4.61) *ū āt pɔmɔɣátbɔɣɔ̀bɛt, ū kúɣutn?*

ū	ād	{ku^{8}}-pomokad^{7}-bo^{6}-k^{5}-a^{4}-bed^{0}	ū	ku^{6}-k^{5}-a^{4}-t{n}^{0}
QUEST	1SG	{2^{8}}-help.RUS.ANOM^{7}-1SG^{6}-TH^{5}-NPST^{4}-ITER^{0}	QUEST	2SG^{6}-TH^{5}-NPST^{4}-go^{0}

'Will you help me or will you leave (lit. go)?'

(4.62) *āt bʌ́nʲdu kɔ́lɛtdiŋa dɔŋátn, bʌ́nʲdu ássanɔ dɔŋátn?*

āt	bəndu	koled-di-ŋa	doŋ^{6}-a^{4}-den^{0}	bəndu	assano	doŋ^{6}-a^{4}-de^{0}
2PL	QUEST	town-N-DAT	2PL^{6}-NPST^{4}-go^{0}	QUEST	hunt.ANOM	2PL^{6}-NPST^{4}-go^{0}

'Are we going to the town or are we going hunting?'

The presence of a dedicated marker for expressing simple disjunction and its absence for the choice-aimed type can be accounted for by the fact that it is easier to infer a disjunctive relation from the juxtaposition of two interrogative clauses, than from the juxtaposition of two declarative ones (Mauri 2008: 185).

4.3.3 Adversative coordination

Adversative coordination expresses '*but*' relations between two clauses (cf. Longacre 2007: 378). As already stated in Section 4.1, it can be divided into oppositive, corrective and couterexpectative. The examples below illustrate the three types of adversative coordination in Ket, respectively.

(4.63) *diʔlʲ báŋdiŋta dasésʲta, bʌjbélʲaŋ ʌ́lʲam*

diʔl	baʔŋ-di-ŋta	da^{8}-ses^{7}-ta^{0}	bəjbel-aŋ	əl-am
child	earth-N-ADESS	3F^{8}-place^{7}-be.in.position^{0}	braid-PL	outside-N.PRED

'The girl sits in the ground (whereas) (her) braids are outside.'

(4.64) *āt árʲɛndiŋa bə̄n bɔɣón, kɔ́lɛtdiŋa bɔɣɔ́n*

ād	aden-di-ŋa	bə̄n	bo^{6}-k^{5}-o^{4}-{n^{2}-t}n^{0}	koled-di-ŋa	bo^{6}-k^{5}-o^{4}-{n^{2}-t}n^{0}
1SG	forest-N-DAT	NEG	1SG^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	town-N-DAT	1SG^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

'I didn't go to the forest, (but) I went to the town.'

(4.65) *ímdɛŋulʲsin, mánmaŋ, árʲɛnʲɣa duːɣín, dɛʔŋ bə̄n dáŋtɔlʲɔɣin*

imdeŋuls-in	manmaŋ	aden-ka	du^{8}-{a^{4}}-{daq^{0}}-in^{-1}
dwarf-PL	they.say/said	forest-LOC	3^{8}-NPST^{4}-live^{0}-AN.PL^{-1}
deʔŋ	bə̄n	d{u}^{8}-aŋ^{6}-t^{5}-o^{4}-l^{2}-ok^{0}-in^{-1}	
people	NEG	3^{8}-3AN.PL^{6}-TH^{5}-PST^{4}-PST^{2}-see^{0}-AN.PL^{-1}	

'Dwarfs, they say, live in the forest, (but) people haven't seen them.'

(Kotorova and Nefedov, forthcoming)

As we can see, like the majority of other coordination relations in Ket, adversative relations are not overtly signaled in the language. They can only be inferred from the combination of two juxtaposed clauses.

While all the three examples are structurally similar, they still differ in one respect: unlike the sentence in (4.63), the other two examples, (4.64) and (4.65), contain a clause with negative value, i.e. with the negative particle *bə̄n*. This is can be accounted for by the fact that both corrective and couterexpectative imply the presence of some conflicting expectations.

Apart from the juxtapositive strategy, Ket speakers often make use of the Russian coordinators dedicated to expressing adversative relations like *a* 'and/but' and *no* 'but'. The former can be found with instances of the oppositive type (4.66), while the latter is used to mark couterexpectative relations (4.67).

(4.66) *dīlʲ báŋdiŋta dasésʲta, a bʌjbélʲaŋ ʌ́lʲam*

diʔl	baŋ-di-ŋta	da^{8}-ses^{7}-ta^{0}	a	bəjbel-aŋ	əl-am
child	earth-N-ADESS	3F^{8}-place^{7}-be.in.position^{0}	and/but.RUS	braid-PL	outside-N.PRED

'The girl sits in the ground, whereas (her) braids are outside.'

(4.67) *ad ɨnam tablɛtkaŋ qaj tbiːli, no aqtadilʲ ni tam aksʲ bʌn sɛtɔnɔq*

ād	in-am	tabletka-ŋ	qaj	d{i}^{8}-b^{3}-l^{2}-a^{0}
1SG	two-PRED	pill-PL	PART	1^{8}-3N^{3}-PST^{2}-eat^{0}

no	aqta	di-{ŋa}l	ni	tām-aks	bən	si^{7}-t^{5}-o^{4}-n^{2}-oq^{0}
but.RUS	good	N-ADESS	no.RUS	something	NEG	R^{7}-TH^{5}-PST^{4}-PST^{2}-become.PST^{0}

'I took two pills, but it didn't get better from this.' (Dul'zon 1972: 166)

4.4 Summary of Chapter 4

In this chapter we considered how various types of coordination can be expressed in the Ket language. Like many other languages with no written tradition, the most frequent strategy employed to code coordination relations in Ket is juxtaposition (cf. Mithun 1988). The existing native conjunctions like the monosyndetic *hāj* 'and' and the bisyndetic *tām…tām* 'either…or' are still at an early stage of grammaticalization, therefore they are very limited in use, especially with respect to clausal coordination. It also seems plausible to say that the habitual particle *bā* is undergoing gramaticalization as a clausal coordinator expressing the temporal sequential relations. Given the scarcity of native means to signal coordination, Ket often makes use of conjunctions borrowed from the Russian language.

Table 4.1 summarizes the findings about the native strategies used to express various coordination relations in Ket.

Coordination strategy→ ↓Type of coordinate relations		***hāj***	***tām…tām***	**juxtaposition**		
				-	***bā***	***(bənd) u***
CONJUNCTIVE	***Temporal sequential***	+ (SS)		+	+ (SS)	
	Temporal simulataneous	+ (SS)		+		
	Atemporal			+		
DISJUNCTIVE	***Simple***		+			
	Choice-aimed					+
ADVERSATIVE	***Oppositive***			+		
	Corrective			+		
	Couterexpectative			+		

Table 4.1 Coordinating strategies in Ket

As we can see, the juxtapositive strategy can be used for coding virtually all types of coordination in Ket, except for simple disjunction, while the other strategies remain very limited being applicable to only one or two types of coordination.

In general, the data from Ket offer support to the typological implications proposed in Mauri's (2008) cross-linguistic study of coordination relations. First of all, the Ket data conform to the conjunctive-adversative[71] coding implication. It implies that if in a given language, simple counterexpectative relations are normally expressed asyndetically, then asyndesis can also be used to express both temporal and atemporal conjunctive relations, as well as oppositive and corrective adversative relations. As we can see in Table 4.1, this is attested in Ket.

[71] In Mauri's terms it is 'combination-contrast'. We adjusted it to our terminology.

Chapter 5. Complement relations

The present chapter is concerned with the coding of complement relations in the Ket language.

The chapter is organized in the following way. In section 5.1, we outline the general typology of complement relations. Section 5.2 considers the morphosyntactic properties of complement relations in Ket. In Section 5.3, we survey complement taking predicates and their semantics in the language. Section 5.4 provides a summary and conclusions to the chapter.

5.1 Typology of complement relations

In the linguistic literature, complementation is traditionally referred to as the syntactic situation in which a subordinate clause functions as an argument of the predicate in the main clause (cf. Noonan 2007: 52, Horie and Comrie 2000: 1). Consider, for example, the Russian sentences in (5.1) and (5.2).

(5.1) Russian

Ja xoču <moroženogo>

'I want an ice-cream.'

(5.2) Russian

Ja xoču <tebe verit'>

'I want to believe you.'

Both the noun <*moroženogo*> 'ice-cream' and the infinitive clause <*tebe verit'*> 'to believe you' serve as an object argument of the transitive predicate *xoču* 'want'. In such cases, the infinitive clause in (5.2) is said to be syntactically embedded within its main (or matrix) predicate.

The traditional view on complementation has been often criticized for being strictly tied to the notion of syntactic embedding (for example, Dixon 1995, Thompson 2002, Cristofaro 2003). As typological studies have shown, embedded clauses, which are typical instances of complementation in modern Indo-European languages, are not found in many of world's other languages. Instead, in identical conceptual situations,

many of these languages tend to employ various non-embedded structures (cf. Cristofaro 2003: 95ff). Dixon (1995) explicitly draws a distinction between complement clauses and the so-called 'complementation strategies'. According to him, a 'true' complement clause is a clause that fulfills the following two grammatical criteria: a) it has the internal constituent structure of an independent clause with regard to core argument marking, and b) it functions as an argument of the main clause. Other grammatical mechanisms that can serve to express the range of semantic concepts coded by complements belong to 'complementation strategies'. Here belong nominalization, serial verb constructions, paratactic clauses, participial constructions, etc.

Unlike Dixon, Noonan in his work on complementation subsumes both complement clauses and complementation strategies under one umbrella term 'complement type'. He identifies a complement type by the following main criteria (1) the morphology of the predicate, (2) the expression of syntactic relations between the predicate and its arguments, and (3) the syntactic relation of the complement construction as a whole with the rest of the sentence (Noonan 2007: 54-55).

The first criterion is concerned with whether the predicate of a complement type is reduced or non-reduced, i.e. whether it is morphologically the same as the one in the main clause or in some way different with respect to argument and/or tense marking. See, for example, sentences from Lango, a Nilotic language, in (5.3) and (5.4).

(5.3) Lango

àtîn òpòyò <nî àcégò dɔ́ggɔ́lâ>

àtîn	òpòyò	nî	àcégò	dɔ́ggɔ́lâ
child	remembered.3SG	COMP	closed.1SG	door

'The child remembered that I closed the door.' (Noonan 2007: 54)

(5.4) Lango

àtîn òpòyò <cèggò dɔ́ggɔ́lâ>

àtîn	òpòyò	cèggò	dɔ́ggɔ́lâ
child	remembered.3SG	close.INF	door

'The child remembered to close the door.' (Noonan 2007: 54)

In (5.3), the predicate *àcégò* '(I) closed' in the complement clause is marked for tense and person in the same way as the main predicate *òpòyò* '(he) remembered', i.e. it is morphologically non-reduced. In Noonan's terms such a complement type is called a sentence-like (or S-like) complement. The other non-reduced complement types include paratactic[72] and verb-serialization complements. A morphologically reduced complement type is illustrated in (5.4) in which the predicate *cèggò* 'to close' is marked as an infinitive and stripped of all relevant tense/person distinction. The other reduced complement types distinguished by Noonan are nominalized and participial complements (Noonan 2007: 70-74).

In his work, Noonan also discusses a special type of reduced complements called clause union (CU). In a clause union the main and complement predicates share one set of grammatical relations, as exemplified in (5.5).

(5.5) French

Roger laissera manger les pommes à Marie

Roger	laissera	manger	les	pommes	à	Marie
Roger	let.3SG.FUT	eat.INF	the	apples	to	Marie

'Roger will let Marie eat the apples.' (Noonan 2007: 84)

In this sentence both the main predicate *laissera* and the complement predicate *manger* are merged together, so that they share one set of arguments: *Roger* functions as subject, *les pommes* as direct object and *à Marie* as indirect object of the whole construction. There is also a more extreme variation of CU called lexical union (LU). In LU both predicates are merged to the extent of becoming a single lexical unit, in which the complement taking predicate (i.e. the main predicate) is reduced to an affix on the complement predicate. An example of LU is represented in (5.6) below.

(5.6) Georgian

Me mas movatanine

me	mas	movatanine
I	him	come.CAUS

'I made him come.' (Noonan 2007: 86)

[72] The difference between a paratactic complement type and an S-like type is the presence of a complementizer in the latter case. Complementizers are discussed below.

The affix representing the complement-taking predicate in LU cannot be viewed as another predicate because it cannot stand alone and take any argument/tense marking. Therefore LU cannot be considered as a complement type. Nevertheless, it will be discussed in our work, because it is a rather widespread means in Ket to express some semantic types of complement-taking predicates.

The second criterion used by Noonan to identify a complement type deals with whether the subject of a complement predicate is the same as or different from the one in the main clause. Consider the examples from Russian:

(5.7) Russian

Ja xoču <ego ubit'>

'I want to kill him.'

(5.8) Russian

Ja xoču, <čtoby ty ego ubil>

'I want you to kill him'

In (5.7), the subject of the predicate in the main clause and the subject of the predicate in the complement clause are the same (*ja* 'I'), while in (5.8) the subject of the main predicate is different from that of the complement predicate (*ja* 'I' vs. *ty* 'you.SG'). These examples also illustrate a general tendency to reduce the subject of the predicate in complement clauses, if it coincides with the one in the main clause. If the subjects are different, they both are retained in the sentence.

The last criterion concerns the grammatical role of the complement type in the main clause. The complement type can function as either a subject or an object of the main predicate. The latter has been already mentioned in (5.2) above, in which the infinitival complement functions as an object of the predicate *xoču* 'want'. The subject function of the complement type is illustrated in the example below, in which the complement clause *<čto on byl xolodnyj>* is the subject of the predicate *napugalo* 'frightened'.

(5.9) Russian

Menja napugalo, <čto on byl xolodnyj>

'His being cold frightened me.'

In many languages complement types often have a special element (it can be a word, particle, affix, etc.) whose function (or one of the functions) is to identify the given entity as a complement (Noonan 2007, Givón 2001). Such elements are usually known as complementizers, for example, the Russian *čtoby* and *čto* in (5.8) and (5.9), respectively, or the particle *to* in front of the infinitive complement in '*I want <to kill him>*' from example (5.7). Some complement types may have more than one complementizer associated with them, others may have no complementizer at all (Noonan 2007: 55). The latter can be seen in the Lango example (5.4) above, as well as in the Russian sentence in (5.7) and in the English translation in (5.9). Example (5.10) from Yaqui, an Uto-Aztecan language, illustrate a complement type with two complementizers:

(5.10) Yaqui

Tuisi tuʔi ke hu hamut bwika-kai

tuisi	tuʔi	ke	hu	hamut	bwika-kai
very	good	COMP	the	woman	sing-COMP

'It's very good that the woman sings.' (Noonan 2007: 57)

In some cases, the occurrence of complementizers may also be optional or determined by the context, as in (5.11).

(5.11) Russian

Ja znaju, (čto) on prišël

'I know (that) he came.'

The use of the complementizer *čto* 'that' is optional in the Russian sentence, as well as in its English counterpart.

From a diachronic point of view, complementizers usually originate from various sources like pronouns, adpositions, case markers, conjunctions, or even verbs (Noonan 2007: 57). Therefore they may often coexist in a language with their sources, like, for example, the complementizer *čto* and its source, the interrogative

pronoun *čto*, in Russian, or the complementizer *that* and the demonstrative pronoun *that* in English.

It is important to mention that there is a restricted set of verbs that are capable of taking complements. Such verbs are called complement-taking predicates (CTP). There are various kinds of classification of these predicates, with various degrees of elaboration, depending on the general semantics they express. For example, Givón (1990) distinguishes between three major classes of CTPs: modality, manipulative and cognition-utterance. Noonan (2007), on the other hand, provides a more detailed classification distinguishing the following semantic classes: (1) modal predicates (like *must, can, may, be able,* etc.), (2) phasal predicates (like *start, begin, stop, continue,* etc.), (3) manipulative predicates (like *order, make, persuade,* etc.), (4) desiderative predicates (like *want,* etc.), (5) immediate perception predicates (like *see, hear,* etc.), (6) predicates of knowledge and acquisition of knowledge (like *know, understand, realize,* etc.), (7) propositional attitude predicates (like *think, understand, believe,* etc.), (8) utterance predicates (like *say, tell,* etc.), (9) commentative predicates (factives) (like *regret, be sorry, be sad,* etc.), (10) predicates of fearing (like *fear*, *be afraid,* etc.), (11) achievement predicates (like *manage, chance, try,* etc.), (12) pretence predicates (like *imagine*, *pretend*, etc.), (13) negative predicates, and (14) conjunctive predicates. It is often noted that the degree of reduction found in complements used with a CTP correlates with the semantics class this CTP belongs to (Noonan 2007; Givón 2001; see also Figure 5.1 below).

5.2 Morphosyntactic properties of complement constructions in Ket

In this section we will examine complement constructions in Ket with respect to their morphosyntactic properties such as the morphology of the predicate, the syntactic relations of the predicate with its arguments and the syntactic relations of complement types with the main predicate. But before turning to the complement types, we will consider the native complementizers *esaŋ* and *bila*.

5.2.1 The complementizer *esaŋ*

The complementizer *esaŋ* originates from the relational morpheme *esaŋ* with translative meaning. When used with nouns it usually indicates the "goal" of a verbal action (with verbs of becoming, transforming, producing, and the like). It may also encode the "role" of a human being (Georg 2007: 115). Examples (5.12)-(5.14) illustrate the use of this relational morpheme with nouns.

(5.12) *bū ér^{j}ɛs^{j}aŋ átɔnɔq*

bū	ed-esaŋ	a^{6}-t^{5}-o^{4}-n^{2}-oq^{0}
3SG	sable-TRANSL	3SG^{6}-TH^{5}-PST^{4}-PST^{2}-become.PST^{0}

'He turned into a sable.'

(5.13) *āt bɔ́ɣɔn úl^{j}ɛs^{j}aŋ*

ād	bo^{6}-k^{5}-o^{4}-{n^{2}}-{de}n^{0}	ul-esaŋ
1SG	1SG^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	water-TRANSL

'I went for water.'

(5.14) *bū pɛršipɛs^{j}aŋ dal^{j}ɔvɛrɔl^{j}bɛt*

bū	peršip-esaŋ	da^{7}-lobed^{7}-o^{4}-l^{2}-bed^{0}
3SG	doctor.RUS-TRANSL	3F^{8}-work.RUS.ANOM^{7}-PST^{4}-PST^{2}-ITER^{0}

'She worked as a doctor.'

The most common functional extension of this relational morpheme in Ket is that of a purposive marker used in adverbial clauses, as in (5.15).

(5.15) *nanbarilgɛtin tavɨŋaj ɛijŋ-ɛsaŋ*

nanbed^{7}-il^{2}-ked^{0}-in^{-1}	tabaŋaj	eijŋ-esaŋ
bread.make.ANOM^{7}-IMP^{2}-ITER^{0}-AN.PL^{-1}	hunt.ANOM	go.ANOM-TRANSL

'Make bread in order to go for a hunt.' (Belimov 1973: 135)

As a complementizer, *esaŋ* is used mostly with complements of desiderative predicates, like in (5.16).

(5.16) *bū usqat-ɛs^{j}aŋ dujɔtɔs^{j}*

bū	usqat-esaŋ	du^{8}-o^{1}-tus^{0}
3SG	warm.ANOM-TRANSL	3^{8}-3SG.SS^{1}-intend^{0}

'He wants to get warm.' (Belimov 1973: 23)

The use of *esaŋ* in the complementizing function is not obligatory and it can, in principle, be omitted, compare, for example, (5.16) and (5.17).

(5.17) *āt kɛrʲa taʁaj dittusʲ*

ād	ked-da	taqaj	di^{8}-d{i}^{1}-tus^{0}
1SG	person-M.POSS	hit.ANOM	1^{8}-1SG.SS^{1}-$intend^{0}$

'I want to hit the man.'

5.2.2 The complementizer *bila*

The complementizer *bila* is the functional extension of the interrogative adverb *bila* 'how'. Example (5.18) illustrates the interrogative function of this adverb.

(5.18) *bílʲa ū kúɣadaq?*

bila	ū	ku^{8}-k^{5}-a^{4}-daq^{0}
how	2SG	2^{8}-TH^{5}-NPST^{4}-$live^{0}$

'How do you live?'

The use of *bila* in the complementizing function is illustrated in (5.19).

(5.19) *ássanɔsʲ tɔ́lʲuŋ bílʲa ássɛlʲ ɔɣɔ́n*

assano-s	{du^{8}}-t^{5}-l^{2}-$oŋ^{0}$	bila	assel	o^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}
hunt.ANOM-NMLZ	3^{8}-TH^{5}-PST^{2}-see^{0}	how	animal	3M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

'The hunter saw how the animal went away.'

It seems fair to assume that the complementizing use of the interrogative adverb *bila* is the calque from the Russian language, where interrogative adverbs are a common source of subordinators. It is the case, for example, with the Russian interrogative adverb *kak* 'how' that can be used as a complementizer with various complement taking predicates (5.20).

(5.20) Russian

Ja videl ***kak on uxodil***

'I saw him leaving (lit. **how he was leaving**).'

As we can see in (5.20), *kak* introduces the complement of the verb *videl* 'saw'.

The fact of calquing in the case of *bila* is also corroborated by the existence of more obvious calques in the domain of subordinators, see, for example, *aska* (Section 6.2.2.2.1).

5.2.3 Complement types in Ket

There are two main complement types in Ket, one involving S-like clauses, the other – action nominal clauses. Both general types can be further divided into several subtypes. They will be considered in order.

5.2.3.1 S-like complement type

A sentence-like or S-like complement clause has the same syntactic form as a main clause and can in principle stand on its own as an independent sentence. This complement type can be used paratactically or in combination with the complementizers.

5.2.3.1.1 Paratactic S-like complement

The most frequent complement type in Ket is a paratactic S-like clause. In the paratactic complement construction both main clause and complement clause are juxtaposed to each other without any connecting element. Such complement clauses are rather frequent in polysynthetic languages (cf. Mithun 1984, 1988). Examples (5.18) and (5.19) illustrate this complement type in Ket.

(5.21) *āt itpɛrɛm kɛˀt duːnɔ*

ād	it^{7}-ba^{6}-d{i}^{1}-am^{0}	keˀd	du^{8}-o^{4}-n^{2}-{q}o^{0}
1SG	know^{7}-1SG^{6}-1SG^{1}-R^{0}	person	3SG^{8}-PST^{4}-PST^{2}-die^{0}

‘I know (that) the man died.’

(5.22) *ad daɣudɔ ab kit qutkə dɔɻətən*

ād	d{i}^{8}-a^{6}-k^{5}-a^{4}-do^{0}	āb	keˀd	qotka	d{u}^{8}-o^{4}-l^{2}-a^{1}-tan^{0}
1SG	1^{8}-3M^{6}-TH^{5}-NPST^{4}-watch^{0}	my	person	ahead	3^{8}-PST^{4}-PST^{2}-3SS^{1}-stop^{0}

‘I watched my friend stop ahead of me (lit. I watched him, my friend stopped ahead of me)’.

(Ivanov et al. 1969: 217)

5.2.3.1.2 S-like complement with *esaŋ*

S-like complements can be also marked with the complementizer *esaŋ* which occurs postposed to the complement clause. Other than that, the clause remains the same as a main one. In many cases, the use of *esaŋ* is optional. Example (5.23) illustrates this complement type.

(5.23) *dīlʲ āt dʌ́lʲabɔ̀ɣɔʁɔs-ɛsaŋ díttus*

dīl	ād	d{i}^{8}-əla^{7}-bo^{6}-k^{5}-o^{4}-qos^{0}-esaŋ	di^{8}-d{i}^{1}-tus^{0}
child	1SG	1^{8}-outside^{7}-1SS^{6}-TH^{5}-3SG.M^{4}-take^{0}-TRANSL	1^{8}-1SG.SS^{1}-intend^{0}

'I want to take the child out' (Kotorova and Nefedov, forthcoming)

5.2.3.1.3 S-like complement with *bila*

This subtype is a calque from the Russian language (cf. 5.2.2). The use of *bila* with S-like complement clauses is optional. Example (5.24) provides an illustration of this complement type.

(5.24) *qímarʲa tɔ́luŋ bíla āb ōp saʔq díʁɛj*

qima	da^{8}-t^{5}-o^{4}-l^{2}-oŋ^{0}	bila	āb	ōb	saʔq	d{u}^{8}-i^{6}-q^{2}-ej^{0}
grandma	3F^{8}-TH^{5}-PST^{4}-PST^{2}-see^{0}	how	my	father	squirrel	3M^{8}-3F^{6}-PST^{2}-kill^{0}

'Grandmother saw my father killing a squirrel.'

5.2.3.2 Action nominal complement type

Action nominals represent the second general complement type in Ket. As we already mentioned in Chapter 2, action nominals are a word class in Ket that subsumes functions typical of infinitives, participles and gerunds in other languages (see Section 2.2.7 for more discussion). It is thus not surprising that they often occur as complements of various CPTs. Contrary to S-like clauses, the morphology of this complement type is heavily reduced, since these forms show no tense/aspect marking. As complements, action nominals can be used both without any special marking, and with the complementizers *esaŋ* and *bila*.

5.2.3.2.1 Bare action nominal complement

This type of complements involve an action nominal without any additional marking. The following example illustrates this complement type:

(5.25) *dɛ́ŋna ássanɔ bínut*

deŋ-na	assano	b{in}^{7}-{b^{3}}-in^{2}-{q}ut^{0}
people-AN.PL.POSS	hunt.ANOM	self^{7}-3N^{3}-PST^{2}-finish^{0}

'People finished hunting (lit. People's hunting finished).'

As can be seen from the example, the subject of the complement clause in this type is marked as a possessor and the complement clause itself is cross-referenced on the main predicate *bínut* '(it) finished'.

5.2.3.2.2 Action nominal complement with *esaŋ*

Action nominals in complement clause can also in principle be marked with *esaŋ*. As with S-like complements, the use of the marker *esaŋ* is optional in many cases. This type of complements is illustrated in (5.26).

(5.26) *hɨˀp daōp suːlʲbɛrʲɛsʲaŋ datpilʲa*

hɨˀb	da-ōb	suːlbed-esaŋ	d{u}^{8}-a^{6}-t^{5}-b^{3}-l^{2}-a^{0}
son	M.POSS-father	sled.make.ANOM-TRANSL	3^{8}-3M^{8}-TH^{6}-3N^{3}-PST^{2}-ask^{0}

'The son asked his father to make sleds.' (Zinn 2006)

5.2.3.2.3 Action nominal complement with *bila*

The complementizer *bila* can also be combined with an action nominal, as shown in (5.27).

(5.27) *sīnʲ báàm ɛnʲdirʲunʲsʲɔŋ bilʲa kʌˀj*

sīn	báàm	en^{7}-did^{4}-n^{2}-soŋ^{0}	bila	kəˀj
decrepit	old.woman	R^{7}-3F^{4}-PST^{2}-forget^{0}	how	walk.ANOM

'The decrepit old woman forgot how to walk.'

(Kotorova and Nefedov, forthcoming)

Note that, like in the case of the above mentioned *bila* construction (cf. 5.2.3.1.3), this complement type is a calque from Russian, where the verb *zabyvat'* 'forget' takes a functionally similar complement, i.e. '*kak* + infinitive' (5.28).

(5.28) Russian

Ja zabyl ***kak xodit'***

'I forgot **how to walk**.'

5.3 The semantics of complement taking predicates

In this section we will discuss semantic classes of complement-taking predicates in Ket. We were able to identify the following complement-taking predicates in Ket (based on Noonan 2007):

- modal
- phasal
- manipulative
- desiderative
- perception
- knowledge
- propositional attitude
- utterance
- commentative
- achievement

5.3.1 Modal predicates

Modal predicates are restricted to verbs expressing ability, obligation, permission and necessity (such as English *must, can, may, be able,* etc.) (Noonan 2007: 137-138). Unlike English, Russian and many other languages, Ket lacks verbs which are exclusively modal in meaning. Instead, it makes use of verbs meaning 'to know' and 'to understand' as well as some other means to express these modal concepts. Let us consider them in order.

The most common way of expressing the concept of ability in Ket is the use of the irregular verb *it*^{7}*-[l*^{2}*]-am*^{0} 'to know'. The verb has two slots filled by agreement markers, but nonetheless is morphologically intransitive, because both slots cross-reference the subject, as can be seen in (5.29).

(5.29) *ēn āt túrɛ ítpɛrɛm*

ēn	ād	tu-de	it^{7}-ba^{6}-d{i}^{1}-am^{0}
now	1SG	this-N	know^{7}-1SG^{6}-1SG.SS^{1}-R^{0}

'Now I know it.'

In (5.29), both *-ba-* in P6 and *-di-* in P1 refer to the 1st person singular pronoun *ād*, while the pronoun *tude* 'this' does not get cross-referenced on the verb at all. If *it*^{7}*-[l*^{2}*]-am*^{0} is used with an animate object, it obligatorily requires the presence of a special relational marker *qoŋ* < *qoˀŋ* 'image, appearance'.

(5.30) *āt tūr kétda qɔ́ŋ ítpɛrɛm*

ād	tū-d	ked-da	qoŋ	it^{7}-ba^{6}-d{i}^{1}-am^{0}
1SG	this-M	person-M.POSS	image	know^{7}-1SG^{6}-1SG.SS^{1}-R^{0}

'I know this man (lit. I recognize this man's appearance).'

When used as a modal predicate, the verb *it*^{7}*-[l*^{2}*]-am*^{0} generally takes complements in the form of action nominals, as exemplified in (5.26)

(5.31) *bū dèrʲ itɛlɛm*

bū	dèd	it^{7}-a^{6}-l^{2}-am^{0}
3SG	read.ANOM	know^{7}-3M^{6}-PST^{2}-R^{0}

'He can (=knows how to) read.' (Belimov 1973: 25)

It can also take a finite clause complement marked with *esaŋ* as in (5.32), although such constructions are much less frequent.

(5.32) *bū ɛtalʲam duːbdɛt-ɛsʲaŋ*

bū	it^{7}-a^{6}-l^{2}-am^{0}	du^{8}-b^{3}-ded^{0}-esaŋ
3SG	know^{7}-3M^{6}-PST^{2}-R^{0}	3^{8}-3N^{3}-read^{0}-TRANSL

'He can read.' (Ščipunova 1975: 77)

Apart from expressing abilities which can be referred to as purely mental (like reading, speaking, etc.), the use of *it*^{7}*-[l*^{2}*]-am*^{0} has been extended to cases where a mental ability is accompanied by a physical one, as in (5.33)-(5.35).

(5.33) *bū sùj ítɛlɛm*

bū	sùj	it^{7}-a^{6}-l^{2}-am^{0}
3SG	swim.ANOM	know^{7}-3SG.M^{6}-PST^{2}-R^{0}

'He can swim.'

(5.34) *dum itɛlɛm kɨɣ*

dūm	it^{7}-a^{6}-l^{2}-am^{0}	kīk
bird	know^{7}-3SG.M^{6}-PST^{2}-R^{0}	fly.

‘The bird can fly.’ (Belimov 1973: 25)

(5.35) *at su:l itpɛdɛm bɛ:da*

ād	súùl	it^{7}-ba^{6}-d{i}^{1}-am^{0}	bèd
1SG	sled	know^{7}-1SG^{6}-1SG.SS^{1}-R^{0}	make.ANOM

‘I can make a sled.’ (Belimov 1973: 25)

The example (5.34) also shows that the action nominal complement can be placed after the matrix clause, whereas in (5.35) the matrix verb separates the parts of the complement clause.

While a verb meaning ‘to know’ is the most commonly documented lexical source for ability predicates among the world’s languages (Bybee, Perkins, and Pagliuca 1994: 190), the grammaticalization of a verb with the meaning ‘to understand’ seems to be rather infrequent, albeit quite acceptable logically. The sentences in (5.36)-(5.37) illustrate this case in Ket.

(5.36) *āt askatij dabátɛvɛt*

ād	askatij	da^{8}-ba^{6}-t^{5}-a^{4}-bet^{0}
1SG	speak.ANOM	IC^{8}-1SG^{6}-TH^{5}-NPST^{4}-understand^{0}

‘I can speak.’

(5.37) *āt dabátɛvɛt túdɛ bèd*

ād	da^{8}-ba^{6}-t^{5}-a^{4}-bet^{0}	tu-de	bèd
1SG	IC^{8}-1SG^{6}-TH^{5}-NPST^{4}-understand^{0}	this-N	make.ANOM

‘I can make it.’ (Georg 2007: 305)

The verb *da^{8}-t^{5}-[n^{2}]-bet^{0}* belongs to ‘*da*-intransitives’ which have a petrified marker *da-* in position 8 (cf. 2.2.8.1.3.1). Interestingly, there is no way to translate sentences

like ‘I understand X’ into Ket other than as ‘I understand X’s words, speech, etc.’, see (5.38).[73]

(5.38) *āt ūk qáàn dabátɛvɛt*

ād	ūk	qáàn	da^{8}-ba^{6}-t^{5}-a^{4}-bet^{0}
1SG	2POSS	word.PL	IC^{8}-1SG^{6}-TH^{5}-NPST^{4}-understand^{0}

‘I understand you (lit. your words).’

Compared to *it^{7}-[l^{2}]-am^{0}*, the verb *da^{8}-t^{5}-[n^{2}]-bet^{0}* seems to be less grammaticalized in the modal function, since it is used much more seldom and is in principle restricted to conveying the notion of mental ability, as in (5.36) above. Although Werner (2002, II: 225) provides an example similar to that in (5.39), our language consultants felt rather uncertain about it.

(5.39) *āt sʲùj dabátɛvɛt*

ād	sùj	da^{8}-ba^{6}-t^{5}-a^{4}-bet^{0}
1SG	swim.ANOM	IC^{8}-1SG^{6}-TH^{5}-NPST^{4}-understand^{0}

‘I can swim.’ (Werner 2002, II: 225)

Another possible way to express the notion of ability (or disability) in Ket is by using special non-verbal modal predicates. These predicates include *itej* (and its variant *hɨtej*) ‘can, may’ and *qoŋan* ‘not be able’. Unfortunately, our language consultants could not recognize these words; neither could we find them in the existing Ket texts. Therefore our description is based only on the examples found in the literature, mostly in Werner’s (2002) dictionary.

According to Werner (2002, I: 384) the original meaning of *itej* is ‘to know’ (cf. the verb *it^{7}-[l^{2}]-am^{0}* ‘know’ above). The word form itself resembles an action nominal due to the presence of the morpheme *-ej*. As Belimov (1973: 65ff.) states, the action nominals formed with the help of the morpheme *-aj* (and its variants *-ej*, *-ij*, *-oj*) are one of the most common in Ket. The origin and meaning of the morpheme seems to

[73] It should be noted that in the past tense forms the initial *b* of the root morpheme *-bet* is metathesized with the past marker *-n-* in position 2 creating an impression of the presence of the inanimate marker *-b-* in slot 3 (Edward Vajda, p.c.). For example, *dabátomnet* [da^{8}-ba^{6}-t^{5}-o^{4}-b^{3}-n^{2}-et^{0} IC^{8}-1SG^{6}-TH^{5}-PST^{4}-PST^{2}-understand$^{3/0}$]. Vajda and Zinn (2004: 94) explicitly analyze this verb as having two lexicalized markers, namely, involutinary causative markers, since they cannot change to reflect an animate class source argument. Georg (2007: 304ff.) likewise parses this verb as having *-b^{3}-*.

be obscure. Despite this striking resemblance, the existing examples show that the word *itej* can function like a real modal predicate taking an action nominal (5.40) and a paratactic clause (5.41) as its complements.

(5.40) *āt turʲɛ bānʲ bè:rʲi ítɛj*

ād	tu-de	bān	bèd	itej
1SG	this-N	NEG	make.ANOM	can

'I cannot make it.' (Werner 2002, I: 384)

(5.41) *ād bān dáddij ítɛj*

ād	bān	d{i}^{8}-a^{4}-d{i}^{1}-dij^{0}	itej
1SG	NEG	1^{8}-NPST^{4}-1SG.SS^{1}-come^{0}	can

'I cannot come.' (Werner 2002, I: 384)

In (5.40), the complement of *itej* is the action nominal *bèd* 'make, do'. Note also the presence of the 1st person singular pronoun *ād* which, quite unexpectedly, does not trigger any relevant cross-reference in the sentence.[74] Another interesting and a very unusual property is that according to the existing examples *itej* seems to derive time reference from its complement. Compare the examples (5.41) and (5.42).

(5.42) *ād dɔ́ndidij bānʲ itɛj*

ad	d{i}^{8}-o^{4}-n^{2}-di^{1}-dij^{0}		bān	itej
1SG	1SG^{8}-PST^{4}-PST^{2}-1SG.SS^{1}-come^{0}		NEG	can

'I could not come.' (Werner 2002, I: 384)

In both (5.41) and (5.42), *itej* remains unmarked, it is the verb *-dij*^{0} 'come' in the complement clause that bears the tense distinction transferred to the whole sentence: non-past in (5.41) and past in (5.42).

Although, in the above examples, *itej* does not take any additional markers, Werner (2002) lists a few examples in which *itej* is used with the inanimate predicative marker *-am*, as shown in (5.43) and (5.44).

[74] In principle, it is possible to assume that the form *itej* is a special suppletive 1st person singular form of a finite verb. Unfortunately, this hypothesis cannot be tested, since apart from *itejam*, which is an inanimate predicate form, all the examples with *itej* in Werner (2002) are given with the 1st person singular pronoun.

(5.43) *qɔ̀sʲ itɛjam*

qɔ̀s	itej-am
take.ANOM	can-N.PRED

'One can take (lit. Taking is possible).' (Werner 2002, I: 384)

(5.44) *diliŋ itɛjam*

d-iliŋ	itej-am
N.POSS-eat.ANOM	can-N.PRED

'One can eat it (lit. Its eating is possible).' (Werner 2002, I: 384)

The next modal predicate *ḣitej* (or *hitej*) originates from the particle *ḣi* 'yet, already' + *itej* (Werner (2002, I: 346). It was recorded only with the predicative markers in contexts similar to (5.43) and (5.44). No examples with contexts similar to (5.40)-(5.42) above are available.

(5.45) *kirʲ ɔksʲ ʌːŋ ḣitlɛm da aspuntɛt ḣitajam*

kī-d	ōks	ə́ə̀n	ḣitl-am	da	asbunted	ḣitej-am
this-M	tree	branches	low-3N.PRED	M.POSS	climb.ANOM	already.can-N.PRED

'This tree has branches close to the ground, it's possible to climb it (lit. its climbing is possible).'

(Belimov 1973: 25)

This predicate can also be used to express permission:

(5.46) *tudɛ ɛ́ɛ̀lʲd iliŋ ḣitɛjam*

tu-de	ɛ́ɛ̀l-d	iliŋ	ḣitej-am
this-N	berry-N.POSS	eat.ANOM	already.can-3N.PRED

'One can already eat the berries (lit. These berries' eating is already possible).'

(Werner 2002, I: 346)

As we can see, *ḣitej* is used only with action nominal complements; no examples with paratactic complements are recorded.

Finally, there is a special predicate in Ket, *qoŋan* 'not to be able', that is specifically used to express the modal meaning of inability. Its origin is likewise quite obscure. Werner (2002, II: 108) proposes the following analysis: *qoˀŋ* 'image' ('soul'?) + *-an* (Caritive relational marker). As the recorded examples show, *qoŋan* requires the presence of the inanimate predicative marker. This modal predicate can be used

with both action nominal complements and paratactic clause complements, as exemplified below.

(5.47) *ukuŋa ūŋ qɔŋanam*

uk-uŋa	ūŋ	qoŋan-am
2SG-DAT	sit.ANOM	not.be.able-N.PRED

'You cannot sit (lit. Sitting is not possible to you). (Werner 2002, II: 108)

(5.48) *bū tām-aksʲ-aːna bānʲ dubbɛt qɔŋanam*

bū	tām-aks-aːna	bān	du^{8}-b^{3}-bed^{0}	qoŋan-am
3SG	nothing	NEG	3^{8}-3N^{3}-make^{0}	not.be.able-3N.PRED

'He cannot do anything (lit. It is not possible for him to do anything).'

(Werner 2002, II: 108)

In (5.47), the complement of *qoŋan* is the action nominal *ūŋ* 'sit', while in (5.48), it is the full-fledged clause *bū tām áksʲ aːna bānʲ dubbɛt* 'he doesn't do anything'.

It is important to mention that Werner (2002, II: 108) also lists a finite verb that has *qoŋan* in the incorporant position (P7), see the examples below.[75]

(5.49) *bū ūŋ daqɔŋandaʁan*

bū	ūŋ	da^{8}-qoŋan^{7}-d^{5}-a^{4}-qan^{0}
3SG	sit.ANOM	3F^{8}-not.be.able^{7}-TH^{5}-NPST^{4}-become^{0}

'She cannot sit (lit. She becomes being not able to sit.)'

(Werner 2002, II: 108)

(5.50) *daèːjɛ tqɔŋandɔksʲɛtn*

da-èːje	d{u}^{8}-qoŋan^{7}-d^{5}-o^{4}-kset^{0}-n^{-1}
M.POSS-kill.ANOM	3^{8}-not.be.able^{7}-TH^{5}-PST^{4}-become^{0}-AN.PL^{-1}

'They could not kill him (lit. It became impossible for them to kill him)'

(Werner 2002, II: 108)[76]

[75] The morphemes *qan^{0}* and *(k)set^{0}* are suppletive roots with a translative meaning 'become, turn into'. The former is used with inanimate or singular animate subjects (5.45), while the latter appears when the subject is plural animate (5.46) (Vajda and Zinn 2004: 172).

[76] Werner's (2002, II: 108) translation of this sentence as being in the non-past tense (ihn töten können sie nicht 'they cannot kill him') does not seem to be correct, because the verb form *tqoŋandoksetn* is clearly in the past tense. This is indicated by the labialized form of the tense marker *-a-* in position 4, cf. also *daqtasetin* 'they get better' [du^{8}-aqt^{7}-a^{4}-set^{0}-in^{-1} 3^{8}-good^{7}-NPST^{4}-become^{0}-AN.PL^{-1}] vs. *daqtoksetin* 'they got better' [du^{8}-aqt{a}^{7}-o^{4}-kset^{0}-in^{-1} 3^{8}-good^{7}-PST^{4}-become^{0}-AN.PL^{-1}].

In both recorded examples the verb takes its complement in the form of an action nominal. Unfortunately, as in the case with the modal predicates above, these verbs were not recognized by our language consultants and only one example similar to (5.49) was found in the texts.

The next modal concept to be discussed is obligation and necessity. Ket does not have a native lexeme that would express this concept. Therefore in order to express obligation and necessity the modal predicate *náda*, a direct loan of the Russian predicate *nado* 'need', is used. Unlike other verbal loans from Russian that obligatorily get incorporated into the native verbal paradigms, the predicate *nada* remains unchanged and uninflected for any person / tense distinction. This modal predicate is used mostly with action nominal complements. Examples (5.51)-(5.52) illustrate *náda* with bare action nominals.

(5.51) *nanʲ kɛtbɛt nara*

naˀn	kedbed	nada
bread	price.make.ANOM	need

'It's necessary to buy bread.' (Belimov 1973: 18)

(5.52) *avɛŋa lɛsdiŋa ɛiŋ nara*

ab-aŋa	les-di-ŋa	ejiŋ	nada
1-DAT	forest-N-DAT	go.ANOM	need

'I need to go to the forest.' (Belimov 1973: 17)

The examples also show that as in Russian, if there is no overt subject argument, as in (5.51), the sentence with *náda* receives an impersonal reading. If the subject of *náda* is expressed overtly, it takes the Dative relational morpheme, as in (5.52).

In addition to bare action nominal complements, *náda* can be used with the *esaŋ* complementizer on an action nominal as illustrated in (5.53), although such examples are rather rare in our corpus.

(5.53) *abaŋa assano-ɛsaŋ nara*

ab-aŋa	assano-esaŋ	nada
1POSS-DAT	hunt.ANOM-TRANSL	need

'I have to hunt.' (Vajda 2004: 77)

Another type of complement registered with the predicate *náda* is finite clauses. Example (5.54) illustrates the complement clause with the finite verb form *tkájbuqos* 'I take it', while in example (5.55) *náda* is used with the corresponding action nominal *kases* 'take.ANOM'.

(5.54) *ɛn nadə aɣə tkajbuʁɔs*

ēn	nada	aka	d{i}^{8}-kaj^{7}-b^{3}-qos^{0}
now	need	away	1^{8}-limb^{7}-3N-take^{0}

'Now it's necessary to take it away (lit. Now it's necessary, I will take it away).'

(Belimov 1973: 19)

(5.55) *sújat kásɛsʲ náda*

sujad	kases	nada
dress	take.ANOM	need

'It's necessary to buy (lit. take) the dress.'

Table 5.1 summarizes the information on the modal CTPs and the complement types they take.

PREDICATE	COMPLEMENT TYPE						
	lexical union[77]	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
it^{7}-[l^{2}]-am^{0} 'can, know'		+					
da^{5}-t^{5}-[n^{2}]-bet^{0} 'can, understand'		+					
itej 'can'		+				+	
hitej 'be possible'		+					
qoŋan 'not to be able'		+				+	
nada 'be necessary'		+	+			+	

Table 5.1. Modal predicates

[77] Note that, as we have already stated above, LU is not a complement type. It is included in the table for the sake of the further analysis.

5.3.2 Phasal predicates

Phasal predicates (such as *begin, start, continue, finish,* etc.) refer to the phase of an act or state: its inception, continuation, or termination (Noonan 2007: 139). In Ket there are no predicates expressing continuation, only those of inception and termination are attested.

The concept of inception is expressed in Ket by means of causatives (mostly for transitive actions) or by inchoative "roots" (*-qan~qon*^{0}*, -saŋ*^{0}) (mostly for intransitive actions):

(5.56) *dalɔŋalqimna*

da^{8}-loŋal^{7}-q^{5}-b^{3}-n^{2}-a^{0}

3SG.F^{8}-examine.ANOM^{7}-CAUS^{5}-3N^{3}-PST^{2}-MOM.TR^{0}

'She began examining it.'

(5.57) *ilkuɣaʁan*

il^{7}-ku^{6}-k^{5}-a^{4}-qan^{0}

sing^{7}-2SG^{6}-TH^{5}-NPST^{4}-INCH.NPST^{0}

'You start singing.' (Vajda and Zinn 2004: 176)

(5.58) *qɔ:vinsaŋ*

qo^{7}-b^{3}-in^{2}-saŋ^{0}

die^{7}-3N^{3}-PST^{2}-INCH^{0}

'It started to die.' (Vajda and Zinn 2004: 190)

Example (5.56) illustrates a transitive verb with the marker *q*^{5} which is traditionally regarded as a causative marker (cf. Section 2.2.8.3.1). The verb conveys the inchoative meaning of 'begin Ving X'. The other two examples illustrate inchoatives of intransitive verbs formed with the help of the special roots *-qan~qon*^{0} in (5.57) and *-saŋ*^{0} in (5.58).

As we can see, these examples represent the case of lexical union, since in each of the examples the meaning of the complement taking predicate is conveyed by a morpheme on the verb.

Unlike inception, the concept of termination of an event is expressed in Ket by means of a separate CTP – the verb *bin*^{7}*-[n*^{2}*]-qut*^{0} 'finish, stop'. This verb is used only with

action nominals and conveys the meaning 'X stops Ving (Y)'. The only noun that can be used with *bin^{7}-[n^{2}]-qut^{0}* is *ū* 'strength', the whole construction conveying the meaning 'X is tired':

(5.59) *bur^{j}a ū binut*

bu-da	ū	b{in^{7}-b^{3}}-in^{2}-{q}ut^{0}
3SG-M.POSS	strength	self^{7}-3N^{3}-PST^{2}-finish^{0}

'He is tired (lit. His strength finished).'

Examples (5.60) and (5.61) illustrate complement constructions with the predicate *bin^{7}-[n^{2}]-qut^{0}*.

(5.60) *bur^{j}a kʌ^{ʔ}j binut*

bu-da	kə^{ʔ}j	b{in^{7}-b^{3}}-in^{2}-{q}ut^{0}
3SG-M.POSS	walk.ANOM	self^{7}-3N^{3}-PST^{2}-finish^{0}

'He stopped walking (lit. His walking finished).'

(5.61) *dɛŋna tāp tàr^{j} binut*

deŋ-na	tāb	tàd	b{in^{7}-b^{3}}-in^{2}-{q}ut^{0}
people-AN.PL.POSS	dog.PL	hit.ANOM	self^{7}-3N^{3}-PST^{2}-finish^{0}

'People stopped beating their dogs' or 'The beating of the people's dogs finished.'

As we can see, both the noun phrase in (5.59) and the action nominal complements in (5.60) and (5.61) trigger the verb internal agreement (the inanimate marker *-b-* in P3) on the main predicate. Therefore the complement clauses can be considered as the subjects of the given CTP. Other complement types are not possible with this predicate.

Table 5.2 summarizes the information about phasal predicates in Ket.

PREDICATE	COMPLEMENT TYPE						
	lexical union	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
q^{5}/qan~qon^{0}/ saŋ^{0} 'start, begin'	+						
bin^{7}-[n^{2}]-qut^{0} 'finish, stop'		+					

Table 5.2. Phasal predicates

5.3.3 Manipulative predicates

Manipulative predicates express a relation between an agent or a situation which functions as a cause, an affectee, and a resulting situation. There are two kind of manipulatives: a) expressing causation (such as *make, force*, etc.) and b) expressing request (such as *order, ask,* etc.) (Noonan 2007: 136).

The first type, causation, as we already stated in Section 2.2.8.3.1 above, can be expressed in Ket either morphologically (5.62) or analytically (5.63).

(5.62) *danánbɛtqirit*

da^{8}-nanbed^{7}-q^{5}-(i)-di^{1}-t^{0}

3F^{8}-bread.make.ANOM^{7}-CAUS^{5}-1SG^{1}-MOM.TR^{0}

'She makes me bake bread.'

(5.63) *būŋ kɛˀt élʲtij dɛraʁajdan*

bū-ŋ	keˀt	eltij	d{u}^{8}-eda^{7}-q^{5}-a^{4}-t^{0}-in^{-1}
3-PL	person	berries.pick.ANOM	3^{8}-send^{7}-CAUS^{5}-3M^{4}-MOM.TR^{0}-AN.PL^{-1}

'They make the man pick berries.'

In (5.63), the noun *keˀd* is semantically both the object of the main predicate *eda^{7}-q^{5}-a^{4}-[l^{2}]-da^{0}* 'send, cause' (note, it is marked verb-internally) and the subject of the complement clause *eltij* 'pick berries'. Example (5.64) shows that such a noun phrase can in principle be omitted from the complement construction without causing any change, i.e. the object of the CTP will be interpreted as the subject of the complement clause.

(5.64) *bísʲɛp ísqɔ dɛ́raqadda*

biseb	isqo	d{u}^{8}-eda^{7}-q^{5}-a^{4}-d{i}^{1}-da^{0}
sibling	fish.ANOM	3^{8}-send^{7}-CAUS^{5}-NPST^{4}-1SG^{1}-ITER.TR^{0}

'Brother makes me fish.'

As we can see in (5.63)-(5.64), the predicate *eda^{7}-q^{5}-a^{4}-[l^{2}]-da^{0}*[78] takes its complement as a bare action nominal. It is also possible to find examples in which the

[78] Please note that this is the iterative form of this causative verb. There is also the momentaneous counterpart *eda^{7}-q^{5}-[n^{2}]-t~a^{0}* (*deraqajit* 'I send him'). In what follows, only the iterative form will be cited as CTP, since these two forms are identical, both lexically and syntactically.

action nominal is marked with *esaŋ* as in (5.65). Finite complements are not attested with this CTP.

(5.65) *bísʲɛp ílʲ-ɛsʲaŋ árʲa éraqadda*

biseb	iˀl-esaŋ	ād	da^{8}-eda^{7}-q^{5}-a^{4}-d{i}^{1}-da^{0}
sibling	sing.ANOM-TRANSL	1SG	3F^{8}-send^{7}-CAUS^{5}-NPST^{4}-1SG^{1}-ITER.TR^{0}

‘Sister makes me sing.’

The concept of request in Ket is conveyed by means of verbs of speaking. They are *t^{5}-a^{4}-[n^{2}]-kij^{0}* ‘tell’ (5.66), *t^{5}-b^{3}-[l^{2}]-a^{0}* ‘ask’ (5.67) and *t^{5}-b^{3}-[l^{2}]-ij^{0}* ‘ask’ (5.68).

(5.66) *at tɔvingij iːsʲ ʌːnisʲaŋ*

ād	{di}^{8}-t^{5}-o^{4}-b^{3}-n^{2}-kij^{0}	īs	ən-esaŋ
1SG	1^{8}-TH^{5}-PST^{4}-3N^{3}-PST^{2}-tell^{0}	fish	boil.ANOM-TRANSL

‘I told (someone) to cook fish.’ (Belimov 1973: 54)

(5.67) *hɨp daōp suːlʲbɛrʲɛsaŋ datpilʲa*

hɨˀb	da-ōb	suːlbed-esaŋ	d{u}^{8}-a^{6}-t^{5}-b^{3}-l^{2}-a^{0}
son	M.POSS-father	sled.make.ANOM-TRANSL	3^{8}-3M^{8}-TH^{6}-TH^{3}-PST^{2}-ask^{0}

‘The son asked his father to make sleds.’ (Zinn 2006)

(5.68) *dɨlʲ anʲaŋ huˀnʲ bɛrʲɛsaŋ dativij*

dɨˀl	aniŋ	huˀn	bèd-esaŋ	da^{8}-t^{5}-(i)-b^{3}-ij^{0}
child	play.ANOM	daughter	make.ANOM-TRANSL	3F^{8}-TH^{5}-3N^{3}-ask^{0}

‘The girl$_{j}$ asks (for permission) that she$_{j}$ make a doll.’ (Zinn 2006)

As can be seen from the examples, these CTPs take complements in the form of an action nominal with *esaŋ*. However, in the case of the predicate *t^{5}-b^{3}-[l^{2}]-ij^{0}* ‘ask’, it is also possible to find examples with an *esaŋ*-marked finite clause as a complement (5.69).

(5.69) *dɨlʲ dativij anʲaŋ huˀnʲ duːbbɛtinɛsaŋ*

dīl	da^{8}-t^{5}-(i)-b^{3}-ij^{0}	aniŋ	huˀn	du^{8}-b^{3}-bed^{0}-in^{-1}-esaŋ
child	3F^{8}-TH^{5}-3N^{3}-ask^{0}	play.ANOM	daughter	3^{8}-3N^{3}-make^{0}-AN.PL^{-1}-TRANSL

‘The girl asks so that they make a doll.’ (Zinn 2006)

The manipulative predicates in Ket are summarized in Table 5.3.

PREDICATE	COMPLEMENT TYPE						
	lexical union	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
q^{5} 'cause'	+						
eda^{7}-*q*^{5}-*a*^{4}-*[l*^{2}*]*-*da*^{0} 'send, cause'		+					
t^{5}-*kij*^{0} 'tell'			+				
t^{5}-*a*^{0} 'ask'			+				
t^{5}-*ij*^{0} 'ask'			+			+	

Table 5.3. Manipulative predicates

5.3.4 Desiderative predicates

Desiderative predicates (such as *want, wish, desire,* etc.) are characterized by having experiencer subjects expressing a desire that the complement proposition be realized (Noonan 2007: 132). Noonan divides them into three semantic classes – the *hope*-class, the *wish*-class and the *want*-class. All the desiderative predicates found in Ket correspond to the last class – Ket has no (known) predicates corresponding to the first two classes – which consists of verbs expressing a desire that a state or event may be realized (Noonan 1985: 133). In Ket these are the following predicates: *[n*^{2}*]*-*tus*^{0} 'intend, want', *t*^{5}-*a*^{4}-*[l*^{2}*]*-*baq*^{0} 'intend, want', *qoˀj* 'wish' and its negative counterpart *bən*^{7}-*qoj*^{0} 'not wish'.

The verbs *[n*^{2}*]*-*tus*^{0} and *t*^{5}-*a*^{4}-*[l*^{2}*]*-*baq*^{0} seem to be dialect specific, since the first is found only in Southern Ket examples in texts, while the second – mostly in Central Ket examples (cf. Belimov 1973: 23). Our language consultants from Kellog (i.e. Southern Ket speakers) could not recognize the verb *t*^{5}-*a*^{4}-*[l*^{2}*]*-*baq*^{0} too. The use of the predicate *qoˀj* and its negative variant can be found in all the Ket dialects.

The verb *[n*^{2}*]*-*tus*^{0} is used to express intention rather than desire. As CTP, it usually takes complements in the form of action nominal with *esaŋ*, as in (5.70).

(5.70) *bu usqat-ɛsʲaŋ dujɔtɔsʲ*

bū	usqat-esaŋ	du^{8}-o^{1}-tus^{0}
3SG	get.warm.ANOM-TRANSL	3^{8}-3SG.SS^{1}-intend^{0}

‘He wants to get warm.’ (Belimov 1973: 23)

Another type of complements that can be found with this predicate is a finite verb marked with *esaŋ*.

(5.71) *at dijɣɛt-ɛsʲaŋ dittɔsʲ*

ād	di^{8}-it^{0}-esaŋ	di^{8}-d{i}^{1}-tus^{0}
1SG	1^{8}-sneeze^{0}-TRANSL	1^{8}-1SG.SS^{1}-intend^{0}

‘I want to sneeze.’ (Belimov 1973: 24)

(5.72) *bu at labɔtɔkŋ-ɛsʲaŋ dujɔtɔsʲ*

bū	ād	{du^{8}}-lab^{7}-bo^{6}-t^{5}-oqŋ^{0}-esaŋ	du^{8}-(j)-o^{1}-tus^{0}	
3SG	1SG	3^{8}-piece^{7}-1SG^{6}-TH^{5}-bite^{0}-TRANSL	3^{8}-3SG.SS^{1}-intend^{0}	

‘He wants to bite me.’ (Belimov 1973: 24)

As we can see, the complement clauses in (5.71)-(5.72) contain fully finite verbs. This type of complements is less frequent with this verb than action nominals with *esaŋ*.

Examples (5.73)-(5.74) illustrate that this CTP allows its complements to have a non-coreferential subject.

(5.73) *āt dɛ́ŋna úsqat-ɛsʲaŋ díttusʲ*

ād	deˀŋ-na	usqat-esaŋ	di^{8}-d{i}^{1}-tus^{0}
1SG	people-AN.PL.POSS	get.warm.ANOM-TRANSL	1^{8}-1SG.SS^{1}-intend^{0}

‘I want people to get warm.’

(5.74) *bū étn dáŋsɛj-ɛsaŋ āt díttusʲ*

bū	ed-n	d{u}^{8}-aŋ^{6}-s^{4}-ej^{0}-esaŋ	ād	di^{8}-d{i}^{1}-tus^{0}	
3SG	polar.fox-PL	3^{8}-3AN.PL^{6}-NPST^{4}-kill^{0}-TRANSL	1SG	1^{8}-1SG.SS^{1}-intend^{0}	

‘I want him to kill polar foxes.’

As we can see, if the subject of the action nominal complement is not identical to the subject of the main clause, it is marked as a possessor (5.73). In the case of the S-like complement, the non-equi subject is signaled by the corresponding marking

on the verb in the complement clause as well as by the overt presence of the corresponding personal pronoun, as in (5.74).

The Central Ket verb *t^{5}-a^{4}-[l^{2}]-baq^{0}* 'intend, want' behaves in many ways similar to its Southern Ket synonym. As CTP, it most frequently takes action nominal with *esaŋ* complements (5.75), while finite clauses with *esaŋ*, although possible, are quite rare, exemplified in (5.76).

(5.75) *at iš^{j} tʌlqit-ešaŋ ditɛbʌq*

ād	īs	təlqat-esaŋ	di^{8}-t^{5}-a^{4}-baq^{0}
1SG	fish	freeze.ANOM-TRANSL	1^{8}-TH^{5}-NPST^{4}-intend^{0}

'I want to freeze fish.' (Belimov 1973: 23)

(5.76) *at š^{j}ɛl^{j} qɔptɔkš^{j}ɛbɛt-ɛš^{j}aŋ ditɛbʌq*

ād	sèl	{di^{8}}-qopt^{7}-o^{6}-k^{5}-s^{4}-bed^{0}-esaŋ	di^{8}-t^{5}-a^{4}-baq^{0}
1SG	reindeer	1^{8}-geld^{7}-3SG.M^{6}-TH^{5}-NPST^{4}-make^{0}-TRANSL	1^{8}-TH^{5}-NPST^{4}-intend^{0}

'I want to geld a reindeer.' (Belimov 1973: 39)

We could not find any examples of these two CTPs using bare action nominal complements or paratactic S-like complements (i.e without the marker *esaŋ*).

The most frequent way to express desire in Ket is by using the predicate *qoˀj* 'wish'. As CTP, *qoˀj* can be found with different types of complements illustrated in (5.75)-(5.78) below.

(5.75) *dɨl^{j} kʌj-ɛs^{j}aŋ da-qɔj*

dīl	kəj-esaŋ	da-qoˀj
child	walk.ANOM-TRANSL	M.POSS-wish

'The child wants to walk.' (Belimov 1973: 23)

(5.76) *at u uspɛraŋ-ɛs^{j}aŋ vqoj*

ād	ū	usbedaŋ-esaŋ	b-qoˀj
1SG	2SG	kiss.ANOM-TRANSL	1SG.POSS-wish

'I want to kiss you.' (Belimov 1973: 23)

(5.77) *āt ɔ̀nʲ ulʲdɔ pqɔʔj*

ād	ɔ̀n	uldo	b-qoʔj
1SG	many	water.drink.ANOM	1SG.POSS-wish

'I want to drink water a lot.'

(5.78) *āt arʲɛndiŋa bɔɣɔtn-ɛsaŋ pqɔʔj*

ād	aden-di-ŋa	bo^{6}-k^{5}-a^{4}-den^{0}-esaŋ		b-qoʔj
1SG	forest-N-DAT	1SG^{6}-TH^{5}-NPST^{4}-go^{0}-TRANSL		1SG.POSS-wish

'I want to go to the forest.'

Examples (5.75) and (5.76) show that *qoʔj* can be used with complements in the form of the action nominal with *esaŋ*. This type of complement is the most frequent with this CTP. We were also able to elicit examples with bare action nominal complements as in (5.77), although no such examples were found in the Ket texts. The predicate *qoʔj* can also take complements in the form of S-like clauses marked with *esaŋ*, as shown in (5.78). Paratactic S-like complements with this CTP were rejected by our language consultants.

Interestingly, the subject of *qoʔj* can be expressed twice, first as a personal pronoun (it can be a noun as well) at the beginning of the sentence, then as a corresponding possessive marker on the predicate. The personal pronoun can in principle be omitted, whereas the possessive marking of *qoʔj* is obligatory. Note that this is only possible if the predicate *qoʔj* is placed after its complement, if the predicate precedes its complement only the possessive marking is retained, cf. (5.79) in which only the second variant is acceptable.

(5.79a) **āt pqɔʔj ássanɔ-ɛsʲaŋ*

ād	b-qoʔj	assano-esaŋ
1SG	1SG.POSS-wish	hunt.ANOM-TRANSL

'I want to go to hunt'

(5.79b) *āb qɔʔj ássanɔ-ɛsʲaŋ*

āb	qoʔj	assano-esaŋ
1SG.POSS	wish	hunt.ANOM-TRANSL

'I want to go to hunt'

Non-equi subjects in the complement clause are also possible with this CTP.

(5.80) *āt búŋna lɔ́vɛr-ɛsaŋ bqɔˀj*

āt	bu-ŋ-na	lobed-esaŋ	b-qoˀj
1sg	3-PL-AN.PL.POSS	work.RUS.ANOM-TRANSL	1SG.POSS-wish

'I want them to work.'

(5.81) *ú klɔ́vɛravɛt-ɛsaŋ Mašad qɔˀj*

ū	{ku}[8]-lobed[7]-a[4]-bed[0]-esaŋ	masa-d	qoˀj
2SG	2SG[8]-work.RUS.ANOM[7]-NPST[4]-ITER[0]-TRANSL	M.-3F	wish

'Masha wants you to work.' (Edward Vajda, p.c.)

The predicate *bən[7]-qoj[0]* is the negative counterpart of *qoˀj*. Historically, it seems to represents a verbalized contraction of the phrase *bān* POSS-*qoˀj* 'not someone's wish' (cf. Werner 1997: 181). Although, only the 3rd person singular forms still contain markers reminiscent of nominal possessive forms, cf. the full paradigm given below.

bən[7]-qoj[0] 'smn does not want'

*bən**ba**ʁoj*	'I do not want'	*bən**daŋ**ʁoj*	'we do not want'
*bəng**u**ʁoj*	'you do not want'	*bəng**aŋ**ʁoj*	'you.PL do not want'
*bən**da**ʁoj*	'he does not want'	*bən**aŋ**ʁoj*	'they do not want'
*bən**di**ʁoj*	'she does not want'		

As we can see, other than the markers *-da-* and *-di-* for the 3rd person masculine singular and the 3rd person feminine singular, respectively, no person agreement morphemes in the paradigm resemble the possessive nominal markers (cf. Section 2.2.1). Rather they follow a mix of two intransitive paradigms typical for *habeo*-verbs (see Section 2.2.8.2.2.5 for details). Another verbal feature is that the subject of this predicate remains in its sentential form (cf. (5.79) and (5.80) below). At the same time, unlike finite verbs, these forms do not contain any temporal marker. It should also be noted that this verb cannot be used without the negative morpheme *bən*, i.e. forms like *aŋqoj* 'they want' are ungrammatical.[79] Examples (5.82)-(5.84) illustrate the use of this predicate.

[79] Werner (2002, I: 137) provides the Yeniseian word *bogoj* 'neccessary' taken from the materials recorded by Castrén. According to Werner it might originate from *baqoj* 'my wish'.

(5.82) *úsɛn dɨlʲlʲat tásʲaŋ-ɛsʲaŋ bʌ́naŋɢɔj*

usen	dɨlkad	tasaŋ-esaŋ	bən^{7}-aŋ^{6}-qoj^{0}
sleep.ANOM	children	get.up.ANOM-TRANSL	NEG^{7}-3AN.PL^{6}-wish^{0}

‘Sleeping kids do not want to get up.’

(5.83) *āt búŋna pɔ́sɔbat bʌ́nbɔʁɔj*

ād	bu-ŋ-na	posobad	bən^{7}-bo^{6}-qoj^{0}
1SG	3-PL-AN.PL.POSS	help.RUS.ANOM	NEG^{7}-1SG^{6}-wish^{0}

‘I do not want to help them.’ Or ‘I do not want them to help.’

(5.84) *at bʌn bɔʁɔj itpɛdɛm ɛšʲaŋ*

ād	bən^{7}-bo^{6}-qoj^{0}	it^{7}-ba^{6}-d{i}^{1}-am^{0}-esaŋ
1SG	NEG^{7}-1SG^{6}-wish^{0}	know^{7}-1SG^{6}-1SG^{1}-R^{0}-TRANSL

‘I don’t want to know.’ (Belimov 1973: 39)

As in the case of *qoˀj*, this CTP prefers *esaŋ*-marked action nominals (5.82), but action nominal complements without *esaŋ* are possible as well (5.80). Note that the complement in (5.83) can also have a non-equi-subject reading. Finally, this predicate is capable of taking finite clauses with *esaŋ* as complements (5.84).

Table 5.4 summarizes the desiderative predicates in Ket.

PREDICATE	COMPLEMENT TYPE						
	lexical union	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
[n^{2}]-tus^{0} ‘intend, want’			+			+	
t^{5}-a^{4}-[l^{2}]-baq^{0} ‘intend, want’			+				
qoˀj ‘wish, want’		+	+			+	
bən^{7}-qoj^{0} ‘not wish, not want’		+	+			+	

Table 5.4. Desiderative predicates

5.3.5 Perception predicates

Perception predicates include verbs naming the sensory mode by which the subject directly perceives the event coded in the complement. Here belong predicates like *see*, *hear*, *watch*, and *feel* (Noonan 2007: 142).

There are the following perception predicates in Ket: *k*^{5}*-a*^{4}*-[l*^{2}*]-do*^{0} 'watch' (5.85), *t*^{5}*-a*^{4}*-[l*^{2}*]-oŋ~ok*^{0} 'see (*intr.*)' (5.86), *t*^{5}*-a*^{4}*-[l*^{2}*]-oŋ~ok*^{0} 'see (*tr.*)' (5.87) and *k*^{5}*-a*^{4}*-[l*^{2}*]-da*^{0} 'hear' (5.88). All of them favor paratactic finite clause complements, as can be seen in the examples.

(5.85) *ad daɣudɔ ab kit qutkə dɔɻətən*[80]

ād	d{i}^{8}-a^{6}-k^{5}-o^{4}-do^{0}	āb	ke^{ʔ}d	qotka	d{u}^{8}-o^{4}-l^{2}-a^{1}-tan^{0}
1SG	1^{8}-3M^{6}-TH^{5}-PST^{4}-watch^{0}	my	person	ahead	3M^{8}-PST^{4}-PST^{2}-3SS^{1}-stop^{0}

'I watched my friend stop ahead of me (lit. I watched him, my friend stopped ahead of me).'

(Ivanov et al. 1969: 217)

(5.86) *qímarʲa tɔ́luŋ āb ōp saʔq díʁɛj*

qima	da^{8}-t^{5}-o^{4}-l^{2}-oŋ^{0}	āb	ōb	saʔq	d{u}^{8}-i^{6}-q^{2}-ej^{0}
grandma	3F^{8}-TH^{5}-PST^{4}-PST^{2}-see^{0}	my	father	squirrel	3^{8}-3F^{6}-PST^{2}-kill^{0}

'Grandmother saw my father killing a squirrel.'

(5.87) *āt dátuŋ bū tsújabɛt*

ād	d{i}^{8}-a^{6}-t^{5}-oŋ^{0}	bū	d{u}^{8}-suj^{7}-a^{4}-bed^{0}
1SG	1^{8}-3M^{6}-TH^{5}-see^{0}	3SG	3^{8}-swim.ANOM^{7}-NPST^{4}-make^{0}

'I see him swimming (lit. I see him, he is swimming).'

(5.88) *Usap baːt ɔːabilʲda bɔgdɔm dɛ́ɛ́sɔlʲɛj*

usab	báàd	a^{6}-{k^{5}}-b^{3}-il^{2}-da^{0}	bokdom	da^{8}-es^{7}-o^{4}-l^{2}-ij^{0}
U.	old.man	3M^{6}-TH^{5}-3N^{3}-PST^{2}-hear^{0}	rifle	3N^{8}-cry^{7}-PST^{4}-PST^{2}-R^{0}

'The old man Usjap heard a rifle fire (lit. The old man Usjap heard it, a rifle cried).'

(Kotorova and Porotova 2001: 48)

[80] Repeated from example (5.22) above.

The intransitive predicate *t^{5}-a^{4}-[l^{2}]-oŋ~ok^{0}* can also be used with the complementizer *bila* 'how' (5.89), which, as we have already mentioned in Section 5.2.3.1.3, is a calque from Russian. Note that there is no difference with (5.86) above other than the presence of the complementizer.

(5.89) *āt tɔluŋ bila bur^{j}a til^{j}tɛrɔl^{j}bɛt*

ād	{di^{8}}-t^{5}-o^{4}-l^{2}-oŋ^{0}	bila	bū	da^{8}-tilted^{7}-o^{4}-l^{2}-bed^{0}
1SG	1^{8}-TH^{5}-PST^{4}-PST^{2}-see^{0}	how	3SG	3F^{8}-bathe.ANOM^{7}-PST^{4}-PST^{2}-ITER^{0}

'I saw her bathing.'

The summary for the perception predicates in Ket is presented in Table 5.5.

PREDICATE	COMPLEMENT TYPE						
	lexical union	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
k^{5}-a^{4}-[l^{2}]-do^{0} 'watch'					+		
k^{5}-a^{4}-[l^{2}]-do^{0} 'watch'					+		+
t^{5}-oŋ^{0} 'see (tr.)'					+		
k^{5}-da^{0} 'hear'					+		

Table 5.5. Perception predicates

5.3.6 Knowledge predicates

Knowledge predicates (such as *know, realize, forget, see, hear,* etc.) take experiencer subjects and describe the state or the manner of acquisition of knowledge (Noonan 2007: 129).

The predicate *it^{7}-[l^{2}]-am^{0}* 'know' has already been discussed in Section 5.3.1 above, since it can also be used as a modal predicate with the meaning 'can' taking complements in the form of bare action nominals. As a knowledge CTP, *it^{7}-[l^{2}]-am^{0}* is capable of taking only finite clause complements. This is illustrated in (5.90).

(5.90) *āt ítpɛrɛm tūr^{j} kɛ^{ʔ}t dú:nɔ*

ād	it^{7}-ba^{6}-d{i}^{1}-am^{0}	tū-d	ke^{ʔ}t	du^{8}-o^{4}-n^{2}-{q}o^{0}
1SG	know^{7}-1SG^{6}-1SG^{1}-R^{0}	that-M	person	3^{8}-PST^{4}-PST^{2}-die^{0}

'I know/knew that the man died (lit. I know, the man died).'

The predicates *sit*^{7}*-a*^{4}*-[n*^{2}*]-a*^{0} (5.91) and *in*^{7}*-k*^{5}*-a*^{4}*-b*^{3}*-[l*^{2}*]-da*^{0} (5.92), both having the meaning of 'guess', take only finite clauses as well:

(5.91) *qima sitditna ōp saˀq diʁɛj*

qima	sit^{7}-dit^{4}-n^{2}-a^{0}	ōb	saˀq	d{u}^{8}-i^{6}-q^{2}-ej^{0}
grandma	guess^{7}-3F^{4}-PST^{2}-R^{0}	father	squirrel	3M^{8}-3F^{6}-PST^{2}-kill^{0}

'Grandmother guessed that father had killed a squirrel.'

(5.92) *Ulgɛrɛŋda bisʲap ɨnkavra qɨmdilʲ tam bilʲa sɛlʲda aniŋilʲvit*

ulgereŋ-da	biseb	ɨn^{7}-k^{5}-a^{4}-b^{3}-da^{0}	qim-dɨl
whirlwind-3M	sibling	guess^{7}-TH^{5}-NPST^{4}-3N^{3}-R^{0}	female-child
tām-bila	sèl	da^{8}-aneŋ^{7}-l^{2}-bed^{0}	
somehow	bad	3F^{8}-thought^{7}-PST^{2}-make^{0}	

'Whirlwind's sister guesses that the girl has planned something bad.'

(Kostjakov 1981: 74)

Unlike the above mentioned perception predicates, the predicate *en*^{7}*-[n*^{2}*]-suk~soŋ*^{0} 'forget' can take action nominal complements with *bila* (5.93), although finite clauses marked with the same complemtizer are possible as well (5.94).

(5.93) *sīnʲ báàm ɛnʲdirʲunʲsʲɔŋ bilʲa kʌˀjˀ*[81]

sīn	báàm	en^{7}-did^{4}-n^{2}-soŋ^{0}	bila	kəˀj
decrepit	old.woman	R^{7}-3F^{4}-PST^{2}-forget^{0}	how	walk.ANOM

'The decrepit old woman forgot how to walk.'

(Kotorova and Nefedov, forthcoming)

(5.94) *báàm ɛnʲdirʲunʲsʲɔŋ bilʲa āt dijavɛt*

báàm	en^{7}-did^{4}-n^{2}-soŋ^{0}	bila	ād	di^{8}-a^{1}-bed^{0}
old.woman	R^{7}-3F^{4}-PST^{2}-forget^{0}	how	1SG	1^{8}-RES^{1}-make^{0}

'The old woman forgot what I look like (lit. how I am made).'

Indirect questions with these predicates are formed either with the help of the question particle *(bənd) ū* (5.95) or an interrogative adverb (5.96) or pronoun (5.97).

[81] Repeated from example (5.27) above.

(5.95) *ū ítʲum ōb ū díksivɛsʲ?*

ū	it^{7}-ku^{6}-am^{0}	ōb	ū	d{u}^{8}-ik^{7}-s^{4}-bes^{0}
2SG	know^{7}-2SG^{6}-R^{0}	father	QUEST	3^{8}-here^{7}-NPST^{4}-move^{0}

'Do you know whether the father is coming?'

(5.96) *ād ítparʲam bisʲéŋ bū dúɣɔraq*

ād	it^{7}-ba^{6}-d{i}^{1}-am^{0}	biséŋ	bū	du^{8}-a^{4}-daq^{0}
1SG	know^{7}-1SG^{6}-1SG.SS^{1}-R^{0}	where	3SG	3^{8}-NPST^{4}-live^{0}

'I know where he lives.'

(5.97) *ād ítparʲam bítsʲɛ túrʲɛ dbílʲbɛt*

ād	it^{7}-ba^{6}-d{i}^{1}-am^{0}	bitse	tu-de	d{u}^{8}-b^{3}-l^{2}-bed^{0}
1SG	know^{7}-1SG^{6}-1SG.SS^{1}-R^{0}	who.M	this-N	3^{8}-3N^{3}-PST^{4}-make^{0}

'I know who did it.'

The Ket knowledge predicates are summarized in Table 5.6.

PREDICATE	COMPLEMENT TYPE						
	lexical union	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
it^{7}-[l^{2}]-am^{0} 'know'					+		
sit^{7}-a^{4}-[n^{2}]-a^{0} 'guess'					+		
ɨn^{7}-k^{5}-a^{4}-b^{3}-[l^{2}]-da^{0} 'guess'					+		
en^{7}-[n^{2}]-suk~soŋ^{0} 'forget'				+			+

Table 5.6. Knowledge predicates

5.3.7 Propositional attitude predicates

Propositional attitude predicates express the speaker's attitude or evalution towards the propositional content of the complement clause. It can be either positive (for example, *believe, think, suppose, assume,* etc.), or negative (like *not believe, doubt, deny,* etc.) (Noonan 2007: 124). In Ket there is only one propositional attitude

predicate attested, *an(eŋ)*^{7}*-[s*^{4}*]-[l*^{2}*]-bed~ked*^{0} ‘think (*intr.*)’[82] (5.98), which belongs to the positive type.

(5.98) *qimar*^{i}*a anlibɛt āb ōp ar*^{i}*ɛndiŋa ɔɣɔt*

qima	da^{8}-an^{7}-l^{2}-bed^{0}	āb	ōb	aden-di-ŋa	o^{6}-k^{5}-o^{4}-d{en}^{0}
grandma	3F^{8}-think.ANOM^{7}-PST^{2}-ITER^{0}	1SG.POSS	father	forest-N-DAT	3M^{6}-TH^{5}-NPST^{4}-go^{0}

‘Grandmother thought that my father would go to the forest.’

As can be seen from the example, this CTP takes a finite clause complement. No other complement types are attested.

PREDICATE	COMPLEMENT TYPE						
	lexical union	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
an(eŋ)^{7}*-[s*^{4}*]-[l*^{2}*]-bed~ket*^{0} ‘think (*intr.*)				+	+		

Table 5.7. Propositional attitude predicate

5.3.8 Utterance predicates

Utterance predicates (such as *say, tell, ask,* etc.) describe a transfer of information initiated by an agentive subject towards an addressee. The addressee may be implicit or overtly expressed (Noonan 2007: 121). Utterance predicates may be used both in indirect and direct speech, although it is not relevant for Ket, since there is no special marking (apart from intonation) to differentiate between direct and indirect speech in the language (cf. Werner 1997: 369; see (5.95) below).

The following utterance predicates can be found in Ket: *t*^{5}*-a*^{4}*-[n*^{2}*]-kij*^{0} ‘say, tell’ in (5.99), *t*^{5}*-b*^{3}*-[l*^{2}*]-ij*^{0} ‘ask’ in (5.100), and *b/a*^{3}*-[n*^{2}*]-d/a*^{0} ‘say’[83] in (5.101) and (5.102). These predicates take only paratactic finite clause complements as can be seen below.

[82] Werner (2002, I: 38) lists a few other verbs formed with the help of the same action nominal *an(eŋ)*: *anbedeŋ*^{7}*-a*^{4}*-[l*^{2}*]-bed~ked*^{0} ‘think (intr.)’ *aneŋbed*^{7}*-a*^{4}*-[l*^{2}*]-bed~ked*^{0} ‘think (intr.)’, but our language consultants did not recognize them. Also note that the transitive verb *aneŋ*^{7}*-k*^{5}*-[s*^{4}*]-[l*^{2}*]-bed~ked*^{0} ‘think about’ has not been not attested with any complement type.

[83] This is one of the irregular verbs we mentioned in Section 2.2.8.2.2.6 that is hard to analyze at the synchronic level, therefore we do not parse it into positions in our glossing.

(5.99) *dɛŋnaŋa tɔ́vingij ʌtta keˀt qɔ̀j duldɔq*

deŋ-na-ŋa	{du^{8}}-t^{5}-o^{4}-b^{3}-n^{2}-ki^{0}	ətta	keˀd	qòj	d{u}^{8}-o^{6}-l^{2}-doq^{0}
people-AN.PL-DAT	{3^{8}}-TH^{5}-PST^{4}-3N^{3}-PST^{2}-say^{0}	1PL.POSS	person	bear	3^{8}-3M^{6}-PST^{2}-eat^{0}

'He said to the people: A bear ate our man.'

(5.100) *bū tɔ́vingi aváŋa keˀt dímɛsʲ*

bū	{du^{8}}-t^{5}-o^{4}-b^{3}-n^{2}-kij^{0}	ab-aŋa	keˀd	d{u}^{8}-i{k}^{7}-n^{2}-bes^{0}
3SG	{3^{8}}-TH^{5}-PST^{4}-3N^{3}-PST^{2}-say^{0}	1SG.POSS-DAT	person	3^{8}-here^{7}-PST^{2}-move^{0}

'He said to me (that) the man came.' or 'He said to me: The man came.'

(5.101) *bu diŋa bada utɛsʲ kisʲaŋ ab deˀŋ duɣin*

bū	di-ŋa	bada	utes	kiséŋ	āb	deˀŋ	du^{8}-k^{5}-{daq}^{0}-in^{-1}
3SG	F-DAT	he.says/said	near	here	1SG.POSS	people	3^{8}-TH^{5}-live^{0}-AN.PL^{-1}

'He said to her: My people live near here.' (Belimov 81:67, 23)

(5.102) *bu manʲa bu daiksʲivɛsʲ*

bū	mana	bū	da^{8}-ik^{7}-s^{4}-bes^{0}
3SG	she.says/said	3SG	3F^{8}-here^{7}-NPST^{4}-move^{0}

'She$_j$ said/says she$_j$ would/will come.' / 'She$_j$ said/says: She$_i$ will come.'

(Werner 1997: 369)

The Ket utterance predicates are summarized in Table 5.8.

PREDICATE	COMPLEMENT TYPE						
	lexical union	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
t^{5}-a^{4}-[n^{2}]-kij^{0} 'say, tell'					+		
t^{5}-b^{3}-[l^{2}]-ij^{0} 'ask'					+		
b/a^{3}-[n^{2}]-d/a^{0} 'say'					+		

Table 5.8. Utterance predicates

5.3.9 Commentative predicates

Commentative predicates (or 'factives' in more traditional terms) provide a comment on the complement proposition in the form of an emotional reaction or evaluation (*regret*, *be sorry*, *be sad*, etc.) or a judgement (*be odd*, *be significant*, *be important*, etc.) (Noonan 2007: 127).

In Ket, this class of CTPs is filled only with adjectives, which is common cross-linguistically (cf. Noonan 2007: 129). The adjectives used as commentative predicates are marked with the inanimate predicative marker *-am*. They take complements in the form of bare action nominals.

(5.103) *abɨŋa ísʲqɔ áqtam*

ab-iŋa	isqo	aqta-{a}m
1SG.POSS-DAT	fish.ANOM	good-N.PRED

'I like fishing (lit. Fishing is good to me).'

(5.104) *búrʲa sʲálʲdɔ sélʲam*

bu-da	saldo	sel-am
3-M.POSS	smoke.ANOM	bad-N.PRED

'His smoking is bad.'

(5.105) *tūrʲ kérʲaŋa sʲúːlʲd tāŋ sʲʌ́ɣam*

tū-d	keˀd-da-ŋa	súùl-d	tāŋ	səː-am
this-M	person-M.POSS-DAT	sled-N.POSS	carry.ANOM	heavy-N.PRED

'It is difficult for this man to carry the sled.'

When the subject of the action nominal is present, it is expressed as a possessor, cf. (5.103) and (5.104). The overt subject of the main clause is expressed as an experiencer marked by the Dative relational morpheme, as in (5.103) and (5.105).

Table 5.9 presents a summary of the commentative predicates in Ket.

PREDICATE	COMPLEMENT TYPE						
	lexical union	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
aqtam 'it is good'		+					
selam 'it is bad'		+					
səkam 'it is difficult'		+					

Table 5.9. Commentative predicates

5.3.10 Achievement predicates

Achievement predicates can be divided into two general classes: positive and negative achievements. Positive achievement predicates (for example, *manage*, *chance*, *remember to*, *happen to*, etc.) refer to the manner or realization of achievement, whereas negative achievement predicates (*try*, *forget to*, *fail*, etc.) refer to the manner or reason for the lack of achievement in the complement predication (Noonan 2007: 139).

The only achievement predicate attested in Ket belongs to the negative class. It is the predicate *en^{7}-[n^{2}]-suk~soŋ^{0}* 'forget'. This predicate can take action nominal complements, as exemplified in (5.106).

(5.106) *āt ɛnbansuk nʲaˀnʲ dɛstij*

ād	en^{7}-ba^{6}-n^{2}-suk^{0}	naˀn	d-estij
1SG	R^{7}-1SG^{6}-PST^{2}-forget^{0}	bread	N.POSS-stir.ANOM

'I forgot to stir the dough (lit. I forgot the dough's stirring).'

No other complement types have been attested with this CTP in Ket.

PREDICATE	COMPLEMENT TYPE						
	lexical union	action nominal			S-like clause		
		bare ANOM	*esaŋ*	*bila*	paratactic	*esaŋ*	*bila*
en^{7}-[n^{2}]-suk~soŋ^{0} 'forget'		+					

Table 5.10. Achievement predicates

5.4 Summary of Chapter 5

In the present chapter we provided an overview of complement constructions in Ket. We surveyed them from the structural and semantic point of view. From the structural point of view, we distinguished several complement types in Ket. They are the S-like clause type and action nominal type. Each of them can be further subdivided into three subtypes: unmarked and marked with the subordinators *esaŋ* and *bila*. The morphosyntactic properties of these types are summarized in Table 5.11 below.

	COMPLEMENT TYPES IN KET					
	action nominal complement			**S-like complement**		
	bare ANOM	***esaŋ***	***bila***	**paratactic**	***esaŋ***	***bila***
verb form	non-finite	non-finite	non-finite	finite	finite	finite
TAM distinction	–	–	–	+	+	+
Person agreement distinction: SBJ	– verb-internal	– verb-internal	– verb-internal	+ verb internal	+ verb internal	+ verb internal
Person agreement distinction: OBJ	– verb-internal	– verb-internal	– verb-internal	+ verb internal	+ verb internal	+ verb internal
Case marking / adpositions	–	+	–	–	+	–
Argument coding: SBJ	not expr-d / POSS / NOM	not expr-d / POSS / NOM	not expr-d	not expr-d / NOM	not expr-d / NOM	not expr-d / NOM
Argument coding: OBJ	NOM / POSS	NOM / POSS	NOM / POSS	NOM	NOM	NOM

Table 5.11. Properties of complement types in Ket

As we can see, action nominal types show almost no inflectional completeness ("deranked" in Cristofaro's (2003) terms), while the types with finite verbs remain fully inflected ("balanced" in Cristofaro's (2003) terms).

From the semantic point of view, we distinguished ten semantic classes of complement taking predicates in Ket based on Noonan (2007).

As typological studies show, there is a certain correlation between the semantics of a complement taking predicate and the types of complements: the more semantically integrated the predicate is, the more syntactically integrated (i.e. deranked) complement it takes (Givón 1990: ch. 13). A similar idea is expressed in Cristofaro (2003). Based on correlations between the semantics of CTPs and the structural properties of complement types used with these predicates, Cristofaro (2003: 131) postulates the following hierarchy called the Complement Deranking-Argument Hierarchy:

MODALS, PHASALS > MANIPULATIVES ('MAKE', 'ORDER'), DESIDERATIVES > PERCEPTION > KNOWLEDGE, PROPOSITIONAL ATTITUDE, UTTERANCE

The hierarchy reads as follows: the most semantically integrated (and hence taking the most deranked complements) classes of CTPs are to the left, while the further to the right, the less semantically integrated the predicates become.

Table 5.10 provides an account of this correlation in Ket.

Complement type	CTP semantic class	Ket CTP predicates
Lexical union	Phasal	*-q^{5}- / -qan~qon^{0}/ -saŋ^{0}* 'start, begin'
	Manipulative	*-q^{5}-* 'cause'
Action nominal	Phasal	*bin^{7}-[n^{2}]-qut^{0}* 'finish, stop'
	Modal	*it^{7}-[l^{2}]-am^{0}* 'can, know how' *da^{8}-t^{5}-[n^{2}]-bet^{0}* 'can, understand' *itej* 'can' *hitej* 'be possible' *qoŋan* 'not to be able' *nada* 'be necessary'
	Manipulative	*eda^{7}-q^{5}-a^{4}-[l^{2}]-da^{0}* 'send, cause' *t^{5}-a^{4}-[n^{2}]-kij^{0}* 'say, tell' *t^{5}-b^{3}-[l^{2}]-a^{0}* 'ask' *t^{5}-b^{3}-[l^{2}]-ij^{0}* 'ask'
	Desiderative	*qoʔj* 'wish, want' *bən^{7}-qoj^{0}* 'not wish, not want'
	Commentative	*aqtam* 'it is good' *selam* 'it is bad' *səkam* 'it is difficult'
	Achievement	*en^{7}-[n^{2}]-suk~soŋ^{0}* 'forget'
Action nominal +*bila*	Knowledge	*en^{7}-[n^{2}]- suk~soŋ^{0}* 'forget'
Action nominal +*esaŋ*	Modal	*nada* 'be necessary'
	Manipulative	*t^{5}-a^{4}-[n^{2}]-kij^{0}* 'say, tell' *t^{5}-b^{3}-[l^{2}]-a^{0}* 'ask' *t^{5}-b^{3}-[l^{2}]-ij^{0}* 'ask'
	Desiderative	*tus^{0}* 'intend, want' *t^{5}-baq^{0}* 'intend, want' *qoʔj* 'wish, want' *bən^{7}-qoj^{0}* 'not wish, not want'

Finite clause + *esaŋ*	Manipulative	*t*^{5}-*ij*^{0} ‘ask’
	Desiderative	*tus*^{0} ‘want, intend’ *qo*^{2}*j* ‘wish, want’ *bən*^{7}-*qoj*^{0} ‘not wish, not want’
Finite clause + *bila*	Perception	*t*^{5}-*oŋ*^{0} ‘see (intr.)’
	Knowledge	*en*^{7}-*[n*^{2}*]-suk~soŋ*^{0} ‘forget’
Finite clause	Modal	*itej* ‘can’ *qoŋan* ‘not to be able’ *nada* ‘be necessary’
	Perception	*k*^{5}-*do*^{0} ‘watch’ *t*^{5}-*oŋ*^{0} ‘see (intr.)’ *t*^{5}-*oŋ*^{0} ‘see (tr.)’ *k*^{5}-*da*^{0} ‘hear’
	Knowledge	*it*^{7}-*[l*^{2}*]-am*^{0} ‘know’ *sit*^{7}-*a*^{4}-*[n*^{2}*]-a*^{0} ‘guess’ *in*^{7}-*k*^{5}-*a*^{4}-*b*^{3}-*[l*^{2}*]-da*^{0} ‘guess’
	Propositional attitude	*an(eŋ)*^{7}-*[s*^{4}*]-[l*^{2}*]-bed~ket*^{0} ‘think (intr.)’
	Utterance	*t*^{5}-*a*^{4}-*[n*^{2}*]-kij*^{0} ‘tell’ *b/a*^{3}-*[n*^{2}*]-d/a*^{0} ‘say’

Table 5.12. Complement types and semantic classes of CTP in Ket

The table shows that Ket in general conforms to the hierarchy proposed by Cristofaro. We can see that the most semantically integrated CTPs, phasals and modals, take the most deranked complement types, while the predicates not involving semantic integration (knowledge, propositional attitude, and utterance predicates) take the balanced complement types. At the same time the table shows there are two unexpected deviations from the hierarchy. First of all, it concerns the modal predicates *itej* ‘can’, *qoŋan* ‘not to be able’, *nada* ‘be necessary’ which are capable of taking finite clauses as their complements (in addition to the deranked type), which also places them with the predicates without semantic integration. The second deviation is the knowledge predicate *en*^{7}-*[n*^{2}*]-suk~soŋ*^{0} ‘forget’ which takes an action nominal complement marked with the complementizer *bila*.

Chapter 6. Adverbial relations

The aim of this chapter is to describe the coding of adverbial relations in the Ket language. Unlike the types of relations discussed in the two previous chapters which are predominantly asyndetic, adverbial relations in Ket can be coded by a rather wide range of overtly marked strategies.

The chapter is organized in the following way. In section 6.1, we provide an outline of the general typology of adverbial relations. Section 6.2 describes morphosyntactic properties of adverbial subordinators in Ket. In Section 6.3, we survey various semantic types of adverbial relations in the language. Section 6.5 provides a summary and conclusions to the chapter.

6.1 Typology of adverbial relations

Similar to complement and relative relations, the traditional definition of adverbial relations is heavily based on the embedding criterion (see Chapter 3). This criterion assumes that an adverbial clause is an embedded clause functioning as an adverb to its main clause; compare the following examples.

(6.1) Russian

On priedet <zavtra>

'He will come tomorrow.'

(6.2) Russian

On priedet, <kogda nastupit utro>

'He will come, when the morning starts.'

Both *<zavtra>* and *<kogda nastupit utro>* in the examples, as well as their English counterparts, function as time adverbials to the verb *priexat'* 'come'. The embedded status of the adverbial clause in (6.2) is overtly marked by the presence of the adverbial connective *kogda* 'when'. As with the other types of relations, the traditional approach to adverbial clauses runs into problems when applied to cross-linguistic data, since in many languages, for example, Creole languages or some Australian languages, adverbial meanings can be conveyed by the simple juxtaposition of non-embedded clauses, i.e. asyndetically (Cristofaro 2003: 155). Even in English, two

juxtaposed clauses can convey an adverbial meaning, provided that they have a unified intonation contour (cf. Lehmann 2013). Compare, for example, the sentences in (6.3) and (6.4) below.

(6.3) *I couldn't come earlier, because the train was late*.
(6.4) *I couldn't come earlier, the train was late*.

The adverbial clause in (6.3) conveys causal meaning explicitly marked by the presence of the connective *because*. The same meaning can be inferred from (6.4), although only in a proper context and with a proper intonation. A similar situation can be found in the Ket language. Therefore in order to account for all the types of syntactic structures conveying adverbial meanings, we will follow the functional definition according to which adverbial relations are the relations that link two states of affairs with one of them (the dependent one) corresponding to the circumstances under which the other one (the main one) takes place (Cristofaro 2003: 155).

Adverbial relations can be divided into several types based on their semantics. In what follows we will consider the following semantic types based on Cristofaro (2003), Givón (1990: 827–37), and Thompson, Longacre and Hwang (2007):

(1) temporal relations;
(2) conditional relations;
(3) purpose relations;
(4) reason relations;
(5) locative relations;
(6) manner relations.

Temporal adverbial relations involve two states of affairs one of which (the dependent one) is used as a temporal reference to the other (the main one). This semantic type of adverbial relations can be further subdivided into posteriority (6.5), anteriority (6.6) and overlap (6.7) relations (cf. Cristofaro 2003: 156).

(6.5) Russian
Ja uvižu ego <do togo, kak on uedet>
'I will see him, before he leaves.'

(6.6) Russian

Ja pogovoril s nim <posle togo, kak on vernulsja>

'I talked to him, after he returned.'

(6.7) Russian

Ja vstretil ego, <kogda on prišël>

'I met him, when he came.'

In the posteriority relations, the dependent state of affairs is located in time after the one in the main clause, and is unrealized when the main state of affairs takes place, as exemplified in (6.5). The anteriority relations in (6.6) represent the opposite case: the state of affairs in the dependent clause takes place before the main one, and is realized and completed at the time the main one takes place. In the overlap relations both the dependent state of affairs and the main one are overlapping in their realization. The exact extent of the overlapping can vary. Following Givón (2001), we can distinguish the following more fine-grained types of overlapping: simultaneity (6.8), point coincidence (6.9), terminal boundary (6.10), initial boundary (6.11), and intermediacy (6.12).

(6.8) Russian

<Poka ja rabotal>, ona spala

'While I was working, she was sleeping.'

(6.9) Russian

Ja uvidel eë, <kogda ona šla vniz po ulice>

'I saw her, as she was walking down the street.'

(6.10) Russian

Ja rabotal, <poka ona ne prišla>

'I was working, until she came.'

(6.11) Russian

Ja perestal rabotat' <s tex por, kak ona prišla>

'I stopped working, since when she came.'

(6.12) *<Between her starting the project and her quitting in a huff>, nobody slept*

(Givón 2001: 330)

It is also important to mention that in some languages temporal relations can be expressed by a construction identical to a relative clause in a given language. In this case, the head of such a relative clause is a noun with temporal semantics like 'time', 'day', etc. Consider example (6.13) from Hausa, a Chadic language, where a relative clause with the noun *locaci* 'time' functions as a temporal adverbial clause. A similar construction can be found in Ket as well (see Section 6.2.1.1.12).

(6.13) Hausa

Yaran sun ga sarki <locacin da suka shiga birni>

yara-n	sun	ga	sarki	locaci-n	da	suka	shiga	birni
kids-the	they.COMPL	see	king	time-the	REL	they.REL.COMPL	enter	city

'The kids saw the king, when they visited the city.'

(Thompson, Longacre and Hwang 2007: 246)

In condition relations the dependent state of affairs sets an antecedent situation which is the condition for a consequent situation represented by the main state of affairs. Conditional relations can be subdivided into two basic semantic types: reality conditionals and unreality conditionals (Thompson, Longacre and Hwang 2007: 255). Reality conditionals refer to 'real' antecedent situations that can occur in the present or in the past. The examples below illustrate this type of conditionals.

(6.14) Russian

<Esli idët sneg>, to na ulice xolodno

'If it snows, then it is cold outside.'

(6.15) Russian

<Esli on prixodil včera>, to on nas videl

'If he came here yesterday, then he saw us.'

In (6.14), we can see a present reality conditional, while in (6.15), the reality conditional is in the past.

Unreality conditionals refer to 'unreal' situations. Thompson, Longacre and Hwang (2007: 255) define two types of unreal situations: imaginative, i.e. those in which one can imagine what might be (6.16a) or might have been (6.16b) and predictive (6.17), i.e. those in which one can predict what will be.

(6.16a) Russian

<Esli by ja uvidel ego>, ubil by

'If I saw him, I would kill him.'

(6.16b) Russian

<Esli by ty prišël včera>, ty by ego uvidel

'If you had come yesterday, you would have seen him.'

(6.17) Russian

<Esli on pridët>, my budem očen' rady

'If he comes, we will be very happy.'

The two imaginative conditional subtypes are also traditionally called hypothetical (6.16a) and counterfactual (6.16b). It should be mentioned that Givón (1990: 829) subsumes the predictive type of unreality conditionals illustrated in (6.17) under the general definition of reality conditionals.

It should also be noted that in many languages, there is no formal distinction between reality conditionals and temporal overlap relations, as illustrated by the example from Vai, a Mande language of Liberia in (6.18).

(6.18) Vai

À à ná 'éè íì à fé'ɛ'à

à	à	ná	'éè	í-ì	à	fé'ɛ-'à	
he		COND	come	COND	you-FUT	him	see-FUT

'If he comes, you will see him.' or 'When he comes, you will see him.'

(Thompson, Longacre and Hwang 2007: 257)

This neutralization can be accounted for by the fact that the semantics of the two are quite similar (Cristofaro 2003: 161).

In purpose relations, the main state of affairs is performed with the goal of obtaining the realization of the dependent one (Cristofaro 2003: 157). Typical cases of purpose relations are represented by motion predicates, as in (6.19), although other predicates as in (6.20) are possible as well.

(6.19) Russian

Ja pošël v universitet, <čtoby učit'sja>

'I went to the university in order to study.'

(6.20) Russian

Ja sdelal seti, <čtoby rybačit'>

'I made a net, in order to fish.'

The semantics of purpose relations implies that the instigator of the action in the main clause has the intention that the situation in the dependent clause should come about. In this respect, purpose relations are quite similar to the complement relations established by desiderative predicates (Cristofaro 2003: 157). Therefore, in many languages these kinds of relations are often coded by the same morphological means. For example, in Guugu Yimidhirr, an Australian language, the purposive mood marker can be used both for purpose relations (6.21) and desideratives (6.22).

(6.21) Guugu Yimidhirr

Nyulu gabiirr gadaalmugu <mayi baawanhu>

nyulu	gabiirr	gada-almugu	mayi	baawa-nhu
3SG.NOM	girl.ABS	come-PAST.NEG	food.ABS	cook-PURPV

'The girl didn't come to cook the food.'

(Haviland 1979: 135, cited from Cristofaro 2003: 158)

(6.22) Guugu Yimidhirr

Ngayu wawudhirr <mayi budanhu>

ngayu	wawu-dhirr	mayi	buda-nhu
1SG.NOM	want-COM.ABS	food.ABS	eat-PURPV

'I want to eat food.' (Haviland 1979: 135, cited from Cristofaro 2003: 158)

Reason relations are the relations in which the dependent state of affairs represents the reason for the main one to take place. Example (6.23) illustrates this type of adverbial relations.

(6.23) Russian

On kupil gamburger, <potomu čto xotel est'>

'He bought a hamburger, because he wanted to eat.'

The semantics of reason relations may also partially coincide with that of other adverbial relations like purpose, temporal overlap and anteriority, which is why they often share the same morphology in many languages (Cristofaro 2003). Consider, for example, the expression of the reason relation (6.24) and the purpose relation (6.25) in Ngizim, a Chadic language.

(6.24) Ngizim

Ata abən <gàadà aci nga>

ata	abən	gàadà	aci	nga
eat.PRF	food	SBRD	he	well

'He ate because he was well.' (Thompson, Longacre and Hwang 2007: 250)

(6.25) Ngizim

Vəru <gàadà dà ši səma>

vəru	gàadà	dà	ši	səma
go.out.PRF	SBRD	SJNCT	drink	beer

'He went out to drink beer.' (Thompson, Longacre and Hwang 2007: 250)

As we can see, the subordinating marker *gàadà* can be used in both types of relations.

In locative relations, the dependent state of affairs provides a locative reference to where the main state of affairs takes place, as in (6.26).

(6.26) Russian

My stojali, <gde ne bylo snega>

'We were standing where there was no snow.'

Locative adverbial relations can also be coded by a relative clause in a similar way as temporal relations, the only difference being the use of a head noun with locative semantics like 'place'. The Turkish sentence in (6.27) illustrates this case.

(6.27) Turkish

Sen <Erolun oturduğu yere> otur

sen	Erol-un	otur-duğ-u	yer-e	otur
2SG	E.-GEN	sit-OBJ-POSS	place-DAT	sit

'You sit where Erol was sitting.'

The last type of adverbial relations to be considered here is manner relations. In manner relations the dependent state of affairs describes the manner in which the main state of affairs is performed, as exemplified in (6.28) below.

(6.28) Russian

Ja sdelal vsë, <kak mne skazali>

'I did everything as I was told.'

As with temporal and locative relations, manner relations can have the shape of relative clauses in some languages (Thompson, Longacre and Hwang 2007: 249). The head noun in this case often has the meaning of 'way' or 'manner', as in (6.29).

(6.29) *He acts <the way I told him to>*.

The semantics of adverbial relations that we described above can play an important part in the choice of a particular morphosyntactic means to code a certain adverbial relation (cf. Cristofaro 2003). In the first place, this concerns the way the two clauses are connected together. It can be done either syndetically or asyndetically. The latter implies that there is no overt marking between two clauses apart from the intonation. This case was illustrated by example (6.4) above. The former involves the use of a special element connecting the two clauses in adverbial relations. This element can be a bound or a free morpheme. Free morphemes that can be used to connect clauses in subordinate relations are traditionally referred to as 'conjunctions'. Another term used in the literature is 'adverbial connectives'[84] (cf. Kortmann 1997). In what follows, we

[84] The term 'connective' is often used as the umbrella term referring to all morphemes, free and bound, that are used to connect coordinate or subordinate clauses (cf. Givón 2001).

will refer to both bound and free morphemes that are used to connect clauses in adverbial relations in Ket as 'subordinators' (as opposed to the term 'coordinators' used in Chapter 4).

There are several morphosyntactic parameters that can characterize a subordinator. First of all, there is morphological complexity. Based on this criterion, Kortmann (1997: 78) establishes the following six classes of subordinators for the European languages.

(1) single monosyllabic subordinators (English *as*, *since*)
(2) single polysyllabic subordinators (English *before*, *after*)
(3) single word subordinators consisting of more than one morpheme (English *whereas*)
(4) phrasal subordinators (English *as soon as*)
(5) discontinuous subordinators (English *the…the*)
(6) subordinators forming patterns (the English *wh-ever* series)

A slightly different classification that combines morphological complexity and bondedness is given in Lehmann (2013):

(1) phrasal subordinator
(2) one-word subordinator
    (i) complex subordinator
        (a) compound subordinator
        (b) derived subordinator
    (ii) simple subordinator
        (a) subordinator out of a paradigm
        (b) universal subordinator
(3) bound subordinator
    (i) affixal subordinator
    (ii) other

Another important criterion in the classification of subordinators is the linear order in which they occur with the connected clauses. In the majority of languages

subordinators tend to occur either at the clause-initial margin or at the clause-final margin, as illustrated in (6.30).

(6.30) Japanese

<Andy ga kuru maeni> Jenna ga kuru

Andy	ga	kuru	mae-ni	Jenna	ga	kuru
A.	NOM	come	front-LOC	J.	NOM	come

'Jenna comes before Andy comes.'

As we can see, the Japanese subordinator *maeni* appears on the dependent clause in the clause-final position, while its equivalent *before* in the English translation is in the clause-initial one. Interestingly, there seem to be a cross-linguistic correlation between the position of subordinators and the ordering of main and dependent clauses in adverbial constructions. In languages with a final subordinator, dependent clauses tend to precede the main clause, whereas in languages with an initial subordinator, dependent clauses commonly occur in both sentence-initial and sentence-final position (Diessel 2001).

Finally, adverbial subordinators can be analyzed as to the exact nature of its formatives and the syntactic polyfunctionality that they have in a language (Kortmann 1997: 77ff). The former emphasizes the role of etymology which may shed some additional light on the functions of a subordinator (cf. Lehmann 1984: 165). The latter concerns whether a subordinator also belongs to other syntactic categories (noun, adposition, verb, etc) in a language at the synchronic level.

6.2 Morphosyntactic properties of subordinators in Ket

As we already mentioned in the beginning, unlike other types of relations which have a rather poor set of formal connective devices, the adverbial relations in Ket can be coded by a wide range of various subordinators. In what follows we will describe them according to the parameters outlined in the previous section.

6.2.1 Clause-final subordinators

The clause-final subordinators represent the majority of the subordinators in Ket. They originate from the class of postpositional relational morphemes including both

semantically bleached members (i.e. 'case markers') and those whose etymology is quite transparent (i.e. 'postpositions').[85] The only exception is the subordinator *baŋ* 'where, when' which is the functional extension of the noun *baˀŋ* 'soil, ground'. Cross-linguistically, it is quite common for the class of adpositions to be a grammaticalization source for adverbial connectives (cf. Kortmann 1997). Ket also conforms to the universal tendency that in languages with postpositions adverbial subordinators tend to be clause-final (Dryer 1992: 56). All of the clause-final subordinators are polyfunctional, except the subordinator *dukde*.

6.2.1.1 Simple clause-final subordinators

We define this subtype of subordinators in Ket as one-word items which represent either a single indivisible morpheme, or a hardly etymologizable combination of morphemes that occur in the clause-final posititon.

6.2.1.1.1 The subordinator *diŋa*

The subordinator *diŋa* is the functional extension of the dative relational morpheme in its inanimate form.[86] The dative marker has no clear etymology, which is also true for the other members of the group of semantically bleached relational markers in Ket (i.e. traditional "cases").

When used with nominals, the dative marker denotes either the direction of a movement (6.31) or the recipient of an object given or a message told (6.32).

(6.31) *āt bɔ́ɣɔn árʲɛndiŋa*

ād	bo^{6}-k^{5}-o^{4}-{de}n^{0}	aden-di-ŋa
1SG	1SG^{6}-TH^{5}-PST^{4}-go^{0}	forest-N-DAT

'I went to the forest.'

[85] In Georg (2007: 159-160), it is argued that there are two postpositional elements, *daan* and *dukde*, that are used only in adverbial clauses. Still, we were able to find examples in which both items can be seen functioning as postpositional relational markers on temporal nouns (see 6.2.1.1.9 and 6.2.1.1.11).

[86] As we already mentioned in Section 2.2.6, the dative marker belongs to the relational morphemes that require the presence of a possessive augment marked for the gender/animacy class on the noun they modify (cf. Section 2.2.1). As a subordinator, the marker has been grammaticalized in its inanimate form with the augment *di-*.

(6.32) *āt háŋtip kétdaŋa tqʌrʲuksɨbɛt*

ād	haŋ-tib	ked-da-ŋa	d{i}^{8}-qəd^{7}-u^{6}-k^{5}-s^{4}-bed^{0}
1SG	female-dog	person-M-DAT	1^{8}-gift^{7}-3F^{6}-TH^{5}-NPST^{4}-make^{0}

‘I give a dog to the man.’

In adverbial clauses, *diŋa* is used to mark the locative relations of ‘motion to(wards)’ (6.33).

(6.33) *hʌ́mgan dɔlʲín-diŋa, āt dʌŋɔn īn ékŋ dúgdɛ*

həmga-n	d{u}^{8}-o^{4}-l^{2}-{daq^{0}}-in^{-1}-diŋa	āt	dəŋ^{6}-o^{4}-{n^{2}}-{de}n^{0}	īn	ekŋ	dugde
Evenk-PL	3^{8}-PST^{4}-PST^{2}-live^{0}-AN.PL^{-1}-DAT	2PL	2PL^{6}-PST^{4}-PST^{2}-go^{0}	two	day.PL	during

‘We walked for two days to where the Evenks lived.’

(Kotorova and Nefedov, forthcoming)

6.2.1.1.2 The subordinator *diŋal*

The subordinator *diŋal* is the functional extension of the ablative relational morpheme in its inanimate form which, first of all, marks the spatial source (6.34), or temporal starting-point of an action (6.35).

(6.34) *āt bɔɣɔn arʲɛndiŋalʲ*

ād	bo^{6}-k^{5}-o^{4}-{de}n^{0}	aden-di-ŋal	
1SG	1SG^{6}-TH^{5}-PST^{4}-go^{0}	forest-N-ABL	

‘I went from the forest.’

(6.35) *qɔ́nɔksʲdiŋalʲ ūsʲ údbɛj uɣɔ́n*

qonoks-di-ŋal	ūs	udbej	u^{6}-k^{5}-o^{4}-{n^{2}}-{de}n^{0}
morning-N-ABL	warm	south.wind	3N^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

‘A warm south wind has been blowing since the morning.’

(Georg 2007: 111)

Other nominal uses include denoting the material from which an object is made and the basis of a comparison (Georg 2007: 111).

When used as a subordinator, *diŋal* is used in its inanimate form and can mark the initial boundary type of temporal overlap relations (6.36) and the reason relations (6.37).

(6.36) *āb ām daɔnarij-diŋalʲ, sʲɨ̀ɨ̀ uɣɔn*

āb	ām	da^{8}-o^{4}-n^{2}-a^{1}-dij^{0}-diŋal		sɨ̀ɨ̀	u^{6}-k^{5}-o^{4}-{n^{2}}-{de}n^{0}
1SG.POSS	mother	3F^{8}-PST^{4}-PST^{2}-3SS^{1}-come^{0}-ABL		year	3N^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

‘A year has passed, since our mother came.’

(Kotorova and Nefedov, forthcoming)

(6.37) *bū dutaʁɔt buda ū binɔʁɔt-diŋalʲ*

bū	du^{8}-t^{5}-a^{4}-qut^{0}	bu-da	ū	b{in}^{7}-{b^{3}}-in^{2}-{q}ut^{0}-diŋal	
3SG	3^{8}-TH^{5}-NPST^{4}-lie^{0}	3SG-M.POSS	strength	self^{7}-3N^{3}-PST^{2}-finish^{0}-ABL	

‘He is lying, because he is tired (lit. his strength is finished).’

6.2.1.1.3 The subordinator *diŋta*

The subordinator *diŋta* (also *diŋten*) originates from the inanimate form of the adessive marker which denotes the location where an action or process takes place, or an object is located (6.38).

(6.38) *kāt dɛˀŋ lʲɛsdiŋta dassanɔɣɔlʲbɛtin*

kāt	dɛˀŋ	les-di-ŋta	d{u}^{8}-assano^{7}-k^{5}-o^{4}-l^{2}-bed^{0}-in^{-1}
winter	people	forest-N-ADESS	3^{8}-hunt.ANOM^{7}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}

‘In winter people hunted in the forest.’ (Werner 1997: 114)

When used on temporal nouns, it conveys temporal reference (6.39).

(6.39) *tud qibdaŋtɛ bʌn dɔnnɛdi*

tū-d	qib-da-ŋte	bən	d{u}^{8}-o^{4}-n^{2}-a^{1}-di^{0}
this-M	month-M-ADESS	NEG	3^{8}-PST^{4}-PST^{2}-3SG.SS^{1}-come^{0}

‘He didn’t come that month.’ (Vall and Kanakin 1985: 33)

Finally, it is also used to mark the possessor in “have”-constructions like in (6.40).

(6.40) *ɔ́bdaŋt bɔ́gdɔm úsʲaŋ*

ob-da-ŋt	bokdom	usaŋ
father-M-ADESS	rifle	be.present

‘The father has a rifle.’

As a subordinator, the inanimate form *diŋta* can mark two semantic types of adverbial relations: locative (6.41) and reason (6.42).

(6.41) *būŋ duɣín-diŋt, sēsʲ bʌ́nsʲaŋ*

bū-ŋ	du^{8}-{a^{4}-daq^{0}}-in^{-1}-diŋt		sēs	bənsaŋ
3-PL	3^{8}-NPST^{4}-live^{0}-AN.PL^{-1}-ADESS		river	not.be.present

‘Where they live, there is no river.’

(6.42) *burɛ ū binɔt-diŋti baŋlɔrɔn*

bu-da	ū	b{in}^{7}-{b^{3}}-n^{2}-{q}ut^{0}-diŋt	{du^{8}}-baŋ^{7}-l^{2}-a^{1}-don^{0}
3-M.POSS	strength	self^{7}-3N^{3}-PST^{2}-finish^{0}-ADESS	3^{8}-ground^{7}-PST^{2}-RES^{1}-fall^{0}

‘He fell down, because he is tired (lit. his strength is finished).’

(Grišina 1979: 40)

6.2.1.1.4 The subordinator *dita*

The subordinator *dita* originates from the inanimate form of the benefactive relational marker. On nominals the benefactive usually marks animate or human beneficiary of an action (6.43).

(6.43) *kírɛ ítn ād díbbɛt dɨlʲdat*

ki-de	itn	ād	di^{8}-b^{3}-bed^{0}	dɨl-da-t
this-N	jukola	1SG	1^{8}-3N^{3}-make^{0}	child-M-BEN

‘I make this jukola for the child.’

It can also be used to mark an object about which a story is told (or a song is sung and the like), or a person or object which is thought of, as in (6.44).

(6.44) *bu daqimdita danʲsʲivɛt*

bū	da-qim-di-ta	d{u}^{8}-an^{7}-s^{4}-bed^{0}
3SG	M.POSS-woman-F-BEN	3^{8}-thought^{7}-NPST^{4}-make^{0}

‘He thinks about his wife.’ (Werner 1997: 114)

When used with adverbial clauses, *dita* can denote purpose relations (6.45) and reason relations (6.46).

(6.45) *íŋɢusʲ díbbɛt-dita āt lʲésdiŋalʲ aʔq ttáŋuksibɛt*

iŋqus	di^{8}-b^{3}-bed^{0}-dita	ād	les-di-ŋal	aʔq	d{i}^{8}-taŋ^{7}-u^{6}-k^{5}-s^{4}-bed^{0}
house	1^{8}-3N^{3}-make^{0}-BEN	1SG	forest.RUS-N-ABL	wood	1^{8}-drag^{7}-3N^{6}-TH^{5}-NPST^{4}-ITER^{0}

‘To build a house I bring wood from the forest.’

(6.46) *bū ūlʲ bənʲ dabdɔp dasʲēŋ arʲat-dita*

bū	ūl	bən	d{u}^{8}-a^{4}-b^{3}-dob^{0}	da-sēŋ	ad^{7}-a^{4}-d{en}^{0}-dit
3SG	water	NEG	3^{8}-NPST^{4}-3N^{3}-drink^{0}	M.POSS-liver	be.sick^{7}-NPST^{4}-go^{0}-BEN

'He doesn't drink vodka, because his liver hurts.'

6.2.1.1.5 The subordinator *ka*

The subordinator *ka* is the functional extension of the locative marker which is used to denote location in space and time for inanimate nouns only (6.47).

(6.47) *āt bɔɣɔn arʲɛnʲga*

ād	bo^{6}-k^{5}-o^{4}-{de}n^{0}	aden-ka
1SG	1SG^{6}-TH^{5}-PST^{4}-go^{0}	forest-LOC

'I walked in the forest.'

As a subordinator, *ka* is used to mark temporal relations (6.48).

(6.48) *ām dɔtɔʁɔt-ka ʌtn unat daːsχansʲan*

ām	da^{8}-t^{5}-a^{5}-qut^{0}-ka	ətn	unat	d{i}^{8}-asqan^{7}-s^{2}-a^{0}-n^{-1}
mother	3F^{8}-TH^{5}-NPST^{4}-lie^{0}-LOC	1PL	quiet	1^{8}-story.PL^{7}-NPST^{2}-speak^{0}-AN.PL^{-1}

'When mother sleeps, we speak in hushed tones.' (Grišina 1979: 48)

It can also be used in coding all the types of conditionals. Example (6.49) illustrates the real subtype of conditional relations.

(6.49) *bū ɔɣɔt-ka āt bʌn kastiʁus*

bū	o^{6}-k^{5}-o^{4}-d{en}^{0}-ka	ād	bən	{du^{8}}-kas^{7}-di^{1}-qos^{0}
3SG	3M^{6}-TH^{5}-NPST^{4}-go^{0}-LOC	1SG	NEG	{3^{8}}-limb^{7}-1SG^{1}-take^{0}

'If he leaves, he won't take me.' (Grišina 1979: 58)

6.2.1.1.6 The subordinator *bes*

The subordinator *bes* originates from the prosecutive relational marker. When used on nominals, it marks objects through which, or along which an action or process is proceeding (6.50).

(6.50) *āt bɔ́ɣɔn árʲɛnbɛsʲ*

ād	bo^{6}-k^{5}-o^{4}-{de}n^{0}	aden-bes
1SG	1SG^{6}-TH^{5}-PST^{4}-go^{0}	forest-PROS

'I walked through the forest.'

When used as a subordinator, *bes* denotes the simultaneity type of temporal overlap relations.

(6.51) *bū dbílʲɛlʲ ɔɣɔnʲ-bɛsʲ*

bū	d{u}^{8}-b^{3}-l^{2}-il^{0}	o^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}-bes
3SG	3^{8}-3N^{3}-PST^{2}-sing^{0}	3M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}-PROS

'He sang walking.'

6.2.1.1.7 The subordinator *esaŋ*

The subordinator *esaŋ* is the functional extension of the translative marker. With nominals it is used to mark an object as the "goal" of a verbal action (with verbs of producing, becoming, transforming and the like) (6.52).

(6.52) *bū ɛrʲɛsʲaŋ atɔnɔq*

bū	ed-esaŋ	a^{6}-t^{5}-o^{4}-n^{2}-oq^{0}
3SG	sable-TRANSL	3M^{6}-TH^{5}-PST^{4}-PST^{2}-become.PST^{0}

'He turned into a sable.'

As a subordinator, it marks purposive relations (6.53).

(6.53) *būŋ muzɛjaŋdiŋa tajaŋgɔtn istɔrʲija aqta itaŋlʲam-ɛsʲaŋ*

bū-ŋ	muzej-aŋ-di-ŋa	{du^{8}}-taj^{7}-aŋ^{6}-k^{5}-o^{4}-qutn^{0}	
3-PL	museum.RUS-PL-N-DAT	3^{8}-R^{7}-3AN.PL^{6}-TH^{6}-NPST^{4}-walk.many^{0}	
istorija	aqta	it^{7}-aŋ^{6}-l^{2}-am^{0}-esaŋ	
history.RUS	good	know^{7}-3AN.PL^{6}-PST^{2}-R^{0}-TRANSL	

'They visit museums in order to know the history well.'

6.2.1.1.8 The subordinator *às* / *ās*

The subordinator *às* / *ās* originates from the relational morpheme which has the meaning of 'as, like'. As we already mentioned in Section 4.2.2.2, it is sometimes confused with the comitative relational morpheme *as* in the Ket literature. But unlike the comitative marker, which attaches directly to the noun stem, *às* / *ās* requires the presense of a possessive augment on the head, cf. (6.54) and (6.55).

(6.54) *opda āsʲ*

ōb-da	ās
father-M.POSS	like

'like the father' (Werner 1997: 312)

(6.55) *ap bɛsʲam ki bɛsʲamd āsʲ dibbɛt*

āb	besam	kī	besam-d	ās	di^{8}-b^{3}-bed^{0}
1SG.POSS	hare.fur.coat	this	hare.fur.coat-N.POSS	like	1^{8}-$3N^{3}$-$make^{0}$

'I make my hare fur-coat like this hare fur-coat.' (Werner 1997: 312)

As a subordinator, *às* / *ās* is used to mark several types of temporal relations, like English *when*. It can be attached to both action nominals (6.56) and finite clauses (6.57). Note that this subordinator requires the presense of the inanimate form of the possessive augment *d-* even when it is used with finite clauses.

(6.56) *hʌ́lʲsɛj-dasʲ āt dbílʲɛlʲ*

həlsej-das	ād	$d\{i\}^{8}$-b^{3}-l^{2}-il^{0}
sew.ANOM-when	1SG	1^{8}-$3N^{3}$-PST^{2}-$sing^{0}$

'While sewing I sang (it).'

(6.57) *buŋsɔʁɔ-dāsʲ, bū kɛˀt hāj duɣajɛj*

$\{du^{8}\}$-bu^{6}-$ŋ^{5}$-s^{4}-qo^{0}-das	bū	keˀd	hāj	du^{8}-a^{4}-ej^{0}
3^{8}-$3SS^{6}$-TH^{5}-$NPST^{4}$-search.for^{0}-when	3SG	person	also	3^{8}-$3M^{4}$-$kill^{0}$

'When he looks, he can even kill a man.' (Kotorova and Nefedov, forthcoming)

6.2.1.1.9 The subordinator *qon(e)*

The subordinator *qon(e)* originates from the relational morpheme with the meaning 'up to, until'. Although it has been traditionally referred to the class of "postpositions", i.e. the relational morphemes with more or less transparent etymology, its origin seems to be quite obscure. Like some of the relational markers above, *qon(e)* requires the possessive augment when used with nominals, as illustrated in (6.58).

(6.58) *hɨssɨjd qɔn dɛjtɔlut*

hissɨj-d	qon	$d\{u\}^{8}$-ej^{7}-t^{5}-o^{4}-l^{2}-$\{q\}ut^{0}$
forest-N.POSS	to	3^{8}-run^{7}-TH^{5}-PST^{4}-PST^{2}-R^{0}

'He ran up to the forest.' (Georg 2007: 161)

Unlike in the case of *diŋa*, *diŋal* and a few other subordinators, the possessive augment is not present when *qon(e)* is used with adverbial clauses, cf. example (6.59).

(6.59) *āt kʌnɔːvɔn-qɔnʲɛ, halʲtɛsʲ*

āt	kən^{7}-o^{4}-b^{3}-{q}on^{0}-qone	{di^{8}}-hal^{7}-t^{5}-es^{0}
1SG	dawn^{7}-PST^{4}-3n^{3}-INCH.PST^{0}-until	1SG^{8}-R^{7}-TH^{5}-be.up^{0}

'I'll get up by [the time] it has dawned.' (Krjukova 2007: 37)

As we can see, as a subordinator, *qon(e)* marks the temporal boundary type of the temporal overlap relations.

6.2.1.1.10 The subordinator *daan*

The subordinator *daan* (other possible variants are *daqan* and *dān*) originates from the relational morpheme which has the meaning of 'during', therefore it is found only with temporal nouns or nouns denoting some natural phenomenon, as in (6.60). The morpheme itself is possibly of some verbal origin (Grišina 1979: 130).

(6.60) *ulʲɛsʲd daan ɛlʲtij bənʲ taraŋɢɔtin*

ules-d	dān	eltij	bən	{di^{8}}-t^{5}-a^{4}-daŋ^{1}-qutn^{0}
rain-N.POSS	during	berries.pick.ANOM	NEG	1^{8}-TH^{5}-NPST^{4}-1PL.SS^{1}-many.walk^{0}

'We don't go to pick berries during the rain.'

As a subordinator, *daan* marks temporal simultaneity relations.

(6.61) *bū āt beˀk dɛsʲkɛjqadda āt lʲɔvɛravɛt-daan*

bū	ād	beˀk	d{u}^{8}-eskej^{7}-q^{5}-a^{4}-d{i}^{1}-da^{0}	ād	{di^{8}}-lobed^{7}-a^{4}-bed^{0}-daan
3SG	1SG	always	3^{8}-throw.ANOM^{7}-CAUS^{5}-NPST^{4}-1SG^{1}-ITER.TR^{0}	1SG	1^{8}-work^{7}-NPST^{4}-ITER^{0}-while

'He is always disturbing me, while I'm working.' (Grišina 1979: 29)

6.2.1.1.11 The subordinator *dokot*

The subordinator *dokot* (another possible variant is *doqot*) originates from the relational marker meaning 'instead of, because of, like' (6.63). The marker is the functional extension of the noun *dokot* '(one's) share, part' (6.62). The initial *d-* seems to be the fossilized possessive morpheme used as a derivational element (cf. Vajda 2003: 15).

(6.62) *āb dɔɣɔt ū kasʲnam*

āb	dokot	ū	kas^{7}-n^{2}-am^{0}
1SG.POSS	share	2SG	limb^{7}-IMP^{2}-take^{0}

‘Take my share!’

(6.63) *dɛjbuɣɔlʲbɛtin qurida kʌjga dɔɣɔt*

d{u}^{8}-ej^{7}-bu^{6}-k^{5}-o^{4}-l^{2}-bed^{0}-in^{-1}	qudi-da	kəjka	dokot
3^{8}-kill.ANOM^{7}-3SS^{6}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}	pike-F.POSS	head	because.of

‘They were fighting for/because of the pike’s head.’

(Kotorova and Nefedov, forthcoming)

As a subordinator, *dokot* is used to code reason relations (6.64).

(6.64) *qibɔ ārʲ ū tpɔsɔbatkuɣavɛt-dɔɣɔt ū asʲkʌʔt tanʲgi*

qib-o	ād	ū	d{i}^{8}-posobad^{7}-ku^{6}-k^{5}-a^{4}-bed^{0}-dokot
old.man-VOC	1SG	2SG	1^{8}-help.RUS.ANOM^{7}-2SG^{6}-TH^{5}-NPST^{4}-make^{0}-because.of
ū	askəʔd	t^{5}-a^{4}-n^{2}-ki^{0}	
2SG	fairy-tale	TH^{5}-NPST^{4}-IMP^{2}-tell^{0}	

‘Grandfather, in return for my helping you, you tell a fairy-tale!’

(Werner 1997: 349)

6.2.1.1.12 The subordinator *dukde*

The subordinator *dukde* originates from the relational morpheme *dukde* ‘during’ which is etymologically derived from the spatial adjective *ukd(a)* ‘long’ with a fossilized possessive marker (cf. Georg 2007: 160). As a relational morpheme, *dukde* is similar to *daan* ‘during’, since it is used with temporal nouns and nouns denoting a natural phenomenon, as in (6.65).

(6.65) *sirʲukdɛ*

si-dukde
night-during
‘During the night’

As a subordinator, *dukde* is used to mark the simultaneity type of the temporal relations.

(6.66) *qima daukl^{j}ivɛt-dugdɛ dɨl^{j}gat tɔl^{j}damin*

qima	da^{8}-uk^{7}-l^{2}-bed^{0}-dukde	dɨlkad	{du^{8}}-t^{5}-o^{4}-l^{2}-dam^{0}-in^{-1}
grandma	3F^{8}-soup^{7}-PST^{2}-make^{0}-while	children	3^{8}-TH^{5}-PST^{4}-PST^{2}-sleep^{0}-AN.PL^{-1}

'While the grandmother was making soup, the children were sleeping.'

6.2.1.1.13 The subordinator *baŋ*

The subordinator *baŋ* is the only subordinator originating directly from a content noun. The original meaning of the noun *ba^{ʔ}ŋ* is 'ground, soil' (6.67), which has also become expanded to mean more general concepts like 'place' and 'time'; the latter meaning can usually be found only in set phrases like in (6.68).

(6.67) *bɔgdɔm baŋga tavut*

bokdom	baŋ-ka	t^{5}-a^{4}-b^{3}-{q}ut^{0}
rifle	ground-LOC	TH^{5}-NPST^{4}-3N^{3}-lie^{0}

'The rifle lies on the ground.'

(6.68) *tudɛ baŋga āt tɔlɔʁɔt*

tude	ba^{ʔ}ŋ-ga	ād	{di^{8}}-t^{5}-o^{4}-l^{2}-qut^{0}
this	ground-LOC	1SG	1^{8}-TH^{5}-PST^{4}-PST^{2}-lie^{0}

'I was sleeping at that time' (Kotorova and Nefedov, forthcoming)

As a subordinator, *baŋ* can be used in locative (6.69) and temporal (6.70) adverbial clauses. Note that, in this case, such an adverbial clause is structurally identical to prenominal relative clauses with *baŋ* as a head noun (cf. 6.2.1).

(6.69) *hissɛjdiŋa hɨbʌn^{j} dijaq, ajti qɔ̀j tajɣɛ-baŋ*

hissej-di-ŋa	hɨ	bə̄n	di^{8}-aq^{0}	ajti	qɔ̀j	t^{5}-a^{4}-ka^{0}-baŋ
forest-N-DAT	yet	NEG	1^{8}-go^{0}	evil	bear	TH^{5}-NPST^{4}-walk^{0}-where

'I still don't go to the forest, where the evil bear walks.' (Grišina 1979: 79)

(6.70) *qu^{ʔ}s^{j} dugdɔvut-baŋ, ɛ^{ʔ}p dilunbɛt*

qu^{ʔ}s	d{i}^{8}-ukd^{7}-o^{4}-b^{3}-qut^{0}-baŋ	e^{ʔ}b	d{i}^{8}-il^{7}-o^{4}-n^{2}-bed^{0}
tent	1^{8}-dig^{7}-PST^{4}-3N^{3}-R^{0}-when	shovel	1^{8}-small^{7}-PST^{4}-PST^{2}-make^{0}

'When I was digging round the birch bark tent, I broke the shovel.'

6.2.1.2 Compound clause-final subordinators

Compound clause-final subordinators are defined here as one-word subordinators consisting of two or more morphemes whose etymology is more or less transparent. Most subordinators in this group represent a combination of a content noun and a relational morpheme, often referred to as 'postpositional nouns' in the previous treatments of Ket literature (cf. Šerer 1983).

6.2.1.2.1 The subordinator *kubka*

The form *kubka* represents a combination of the content noun *kub* 'beak' and the locative relational morpheme *ka*. It is a polyfunctional morpheme that can be used as an adverb with the meaning 'before, ahead, at first' (6.71) and as a postposition 'in front of' (6.72). In the latter case, it requires the presence of a possessive marker.

(6.71) *āt kupka bɔɣɔt*

ād	kubka	bo^{6}-k^{5}-o^{4}-d{en}^{0}
1SG	before	1SG^{6}-TH^{5}-NPST^{4}-go^{0}

'I go ahead.'

(6.72) *āb kupka kɛˀt ɔɣɔtn*

āb	kubka	keˀd	o^{6}-k^{5}-a^{4}-den^{0}
1SG.POSS	before	person	3M^{6}-TH^{5}-NPST^{4}-go^{0}

'A man walks in front of me.'

As a subordinator, *kubka* marks posteriority relations (6.73)

(6.73) *at qarʲe ɛŋŋuŋ bɔɣɔtnʲ-kupka at qasʲɛŋ kiˀ iŋɢusʲ thaptɔ*

ādqade		eŋquŋ	bo^{6}-k^{5}-o^{4}-den^{0}-kubka	
1SG	that	house.PL	1SG^{6}-TH^{5}-NPST^{4}-go^{0}-before	
ād	qaséŋ	kiˀ	iŋqus	d{i}^{8}-h^{5}-a^{4}-b^{3}-to^{0}
1SG	there	new	house	1^{8}-TH^{5}-NPST^{4}-3N^{3}-put^{0}

'Before I move to that village, I will build a house there.' (Werner 1997: 350)

6.2.1.2.2 The subordinator *kɨka*

The subordinator *kɨka* originates from a combination of the noun *kɨ̄* 'middle' and the locative relational morpheme *-ka*. It can be used both as an adverb (6.74) and a postposition (6.75) with the meaning 'in the middle'. Like many other Ket

postpositional morphemes, when used in this function, *kɨka* requires the possessive augment on the preceding noun (cf. 6.75).

(6.74) *tɔˀl tāt kɨɣa usʲnɛ*

toˀl	tāt	kika	us^{7}-n^{2}-a^{0}
table.RUS	straight	in.the.middle	R^{7}-IMP^{2}-ACTIVE^{0}

‘Put the table straight in the middle.’ (Kotorova and Nefedov, forthcoming)

(6.75) *lʲamd kɨɣa balʲtij ujbaʁɔt*

lam-d	kika	baltij	uj^{7}-b^{3}-a^{1}-qut^{0}
table-3N.POSS	in.the.middle	box	R^{7}-3N^{3}-RES^{1}-lie^{0}

‘A box is situated in the middle of the table.’

(Kotorova and Nefedov, forthcoming)

When used as a subordinator, *kɨka* marks various type of temporal relations, like English *when*, for example, anteriority (6.76), as well as conditional relations (6.77).

(6.76) *ū kʌt qaŋgasɛtin-kɨɣɛ abɨŋa qan diksivisin*

ū{k}	kād	{du^{8}}-qaŋ^{7}-k^{5}-a^{4}-set^{0}-in^{-1}-kɨka
2SG.POSS	children	3^{8}-big.PL^{7}-TH^{5}-NPST^{4}-change^{0}-AN.PL^{-1}-when
ab-iŋa	qān	d{u}^{8}-ik^{7}-s^{4}-(i)-bes^{0}-in^{-1}
1SG.POSS-DAT	OPT	3^{8}-here^{7}-NPST^{4}-move^{0}-AN.PL^{-1}

‘When your children grow up, may they come to me.’ (Grišina 1979: 111)

(6.77) *bū bʌn ɔɣɔtn-kɨɣɛ ā bin bɔɣɔtn*

bū	bān	o^{6}-k^{5}-o^{4}-den^{0}-kika	ā{d}	bīn	bo^{6}-k^{5}-o^{4}-den^{0}
3SG	NEG	3SG.M^{6}-TH^{5}-NPST^{4}-go^{0}-when	1SG	self	1SG^{6}-TH^{5}-NPST^{4}-go^{0}

‘If he doesn’t come I will go myself.’ (Grišina 1979: 114)

6.2.1.2.3 The subordinator *qaka*

The morpheme *qaka* represents a combination of the noun *qa* ‘inside, home’ and the locative morpheme *ka*. It can function both as an adverb (6.78) and a postposition (6.79). Note that in the latter case it does not require the presence of the possessive marker on the noun it modifies.

(6.78) *bɔgdɔm iŋusdiŋa qaɣa at katn*

bokdom	iŋus-diŋa	qaka	at	katn
rifle	house-DAT	inside	PROH	bring.IMP

'Don't bring the rifle to the house inside.' (Grišina 1979: 92)

(6.79) *āb tʌˀq qáɣa iˀn uɣɔ́ndɛn*

āb	təˀq	qaka	iˀn	u^{6}-k^{5}-o^{4}-n^{2}-den^{0}
1SG.POSS	finger	inside	needle	$3N^{6}$-TH^{5}-PST^{4}-PST^{2}-go^{0}

'The needle went into my finger.' (Kotorova and Nefedov, forthcoming)

As a subordinator *qaka* is, in many respects, similar to *kɨka* and marks various temporal relations, for example, anteriority (6.80) and conditional relations (6.81).[87]

(6.80) *kàlʲ binɔʁɔt-qaɣa, āp hɨˀp usʲka dímbɛsʲ*

kàl	b{in^{7}-b^{3}}-{n^{2}}-qut^{0}-qaka	āb	hɨˀb	uska	di^{8}-ik^{7}-n^{2}-bes^{0}
war	$self^{7}$-$3N^{3}$-PST^{2}-$finish^{0}$-when	1SG.POSS	son	back	1^{8}-$here^{7}$-PST^{2}-$move^{0}$

'When the war was over, my son went back home.'

(Kotorova and Nefedov, forthcoming)

(6.81) *ísʲqɔ bɔ́ɣɔt-qaɣa, kúŋa qáːksaq*

isqo	bo^{6}-k^{5}-o^{4}-d{en}^{0}-qaka	ku-ŋa	{di^{8}}-qa^{7}-k^{5}-s^{4}-aq^{0}
fish.	$1SG^{6}$-TH^{5}-$NPST^{4}$-go^{0}-when	2SG-DAT	1^{8}-$inside^{7}$-TH^{5}-$NPST^{4}$-go^{0}

'If I go fishing, I will come to you.'

6.2.1.2.4 The subordinator *baŋqone*

The subordinat(6.168)or *baŋqone* is the functional extension of the postposion with the meaning 'until'. Etymologically, it is a combination of the noun *baˀŋ* 'soil, place, time' and the postposition *qon(e)* 'up to'. Since there is no possessive marking between *baŋ* and *qon(e)*, this combination cannot be analyzed as a postpositional phrase (cf. 6.2.1.1.9). It also should be noted that, unlike *qon(e)*, the postposition

[87] Grišina (1979: 106-107) claims that the use of these two relational morphemes seem to depend on which one of the two moieties of Ket, Qéntan and Bógdideŋ, the speaker belongs to. Although historically these two groups lived together, the Qéntan group is traditionally associated with the Jelok and the Imbak rivers, i.e. Southern Ket settlements like Kellog, Verxneimbatsk, etc. The Bógdideŋ people are associated with the territories along the Podkamennaya Tunguska and the Baxta rivers, i.e. Southern Ket settlements like Sulomaj, Baxta, etc. (Werner 2006: 75-76). According to Grišina (1979: 107) the speakers she worked with that belonged to the Qéntan group used mostly *qaka*, whereas *kɨka* was mostly used by the representatives of the second group. Our primariry language assistant, Valentina Romanenkova (nee Tyganova), belongs to the Qéntan moiety and prefers to use *qaka*, although she recognized the form *kɨka* as well.

baŋqone is used only with nouns of temporal semantics (i.e. morning, night, day, etc.) and does not require any possessive marking on the preceding nominal (6.82).

(6.82) *qɔnɔksʲ baŋqɔnɛ sɛsʲɔlʲta*

qonoks	baŋqone	{di^{8}}-ses^{7}-o^{4}-l^{2}-ta^{0}
morning	until	1^{8}-place^{7}-PST^{4}-PST^{2}-be.in.position^{0}

'I sat until the morning.' (Krjukova 2007: 33)

The function of *baŋqone* as a subordinator is similar to that of *qon(e)*, i.e. it is also used to mark the temporal boundary type of the temporal overlap relations (6.83).

(6.83) *āt isɔʁɔbaɣaʁan, ū bimbaʁɔt-baŋqɔn*

ād	isoqo^{7}-ba^{6}-k^{5}-a^{4}-qan^{0}	ū	bin^{7}-b^{3}-qut^{0}-baŋqon
1SG	fish.ANOM^{7}-1SG^{6}-TH^{5}-NPST^{4}-INCH.NPST^{0}	strength	self^{7}-3N^{3}-finish^{0}-until

'I will be fishing until my strength is finished.'

(Kotorova and Nefedov, forthcoming)

6.2.1.2.5 The subordinator *baŋdiŋa*

The form *baŋdiŋa* is another instance of a postposition originating from the combination of the noun *baˀŋ* and a relational marker; in this case it is the dative relational morpheme *diŋa* (cf. 6.2.1.1.13).

As a postposition, the form *baŋdiŋa* conveys the meaning of 'until'. Like *baŋqone*, it is used only with temporal nouns (6.84).

(6.84) *bisʲdiŋal qɔnoksʲ baŋdiŋa ɔváŋ loveravetin*

bis-di-ŋal	qonoks	baŋdiŋa	ob-áŋ	{du^{8}}-lobed^{7}-a^{4}-bed^{0}-in^{-1}
evening-N-ABL	morning	until	father-PL	3^{8}-work.RUS.ANOM^{7}-NPST^{4}-ITER^{0}-AN.PL^{-1}

'The parents work from evening till morning.'

(Kotorova and Nefedov, forthcoming)

At the same time, the use of *baŋdiŋa* as a subordinator is more diverse than that of *baŋqone*. In addition to marking temporal boundary (6.85), *baŋdiŋa* can mark locative relations (6.86). In the latter case, it requires the presence of a correlative element in the main clause like, for example, *tuniŋa* 'there' in (6.86).

(6.85) *ū abiŋa diksʲibɛsʲ-baŋdiŋa āt kisʲaŋ as diɣɛdɔq*

ū	ab-iŋa	d{i}^{8}-ik^{7}-s^{4}-bes^{0}-baŋdiŋa	ād	kiséŋ	as	di^{8}-k^{5}-a^{4}-doq^{0}
1SG	1SG.POSS-DAT	1^{8}-here^{7}-NPST^{4}-move^{0}-when	1SG	here	FUT	1SG^{8}-TH^{5}-NPST^{4}-live^{0}

'I will be living here, until you come to me.' (Grišina 1979: 86)

(6.86) *tīp sʲɛsɔlʲta baŋdiŋa, būŋ tuniŋa diːmɛsin*

tīb	{du^{8}}-ses^{7}-o^{4}-l^{2}-ta^{0}-baŋdiŋa	bū-ŋ	tuniŋa	d{u}^{8}-ik^{7}-n^{2}-bes^{0}-in^{-1}
dog	3^{8}-place^{7}-PST^{4}-PST^{2}-be.in.position^{0}-where	3-PL	there	3^{8}-here^{7}-PST^{2}-move^{0}-AN.PL^{-1}

'[Up to] where the dog sat, [up to] there they came.'

(Kotorova and Nefedov, forthcoming)

6.2.1.2.6 The subordinator *qadika*

Unlike the etymology of the other subordinators in this subsection, the origin of *qadika* is rather non-transparent at the synchronic level. The only element that can be easily identified is the locative relational morpheme *-ka*, while the root morpheme *qadi* cannot function on its own. According to Werner (2002, II: 60), it originates from the Proto-Yeniseian adverbial root **qatʲi-* /**qadʲi-* 'then, after'.

The form *qadika* is a polyfunctional one. It can function both as the adverb 'then' (6.87) and the postpostion 'after' (6.88).

(6.87) *qáriga bū dɔˀn dɔ́vinij*

qadika	bū	dɔˀn	d{u}^{8}-o^{4}-b^{3}-n^{2}-ij^{0}
then	3SG	knife	3^{8}-PST^{4}-3N^{3}-PST^{2}-sharpen^{0}

'Then he sharpened the knife.' (Kotorova and Nefedov, forthcoming)

(6.88) *úlɛsʲda qáriga aqtam*

ules-da	qadika	aqta-m
rain-M	after	good-N.PRED

'After the rain is nice.'

As a subordinator, *qadika* is used for marking the anteriority type of temporal relations (6.89).

(6.89) *qima qibasʲ duˑnɔn-qarʲiɣa ātn bīk ɛŋŋuŋdiŋta dɔlʲiˑnʲ*

qima	qib-as		du^{8}-n^{2}-{q}o^{0}-n^{-1}-qadika,
grandma	grandfather-COM		3^{8}-PST^{2}-die^{0}-AN.PL^{-1}-after
ātn	bīk	ɛŋquŋ-di-ŋta	d{u}^{8}-o^{4}-l^{2}-{daq^{0}}-in^{-1}
1PL	other	village-N-DAT	3^{8}-PST^{4}-PST^{2}-live^{0}-AN.PL^{-1}

'After grandmother and grandfather died, we lived in another village.'

(Werner 1997: 349)

6.2.1.2.7 The subordinator *asqa*

The etymology of the form *asqa* which functions as a postposition with the meaning 'like, similar to' is even less transparent than that of *qadika*. While it seems quite plausible to state that the meaning of the morpheme *as-* is related to the Ket postposition *às* 'like, similar to' (cf. Georg 2007: 158), the meaning of the element *-qa* remains obscure.

When used as a postposition, *asqa* does not require the presence of the possessive marking on the preceding noun (6.90).[88]

(6.90) *qɔjbaːt kɛrʲ asqa ɔɣɔtnʲ*

qoj-baad	keˀd	asqa	o^{6}-k^{5}-o^{4}-den^{0}
bear-old.man	person	like	3M^{6}-TH^{5}-NPST^{4}-go^{0}

'The bear walks like a man.' (Werner 1997: 312)

As a subordinator, *asqa* is used to encode manner relations (6.91).

(6.91) *bū bāʲnʲ tɔˀn dalʲɔ́vɛravɛt, āt lʲɔ́vɛravɛt-asqa*

bū	bāʲn	toˀn	da^{8}-lobed^{7}-a^{4}-bed^{0}
3SG	NEG	so	3F^{8}-work.RUS.ANOM^{7}-NPST^{4}-ITER^{0}
ād	{di^{8}}-lobed^{7}-a^{4}-bed^{0}-asqa		
1SG	1^{8}-work.RUS.ANOM^{7}-NPST^{4}-ITER^{0}-like		

'She doesn't work like I work.'

[88] Interestingly, the postposition *às* which is the most likely source of *asqa* does require a possessive augment.

6.2.2 Clause-initial subordinators

Another source of subordinators in Ket, although for a rather small number of items, is the class of interrogative adverbs. However, it seems plausible to claim that the use of interrogative adverbs as subordinators in Ket is a calque from the Russian language in which it represents a common strategy. This claim can be further corroborated by the fact that only this small set of subordinators occurs clause-initially, whereas the other Ket subordinators are clause-final (the only exception being the native *eta qode*, see Section 6.2.2.3.1).

6.2.2.1 Simple one-word clause-initial subordinators

This subtype includes subordinators that occur clause-initially and represent either a single indivisible morpheme, or a combination of morphemes that is hard to etymologize.

6.2.2.1.1 The subordinator *biséŋ*

The subordinator *biséŋ* is the functional extension of the interrogative adverb *biséŋ* 'where'. As can be seen from the examples below, the position of the adverb in a clause is rather free: it can be placed either in clause-initial position (6.92) or in immediately preverbal position (6.93).

(6.92) *āb dɔˀn biséŋam? biséŋ āt dɛsɔ́mdaq?*

āb	doˀn	biséŋ-am	biséŋ	ād	d{i}^{8}-es^{7}-o^{4}-b^{3}-n^{2}-daq^{0}
1SG.POSS	knife	where-N.PRED	where	1SG	1^{8}-up^{7}-PST^{4}-3N^{3}-PST^{2}-daq^{0}

'Where is my knife? Where did I put it?' (Kotorova and Nefedov, forthcoming)

(6.93) *ū biséŋ kúɣaraq?*

ū	biséŋ	ku^{8}-k^{5}-a^{4}-daq^{0}
2SG	where	2^{8}-TH^{5}-NPST^{4}-live^{0}

'Where do you live?' (Kotorova and Nefedov, forthcoming)

As a subordinator, *biséŋ* marks locative relations (6.94). Note that in this case it always occurs in clause-initial position.

(6.94) *āt bɔ́ɣɔn biséŋ dɛˀŋ dɔlín*

ād	bo^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}	biséŋ	deˀŋ	d{u}^{8}-{k^{5}}-o^{4}-l^{2}-{daq^{0}}-in^{-1}
1SG	1SG^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	where	people	3^{8}-TH^{5}-PST^{4}-PST^{2}-live^{0}-AN.PL^{-1}

'I went where people lived.'

6.2.2.1.2 The subordinator *bila*

Another simple clause-initial subordinator is *bila* 'like' which represents the functional extension of the interrogative adverb *bila* 'how'. The position of this interrogative adverb in a clause is likewise rather free, as shown in examples (6.95)-(6.96).

(6.95) *bilʲa ū kúɣadaq?*

bila	ū	ku^{8}-k^{5}-a^{4}-daq^{0}
how	2SG	2^{8}-TH^{5}-NPST^{4}-live^{0}

'How do you live?'

(6.96) *bū bílʲa dɛsɔ́ɣɔliɣin?*

bū	bila	d{u}^{8}-es^{7}-o^{6}-k^{5}-o^{4}-l^{2}-ij^{0}-in^{-1}
3SG	how	3^{8}-R^{7}-3M^{6}-TH^{5}-PST^{4}-PST^{2}-name^{0}-AN.PL^{-1}

'How did they name him?'

In a subordinate clause, *bila* always assumes clause-initial position, as in (6.97). It is used to mark manner relations.

(6.97) *āt díbbɛt bíla āb ōb dúbbɛt*

ād	di^{8}-b^{3}-bed^{0}	bila	āb	ōb	du^{8}-b^{3}-bed^{0}
1SG	1^{8}-3N^{3}-make^{0}	how	1SG.POSS	father	3^{8}-3N^{3}-make^{0}

'I make it like my father makes it.'

6.2.2.2 Compound one-word clause-initial subordinators

This subtype clause-initial subordinators includes subordinators which consist of two or more morphemes with more or less transparent etymology.

6.2.2.2.1 The subordinator *aska*

The source of the subordinator *aska* is the interrogative adverb *aska* 'when'. The etymology of the adverb is not entirely clear, but it seems fair to assume that it can be a combination of the interrogative pronoun *as* 'what kind of' and the locative relational marker *-ka*.

Like the other interrogative adverbs, *aska* has no obligatory position in a clause, as can be seen in (6.98) and (6.99).

(6.98) *ásʲka ū qīp káʁij?*

aska	ū	qīb	k{u}^{8}-a^{4}-q^{2}-ej^{0}
when	2SG	grandfather	2^{8}-3M^{4}-PST^{2}-kill^{0}

'When did you kill the bear (lit. grandfather)?'

(6.99) *bu asʲka diksʲivɛsʲ*

bū	aska	d{u}^{8}-ik^{7}-s^{4}-bes^{0}
3SG	when	3^{8}-here^{7}-NPST^{4}-move^{0}

'When will he come?' (Werner 1997: 72)

As a subordinator, *aska* is used to encode various kinds of temporal overlap relations like, for example, point coincidence in (6.100) and in (6.101).

(6.100) *at tɔn tɔlut askə ulʲísʲ qɔmdaχ*

ād	toˀn	{di^{8}}-t^{5}-o^{4}-l^{2}-{q}ut^{0}	aska	ules	q^{5}-o^{4}-b^{3}-n^{2}-daq^{0}
1SG	so	1^{8}-TH^{5}-PST^{4}-PST^{2}-lie^{0}	when	rain	TH^{5}-PST^{4}-3N^{3}-PST^{2}-R^{0}

'I was lying this way, when the rain stopped.' (Dul'zon 1971b: 126)

(6.101) *bu dimbɛsʲ asʲka, ʌtn sʲɛsʲdiŋa dʌŋɔtnʲ*

bū	d{u}^{8}-i{k}^{7}-n^{2}-bes^{0}	aska	ətn	ses-diŋa	dəŋ^{6}-o^{4}-den^{0}
3SG	3^{8}-here^{7}-PST^{4}-move^{0}	when	2PL	river-DAT	2PL^{6}-NPST^{4}-go^{0}

'When he comes, we will go to the river.' (Werner 1997: 72)

Interestingly, unlike the other clause-initial subordinators in Ket, the subordinator *aska* can in principle occur in clause-final position, as exemplified in (6.101). It seems plausible to assume that this can be accounted for by the presence of the locative relational morpheme *-ka* which can be used as a clause-final temporal subordinator and also forms several other clause-final temporal subordinators like

kɨka ‘when’, *qaka* ‘when’ and *qadika* ‘after’. At the same time it should be noted that examples with the clause-final *aska* are very infrequent in the Ket texts.

Another interesting fact to be mentioned is that the subordinator *aska* can coocur with the aforementioned clause-final subordinators that encode similar type of temporal relations, as, for example, in (6.102).

(6.102) *asʲka tsijɛn-ka, baːt isʲna kʌjɣɛn kʌma dɛsʲkava*

aska	d{u}^{8}-sij^{0}-en^{-1}-ka	báàd	is-na	kəjk-en	kəma	d{u}^{8}-es^{7}-k^{5}-a^{4}-b^{3}-a^{0}
when	3^{8}-eat^{0}-AN.PL^{-1}-when	old.man	fish-AN.PL.POSS	head-PL	away	3^{8}-up^{7}-TH^{5}-NPST^{4}-3N^{3}-R^{0}

‘When they eat, the old man throws fishes’ heads away.’ (Grišina 1979: 49)

This can be accounted for by the fact that the use of interrogative adverbs in the function of subordinators represents a calque from the Russian language, which makes such pleonastical cooccurence of the synonymous means, one of which is original (i.e. by a postpositional relational morpheme) and the other is borrowed (i.e. by an interrogative adverb), in one sentence quite possible.[89]

6.2.2.3 Phrasal clause-initial subordinators

Phrasal subordinators are defined here as subordinators consisting of two or more words. The only phrasal subordinator in Ket is *eta qode* ‘as if’.

6.2.2.3.1 The subordinator *eta qode*

The subordinator *eta qode* represents the functional extension of the preposition *eta qode* ‘like, as’ which is the only prepositional relational morpheme in Ket (apart from the frequently used Russian borrowing *bes* ‘without’). The etymology of the preposition is rather obscure. Werner (2002, II: 93) cites examples in which it is shown that both *eta* and *qod(e)* can be used separately as prepositional elements conveying the meaning of ‘like, as’, as can be seen in example (7.25) (cf. also Section 7.2.3 for more discussion on *qode*).

[89] Another frequent example of pleonastical marking is the use of the borrowed Russian preposition *bes* ‘without’ with a noun marked by the caritive marker (the original means), for example, *bes oban* [bes ob-an without father-CAR] ‘without the father’.

Example (6.103) illustrates the prepositional function of *eta qode*.

(6.103) *turʲɛ sʲulʲɛmam ɛta qɔrʲa sʲūlʲ*

ture	sulem-am	eta qode	sūl
this	red-3N.PRED	as.if	blood

'This is red like blood.' (Werner 1997: 348)

When used as a subordinator, *eta qode* marks manner relations, as exemplified in (6.104).

(6.104) *tajɔbɔn ɛta qɔrʲa bɛrʲɛta*

taj^{7}-o^{4}-b^{3}-{q}on^{0}	eta qode	bed^{7}-a^{4}-ta^{0}
cold^{7}-PST^{4}-3N^{3}-become^{0}	as.if	snow^{7}-NPST^{4}-EXTEND^{0}

'It turned as cold as if snow is falling.' (Werner 1997: 348)

6.3 Semantic types of adverbial relations

In this section, we will consider semantic types of adverbial relations in the Ket language and what morphosyntactic strategies they employ. As already mentioned in Section 6.1, adverbial relations can be divided into the following general semantic types: temporal, conditional, purpose, reason, locative and manner. They will be discussed in this order.

6.3.1 Temporal relations

As we outlined in Section 6.1, temporal relations can be divided into posteriority, overlap and anteriority relations. Many of the subordinators involved in temporal relations are capable of coding more than one type of these relations.

6.3.1.1 Posteriority relations

Posteriority in Ket is usually expressed with the help of the subordinator *kubka* 'before'. It can be combined both with finite verb forms (6.105) and action nominals (6.106). Note that in the latter case the subordinator does not require the possessive marking on the preceding action nominal.

(6.105) *kɛˀt quˀsʲ dubbɛt-kupka ʌŋnɛŋ haraŋistɔ*

keˀd	quˀs	du^{8}-b^{3}-bed^{0}-kubka	əŋn-eŋ	{du^{8}}-ha/d^{7}-aŋ^{6}-s^{4}-to^{0}
person	tent	3^{8}-3N^{3}-make^{0}-before	pole-PL	{3^{8}}-cut/AC^{7}-3AN.PL^{6}-NPST^{4}-R^{0}

'Before one sets a birchbark tent, he prepares (lit. cuts down) tent poles.'

(Kotorova and Nefedov, forthcoming)

(6.106) *aslɛnaŋas ɛjiŋ-kupka, aslɛnaŋd ūl kʌma nara tij*

aslenaŋ-as	ejiŋ-kubka	aslenaŋ-d	ūl	kəma	nada	tij
boat-COM	go.ANOM-before	boat-N.POSS	water	away	need	scoop.ANOM

'Before going by boat, it is necessary to bail water out of the boat.'

(Kotorova and Nefedov, forthcoming)

The dependent clauses with *kubka* usually tend to precede the main clause, but they can be in principle placed after the main clause as well, see (6.107)-(6.108) with a finite clause and an action nominal, respectively.

(6.107) *hʌ́lʲsij āt díŋa dʌ́ːtʲkìmna, āt hʌ́lʲsijqìtna-kupka*

həlsij	ād	di-ŋa	d{i}^{8}-əət^{7}-k^{5}-b^{3}-n^{2}-a^{0}
sew.ANOM	1SG	3SG.F-DAT	1^{8}-visible^{7}-TH^{5}-3N^{3}-PST^{2}-MOM.TR^{0}
ād	{di}^{8}-həlsij^{7}-q^{5}-it^{4}-n^{2}-a^{0}-kubka		
1SG	1^{8}-sew.ANOM^{7}-CAUS^{5}-3F^{4}-PST^{2}-MOM^{0}-before		

'I showed her how to sew, before I made her sew.'

(6.108) *kušʲ ɔːl bu dɔːgdəp ɛiŋ qupkə*

qūs	ɔ́ɔ̀l	bū	da^{8}-o^{4}-b^{3}-n^{2}-dob^{0}	ejiŋ-kubka
one.N	bottle	3SG	3F^{8}-PST^{4}-3N^{3}-PST^{2}-drink^{0}	go.ANOM-before

'She drank one bottle, before leaving.' (Kotorova and Porotova 2000: 42).

In addition to *kubka*, posterior relations can also be expressed by constructions, both finite (6.109) and non-finite (6.110), marked with the purposive subordinator *esaŋ*. In this case, however, posterior relations are accompanied by a purposive secondary meaning, and the clause marked by *esaŋ* always precedes the main clause.

(6.109) *āt bɔ́ɣɔtn-ɛsʲaŋ, dulʲɔ́lʲdɛŋ*

ād	bo^{6}-k^{5}-o^{4}-den^{0}-esaŋ	d{i}^{8}-ul^{7}-o^{4}-l^{2}-d{i^{1}-k}aŋ^{0}
1SG	1SG^{6}-TH^{5}-NPST^{4}-go^{0}-TRANSL	1^{8}-water^{7}-PST^{4}-PST^{2}-1SG.SS^{1}-wash^{0}

'Before going, I washed myself.'

(6.110) *lɔvɛt-ɛsʲaŋ, sajdɔulʲvɛt*

lobed-esaŋ	{du^{8}}-sajdo^{7}-o^{4}-l^{2}-bed^{0}
work.RUS.ANOM-TRANSL	3^{8}-tea.drink.ANOM^{7}-PST^{4}-PAST^{2}-ITER^{0}

'Before working, he drank tea.' (Belimov 1973: 24)

6.3.1.2 Overlap relations

The overlap relations attested in Ket can be subdivided into several subtypes. These include: simultaneity, terminal boundary and initial boundary.

6.3.1.2.1 Simultaneity relations

The coding of simultaneity in Ket involves the largest number of subordinators, four of which are dedicated to expressing only this type of adverbial relations. These are the subordinators *bes, ās*, *dukde* and *daan*. The main difference between them is that *bes* and *ās* are restricted to clauses that share the same-subject participant, while the other two can be used with the different-subject clauses.

Example (6.111) illustrates a finite simultaneity clause marked by *bes*. As we can see, the subject of the dependent verb is coreferent with the subject of the verb in the main clause.

(6.111) *bū dbílʲɛlʲ ɔɣɔ́nʲ-bɛsʲ*

bū	d{u}^{8}-b^{3}-l^{2}-il^{0}	o^{6}-k^{5}-o^{4}-{de}n^{0}-bes
3SG	3^{8}-3N^{3}-PST^{2}-sing^{0}	3SG.M^{6}-TH^{5}-PST^{4}-go^{0}-while

‘He sang walking.’

This subordinator can also be combined with an action nominal, as illustrated in (6.112).

(6.112) *kij-bɛs diliŋqimna*

kij-bes	d{u}^{8}-iliŋ^{7}-q^{5}-b^{3}-n^{2}-a^{0}
tell-while	3^{8}-eat^{7}-CAUS^{5}-3N^{3}-PST^{2}-MOM.TR^{0}

‘While talking he began eating.’ (Zinn 2006)

The other same-subject subordinator that codes simultaneity, *ās*, shows similar behaviour, cf. (6.113)-(6.114).

(6.113) *dīlʲ tɨlʲtɛrabɛt-dasʲ dáʁaj*

dīl	{du^{8}}-tɨlted^{7}-a^{4}-bed^{0}-das	{du^{8}}-daq^{7}-aj^{0}
child	3^{8}-bathe.ANOM^{7}-NPST^{4}-make^{0}-while	3^{8}-laugh.ANOM^{7}-ACTIVE^{0}

‘While bathing, the child is laughing.’

(6.114) *bū kʌj-dasʲ súùlʲ dugdaptaŋ*

bū	kəj-das	súùl	du^{8}-u^{6}-k^{5}-d/a^{4}-b^{3}-$taŋ^{0}$
3SG	travel.hunt.ANOM-while	sled	3^{8}-$3N^{6}$-TH^{5}-AT/$NPST^{4}$-TH^{3}-$drag^{0}$

'As he goes hunting, he drags the sled along' (Zinn 2006).

The subordinator *dukde* is usually used when one needs to specify simultaneity between clauses with different subjects, as in (6.115) and (6.116). Although it can mark clauses that share the subject participant with the main clause, as in example (6.117), such cases are less frequent.

(6.115) *qíma daúklʲivɛt-dugdɛ dɨlʲgat tɔ́lʲdamin*

qima	da^{8}-uk^{7}-l^{2}-bed^{0}-dukde	dɨlkad	{du^{8}}-t^{5}-o^{4}-l^{2}-dam^{0}-in^{-1}	
grandmother	$3F^{8}$-$soup^{7}$-PST^{2}-$make^{0}$-while	children	3^{8}-TH^{5}-PST^{4}-PST^{2}-$sleep^{0}$-AN.PL^{-1}	

'While the grandmother was making soup, the children were sleeping.'

(6.116) *ūlʲ ɛsʲaŋ digdɛlʲaq-dugdɛ, tīp āb naˀnʲ bīlʲ*

ūl-esaŋ	d{i^{8}}-ik^{7}-d^{5}-l^{2}-aq^{0}-dugde	tīb	āb	naˀn	{du^{8}}-b^{3}-l^{2}-{a^{0}}	
water-TRANSL	1^{8}-$here^{7}$-TH^{5}-PST^{2}-go^{0}-while	dog	1SG.POSS	bread	3^{8}-$3N^{3}$-PST^{2}-eat^{0}	

'While I was going out for water, the dog ate my bread.'

(6.117) *bū ɛtta ɔ́vɨldɛ-dugdɛ, isʲnanʲ dabɛ́rʲuɣɔlʲbɛt*

bū	et-da	obɨlde-dukde	isnan	da^{8}-bed^{7}-u^{6}-k^{5}-o^{4}-l^{2}-bed^{0}
3SG	alive-F.PRED	be.PST-while	fish.bread	$3F^{8}$-make.$ANOM^{7}$-$3N^{6}$-TH^{5}-PST^{4}-PST^{2}-$ITER^{0}$

'While she was alive, she made fish pies.'

The subordinator *dukde* can be used with action nominals as well, as exemplified in (6.118). If the subject in the complement clause is different from the subject in the main clause, it is marked as a possessor (6.119)

(6.118) *hʌ́lʲsɛj-dugd āt díbɛl*

həlsej-dugde	ād	di^{8}-b^{3}-il^{0}
sew.ANOM-while	1SG	1^{8}-$3N^{3}$-$sing^{0}$

'While sewing I sang.'

(6.119) *āt díbɛlʲ ámd hʌ́lʲsɛj-dugd*

ād	di^{8}-b^{3}-il^{0}	ām-d	həlsej-dugde
1SG	1^{8}-$3N^{3}$-$sing^{0}$	mother-F.POSS	sew.ANOM-while

'I was singing during mother's sewing.'

The subordinator *daan* (*daqan* in Nothern Ket) is another dedicated simultaneity marker that can be used with both different-subject and same-subject clauses, cf. (6.120) and (6.121) respectively.

(6.120) *bū āt bɛˀk dɛsʲkɛjqadda, āt lʲɔvɛravɛt-daan*[90]

bū	ād	beˀk	d{u}^{8}-eskej^{7}-q^{5}-a^{4}-d{i}^{1}-da^{0}
3SG	1SG	always	3^{8}-throw.ANOM^{7}-CAUS^{5}-NPST^{4}-1SG^{1}-ITER.TR^{0}
	ād	{di^{8}}-lobed^{7}-a^{4}-bed^{0}-daan	
	1SG	1^{8}-work.RUS.ANOM^{7}-NPST^{4}-ITER^{0}-while	

‘He is always disturbing me, while I’m working’ (Grišina 1979: 29)

(6.121) *sújat āt hʌ́laŋɔnʲsaŋ-daan āt dbílʲɛlʲ*

sujad	ād	həlaŋ^{7}-Ø^{6}-o^{4}-n^{2}-saŋ^{0}-daan	ād	d{i}^{8}-b^{3}-l^{2}-il^{0}
dress	1SG	sew^{7}-3N^{6}-PST^{4}-PST^{2}-R^{0}-while	1SG	1^{8}-3N^{3}-PST^{2}-sing^{0}

‘While I was sewing a dress, I was singing.’

Like *dugde*, the subordinator *daan* tends to be used with finite clauses, but it can also attach to an action nominal, as in (6.122).

(6.122) *but hʌ́lʲsɛj-daan āt dbílʲɛlʲ*

bū-d	həlsej-daan	ād	d{i}^{8}-b^{3}-l^{2}-il^{0}
3SG-F	sew.ANOM-while	1SG	1^{8}-3N^{3}-PST^{2}-sing^{0}

‘I was singing during her sewing.’

A rather interesting feature of these four dedicated subordinators, first noted in Grišina (1979: 131) for the finite *daan*-clauses (6.123), is that when the action or process described in the main clause occurs at a single point in time during the duration of the verbal action or process in the dependent one, the former tends to be expressed by a verb in the past tense, while the latter is in the present tense. Examples (6.123)-(6.126) show that it is also the case with the rest of the dedicated simultaneity subordinators.

[90] Repeated from example (6.61) above.

(6.123) *bīs ī dɨnsut-daan taˀj bēj ɔɣɔn*

bīs	ī	d{u}^{8}-in^{7}-s^{4}-{q}ut^{0}-daan	taˀj	beˀj	o^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}
evening	sun	3^{8}-set^{7}-NPST^{4}-R^{0}-while	cold	wind	3M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

‘In the evening, when the sun was setting (lit. is setting), a cold wind blew.’

(Grišina 1979: 132)

(6.124) *bū tɔˀj sɛ́sta-bɛsʲ dɔ́nnɛdij*

bū	toˀj	{du}^{8}-ses^{7}-ta^{0}-bes	d{u}^{8}-o^{4}-n^{2}-a^{1}-dij^{0}
3SG	top	3^{8}-place^{7}-be.in.position^{0}-while	3^{8}-PST^{4}-PST^{2}-3SS^{1}-come^{0}

‘He came sitting on the top.’ (Kotorova and Nefedov, forthcoming)

(6.125) *āt árʲɛnʲa dʌ́ttiŋ-das jɛ́ɛ̀l dímijak*

ād	aden-ka	də^{8}-d{i}^{1}-tiŋ^{0}-das	jɛ́ɛ̀l	di^{8}-b^{3}-{n^{2}-b}ək^{0}
1SG	forest-LOC	3N^{8}-1SG^{1}-turn^{0}-while	berry	3^{8}-3N^{3}-PST^{2}-find^{0}

‘While I was wandering (lit. am wandering) in the forest, I found berries.’

(6.126) *bud bísʲɛp dúnɔ, bū uɣɔ́tn-dugdɛ*

bū-d	biseb	d{u}^{8}-o^{4}-n^{2}-qo^{0}	bū	u^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}-dukde
3SG-F	sibling	3^{8}-PST^{4}-PST^{2}-die^{0}	3SG	3F^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}-while

‘Her brother died while she was walking (lit. is walking).’

It should be noted that dependent clauses marked by *bes*, *ās*, *dukde* and *daan* can in principle both follow and precede the main clause.

In addition to the specific simultaneity subordinators, this type of adverbial relations can be coded by a number of more generic temporal subordinators. These include *ka*, *qaka*, *kɨka* and *aska*; their function in many respects is similar to that of ‘when’ in English. The simultaneity semantics of the temporal relation in this case is inferred from other information present in the two clauses like, for example, tense-aspect-modality of the clauses or the lexical-semantic specificity of the verbs (Givón 1993: 288).

The following examples illustrate the use of the subordinator *ka* in the coding of simultaneity relations.

(6.127) *ām dɔtɔʁɔt-ka, ʌtn unat dasqansʲan*

ām	da^{8}-t^{5}-a^{5}-qut^{0}-ka	ətn	unat	d{i}^{8}-asqan^{7}-s^{2}-a^{0}-n^{-1}
mother	3F^{8}-TH^{5}-NPST^{4}-lie^{0}-when	1PL	quiet	1^{8}-story.PL^{7}-NPST^{2}-speak^{0}-AN.PL^{-1}

'When mother is sleeping, we are speaking in hushed tones.'

(Grišina 1979: 48)

(6.128) *kɛˀt bɔgdɔm tannɔulʲbɛt-ka, assɛlʲ ɔɣɔn*

keˀd	bokdom	{du}^{8}-tanno^{7}-Ø^{6}-o^{4}-l^{2}-bed^{0}-ka	assel	o^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}
person	rifle	3^{8}-aim^{7}-3N^{6}-PST^{4}-PST^{2}-ITER^{0}-when	animal	3SG.M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

'When the man was aiming (his) rifle, the animal went.' (Grišina 1979: 49)

The dependent clauses marked by *ka* tend to be placed before the main clause, although there are a few examples in which the *ka*-clauses follow the main one.

Both *qaka* and *kɨka* behave similarly to *ka*. The examples below illustrate the use of these subordinators in simultaneity adverbial clauses.

(6.129) *ítiŋ hɨ árʲatn-qaɣa aːŋ ulʲ dábrʲɔp*

it-iŋ	hɨ	ad^{7}-Ø^{6}-a^{4}-den^{0}-qaka	áàŋ	ūl	d{i}^{8}-a^{4}-b^{3}-dob^{0}
tooth-PL	still	hurt^{7}-3N^{6}-NPST^{4}-go^{0}-when	hot	water	1^{8}-NPST^{4}-3N^{3}-drink^{0}

'When the teeth still hurt, I'm drinking hot water.' (Grišina 1979: 90)

(6.130) *dilʲduksɛtin-qaɣa ulɛsʲ datpijaq*

{du}^{8}-dil^{7}-d^{5}-o^{4}-kset^{0}-in^{-1}-qaka	ules	d{u}^{8}-at^{7}-b^{3}-j^{2}-aq^{0}
3^{8}-dress^{7}-TH^{5}-PST^{4}-R.PST^{0}-AN.PL^{-1}-when	rain	3^{8}-pour^{7}-3N^{3}-PST^{2}-MOM^{0}

'When we were dressing, it rained.' (Grišina 1979: 95)

(6.131) *āt lʲɔvɛravɛt-kɨɣa, bū āt bɛˀk dɛsʲkɛjqadda*

ād	{di^{8}}-lobed^{7}-a^{4}-bed^{0}-kika			
1SG	1^{8}-work.RUS.ANOM ^{7}-NPST^{4}-ITER^{0}-when			
bū	ād	beˀk	d{u}^{8}-eskej^{7}-q^{5}-a^{4}-d{i}^{1}-da^{0}	
3SG	1SG	always	3^{8}-throw.ANOM^{7}-CAUS^{5}-NPST^{4}-1SG.SS^{1}-ITER.TR^{0}	

'When I'm working, he is always disturbing me' (Grišina 1979: 109)

(6.132) *buŋ bilʲdɛlʲɛɣin-kɨɣa, buŋna qa bisʲep daqaujaq*

bū-ŋ	{du}^{8}-b^{3}-l^{2}-dil^{0}-ekin^{-1}-kɨka		
3-PL	3^{8}-3N^{3}-PST^{2}-sing^{0}-AN.PL^{-1}-when		
bu-ŋ-na	qā	biseb	da^{8}-qa^{7}-o^{4}-j^{2}-aq^{0}
3-PL-AN.PL.POSS	inside	sibling	3F^{8}-inside^{7}-PST^{4}-PST^{2}-go^{0}

'When they were singing, the sister entered their house.' (Grišina 1979: 110)

These subordinators can also be combined with action nominals to express simultaneity, as illustrated below.

(6.133) *ʌ́tna úška éjiŋ-ga qɔ́nijɔ̀bɔn*

ət-na	uska	ejiŋ-ka	qonij^{7}-o^{4}-b^{3}-{q}on^{0}
1PL-POSS.PL	back	go.ANOM-LOC	dark^{7}-PST^{4}-3N^{3}-become^{0}

'When we were going back, it became dark.'

(6.134) *but hʌ́lʲsɛj-qaɣa āt dbílʲɛl*

bu-d	həlsej-qaka	ād	di^{8}-b^{3}-il^{0}
3SG-F.POSS	sew.ANOM-when	1SG	1^{8}-3N^{3}-sing^{0}

'When she was sewing I was singing.'

(6.135) *āt dbílʲɛl ámd hʌ́lʲsɛj-kɨɣa*

ād	di^{8}-b^{3}-il^{0}	ām-d	həlsej-kɨka
1SG	1^{8}-3N^{3}-sing^{0}	mother-F.POSS	sew.ANOM-when

'I was singing when (my) mother was sewing.'

Another generic temporal subordinator, *aska*, is also often used to code simultaneous relations. Like the subordinator *daan*, *aska* can be combined only with finite verbs. The *aska*-clauses can both follow and precede the main clause, as illustrated in (6.136) and (6.137), respectively.

(6.136) *sámlʲa qímn dɨ́lʲgarasʲt tájaŋɢɔtin, ásʲka búŋna tátn kʌ́jbaŋdiŋtaŋ*

samla	qim-n	dilkad-as	d{u}^{8}-t/a^{4}-aŋ^{1}-qutn^{0}
some	women-PL	children-COM	3^{8}-AT/NPST^{4}-3AN.PL.SS^{1}-many.walk^{0}
aska	bu-ŋ-na	tatn	kəj-baŋ-di-ŋt-aŋ
when	3-PL-AN.PL.POSS	husband.PL	hunt.ANOM-place-N.POSS-ADESS-AN.PL.PRED

'Some women walk around with the kids, when their husbands are on the hunt.'

(6.137) *áška āt dísqɔ̀lʲgɛtin, qɔ́nijɔ̀bɔn*

aska	āt	d{i}^{8}-isqo^{7}-o^{4}-l^{2}-ked^{0}-in^{-1}	qonij^{7}-o^{4}-b^{3}-{q}on^{0}
when	1PL	1^{8}-fish.ANOM^{7}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}	dark^{7}-PST^{4}-3N^{3}-become^{0}

'When we were fishing, it became dark.'

Since, as we already mentioned above, *aska* is a calque from the Russian language, it can co-occur with other subordinators that mark simultaneity. Example (6.138) illustrates the combination of *aska* and *daan*, while in example (6.139) we can see *aska* combined with *ka*.

(6.138) *áska dáŋɔnɛn-daan, tɔ́luɣɔn áslin*

aska	dəŋ^{6}-{k^{5}}-o^{4}-n^{2}-{d}en^{0}-daan	{di}^{8}-t^{5}-o^{4}-l^{2}-oŋ^{0}-n^{-1}	aslin
when	1PL^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}-while	1^{8}-TH^{5}-PST^{4}-PST^{2}-see^{0}-AN.PL^{-1}	boat

'When we were going, we saw a boat.'

(6.139) *aska būŋ ɔgɔndɛn-gɛ, kʌn hɨvʌn ɛsavut*

aska	bu-ŋ	o^{6}-k^{5}-o^{4}-n^{2}-den^{0}-ka	kən	hi-bən	es^{7}-a^{4}-b^{3}-{q}ut^{0}
when	3-PL	3SG.M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}-when	dawn	still-NEG	up^{7}-PST^{4}-3N^{3}-climb^{0}

'When we were leaving, it has not dawned yet.' (Dul'zon 1971b: 120)

6.3.1.2.2 Terminal boundary relations

There are two subordinators specifically dedicated to expressing the temporal boundary type of adverbial relations in Ket. They are *qone* (6.140) and *baŋqone* (6.141).

(6.140) *sújat āt hʌ́laŋɔnʲsaŋ-qɔnɛ āt bílʲɛl*

sujad	ād	{di}^{8}-həlaŋ^{7}-o^{4}-n^{2}-saŋ^{0}-qone	ād	{di}^{8}-b^{3}-il^{2}-il^{0}
dress	1SG	1^{8}-sew^{7}-PST^{4}-PST^{2}-R^{0}-until	1SG	1^{8}-3N^{3}-PST^{2}-sing^{0}

'I sang until I sewed the dress (i.e. finished sewing the dress).'

(6.141) *āt isɔʁɔbaɣaʁan, ū bimbaʁɔt baŋqɔn*[91]

ād	isoqo^{7}-ba^{6}-k^{5}-a^{4}-qan^{0}	ū	bin^{7}-b^{3}-qut^{0}-baŋqone
1SG	fish.ANOM^{7}-1SG^{6}-TH^{5}-NPST^{4}-INCH.NPST^{0}	strength	self^{7}-3N^{3}-finish^{0}-until

'I will be fishing until my strength is finished.'

(Kotorova and Nefedov, forthcoming)

Still, the most frequent way to code this type of relations is by using the subordinator *baŋdiŋa*.[92] In this case, the clauses marked with *baŋdiŋa* usually follow the main clause as in (6.142).

[91] Repeated from example (6.83) above.
[92] As we already mentioned in Section 6.2.1.2.5, it is also used in locative relations, so it cannot be regarded as dedicated.

(6.142) *āt tunun ditɔʁɔt, ī daɛsaʁɔt-baŋdiŋa*

ād	tunun	di^{8}-t^{5}-a^{4}-qut^{0}	ī	da^{8}-es^{7}-a^{4}-qut^{0}-baŋdiŋa
1SG	much	1^{8}-TH^{5}-NPST^{4}-lie^{0}	sun	3F^{8}-up^{7}-NPST^{4}-lie^{0}-when

‘I will be sleeping until the sun rises.’

(Kotorova and Nefedov, forthcoming)

Neither *baŋdiŋa* nor *baŋqone* and *qone* have been attested with action nominals to form temporal boundary relations.

It is also possible to express temporal boundary with the help of the generic subordinator *aska* and the negative particle *bān* (i.e. ‘while ... not’ = ‘until’), which is most likely a copy of the Russian construction *poka … ne* ‘while … not’. This construction is presented in (6.143).

(6.143) *āt túnun tɔ́luʁut úlʲɛsʲ ásʲka bān ɔ́ksʲit*

ād	tunun	{di}^{8}-t^{5}-o^{4}-l^{2}-qut^{0}	ules	aska	bān	oksit
1SG	much	1^{8}-TH^{5}-PST^{4}-PST^{2}-lie^{0}	rain	when	NEG	finish

‘I was sleeping (that much) until the rain stopped.’

A similar construction involving the negative particle can be formed with *baŋdiŋa* as illustrated in (6.144). In this case, however, the *baŋdiŋa* clause usually precedes the main one.

(6.144) *u bɔgdɔm abiŋa bʌn kiːɔbas baŋdiŋa, at dassunɔ bʌnʲ bɔɣɔt*

ū	bokdom	ab-iŋa	bān	k{u}^{8}-i{k}^{7}-u^{6}-{k^{5}}-bes^{0}-baŋdiŋa
2SG	rifle	1SG.POSS-DAT	NEG	2^{8}-here^{7}-3N^{6}-TH^{5}-move^{0}-when
ād	d-assano	bān	bo^{6}-k^{5}-o^{4}-d{en}^{0}	
1SG	3N-hunt.ANOM	NEG	1SG^{6}-TH^{5}-NPST^{4}-go^{0}	

‘I will not go hunting, until you bring me a rifle.’ (Grišina 1979: 89)

Example (6.145) illustrates that *aska* can be combined with *bandiŋa* as well.

(6.145) *tɔˀn sʲílɛn, ásʲka bānʲ ílʲaŋ bímbaʁut-baŋdiŋa*

tɔˀn	{du}^{8}-sij^{7}-l^{2}-a^{0}-n^{-1}	aska	bān	ilaŋ	bin^{7}-b^{3}-qut^{0}-baŋdiŋa
so	3^{8}-eat.ANOM^{7}-PST^{2}-ACTIVE^{0}-AN.PL^{-1}	when	NEG	eat.ANOM	self^{7}-3N^{3}-finish^{0}-until

‘And so they were eating until the food was finished.’

6.3.1.2.3 Initial boundary relations

Initial boundary relations are coded by the subordinator *diŋal* (sometimes shortened to *dil*) which is also used to mark reason relations (cf. 6.3.4). The *diŋal*-clauses usually tend to precede the main clause (6.146), although they can follow it as well (6.147).

(6.146) *āt kʌˀj tajɣɛ-diŋalʲ āb qim bɛˀk qɔk kɛˀt qa da sʲɛsʲta*

ād	kəˀj		t^{5}-a^{4}-ka^{0}-diŋal				
1SG	hunt.ANOM		TH^{5}-NPST^{4}-walk^{0}-ABL				
āb	qīm	beˀk	qōk	keˀd	qā	da^{8}-ses^{7}-ta^{0}	
1SG.POSS	wife	always	one.AN	person	home	3F^{8}-place^{7}-be.in.position^{0}	

‘From when I go hunting, my wife always sits home alone.’

(Grišina 1979: 35)

(6.147) *uɣɔn qō sikŋ ɛsʲtiŋa bʌnasʲ di:laq-diŋalʲ*

u^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}	qō	sikŋ	es-diŋa	bənas	di^{8}-l^{2}-aq^{0}-diŋal	
3SG.N^{6}-TH^{5}-PST^{4}-[PST^{2}]-go^{0}	ten	year.PL	forest-DAT	NEG	1^{8}-PST^{2}-go^{0}-ABL	

‘Ten years had passed, since when I didn’t go to the forest.’

(Grišina 1979: 32)

Action nominals combined with *diŋal* to express initial boundary have not been attested.

Finally, initial boundary relations can also be expressed with the help of the generic *aska* (6.148).

(6.148) *úɣɔnʲ dɔˀŋ qɔ́gdɛn, áška qɔ́nɛšàtɔnɔq āb bíšɛp*

u^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}	doˀŋ	qokde-n			
3SG.N^{6}-TH^{5}-PST^{4}-{PST^{2}}-go^{0}	three	autumn-PL			
aska	qones^{7}-a^{6}-t^{5}-o^{4}-n^{2}-oq^{0}			āb	biseb
when	lost^{7}-3SG.M^{6}-TH^{5}-PST^{4}-PST^{2}-become.PST^{0}			1SG.POSS	sibling

‘Three years had passed since my brother got lost.’

6.3.1.3 Anteriority relations

The subordinator *qadika* is semantically specific to coding subsequence of events, i.e. anteriority relations. It can be combined both with finite verbs (6.149) and action nominals (6.150).

(6.149) *āp bisʲɛp dunɔ-qariga āt ɛlɔqdiŋa diːmbɛsin*

āb	biseb	du^{8}-n^{2}-{q}o^{0}-qadika	ōt	eloq-di-ŋa	di^{8}-{ik^{7}}-n^{2}-bes^{0}-in^{-1}
1SG.POSS	sibling	3^{8}-PST^{2}-die^{0}-after	1PL	E.-N-DAT	1^{8}-here^{7}-PST^{2}-move^{0}-AN.PL^{-1}

‘After my brother died, we moved to Eloguj.’

(Kotorova and Nefedov, forthcoming)

(6.150) *sajdɔ-r-qarga bis digbasɔlvitn ispɨt dɛˀŋ*

sajdo-d-qadika		bīs	d{u}^{8}-ikbes^{7}-o^{4}-l^{2}-bed^{0}-n^{-1}
tea.drink.ANOM-N.POSS-after		evening	3^{8}-come.ANOM^{7}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}
isbed	deˀŋ		
meat.make.ANOM	people		

‘After drinking tea, in the evening, people came to cut meat.’

(Belimov 1973: 173)

The dependent clauses marked by *qadika* can also be found following the main clause, as in (6.151) and (6.152) below.

(6.151) *āt bílʲɛl súјat ámda hʌ́laŋɔnʲsaŋ-qarʲɣa*

ād	{di}^{8}-b^{3}-l^{2}-il^{0}	sujad	ām	da^{8}-həlaŋ^{7}-o^{4}-n^{2}-saŋ^{0}-qadika	
1SG	1^{8}-3N^{3}-PST^{2}-sing^{0}	dress	mother	3F^{8}-sew^{7}-PST^{4}-PST^{2}-R^{0}-after	

‘I sang after (my) mother sewed the dress.’

(6.152) *āt bílʲɛl ámd hʌ́lʲsijt-qarʲɣa*

ād	{du}^{8}-b^{3}-il^{2}-il^{0}	ām-d	həlsij-d-qadika
1SG	3^{8}-3N^{3}-PST^{2}-sing^{0}	mother-F.POSS	sew.ANOM-N.POSS-after

‘I sang after mother’s sewing the dress.’

Note that unlike *kubka* ‘before’ and some other subordinators, *qadika* requires the presence of the possessive augment when it is used with an action nominal, as in (6.150) and (6.152).

The aforementioned generic subordinators *ka* (6.153), *qaka* (6.154), *kɨka* (6.155) and *aska* (6.156) can also be used to code subsequence of events. The subsequence semantics is inferred by the succession of clauses, which is iconic. The anteriority clauses marked by these subordinators always precede the main clause.

(6.153) *usɔbɔn-ka kɛnɔŋtu assɛn diːnbisin*

us^{7}-o^{4}-b^{3}-{q}on^{0}-ka	ken-oŋ-tu	assen	d{u}^{8}-i{k}^{7}-n^{2}-bes^{0}-in^{-1}
warm^{7}-PST^{4}-3N^{3}-become^{0}-LOC	wing-PL-ADJ	animal.PL	3^{8}-here^{7}-PST^{2}-move^{0}-AN.PL^{-1}

‘When it got warm, birds came flying.’ (Grišina 1979: 54)

(6.154) *qɔja daʁaj qaɣa, ab qʌjbɛsʲ uɣɔn*

qòja	d{i}^{8}-a^{4}-q^{2}-ej^{0}-qaka	āb	qəjbes	u^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}
bear	1^{8}-3SG.M^{4}-PST^{2}-kill^{0}-when	1SG.POSS	be.angry.ANOM	3N^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

‘When I had killed the bear, my rage ceased.’ (Grišina 1979: 97-98)

(6.155) *bɔgdɔm dgajbuʁus kɨɣa, assunɔbaɣaʁan*

bokdom	d{i}^{8}-kaj^{7}-b^{3}-qos^{0}-kɨka	assano^{7}-ba^{6}-k^{5}-a^{4}-qan^{0}
rifle	1^{8}-limb^{7}-3N^{3}-take^{0}-when	hunt.ANOM^{7}-1SG^{6}-TH^{5}-NPST^{4}-INCH.NPST^{0}

‘When I buy a rifle, I will start hunting.’ (Grišina 1979: 110)

(6.156) *asʲka baŋus bɔˀk dəbil, báàt igdɛ ɔɣɔn sʲɛnnaŋa*

aska	baŋqus	boˀk	də^{8}-b^{3}-il^{2}-{a}^{0}	
when	dugout	fire	3N^{8}-3N^{3}-PST^{2}-eat^{0}	
báàd	ikda	o^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}	sen-na-ŋa	
old.man	to.river	3M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	deer.PL-AN.PL.POSS-DAT	

‘When the dugout had burned down, the old man went down to the reindeer.’ (Kotorova and Nefedov, forthcoming)

Note that with the dedicated subordinator *qadika*, the order of clauses is not relevant to inferring the anteriority interpretation, cf. (6.149)-(6.152).

6.3.2 Conditional relations

Like many languages, Ket has no special subordinator to mark conditional relations. Instead, several temporal subordinators denoting temporal overlap relations are employed. Therefore conditional clauses in Ket are structurally similar to temporal ones. The subordinators used to code conditional relations are as follows: *ka*, *qaka*, *kɨka* and *aska*. When used with conditional clauses, these subordinators are mutually

interchangeable.[93] Although all of them, except *aska*, can attach to action nominals to form temporal clauses, no non-finite conditionals have been attested.

The following examples illustrate reality[94] conditional clauses in Ket.

(6.157) *bū ɔɣɔt-ka āt bʌn kastiʁus*[95]

bū	o^{6}-k^{5}-o^{4}-d{en}^{0}-ka	ād	bān	{du^{8}}-kas^{7}-di^{1}-qos^{0}
3SG	3SG.M^{6}-TH^{5}-NPST^{4}-go^{0}-LOC	1SG	NEG	{3^{8}}-limb^{7}-1SG^{1}-take^{0}

'If/when he leaves, he won't take me.' (Grišina 1979: 58)

(6.158) *ísʲχɔ bɔɣɔ́t-qaɣa kúŋa qáksaχ*

isqo	bo^{6}-k^{5}-o^{4}-d[en]^{0}-qaka	ku-ŋa	{di^{8}}-qa^{8}-k^{5}-s^{4}-aq^{0}
fish.ANOM	1SG^{6}-TH^{5}-NPST^{4}-go^{0}-when	2SG.POSS-DAT	{1^{8}}-inside^{7}-TH^{5}-NPST^{4}-go^{0}

'If/when I go hunting, I will come to you.'

(6.159) *bū bʌn ɔɣɔtn-kɨɣɛ ā bin bɔɣɔtn*[96]

bū	bān	o^{6}-k^{5}-o^{4}-den^{0}-kika	ā{d}	bīn	bo^{6}-k^{5}-o^{4}-den^{0}
3SG	NEG	3SG.M^{6}-TH^{5}-NPST^{4}-go^{0}-when	1SG	self	1SG^{6}-TH^{5}-NPST^{4}-go^{0}

'If/when he doesn't come I will go myself.' (Grišina 1979: 114)

(6.160) *ásʲka ū bānʲ kíksibɛsʲ āt ū sáŋbɛt dʌŋát*

aska	ū	bān	k{u}^{8}-ik^{7}-s^{4}-bes^{0}	āt	ū	saŋbed	dəŋ^{6}-{k^{5}}-a^{4}-den^{0}
when	2SG	NEG	2^{8}-here^{7}-NPST^{4}-move^{0}	1PL	2SG	search.ANOM	2PL^{6}-TH^{5}-NPST^{4}-go^{0}

'If/when you don't come, we will go looking for you.'

As we can see, these reality conditionals are structurally the same as the corresponding temporal overlap clauses (cf. 6.3.1.2).

Hypothetical conditionals, i.e. those expressing an imaginary situation of middle-probability, require the presence of the optative particle *qān* immediately before a finite verb in the dependent (protasis) clause. Note that the verb in the dependent clause is always in its preterite form, while in the main clause, the verb remains in the present tense.

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[93] The only exception might be *kɨka* which is not attested with predictive conditionals. But it can be simply accounted to the lack of relevant data, since our language consultants preferred to use *ka* and *qaka* for all types conditional relations (cf. footnote 85), rather than to some structural or semantic constraint.
[94] In the sense of Givón (1990: 829).
[95] Repeated from example (6.49) above.
[96] Repeated from example (6.77) above.

(6.161) *bīsʲ bānʲ qān kímɛsʲ-ka, ātn ūk sʲáŋbɛt dʌŋát*

bīs	bān	qān	k{u}^{8}-i{k}^{7}-n^{2}-bes^{0}-ka	ətn	ūk	saŋbed	dəŋ^{6}-a^{4}-d{en}^{0}	
evening	NEG	OPT	2SG^{8}-here^{7}-PST^{2}-move^{0}-LOC	1PL	2SG	seek	1PL^{6}-NPST^{4}-go^{0}	

'If, say, you don't come in the evening, we will go to seek for you.'

(6.162) *bū qān ɔ́ɣɔn-qaɣa, āt bān bɔɣɔ́tn*

bū	qān	o^{6}-k^{5}-o^{4}-n^{2}-{den^{0}}-qaka	ād	bān	bo^{6}-k^{5}-o^{4}-den^{0}	
3SG	OPT	1SG^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}-when	1SG	NEG	1SG^{6}-TH^{5}-NPST^{4}-go^{0}	

'If, say, he goes, I will not go.'

(6.163) *áska bū qān dabílʲ, āt bū díjɛj*

aska	bū	qān	da^{8}-b^{3}-l^{2}-{a^{0}}	ād	bū	d{i}^{8}-i^{4}-ej^{0}	
when	3SG	OPT	3F^{8}-3N^{3}-PST^{2}-eat^{0}	1SG	3SG	1^{8}-3F^{4}-kill^{0}	

'If she, say, eats it, I will kill her.'

Conditionals that refer to unreal situations, i.e. counterfactual ones, are formed with the help of the irrealis particle *sīm*. The particle is inserted immediately before the verb in the preterite form in both the main and the dependent clause.

(6.164) *qɔ́nɔksʲ āt kápkan bānʲ sʲīm qɔ́nɛsʲùnbɛt-ka, énqɔŋ kʌʁén sʲīm dakástitnɛm*

qonoks	ād	kapkan	bān	sīm	qones^{7}-u^{6}-n^{2}-bed^{0}-ka
yesterday	1SG	trap	NEG	IRR	lost^{7}-3N^{6}-PST^{2}-make^{0}-LOC
enqoŋ	kəqen	sīm	da^{8}-kas^{7}-tit^{4}-n^{2}-am^{0}		
today	fox	IRR	3N^{8}-limb^{7}-3F^{4}-PST^{2}-take^{0}		

'If I hadn't lost my trap yesterday, it would have taken a fox today.'

(6.165) *ū sʲim kiˑmbɛsʲ-qaɣa, ātn sʲim t-sʲajdɔɣɔlʲbɛtin*

ū	sīm	k{u}^{8}-i{k}^{7}-n^{2}-bes^{0}-qaka	ətn	sīm	d{u}^{8}-sajdo^{7}-k^{5}-o^{4}-l^{2}-bed^{0}-in^{-1}		
2SG	IRR	2SG^{8}-here^{7}-PST^{2}-move^{0}-when	1PL	IRR	3^{8}-tea.drink^{7}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}		

'If you had come, we would have drunk tea.' (Werner 1997: 350)

(6.166) *abɨŋ ɔp sim bɨldɛ-kɨɣɛ, āt daŋa sim bɔɣɔn qusʲtiŋa*

ab-iŋa		ōb	sīm	obɨlde-kɨka	
1SG.POSS-DAT		father	IRR	to.be.PST-when	
ād	da-ŋa	sīm	bo^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}	qus-di-ŋa	
1SG	M-DAT	IRR	1SG^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	tent-N-DAT	

'If I had a father, I would go to him in the tent.' (Grišina 1979: 115)

(6.167) *āt sʲūj sʲīm ítparʲɛm*[97] *ásʲka, āt sʲīm t-tɨlʲtɛrɔ̀lʲbɛt*

ād	sūj	sīm	it^{7}-ba^{6}-d{i}^{1}-am^{0}	ād	sīm	d{i}^{8}-tɨlted^{7}-o^{4}-l^{2}-bed^{0}
1SG	swim	IRR	know^{7}-1SG^{6}-1SG.SS^{1}-R^{0}	1SG	IRR	1^{8}-bathe^{7}-PST^{4}-PST^{2}-ITER^{0}

'If I could swim, I would bathe.'

6.3.3 Purpose relations

Purpose relations in Ket are usually expressed by the action nominal, either in an unmarked form (6.168) or in combination with the subordinator *esaŋ* (6.169). The unmarked form is used only with motion verbs, expressing a purpose or goal.

(6.168) *bū qɔ́rɛsʲ ísqɔ ɔɣɔ́n*

bū	qodes	isqo	o^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}
3SG	yesterday	fish.ANOM	3M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

'He went to fish yesterday.'

(6.169) *ámd hʌ́lʲsij-ɛsaŋ āt kílʲaŋ díɣunus*

am-d	həlsij-esaŋ	ād	kilaŋ	d{i}^{8}-ik^{7}-u^{4}-n^{2}-bes^{0}
mother-3F.POSS	sew.ANOM-TRANSL	1SG	thread.PL	1^{8}-here^{7}-3N^{4}-PST^{2}-move^{0}

'I brought threads for mother to sew.'

When the subject of the dependent clause coded by the action nominal is different from the subject of the main clause, it is expressed as a possessor, cf. (6.169) above in which the subject of *həlsij* 'to sew' is expressed by the possessive noun phrase *amd* 'mother's'.

The subordinator *esaŋ* can also be attached to a finite purpose clause, but this strategy seems to be less frequent.

(6.170) *būŋ muzɛjaŋdiŋa tajaŋɢɔtn istɔrʲija aqta itaŋlʲam-ɛsʲaŋ*[98]

bū-ŋ	muzej-aŋ-di-ŋa	{du^{8}}-t^{5}-a^{4}-aŋ^{1}-qutn^{0}	
3-PL	museum.RUS-PL-N-DAT	3^{8}-TH^{5}-NPST^{4}-3PL.SS^{1}-many.walk^{0}	
istorija	aqta	it^{7}-aŋ^{6}-l^{2}-am^{0}-esaŋ	
history.RUS	good	know^{7}-3AN.PL^{6}-PST^{2}-R^{0}-TRANSL	

'They visit museums in order to know history well.'

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[97] As we already mentioned in Chapter 2, this verb is irregular; it does not distinguish between past and non-past forms.

[98] Repeated from example (6.53) above.

Another frequent way to express purpose relations in Ket is by juxtaposition of two finite clauses, in which the purposive one contains the verbal particle *qān* with the optative meaning (6.171).

(6.171) *túnʲɛ dúmn désijɣin, kīrʲ tām qānʲ dútɔʁɔt*

tu-ne	dum-n	d{u}^{8}-es^{7}-ij^{0}-in^{-1}	ki-d	tām	qān	du^{8}-t^{5}-a^{4}-qut^{0}	
this-AN.PL	bird-PL	3^{8}-shout^{7}-ACTIVE^{0}-PL^{-1}	this-M	INDEF	OPT	3^{8}-TH^{5}-NPST^{4}-lie^{0}	

'These birds are singing (lit. are shouting), so that this one would sleep.'

The purposive meaning of the clause with *qān* can be reinforced by the use of the subordinator *esaŋ*, as in (6.172).

(6.172) *āt dúptɛ dɔ́mnɛ ōk qān dakásaʁɔs-ɛsʲaŋ*

ād	dubta	d{i}^{8}-o^{4}-b^{3}-n^{2}-a^{0}	ōk	qān	da^{8}-kas^{7}-a^{4}-qos^{0}-esaŋ	
1SG	samolov	1^{8}-PST^{4}-3N^{3}-PST^{2}-put^{0}	sterlet	OPT	3N^{8}-limb^{7}-3M^{4}-take^{0}-TRANSL	

'I put a samolov (a.k.o. fishing device), in order to catch a sterlet (lit. so that it would take a sterlet)'

Intent or purpose can be in principle expressed by juxtaposition without using the particle *qān*, but this strategy, like the one with unmarked action nominal, seems to be limited to motion predicates. In this case, the purpose clause always follows the main clause, as exemplified in (6.173).

(6.173) *āt ɔska dɔŋɔnʲ dɛŋnal kasɔŋɢɔnin tap*

ət	uska	dəŋ^{6}-{k^{5}}-o^{4}-{n^{2}-de}n^{0}		
2PL	back	2PL^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}		
deŋ-na-{ŋa}l		{di^{8}}-kas^{7}-oŋ^{4}-qus^{0}-nin^{-1}		tāb
people-AN.PL-ABL		1^{8}-limb^{7}-3AN.PL^{4}-take^{0}-AN.PL^{-1}		dog.PL

'We went back in order to take dogs from the people.'

(Kotorova and Porotova 2001: 64)

Grišina (1979: 42) also provides an instance of a purposive construction involving the subordinator *dita*, which is usually used to code reason relations (see 6.3.4 below).

(6.174) *íŋɢusʲ díbbɛt-dita āt lʲésdiŋalʲ aˀq ttáŋùksibɛt*[99]

iŋqus	di^{8}-b^{3}-bed^{0}-dita	ād	les-diŋal	aˀq	d{i}^{8}-taŋ^{7}-u^{6}-k^{5}-s^{4}-bed^{0}	
house	1^{8}-3N^{3}-make^{0}-BEN	1SG	forest-ABL	wood	1^{8}-drag.ANOM^{7}-3SG.N^{6}-TH^{5}-NPST^{4}-ITER^{0}	

'To build a house I bring wood from the forest.'

In order to negate the non-finite purpose clause, the negative particle *bān* is used. It is inserted before the negated action nominals, as in (6.175).

(6.175) *āt kílaŋ kʌ́ma díɣunus ámd bān hʌ́lʲsij-ɛsaŋ*

ād	kilaŋ	kəma	d{i}^{8}-ik^{7}-u^{4}-n^{2}-bes^{0}
1SG	thread.PL	away	1^{8}-here^{7}-3N^{4}-PST^{2}-move^{0}
am-d		bān	həlsij-esaŋ
mother-3F.POSS		NEG	sew.ANOM-TRANSL

'I took the threads away for mother not to sew.'

Negation of the finite purpose clauses is usually performed by the combination of the prohibitive particle *āt* and the optative particle *qān* (often contracted to *atin*), as illustrated in (6.176).

(6.176) *aˀq ɔ̀nʲ thándɔ, ánuksʲ āt qān dáʁasʲa*

aˀq	ɔ̀n	d{i}^{8}-ha^{7}-n^{2}-do^{0}	anuks	āt	qān	d{i}^{8}-aqas^{7}-a^{0}
wood	many	1^{8}-perpendicular^{7}-PST^{2}-cut^{0}	tomorrow	PROH	OPT	1^{8}-cut.wood^{7}-ACTIVE^{0}

'I chopped more wood in order not to chop it tomorrow.'

6.3.4 Reason relations

The most common way to form adverbial clauses expressing reason relations (often referred to as causal clauses) is by using the following subordinators: ablative *diŋal* (6.177), adessive *diŋta* (6.178) and benefactive *dita* (6.179). The reason clauses marked by these subordinators can either precede or follow the main clause.

(6.177) *bū dútaʁɔt búda ū bínɔʁɔt-diŋalʲ*

bū	du^{8}-t^{5}-a^{5}-qut^{0}	bu-da	ū	b{in}^{7}-{b^{3}}-in^{2}-{q}ut^{0}-diŋal	
3SG	3^{8}-TH^{5}-NPST^{4}-lie^{0}	3SG-M.POSS	strength	self^{7}-3N^{3}-PST^{2}-finish^{0}-ABL	

'He is lying, because he is tired (lit. his strength is finished).'

[99] Repeated from example (6.45) above.

(6.178) *burɛ ū binɔt-diŋti baŋlɔrɔn*[100]

bude	ū	b{in}^{7}-{b^{3}}-n^{2}-{q}ut^{0}-diŋt	{du^{8}}-baŋ^{7}-l^{2}-adon^{0}
his	strength	self^{7}-3N^{3}-PST^{2}-finish^{0}-ADESS	3^{8}-ground^{7}-PST^{2}-fall^{0}

'He fell down, because he is tired (lit. his strength is finished).'

(Grišina 1979: 40)

(6.179) *bū ūlʲ bənʲ dábdɔp dasʲēŋ árʲat-dita*

bū	ūl	bən	d{u}^{8}-a^{4}-b^{3}-dob^{0}	da-sēŋ	ad^{7}-a^{4}-d{en}^{0}-dit
3SG	water	NEG	3^{8}-NPST^{4}-3N^{3}-drink^{0}	M.POSS-liver	be.sick^{7}-NPST^{4}-go^{0}-BEN

'He doesn't drink vodka, because his liver hurts.'

The dependent clauses marked by the adessive subordinator *diŋta* (6.180) and the benefactive subordinator *dita* (6.181) can also express the notion of motivation, rather than direct reason/cause for the action of the participant in the main clause. In this case, the dependent clause always precedes the main clause, and the verb in the main clause is often in the imperative mood. This semantic nuance cannot be expressed with the help of the ablative subordinator *diŋal*.

(6.180) *āt aqta dasqansʲa-diŋt ū abɨŋa aqta kɨilʲgɛt*

ād	aqta	d{i}^{8}-asqan^{7}-s^{4}-a^{0}-diŋt		
1SG	good	1SG^{8}-story.PL^{7}-NPST^{4}-speak^{0}-ADESS		
ū	ab-ɨŋa	aqta	kɨ^{7}-a^{4}-l^{2}-ked^{0}	
2SG	1SG.POSS-DAT	good	price^{7}-NPST^{4}-IMP^{2}-make^{0}	

'For my good speaking, you pay me well!' (Grišina 1979: 41)

(6.181) *bū īs díɣɔnbɛs-dit ād bū naʾn dɔ́brijaq*

bū	īs	d{u}^{8}-ik^{7}-Ø^{6}-o^{4}-n^{2}-bes^{0}-dit	
3SG	fish	3^{8}-here^{7}-3N^{6}-PST^{4}-PST^{2}-move^{0}-BEN	
ād	bū	naʾn	d{i}^{8}-o^{6}-b^{3}-dij^{2}-aq^{0}
1SG	3SG	bread	1^{8}-3SG.M^{6}-3N^{3}-PST^{2}-give^{0}

'For his bringing fish, I gave him bread.'

In addition to *diŋta* and *dita*, the motivational semantics of reason relations can be expressed by means of the subordinator *dokot*. This subordinator is restricted to this function only; it cannot be used to express direct reason/cause like in (6.177)-

[100] Repeated from example (6.42) above.

(6.178) above. Likewise, the dependent clause marked by *dokot* always precedes the main clause.

(6.182) *qibɔ ārʲ ū tpɔsɔbatkuɣavɛt-dɔɣɔt ū asʲkʌˀt tanʲgi*[101]

qib-o	ād	ū	d{i}^{8}-posobad^{7}-ku^{6}-k^{5}-a^{4}-bed^{0}-dokot
old.man-VOC	1SG	2SG	1SG^{8}-help.RUS.ANOM^{7}-2SG^{6}-TH^{5}-NPST^{4}-make^{0}-for
ū	askəd		t^{5}-a^{4}-n^{2}-kij^{0}
2SG	fairy-tale		TH^{5}-NPST^{4}-IMP^{2}-tell^{0}

‘Grandfather, for my helping you, you tell a fairy-tale!’ (Werner 1997: 349)

(6.183) *āt kuŋa daʁasʲa-dɔɣɔt, īn lʲɛmiŋ āt kajbuʁus*

ād	ku-ŋa		d{i}^{8}-aqas^{7}-a^{0}-dokot
1SG	2SG.POSS-DAT		1^{8}-cut.wood^{7}-ACTIVE^{0}-for
īn	lem-iŋ	ād	{di}^{8}-kaj^{7}-b^{3}-qos^{0}
two	plank-PL	1SG	1^{8}-limb^{7}-3N^{3}-take^{0}

‘For my cutting wood for you, I will take two planks.’

(Kotorova and Nefedov, forthcoming)

In addition to finite verbs, the motivational type of reason relations can be formed with the help of action nominals, as illustrated below.

(6.184) *āb hʌ́lʲsʲɛj-diŋtan ū ávɨŋa kɨ́yalʲɛt*

āb	həlsij-diŋtan	ū	ab-iŋa	ki^{7}-k^{5}-a^{4}-l^{2}-ked^{0}
1SG.POSS	sew-ADESS	2SG	1SG.POSS-DAT	price^{7}-TH^{5}-NPST^{4}-IMP^{2}-make^{0}

‘For my sewing, you pay me!’

(6.185) *qat hʌlʲčɛj-dit ūg abɨŋa īsʲ iɣɔnɔsʲ*

qaˀd	həlsij-dit	ūk	ab-iŋa	īs	ik^{7}-o^{4}-n^{2}-{q}os^{0}
parka	sew.ANOM-BEN	2SG	1SG.POSS-DAT	fish	here^{7}-PST^{4}-IMP^{2}-take^{0}

‘For sewing parka, you bring me fish!’ (Grišina 1979: 45)

(6.186) *āb hʌ́lʲsʲɛj-dɔɣɔt kɨ́yalʲɛt*

āb	həlsij-dokot	ki^{7}-k^{5}-a^{4}-l^{2}-ked^{0}
1SG.POSS	sew.ANOM-for	price^{7}-TH^{5}-NPST^{4}-IMP^{2}-make^{0}

‘For my sewing, pay!’

The use of action nominals to express direct reason/cause relations is not attested.

[101] Repeated from example (6.64) above.

6.3.5 Locative relations

There are several ways to express locative relations in Ket; they involve both clause-final and clause-initial subordinators.

The clause-final subordinators that are used to code locative relations include *diŋa*, *diŋta*, *baŋ* and *baŋdiŋa*. The subordinators *diŋa* (6.187) and *diŋta* (6.188) usually require the presence of a correlative adverb with locative semantics like *tuneŋa* '(to) there', *tuntan* '(to) there', *qaseŋ* 'there', etc. in the main clause. The locative clauses marked by these subordinators are always finite and they tend to precede the main clauses.

(6.187) *qè aˀq dutanʲ-diŋa tunʲiŋa būŋ diˑmbɛsʲin*

qè	aˀq	du^{8}-t^{5}-a^{0}-n^{-1}-diŋa	
big	trees	3^{8}-TH^{5}-stand^{0}-AN.PL^{-1}-DAT	
tuniŋa	bū-ŋ	d{i}^{8}-i{k}^{7}-n^{2}-bes^{0}-in^{-1}	
there	3-PL	3^{8}-here^{7}-PST^{2}-move^{0}-AN.PL^{-1}	

'To where the big trees stand, (to) there they came.' (Werner 1997: 353)

(6.188) *dɨlʲgat tɔlʲdamn-diŋt tuniŋa dɛsɔmdaq*

dɨlkad	t^{5}-o^{4}-l^{2}-dam^{0}-n^{-1}-diŋt		tuniŋa	d{a}^{8}-es^{7}-o^{4}-b^{3}-n^{2}-daq^{0}	
children	TH^{5}-PST^{4}-PST^{2}-lie^{0}-AN.PL^{-1}-ADESS		there	3F^{8}-up^{7}-PST^{4}-3N^{3}-PST^{2}-throw^{0}	

'She put it there, where the children were sleeping.' (Grišina 1979: 39)

The inherent semantics of these subordinators (dative and adessive, respectively) plays an important role in the semantics of the locative clauses they form. Thus, the dependent clauses marked by *diŋa* underline the locative goal of motion and therefore are mostly used with a motion verb in the main clause. The *diŋta*-clauses simply specify the location where the action or process described by the verb in the dependent clause takes place; therefore they are never used with motion verbs in the main clause (but see (6.194) below where this semantic constraint is overridden).

Like the temporal clauses described above, a locative clause formed with the help of *baŋ* is structurally similar to prenominal relative clauses, as can be seen in (6.189). Note that it always precedes the main clause and obligatorily requires the presence of a correlate in the form of the locational adverb *sóòŋ* 'there'.

(6.189) *bat dɔlʲdaq-baŋ, aq sʲɔŋ dɔlʲaŋtin*

báàd	d{u}^{8}-o^{4}-l^{2}-daq^{0}-baŋ	aˀq	sóòŋ	d{u}^{8}-o^{4}-l^{2}-aŋ^{1}-tij^{0}-n^{-1}	
old.man	3^{8}-PST^{4}-PST^{2}-live^{0}-where	tree.PL	there	3^{8}-PST^{4}-PST^{2}-3AN.PL^{1}-grow^{0}-AN.PL^{-1}	

'Where the old man lived, there trees grew.' (Grišina 1979: 78)

The use of the subordinator *baŋdiŋa* in coding locative relations is similar to that of *diŋa*, i.e. the locative clauses marked by *baŋdiŋa* specify the goal of the motion predicate in the main clause. The locative *baŋdiŋa*-clauses are always finite. They can both precede and follow the main clause.

(6.190) *qim qɔnaŋd ʌːtkɛ sʲɛsʲɔlʲtɛ-baŋdiŋa, tuntan bu bɔk tɛlʲqimnɛ*

qīm	qon-aŋ-d	əːtka	{da}^{8}-ses^{7}-o^{4}-l^{2}-ta^{0}-baŋdiŋa
woman	fir.branch-PL-N.POSS	on.the.surface	3F^{8}-place^{7}-PST^{4}-PST^{2}-be.in.position^{0}-where

tuntan	bū	boˀk	{du}^{8}-tel^{7}-q^{5}-b^{3}-n^{2}-a^{0}
there.to	3SG	fire	3^{8}-push^{7}-CAUS^{5}-3N^{3}-PST^{2}-MOM^{0}

'To where the woman on the fir branches was sitting, there he pushed the fire.'

(Grišina 1979: 83)

(6.191) *bu tuntan dɛjtulʲɔt, ʌtta aslʲinin usʲbilʲdɛn-baŋdiŋa*

bū	tuntan	d{u}^{8}-ej^{7}-t^{5}-o^{4}-l^{2}-qut^{0}	ətta	aslin-in	us^{7}-b^{3}-l^{2}-den^{0}-baŋdiŋa		
3SG	there.to	3^{8}-R^{7}-TH^{5}-PST^{4}-PST^{2}-go^{0}	2PL.POSS	boat-PL	R^{7}-3N^{3}-PST^{2}-R^{0}-where		

'He ran there, where our boats stood.' (Grišina 1979: 84)

The clause-initial subordinators coding locative relations are *biséŋ* (6.192) and *biltan* (6.193). Since they originate from the corresponding interrogative adverbs, their use as subordinators can be attributed to the strong Russian influence. The locative clause they mark tend to follow the main clause. The main clause may contain an adverbial correlate as in example (6.191), but it is not obligatory.

(6.192) *bū ɔɣɔ́t, biséŋ dɛˀŋ dássɔnavɛtin*

bū	o^{6}-k^{5}-o^{4}-d{en}^{0}	biséŋ	dɛˀŋ	d{u}^{8}-asson^{7}-a^{4}-bed^{0}-in^{-1}	
3SG	3M^{6}-TH^{5}-NPST^{4}-go^{0}	where	people	3^{8}-hunt.ANOM^{7}-NPST^{4}-ITER^{0}-AN.PL^{-1}	

'He is going (to the place) where people are hunting.'

(6.193) *uɣɔ́n túnʲtanʲ, bílʲtanʲ dɛ́sʲtaŋ búŋsuʁɔn*

u^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}	tuntan	biltan	destaŋ	d{u}^{8}-bu^{6}-ŋ^{5}-s^{4}-qo^{0}-n^{-1}	
3F^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	there.to	where.to	eye.PL	3^{8}-3SS^{6}-TH^{5}-NPST^{4}-search.for^{0}-AN.PL^{-1}	

'(She) went there, where the eyes are looking for.'

(Kotorova and Nefedov, forthcoming)

As we already pointed out in the discussion of the subordinator *aska* (cf. 6.2.2.2.1), the clause-intial subordinators originating from the interrogative adverbs are often redundantly used to mark dependent clauses that already contain a clause-final one. Consider the examples below in which locative relations are expressed via the combination of *biséŋ* with *diŋta* (6.194) and *baŋdiŋa* (6.195).

(6.194) *būŋ diːmbɛsʲin, bisʲɛŋ buda qīm qusʲt ʌːt dasʲɛsʲtɛ-diŋta*

bū-ŋ	d{i}^{8}-i{k}^{7}-n^{2}-bes^{0}-in^{-1}					
3-PL	3^{8}-here^{7}-PST^{2}-move^{0}-AN.PL^{-1}					
biséŋ	bu-da	qīm	qus-d	ə̀ə̀d	da^{8}-ses^{7}-ta^{0}-diŋta	
where	3SG-M.POSS	woman	tent-N.POSS	on.the.surface	3F^{8}-place^{7}-be.in.position^{0}-ADESS	

'They came where his wife is sitting on a birch-bark tent.' (Werner 1997: 354)

(6.195) *qasʲ tuniŋa dilʲɔq, bisʲɛŋ ʌt lʲɔvɛrɔlʲbɛtin baŋdiŋa*

qa-sʲ	tuniŋa	d{u}^{8}-l^{2}-aq^{0}
big-NMLZ	there.to	3^{8}-PST^{2}-go^{0}
biséŋ	ət	{di}^{8}-lobed^{7}-o^{4}-l^{2}-bed^{0}-in^{-1}-baŋdiŋa
where	1PL	1^{8}-work.RUS.ANOM^{7}-PST^{4}-PST^{2}-ITER^{0}-AN.PL^{-1}-where

'The chief went there, where we were working.' (Grišina 1979: 84)

6.3.6 Manner relations

Adverbial relations of manner are usually introduced by the specific subordinators *asqa* (6.196) and *eta qoda* (6.297).

(6.196) *būŋ tɔˀn duɣiːnʲ, ēn biɬʲdɛ dɛˀŋ duɣiːnʲ-asqa*

bū-ŋ	toˀn	du^{8}-k^{5}-{daq^{0}}-in^{-1}	ēn	biɬde	dɛˀŋ	du^{8}-k^{5}-{daq^{0}}-in^{-1}-asqa	
3-PL	so	3^{8}-TH^{5}-live^{0}-AN.PL^{-1}	now	all	people	3^{8}-^{5}-live^{0}-AN.PL^{-1}-like	

'They live the same way that all humans live now.' (Werner 1997: 351)

(6.197) *tájɔbɔn éta qórʲa béɾɛsʲ qām dátpaq*

taj^{7}-o^{4}-b^{3}-{q}on^{0}	eta qoda	bedes	qām	d{u}^{8}-at^{7}-b^{3}-aq^{0}
cold^{7}-PST^{4}-TH^{3}-become^{0}	as.if	snow.weather	soon	3^{8}-pour^{7}-3^{3}-ACTIVE^{0}

'It has become cold as if it will snow soon.'

Dependent clauses marked by *eta qoda* and *asqa* tend to follow the main clause, but we were able to elicit examples of such clauses preceding the main one, as illustrated

below. Note that when the clause with *eta qoda* is in the preceding position, the main clause tends to contain the adverb *toˀn* ‘so, such’.

(6.198) *āt dírɛn-asqá burʲa dáʁaj*

ād	di^{8}-den^{0}-asqa	bū	da^{8}-daq^{7}-aj^{0}	
1SG	1^{8}-cry^{0}-like	3SG	3F^{8}-laugh.ANOM^{7}-R^{0}	

‘She laughs like I cry.’

(6.199) *éta qɔ́ra bū dúrɛn bū tɔˀnʲ rʲadáʁaj*

eta qoda	bū	du^{8}-den^{0}	bū	toˀn	da^{8}-daq^{7}-aj^{0}
as.if	3SG	3^{8}-cry^{0}	3SG	so	3F^{8}-laugh.ANOM^{7}-R^{0}

‘She laughs the same way he cries.’

The manner relations can be in principle expressed with the help of the subordinator *bila* (6.200). It seems to be another calque from Russian, where the interrogative adverb *kak* is frequently used to code manner relations, as can be seen in (6.201).

(6.200) *āt díbbɛt bíla āb ōb dúbbɛt*[102]

ād	di^{8}-b^{3}-bed^{0}	bila	āb	ōb	du^{8}-b^{3}-bed^{0}
1SG	1^{8}-3N^{3}-make^{0}	like	1SG.POSS	father	3^{8}-3N^{3}-make^{0}

‘I make it like my father makes it.’

(6.201) Russian

*Ja delaju èto **kak** delaet moj otec*

‘I do it **like** my father does.’

6.4 Summary of Chapter 6

In this chapter we surveyed constructions that are employed to code adverbial relations in Ket. The Ket adverbial relations exhibit a rather wide range of formally distinct constructions coding them in addtition to asyndetic ones. The majority of these constructions are formed with the help of various relational morphemes, which is an areal feature of the Siberian languages (Anderson 2004: 65; cf. also Chapter 8). In Ket these markers can attach to both action nominals and finite verbs. The latter feature,

[102] Repeated from example (6.97) above.

when a relational morpheme can directly govern finite clauses, is not found in the other languages of Siberia and is not very frequent cross-linguistically in general.

As we pointed out in Chapter 2, Ket relational morphemes can be divided into two general groups depending on whether they require a possessive augment on the head noun or not. Interestingly, some of the relational morphemes that require possessive marking on nouns do not trigger any marking when they govern an action nominal. A few others, on the other hand, retain possessive marking even when attached to finite verbs. However, the function or the exact impact of such possessive marking retention seems to be unclear. Table 6.1 summarizes the properties of the relational morphemes that are used to code adverbial relations with respect to possessive marking.

Type of host → **↓Relational markers**	**NOMINALS**	**ACTION NOMINALS**	**FINITE VERBS**
aas	+	+	+
diŋa	+	+	+
diŋal	+	+	+
diŋta	+	+	+
dita	+	+	+
qadika	+	+	–
daan	+ (P)	– (P)	– (P)
dokot	+ (P)	– (P)	– (P)
dukde	– (P)	– (P)	– (P)
kubka	+	–	–
kika	+	–	–
qone	+	NA	–
bes	–	–	–
ka	–	–	–
esaŋ	–	–	–
asqa	–		–
baŋdiŋa	–		–
qaka	–	–	–

Table 6.1. Properties of subordinators in Ket[103]

[103] '+' = possessive marking, '–' = no possessive marking, P = petrified possessive marking, NA = not attested with this host.

In Table 6.2 we provide the list of semantic types of adverbial relations expressed in Ket and the corresponding list of subordinators that can be used to code them, as well as what kind of predicate (finite or non-finite) these subordinators are attested with when used for a particular type of adverbial relations.

SEMANTIC TYPE	MEMBER	PREDICATE FORM	
		finite	*non-finite*
Posteriority	***kubka***	+	+
	esaŋ	+	+
Simultaneity	***bes***	+	+
	aas	+	+
	dukde	+	+
	daan	+	+
	ka	+	+
	qaka	+	+
	kɨka	+	+
	aska	+	–
Temporal boundary	***qone***	+	+
	baŋqone	+	+
Initial boundary	***diŋal***	+	–
	aska	+	–
Anteriority	***qadika***	+	+
	ka	+	–
	qaka	+	–
	kɨka	+	–
	aska	+	–
Conditional	***ka***	+	–
	qaka	+	–
	kɨka	+	–
Purpose	***esaŋ***	+	+
	dita	+	No data[104]

[104] 'No data' means that there are no examples for this particular subordinator.

Reason	***diŋal***	+	+
	diŋta	+	+
	dita	+	+
	dokot	+	+
Locative	***baŋ***	+	+
	baŋdiŋa	+	+
	diŋa	+	–
	diŋta	+	–
	biseŋ	+	–
	biltan	+	–
Manner	***asqa***	+	–
	eta qoda	+	–
	bila	+	–

Table 6.2. Properties of subordinators in Ket

In general, this table shows that Ket correlates with the typological findings presented in Cristofaro (2003), who proposed the so-called "Adverbial deranking hierarchy". As we already pointed out in Chapter 3, by "deranking" Cristofaro means the degree of deviation in the morphosyntatic properties expressed by the predicate of the dependent clause from that of the predicate in an independent sentence (elemintation of TAM distinctions, agreement distinctions, and so on). The more deviations the more deranked (D) is the predicate, the fewer deviations the more balanced (B) it is. Based on her cross-linguistic sample, (Cristofaro 2003: 168) proposes the following implicational hierarchy for the general semantic types of adverbial relations:

PURPOSE > BEFORE, AFTER, WHEN > REALITY CONDITIONS, REASON

This hierarchy reads as follows: if a deranked form is used to code the dependent clause at any point on the hierarchy, then it is used at all points to the left. It also indicates that, for example, Purpose relations are more likely to be expressed by a deranked form than the other semantic types to the right.

[105] In her work, Cristofaro uses a slightly different terminology for the semantic types of adverbial relations. Cristofaro's 'Before' and 'After' represent our Posteriority and Anteriority, while 'When' relations subsume our Simultaneity, Temporal boundary and Initial boundary relations. Locative and Manner relations are not included in her study.

Based on our data, summarized in Table 6.3 below, we can postulate the following hierarchy for the adverbial relations in Ket:

PURPOSE > POSTERIORITY, SIMULTANEITY, TEMPORAL BOUNDARY, ANTERIORITY > LOCATIVE, REASON > INITIAL BOUNDARY, MANNER, CONDITIONAL

Purpose	Posteriority	Simultaneity	Temporal boundary	Anteriority
D/B	B/D	B/D	B/D	B/D

Table 6.3. The adverbial deranking hierarchy in Ket

Locative	Reason	Initial boundary	Manner	Conditional
B/(D)	B/(D)	B	B	B

Table 6.3. The adverbial deranking hierarchy in Ket (continued)

As we can see, the Ket hierarchy generally correlates with the hierarchy presented by Cristofaro. For example, Purpose relations occupy the left-most postion, because they are the only relation that can be expressed by an action nominal without any additional marking, cf. (6.171). On the right-most end are Conditional relations that tend to be coded by balanced forms cross-lingustically. Interestingly, unlike other types of Temporal overlap, Initial boundary relations are coded with the help of finite verb forms only. It can be accounted by the fact that the marker *diŋal* that codes this type of Temporal relations is also used for coding Reason relations which according to Cristofaro's hierarchy occupy the right-most postion, i.e. are usually expressed with balanced verb forms.

Chapter 7. Relative Relations

The present chapter offers an overview of constructions coding relative relations and their characteristics in Ket. In the chapter we consider structural properties of Ket relative constructions as well as describe what syntactic-semantic roles are accessible to them. The notion of the relative relations we employ here is defined as relations between two states of affairs, in which the dependent one provides some kind of specification about a participant ('head noun' in traditional terms) in the main one (Cristofaro 2003: 195).

The chapter is structured in the following way. Section 7.1 provides classification and parameters of relative clauses from a typological point of view. Section 7.2 considers relative constructions in Ket with respect to their structural characteristics and defines the types of relativization strategies in the language. Section 7.3 is focused on the accessibility of syntactic-semantic roles in Ket and what strategies are used in each case. In section 7.4 we summarize the chapter and provide a conclusion.

7.1 Typological classification and parameters of relative clauses

From the typological point of view, relative clauses can be classified into different types according to different parameters. Most typological studies distinguish the following four parameters used to classify relative clauses:

- position of head noun
- linear order of relative clause and head noun
- relativization strategies based on the encoding of the notional head in the relative clause
- syntactic-semantic roles of relativized nouns in relative clauses

7.1.1 Position of head noun

According to the positional parameter, relative clauses can be divided into two subtypes. The first type is called external or headed in which a head noun occurs outside the relative clause, as in (7.1).

(7.1) Russian

kniga, [kotoruju ona kupila]

'the book [that she bought]'

The second type is called an internal relative clause. In this type, the head noun occurs inside the relative clause, as illustrated in (7.2).

(7.2) Mesa Grande Diegueño

['ehatt gaat akewii]vech chepam

['ehatt	gaat	akewii]=ve=ch	chepam
[dog	cat	chase]=DEF=SBJ	get.away

'The cat that the dog chased got away.' (Couro and Langdon 1975: 187)

7.1.2 Order of relative clause and head noun

The next parameter takes into account the linear order of relative clauses and head nouns. There are three respective subtypes: prenominal, postnominal and circumnominal.

In the prenominal subtype, relative clauses precede their head nouns, as is the case, for example, with the relative clause in (7.3).

(7.3) Alamblak

[ni hikrfë] yimar

[ni	hik-r-fë]	yima-r
[2SG	follow-IRREAL-IMMED.PST]	person-3SG.M

'A man who would have followed you' (Bruce 1984: 109)

Relative clauses that follow their head nouns are called postnominal relative clauses. This subtype can be illustrated by the Russian example and its respective English translation in (7.1) above.

The last subtype of relative clauses is circumnominal relative clause (Comrie and Kuteva 2005: 494) in which a head noun is surrounded by a relative clause. In other words, the head noun is inside the relative clause, like in the Mesa Grande Diegueño example (7.2) above.

7.1.3 Relativization strategies

There are several strategies in which relative clauses can be formed in the languages of the world. They are usually defined by the following parameters: presence/absence of the head noun and presence/absence of the relative pronoun. According to these parameters, there are four general relativization strategies. They are gap strategy, relative pronoun strategy, pronoun retention strategy, and non-reduction strategy.

Relative clauses that are formed by the gap strategy have no overt element coreferent to the head noun within the relative clause (Keenan 1985, Comrie 1989, 1998, Comrie and Kuteva 2005). The English sentence in below is an example of this strategy.

(7.4) *I see the house [he built]*.
Since the verb *built* is transitive, it requires the presence of an object argument. There is no such argument in the relative clause *he built* in (7.4), that is, there is a gap corresponding to the missing object noun phrase. The gap in the example is coreferential with the head noun *house*.

With the relative pronoun strategy, the head noun is indicated by means of a relative pronoun that is a part of the initial constituent in the relative clause. The pronoun can be marked by case or by adposition in order to indicate the role of the relativized noun within the relative clause (Keenan 1985, Comrie 1989, 1998, Comrie and Kuteva 2005). (7.5) is an example of a relative clause formed by this strategy.

(7.5) Russian
Čelovek, [kotorogo ty iščeš'], uže tut.
'The man whom you are looking for is already here.'

The relativized noun *čelovek* 'man' is the object noun of the verb *look for* in the relative clause. It is indicated by the presence of the case-marked relative pronoun *kotorogo* 'whom'.

The third strategy is the so-called pronoun retention strategy. Relative clauses formed by this strategy contain a resumptive pronoun which is coreferential with the head noun. In such a relative clause the pronoun normally occurs in the position it would

occupy in a simple declarative clause (Keenan 1985; Comrie 1989, 1998; Comrie and Kuteva 2005), cf. (7.6).

(7.6) Persian

man zanirā [ke Hasan be u sibe zameni dād] mišenāsam

man	zan-i-rā	[ke	Hasan	be	u	sibe zameni	dād]	mišenāsam
I	woman-ACC	[that	H.	to	her	potato	gave]	I-know

'I know the woman to whom Hasan gave the potato.' (Comrie 1989: 148)

In the above example, the relative clause *ke Hasan be u sibe zameni dād* 'to whom Hasan gave the potato' contains the resumptive pronoun *u* glossed as 'her' which is coreferential with the head noun *zanirā* 'woman' in the main clause. The pronoun occurs in the indirect object position of the clause.

The fourth strategy is the non-reduction strategy. It is characterized by the presence of the head noun (or its modified form) as a full noun phrase within the relative clause (Comrie and Kuteva 2005: 495). There are three subtypes of this strategy: correlative clauses, internally headed relative clauses, and paratactic relative clauses.

A correlative clause is a clause in which the head noun appears in a full-fledged form within the relative clause and is also taken up in the form of a pronominal or a non-pronominal element in the main clause. In some languages, the relative clause contains a special correlative marker. The example (7.7) from Hindi illustrates this type of the non-reduction strategy.

(7.7) Hindi

[jo laṛkii kaṛii hai] vo lambii hai

[jo	laṛkii	kaṛii	hai]	vo	lambii	hai
WH	girl	standing	is	DEM	tall	is

'The girl who is standing is tall.' (Srivastav 1991: 653)

In that example, the head noun *laṛkii* 'girl' appears as a full-fledged noun phrase within the relative clause *jo laṛkii kaṛii hai* 'who is standing' and appears again in the main clause as a pronominal element *vo*.

In the internally headed subtype of the non-reduction strategy, the head noun occurs inside the relative clause but there is no repetition of it in the main clause.

This was already illustrated by the Diegueño example in (7.2) in which the head noun *gaat* 'cat' appears inside the relative clause *'ehatt gaat akewii* 'that the dog chased' without element referring to it in the main clause.

The third subtype, paratactic relative clauses, is also characterized by containing the full-fledged head noun within the relative clause which looks the same as a simple declarative clause. The head noun may be or may not be referred to in the main clause; the relative clause and the main clause are only loosely joined together, see, for instance, the example (7.8) below.

(7.8) Amele

mel mala heje on ((mel) eu) busali nuia

mel	mala	heje	on
boy	chicken	illicit	take.3SG.SBJ-REM.PST
((mel)	eu)	busali	nu-i-a
boy	that	run.away	go-3SG.SUBJ-TOD.PST

'The boy that stole the chicken ran away.' (Comrie and Kuteva 2013)

A language can use more than one strategy to form relative clauses (Keenan and Comrie 1977), for example, English can use both the relative pronoun strategy and gap strategy. Moreover, in some specific cases like relativization of certain embedded structures, it can even allow for the pronoun-retention strategy (McKee and McDaniel 2001).

7.1.4 Syntactic-semantic roles of relativized nouns in relative clauses

The last parameter that plays an important part in typological studies of relative clauses concerns the syntactic-semantic roles of a head noun in a relative clause. As the examples above show, the head noun can be a subject (7.3) or an object (7.1) of the relative clause. Other roles like indirect objects, obliques, etc. are possible as well.

From a cross-linguistic perspective, as shown in Keenan and Comrie (1977), all the syntactic-semantic roles can be organized into a certain hierarchy reflecting their accessibility to relativization. The Accessibility Hierarchy looks as follows:

SUBJECT>DIRECT OBJECT>INDIRECT OBJECT>OBLIQUE>GENITIVE>OBJECT OF COMPARISON

This hierarchy implies that some roles are more accessible or easier to relativize than the others. The accessibility decreases from left to right, from subjects to objects of comparison, which means that subjects are more accessible to relativization than direct objects, direct objects are more accessible to relativization than indirect objects, and so on.

According to this parameter, the world's languages differ with respect to what roles they can relativize. There are languages that can relativize only subjects such as Malagasy, others can relativize both subjects and direct objects such as Luganda and so on. Only a few languages like English can allow relativization for all kinds of syntactic-semantic roles. It is important to mention that the hierarchy implies that if a language has a means to relativize on a given syntactic-semantic role, it should be able to relativize on all the other roles to the left of it.

The relativization strategies described above in Section 7.1.3 often differ with respect to what part of the hierarchy they can apply to. For example, the relative pronoun strategy in English can be used to relativize on all the roles on the Accessibility Hierarchy. At the same time, the gap strategy in the language is more restricted and cannot be applied to genitives and objects of comparison.

7.2 General types of relative clauses

In this section, we examine relative constructions in Ket with respect to their structural parameters such as linear order of the relative clause and the head noun, presence/absence of the head noun, presence/absence of the relativizer. We also consider the finiteness of the relative clause which is an important property for the typology of complex clauses in general (cf. the "deranked" vs. "balanced" distinction in Cristofaro 2003).

7.2.1 Prenominal relative clauses

In this type of relative constructions the relative clause occurs before the head noun. This is the major strategy for forming relative clauses in Ket (cf. Georg 2007: 173). It bears a functional resemblance to the prenominal participial relative clauses which are very common among the languages of Siberia (see Chapter 8). The main difference

here is that instead of participles, prenominal relatives in Ket employ either finite verbs or action nominals.

Example (7.9) illustrates a prenominal relative clause built on the finite verb.

(7.9a) *hīɣ qīm díʁɛj*

hīk	qīm	d{u}^{8}-i^{4}-q^{2}-ej^{0}
male	woman	3^{8}-3F^{4}-PST^{2}-kill^{0}

'The man killed the woman.'

(7.9b) *qīm díʁɛj hīɣ*

[qīm	d{u}^{8}-i^{4}-q^{2}-ej^{0}]	hīk
[woman	3^{8}-3F^{4}-PST^{2}-kill^{0}]	male

'the man who killed the woman'

(7.9c) *hīɣ díʁɛj qīm*

[hīk	d{u}^{8}-i^{4}-q^{2}-ej^{0}]	qīm
[male	3^{8}-3F^{4}-PST^{2}-kill^{0}]	woman

'the woman who the man killed'

As can be seen from the examples, the relativized noun is placed right after the relative clause, which does not contain any relative pronoun or any other kind of relativizer. Neither is the relative clause nominalized: the verb *[q^{2}]-ej^{0}* 'kill' in (7.9b,c) remains as finite as it is in the base construction in (7.9a), i.e. it preserves the agreement markers *du-* in P8 referring to the subject and *-i-* in P4 referring to the object. The past tense marker *-q-* in P2 is preserved as well. Furthermore, the arguments of the relative clauses in (7.9b,c) remain in their sentential form, i.e. unmarked.

As there is no explicit morphological provision within the relative clause for recovering the role of the missing noun phrase, this type of relative constructions can be regarded as an instance of the gap strategy (cf. Givón 1990: 658; Comrie and Kuteva 2005: 495). The only clue which helps to recover the syntactic-semantic role of the head noun is the agreement affixes: if the head noun agrees with the affix in the subject slot of a given verb, then we deal with the subject relativization as in (7.9b). The same rule applies for the object relativization, exemplified in (7.9c). In ambiguous cases, when both subject and object are of the same class and number, the

interpretation of the head noun depends on its semantics or can be retrieved from the context. If the head noun does not have any agreement on the verb (in case of obliques), then the necessary information is in practice recovered either through the argument structure of the subordinate verb or through the presence of the resumptive pronoun[106] (see Section 7.3.1.3 for details and examples).

It is important to mention that, as auditory observation suggests, the potential ambiguity between finite prenominal relatives and sentences with postposed core arguments is resolved by means of stress: in the first case, stress falls on the predicate, while in the second case, it falls on the core argument itself.

The following examples provide illustration of prenominal relative clauses employing action nominals.

(7.10a) *kiséŋ kɛˀt dúɣaraq*

kiseŋ	keˀd	du^{8}-k^{5}-a^{4}-daq^{0}
here	person	3^{8}-TH^{5}-NPST^{4}-live^{0}

‘The man lives here.’

(7.10b) *kiséŋ dʌˀq kɛˀt*

[kiseŋ	dəˀq]	keˀd
[here	live.ANOM]	person

‘a man (constantly) living here’

(7.11a) *kɛˀt datīp dúsuɣɔvìlʲtɛt*[107]

keˀd	da-tīb	du^{8}-us^{7}-u^{6}-k^{5}-o^{4}-b^{3}-il^{2}-ted^{0}
person	3M.POSS-dog	3^{8}-R^{7}-3F^{6}-TH^{5}-PST^{4}-TH^{3}-PST^{2}-hit^{0}

‘The man beat his dog (F) (with a stick).’

(7.11b) *kɛrʲa tàrʲ tīp*

ked-da	[tàd]	tīb
person-M.POSS	[hit.ANOM]	dog

‘a dog beaten by the man’

[106] Note that the presence of the marker cross-referencing the head noun cannot be regarded as a case of pronoun retention as this marker is obligatorily present in the corresponding simple declarative clause (Comrie 1981: 221).

[107] Repeated from example (2.15a) above.

(7.11c) *tàr^{j} tīp*

[tàd] tīb
[hit.ANOM] dog
'a beaten dog'

(7.11d) *tīp tàr^{j} kɛ^{ʔ}t*

tīb [tàd] ke^{ʔ}d
dog [hit.ANOM] person
'a man who was beating a dog'

(7.11e) *tàr^{j} kɛ^{ʔ}t*

[tàd] ke^{ʔ}d
[hit.ANOM] person
'a beaten man' or 'a man who is/was beating'

As expected, relative clauses built on action nominals are highly nominalized and, in case of non-subject relativization, require their subjects to have possessive marking, as in (7.11b).[108]

In this variant of the prenominal gap strategy, the role identification of the head noun depends on the argument structure inherent to the corresponding action nominal. Thus, with action nominals corresponding to intransitive verbs, the head noun is interpreted as Subject (7.10b), while with those corresponding to monotransitive verbs, the default interpretation of the head noun would be Object (Patient), although Subject (Agent) interpretation is also possible, see (7.11e). The latter largely depends on the semantics of the head noun itself as can be seen in (7.11c), where *tīb* 'dog' cannot be interpreted as Subject (Agent) of 'beating'. If the relative clause built on a 'monotransitive' action nominal contains a zero-marked argument, it is invariably interpreted as Object, and the head noun receives Subject interpretation accordingly (7.11d). The same interpretation holds true for action nominals with incorporated objects (Patients) as in (7.12b).

[108] In general the object interpretation of the possessively marked noun phrase is also possible, but only if the head noun is semantically appropriate.

(7.12a) *qīm danánbɛrɔ̀lʲbɛt*

qīm	da[8]-nanbed[7]-o[4]-l[2]-bed[0]
woman	3F[8]-bread.make.ANOM[7]-PST[4]-PST[2]-ITER[0]

‘The woman was making bread.’

(7.12b) *nanbɛt qīm*

[nanbed]	qīm
[bread.make.ANOM]	woman

‘a bread-making woman’

In practice, if the semantic valence of the corresponding verb permits, the head noun can also be interpreted as Instrument (see Section 7.3.1.2 for examples).

Due to the absence of the tense markers, non-finite relatives show some ambiguity with respect to the temporal reference. The general tendency is that non-finite subject relatives usually receive a ‘present tense’ reading, whereas for object relatives the time reference is usually past (cf. Belimov 1973: 136-137).

Although both types of prenominal relative clauses appear to be functioning as ordinary adjectival modifiers, finite prenominal relatives show some difference with respect to their positional properties. While non-finite clauses and ordinary adjectives immediately precede their heads, in the case of the finite prenominal type, it seems possible to insert some additional elements between the relative clause and the head noun. Consider example (7.13), in which the finite relative clause precedes the head noun marked with a possessive marker. It is not possible to insert such a pronominal marker between the non-finite relative clause and the head noun as exemplified in (7.14).

(7.13) *ɛːn bɛdɛ ad buɣɔt qɔdɛs daːŋʁaj biːsʲnaŋa diːjaq*

ēn	bada	ād	bo[6]-k[5]-a[4]-d{en}[0]	
now	he.says/said	1SG	1SG[6]-TH[5]-NPST[4]-go[0]	
[qodes	d{i}[8]-aŋ[6]-q[2]-ej[0]]		b-is-na-ŋa	d{i}[8]-aq[0]
yesterday	1[8]-3AN.PL[6]-PST[2]-kill[0]]		1SG.POSS-fish-AN.PL-DAT	1[8]-go[0]

‘Now, he said, I will go. I will go to my fish caught yesterday (lit. I-killed-them my-fish).’

(Dul’zon 1964b: 184)

(7.14) * *èj bīsʲ*

èj	b-īs
kill.ANOM	1SG.POSS-fish

Intended: ‘my caught fish’

This seems to correlate with the general tendency in the world’s languages pointed out in Andrews (2007: 212) that the unreduced (i.e. full clause-like) relative clauses usually appear further from the head noun than the reduced (i.e. nominalized) ones and adjectival modifiers.

Finally, it is worth mentioning that subject relative clauses formed with the help of action nominals usually convey a more generic or habitual meaning than their finite counterparts; cf. examples in (7.15) below.

(7.15a) *qɔˀj dɛˀŋ dáŋɢɛj*

qoˀj	deˀŋ	d{u}^{8}-aŋ^{6}-q^{2}-ej^{0}
bear	people	3^{8}-3AN.PL^{6}-PST^{2}-kill^{0}

‘The bear killed (the) people.’

(7.15b) *dɛˀŋ dáŋɢɛj qɔˀj*

[deˀŋ	d{u}^{8}-aŋ^{6}-q^{2}-ej^{0}]	qoˀj
[people	3^{8}-3AN.PL^{6}-PST^{2}-kill^{0}]	bear

‘the bear who killed the people’

(7.15c) *dɛˀŋ èj qɔˀj*

[deˀŋ	èj]	qoˀj
[people	kill.ANOM]	bear

‘a people-killing bear’

While the relative clause in (7.15b) refers to a specific bear that killed some specific people, the non-finite relative in (7.15c) refers to some bear that habitually kills people. This tendency is also reflected in the fact that relative constructions with action nominals denoting Kets’ habitual activities often become highly lexicalized, especially when they are headed by the noun *keˀd* ‘person’ as in *isqo keˀd* ‘fisherman (lit. fish-killing person)’, *assano keˀd* ‘hunter (lit. animals-killing person)’, *ɨtɨkaj keˀd* ‘guest (lit. visiting person)’, etc.

7.2.2 Headless relative clauses.

The next type of relative constructions to be considered is formed with the help of the nominalizing suffix *-s* (PL *-sin*). These relative clauses are parallel in many respects to the prenominal relatives, except that they lack an expressed head noun.

The suffix *-s* has received various treatments in the Ket literature. For example, it has been regarded as a formative of adjectives, a formative of participles, a predicative suffix, etc. (cf. Dul'zon 1968, Werner 1997, Knyr' 1997). But as shown in Georg (2007: 122-124), *-s* is better analyzed as a general device converting other parts of speech to noun phrases (cf. example (2.8) in Chapter 2 in which we had the adjective *aqta* 'nice' converted into *aqtas* 'nice one' by this suffix). The converted part of speech acquires all the general morpho-syntactic properties of Ket nouns.

The nominalizing suffix *-s* can be attached both to finite verbs (7.16)-(7.17) and action nominals (7.18)-(7.19).

(7.16a) *kɛˀt dílaq*

keˀd d{u}^{8}-l^{2}-aq^{0}
person 3^{8}-PSt^{2}-come^{0}
'The man came.'

(7.16b) *dílaqs^{j}*

[d{u}^{8}-il^{2}-aq^{0}]-s
[3^{8}-PSt^{2}-come^{0}]-NMLZ
'the one (M) who came'

(7.17a) *kʌ́ʌ̀n kápkan dakástitnam*

kəə̀n kapkan da^{8}-kas^{7}-tit^{4}-n^{2}-am^{0}
fox trap 3N^{8}-limb^{7}-3F^{4}-PST^{2}-take^{0}
'The trap caught the fox.'

(7.17b) *kápkan dakástitnams^{j}*

[kapkan da^{8}-kas^{7}-tit^{4}-n^{2}-am^{0}]-s
[trap 3N^{8}-limb^{7}-3F^{4}-PST^{2}-take^{0}]-NMLZ
'the one (F) that the trap caught'

(7.18a) *kɛˀt jɛŋŋuŋga dúɣɔraq*

keˀd	eŋquŋ-ka	du[8]-k[5]-a[4]-daq[0]
person	houses-LOC	3[8]-TH[5]-NPST[4]-live[0]

'The man lives in the village.'

(7.18b) *jéŋŋuŋga dʌ́qsʲ*

[eŋquŋ-ka	dəq]-s
[houses-LOC	live.ANOM]-NMLZ

'the one who (constantly) lives in the village'

(7.19a) *hīɣ daqīm dúsuɣɔvìlʲtɛt*

hīk	da-qīm	du[8]-us[7]-u[6]-k[5]-o[4]-b[3]-il[2]-ted[0]
man	M.POSS-woman	3[8]-R[7]-3F[6]-TH[5]-PST[4]-TH[3]-PST[2]-hit[0]

'The man beat his wife (with a stick).'

(7.19b) *kérʲa tárʲsʲ*

[ked-da	tad]-s
[person-M.POSS	hit.ANOM]-NMLZ

'the one who is beaten by the man' or 'the one who beat the man' or 'something the man was beaten with'

(7.19b) *tīp tárʲsʲ*

[tīb	tad]-s
[dog	hit.ANOM]-NMLZ

'the one who beat the dog'

(7.19b) *tárʲsʲ*

[tad]-s
[hit.ANOM]-NMLZ

'the one who is beaten by someone' or 'the one who beat someone' or 'something someone was beaten with'

As we can see in (7.16b), even nominalized with *-s*, the verb preserves its finite syntax: verb-internal agreement, tense marker, and a zero-marked core argument (*kapkan* as the subject in (7.17b)). Headless relatives with action nominals also behave similar to their headed counterparts.

With respect to the case-recoverability issues, the headless type of relative clauses generally conforms to what has been said above about the prenominal relatives (cf. Georg 2007: 122-124). The main difference is that the absence of the head rules out the impact of the head noun's semantics on the interpretation of the relative clause. Thus, for example, the non-finite relative clauses in (7.18b,d) can have three possible readings: that of subject relative, object relative and instrumental relative. On the other hand, the Instrumental reading is not possible in the case of headless relatives built on the corresponding finite verbs, cf. (7.51) (for further discussion related to oblique relativization see Section 7.3.1.3).

The close parallelism between the prenominal type and the headless type of relative clauses is further manifested in the fact that the above mentioned lexicalized non-finite relatives have equally frequent headless synonyms, cf. *isqos* 'fisherman (lit. fish-killing one)', *assonos* 'hunter (lit. animals-killing one)', *ɨtɨkajs* 'guest (lit. visiting one)', etc.

Finally, it should be mentioned that Knyr' (1997) provides a couple of examples taken from old field notes[109] with the nominalized verbs (and action nominals) preceding the head noun, as in (7.20), in support for her claim that *-s* is a participial marker.

(7.20) *nan daqqabrʲasʲ qim*

naˀn	{da^{8}}-daq^{7}-q^{5}-a^{4}-b^{3}-da^{0}-s	qīm
bread	3F^{8}-grill.ANOM^{7}-CAUS^{5}-NPST^{4}-3N^{3}-ITER.TR^{0}-NMLZ	woman

'the woman that is baking pie' (Knyr' 1997: 67)

Our language consultants considered such examples ungrammatical. This is also corroborated by the fact that nominalized adjectives are ungrammatical in the position before the noun they modify. We could not find any example similar to (7.20) in texts either.

[109] These are the data gathered by Prof. Andrej Dul'zon and his students during 1950s-70s of the 20th century.

7.2.3 Postnominal relative clauses.

In addition to the major prenominal strategy, Ket also has postnominal relative constructions, which seem to be a relatively recent innovation developed under the influence of the Russian language. In postnominal relatives, the relative clause occurs after the head noun and is introduced by a relativizer. On formal grounds, postnominal relatives in Ket can be divided into two types depending on the kind of relativizer used.

The first type of postnominal relative clauses bears the strongest resemblance to Russian relative clauses as it is formed with the help of various *wh*-words. These include interrogatives used to question animate constituents only (noun-class differentiating *bitse* 'who.M', *besa* 'who.F' (PL *bilaŋsan*) and noun-class neutral *ana/anet* 'who' (PL *anetaŋ*)), both animate and inanimate constituents (*ases/ās* 'what kind of'), and location (*biseŋ* 'where'). Interestingly, we have not found relative clauses formed with help of the pronoun *ak(u)s* 'what' which is used for questioning inanimate constituents only. The verb in the postnominal relatives preserves its fully finite syntax; action nominals are not allowed.

Examples (7.21) and (7.22) below illustrate some of these relative clauses in Ket.

(7.21a) *qɔ́rɛsʲ āt hīɣ dátulɔŋ*

qodes	ād	hīk	d{i}^{8}-a^{6}-t^{5}-o^{4}-l^{2}-oŋ^{0}
yesterday	1SG	male	1SG^{8}-3M^{6}-TH^{5}-PST^{4}-PST^{2}-see^{0}

'I saw a man yesterday.'

(7.21b) *hīɣ ánʲa/bítsɛ/ásɛsʲ qɔ́rɛsʲ āt dátulɔŋ*

hīk	ana/bitse/ases	qodes	ād	d{i}^{8}-a^{6}-t^{5}-o^{4}-l^{2}-oŋ^{0}
male	who/who.M/what.kind.of	yesterday	1SG	1SG^{8}-3M^{6}-TH^{5}-PST^{4}-PST^{2}-see^{0}

'man who I saw yesterday'

(7.22a) *āt díˑmɛsʲ qímasʲ*

ād	d{i}^{8}-i{k}^{7}-n^{2}-bes^{0}	qim-as
1SG	1SG^{8}-here^{7}-PST^{2}-move^{0}	woman-COM

'I came with the woman.'

(7.22b) *qīm ánʲaˑsʲ/bésaˑs/ásɛsʲasʲ āt díˑmɛsʲ*

qīm	ana-as/besa-as/ases-as	ād	d{i}^{8}-i{k}^{7}-n^{2}-bes^{0}
woman	who-COM/who.F-COM/what.kind.of-COM	1SG	1SG^{8}-here^{7}-PST^{2}-move^{0}

'the woman I came with'

As can be seen, interrogatives appear in a fixed position at the beginning of the relative clause. In *wh*-questions, however, the position of the interrogative word is much more flexible (Belimov 1976: 18).

It should be noted that we have not observed any apparent syntactic or semantic difference between relative clauses introduced by the noun-class differentiating pronouns or by the noun-class neutral one (cf. Belimov 1976: 18). Moreover, as our informants report, they are easily interchangeable. The interrogative *ases* 'what kind of' can be used instead of them as well; cf. examples (7.21)-(7.22).

It should be noted that interrogative words in Ket are capable of taking virtually all case markers and postpositions, and therefore they can easily recover the syntactic-semantic role of the corresponding head noun, as, for instance, in (7.22b) with the instrumental oblique. Thus, it is a clear example of the relative pronoun strategy (cf. Givón 1990: 658; Comrie and Kuteva 2005: 495).

The second type of postnominal clauses involves a special relativizer. The relativizer consists of the stem *qo* and the element reflecting class/number distinctions of the corresponding head noun: *qōd* (M), *qode* (F/N), *qone* (AN.PL). Thus, structurally, it is distinct from the interrogative pronouns discussed above. It should also be mentioned that some Ketologists consider *qod(e)*[110] as a relative pronoun (Dul'zon 1968: 122; Werner 1997: 140). As we will see below, this does not involve the relative pronoun strategy,[111] since this relativizer does not indicate the role of the coreferent head noun.

Examples (7.23)-(7.24) illustrate relative constructions with the relativizer *qod(e)*.

[110] As there is only one instance of the uninflected stem *qo* found in texts, we will refer to this relativizer in its inflected form.
[111] In Comrie and Kuteva's (2005) terms.

(7.23a) *kɛˀt kisʲéŋ dɔ́lʲdaq*

keˀd	kiséŋ	d{u}^{8}-o^{4}-l^{2}-daq^{0}
person	here	3^{8}-PST^{4}-PST^{2}-live^{0}

‘The man lived here.’

(7.23b) *kɛˀt qɔrʲ kisʲéŋ dɔ́lʲdaq*

keˀd	qo-d	kiséŋ	d{u}^{8}-o^{4}-l^{2}-daq^{0}
person	REL-M	here	3^{8}-PST^{4}-PST^{2}-live^{0}

‘the man who lived here.’

(7.24a) *kɛˀt qīm ōksʲ díbijaq*

keˀd	qīm	ōks	d{u}^{8}-i^{4}-b^{3}-ij^{2}-aq^{0}
person	woman	stick	3^{8}-3F^{4}-TH^{3}-PST^{2}-give^{0}

‘The man gave the woman a stick.’

(7.24b) *qīm qɔ́rɛ kɛˀt ōksʲ díbijaq*

qīm	qo-de	keˀd	ōks	d{u}^{8}-i^{4}-b^{3}-ij^{2}-aq^{0}
woman	REL-F	person	stick	3^{8}-3F^{4}-TH^{3}-PST^{2}-give^{0}

‘the woman the man gave a stick to’

The origin of the relativizer remains an open question. For example, Georg (2007: 173) assumes that it is “a relatively recent functional specialization” of the particle *qod(e)* ‘like, as’ (ex. 7.25).

(7.25) *bū tumdu qɔdɛ kīlʲ*

bū	tum-du	qode	kīlʲ
3SG	black-M.PRED	like	raven

‘He is as black as a raven.’ (Werner 2002, II: 93)

Belimov (1985: 40), on the other hand, classifies *qod(e)* as a demonstrative pronoun with the anaphoric meaning ‘the one already mentioned’. It seems to be a rather plausible claim if we consider the demonstrative pronoun system in Ket. As we pointed out in Chapter 2, it has been traditionally described as having a three-way distinction reflecting different degrees of deictic distance (for the sake of convenience we repeat Table 2.6 as Table 7.1 here).

Neutral deictic stem *tu-*	Near-deictic stem *ki-*	Far-deictic stem *qa-*
tu-d (M)	*ki-d* (M)	*qa-d* (M)
tu-de (F/N)	*ki-de* (F/N)	*qa-de* (F/N)
tu-ne (AN.PL)	*ki-ne* (AN.PL)	*qa-ne* (AN.PL)

Table 7.1. *Demonstrative pronouns in Ket*

As one can see, the demonstratives are structurally similar to the relativizer in having a stem enlarged with the augment showing class/number agreement. Moreover, it is possible to find examples in texts where *qod(e)* is used as a demonstrative (anaphoric) determiner:

(7.26) *qɔra ajsa ɛgdugbindɔq*

qo-de	ajsa	egd^{7}-u^{6}-k^{5}-b^{3}-n^{2}-doq^{0}
REL-F	A.	R^{7}-3F^{6}-TH^{5}-TH^{3}-PST^{2}-$fall^{0}$

'the one who is (before-mentioned) Ajsa fainted.' (Kostjakov 1981: 74)

Thus, it seems fair to conclude that the relativizer *qod(e)* is a functional extension of the anaphoric demonstrative pronoun. Moreover, such a grammaticalization path is quite common cross-linguistically (Givón 1990: 656). The particle *qod(e)* 'like, as' might be, in turn, a functional specialization of the demonstrative *qod(e)* as well.[112]

It should be mentioned that both Belimov (1985) and Georg (2007) notice a general tendency to use the form *qode* for all the classes and numbers.[113] Our consultants, however, were quite consistent in the use of the noun-class differentiating forms of *qod(e)*, although they have difficulties with the plural form of the relativizer.[114]

Unlike the interrogative pronouns, the relativizer *qod(e)* is not attested with case-marking or postpositions. Nevertheless, it seems to be capable of relativizing

[112] Notably, Yugh, the closest relative of Ket, does not seem to have anything corresponding to *qod(e)* in Ket (Belimov 1985: 39)

[113] Georg (2007: 166) also points out a similar tendency for the demonstrative pronouns, where the form *tude* tends to be used for all the gender classes.

[114] This probably can be attributed to a dialectal difference. All the examples cited in Belimov (1985) belong to the Central Ket dialect and Georg's fieldwork was mostly conducted in Central Ket villages as well, while our consultants are speakers of Southern Ket. In what follows, we gloss *qod(e)* in the elicited examples according to the noun class it indicates, while in the examples from text sources it is simply glossed as REL.

constituents that would be marked by means of case or a postposition in the base construction, as in (7.27b).

(7.27a) *híɣdɨlʲat qɔ́jdaŋalʲ bān qɔ́saŋatn*

hik-dilkad	qoj-da-ŋal	bān	qos^{7}-aŋ^{6}-a^{4}-tn^{0}
male-children	bear-M-ABL	NEG	fear^{7}-3AN.PL^{6}-NPST^{4}-go^{0}

'The boys are not afraid of the bear.'

(7.27b) *qɔʾj qōrʲ híɣdɨlʲat bān qɔ́saŋatn*

qoʾj	qō-d	hik-dilkad	bān	qos^{7}-aŋ^{6}-a^{4}-tn^{0}
bear	REL-M	male-children	NEG	fear^{7}-3AN.PL^{6}-NPST^{4}-go^{0}

'the bear that the boys are not afraid of'

As we can see, *qod(e)* remains unmarked for Ablative and only shows agreement in class/number with the head noun. Thus, given that *qod(e)* does not indicate the role of the corresponding noun phrase within the relative clause, we may conclude that it should be regarded as another instance of the gap strategy.

In contrast to prenominal relative constructions where the relative clause almost always immediately precedes the head noun, postnominal relative clauses can be easily extraposed (or right-dislocated), cf. (7.28)-(7.29) and (7.22)-(7.24).

(7.28) *bu kɛrʲasʲ uɣɔnʲ, asʲɛsʲ qɔrʲɛsʲ diːmbɛsʲ*

bū	ked-as	u^{6}-k^{5}-o^{4}-{n^{2}-t}n^{0}	ases	qodes	d{u}^{8}-i{k}^{7}-n^{2}-bes^{0}
3SG	person-COM	3F^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}	what.k.o	yesterday	3^{8}-here^{7}-PST^{2}-move^{0}

'She went with the man, who came yesterday.' (Werner 1997: 347)

(7.29) *āt kínij īsʲ bílʲa qɔ́rʲa qɔ́rɛsʲ dáqqimna*

āt	kinij	īs	{di^{8}}-b^{3}-l^{2}-a^{0}	[qo-de	qodes	{di^{8}}-daq^{7}-q^{5}-b^{3}-n^{2}-a^{0}]
1SG	today	fish	{1^{8}}-3N^{3}-PST^{2}-eat^{0}	[REL-N	yesterday	{1^{8}}-grill.ANOM^{7}-TH^{5}-3N^{3}-PST^{2}-R^{0}]

'Today I eat the fish that I grilled yesterday.'

In (7.28), the extraposed relative clause introduced by *ases* is detached from the head noun *keʾd* and placed right after the verb. The internal structure of extraposed relatives in Ket remains the same as in corresponding postnominal relatives. The extraposition does not seem to be connected with the pragmatics of the sentence; rather it reflects

the frequent tendency in Ket to place "heavy" constituents in the postverbal position without any effect on the information structure (cf. Section 2.3.5).

7.2.4 Correlative relative clauses

Another type of relative clauses in Ket that likewise employs *wh*-words is a correlative clause construction. The correlative constructions consist of two separate (non-embedded) clauses: the one is a *wh*-clause containing the head noun and the other is the main clause with an anaphoric element referring to the head noun in the *wh*-clause, as in (7.30).

(7.30) *asʲɛsʲ kɛˀt tlʲuvɛrɔavɛt tunbɛsʲ abaŋa diksʲivɛsʲ*

ases	keˀd	d{i}^{8}-lubed^{7}-o^{6}-k^{5}-a^{4}-bed^{0}	
what.kind.of	person	1^{8}-love.RUS.ANOM^{7}-3M^{6}-TH^{5}-NPST^{4}-ITER^{0}	
tunbes	aba-ŋa	d{u}^{8}-ik^{7}-s^{4}-bes^{0}	
such	1SG.POSS-DAT	3^{8}-here^{7}-NPST^{2}-move^{0}	

'What kind of man I love, such (man) comes to me (i.e. The man I love will come to me.).'

(Werner 1997: 349)

There is also a headless variant of the correlative construction, illustrated in (7.31).

(7.31) *ana aqta tlɔvɛrabɛt turʲ aqta duɣaraq*

[ana	aqta	d{u}^{8}-lobed^{7}-a^{4}-bed^{0}]	tū-d	aqta	du^{8}-k^{5}-a^{4}-daq^{0}
who	good	3^{8}-work.RUS.ANOM^{7}-NPST^{4}-ITER^{0}	this-M	good	3^{8}-TH^{5}-NPST^{4}-live^{0}

'Who works well, that one lives well.' (Werner 1997: 349)

Beside the apparent structural difference (presence vs. absence of the head noun), these two constructions are also distinct in the kind of interrogatives they use. The headed correlatives are formed with the help of the interrogative *ases*, while the headless variant makes use of the rest of the *wh*-words. In fact, this is quite expected since *ases* is an adjectival interrogative pronoun, i.e. it functions as an ordinary adjective and obligatorily requires the presence of the noun phrase in *wh*-questions. Interrogatives like *ana*, *bitse*, *besa*, etc. are nominal in nature, and thus always occur in argument positions; compare (7.32)-(7.34).

(7.32) *ásʲɛsʲ kɛˀt klʲúvɛrɔavɛt?*

ases	keˀd	k{u}^{8}-lubed^{7}-o^{6}-a^{4}-bed^{0}
what.kind.of	person	2^{8}-love.RUS.ANOM^{7}-3SG.M^{6}-NPST^{4}-ITER^{0}

'Which man do you love?'

(7.33) **ásʲɛsʲ tlʲúvɛrɔavɛt?*

ases	k{u}^{8}-lubed^{7}-o^{6}-a^{4}-bed^{0}
what.k.o	2^{8}-love.RUS.ANOM^{7}-3SG.M^{6}-NPST^{4}-ITER^{0}

Intended: 'Which (one) do you love?'

(7.34) *ána/bítsɛ klʲúvɛrɔavɛt?*

ana/bitse	k{u}^{8}-lubed^{7}-o^{6}-a^{4}-bed^{0}
who/who.M	2^{8}-love.ANOM^{7}-3SG.M^{6}-NPST^{4}-ITER^{0}

'Who do you love?'

In addition to interrogative words, headless correlative relative clauses in Ket may also employ the relativizer *qod(e)*, as in (7.35).

(7.35) *qɔdɛ at tɔsɔ́ɔlɔq tudi kɛtdaŋa at tɔsʲɛ bɔɣátn*

qode	ād	{di^{8}}-tosa^{7}-o^{4}-l^{2}-oq^{0}			
REL	1SG	1SG^{8}-up^{7}-PST^{4}-PST^{2}-lift^{0}			
tudi	ked-da-ŋa		ād	tosa	bo^{6}-k^{5}-a^{4}-den^{0}
this	person-M.POSS-DAT		1SG	up	1SG^{8}-TH^{5}-NPST^{4}-go^{0}

'I will go up to that man I lifted up (lit. That which I lifted up, to that man up I will go.)'

(Dul'zon 1964: 192)

It should be mentioned that correlative (and postnominal) constructions with the relativizer *qod(e)* are much more frequent in texts than those with interrogative pronouns.

7.3 Relativization strategies and accessibility.

In the previous section we discussed morpho-syntactic properties of relative constructions as well as the mechanisms they employ in order to identify the syntactic-semantic role of the head noun within the relative clause, i.e. relativization strategies. In this section, we focus in more detail on another important characteristic of relative

constructions, namely, what syntactic-semantic roles of the head noun are accessible to these relativizing strategies.

It should be noted that with respect to postnominal and correlative relatives, we limit our further discussion only to postnominal ones employing the relativizer *qod(e)*.

7.3.1 The Accessibility Hierarchy.

Before starting our discussion of the syntactic-semantic roles accessible to the existing relativization strategies in Ket, it is important to note that the hierarchy does not imply that any given language must distinguish all the given positions on the hierarchy. For example, Hindi treats objects of comparison as ordinary oblique complements, therefore there is no need to distinguish the object of comparison position on the hierarchy for this language (Keenan and Comrie 1977: 66). A similar situation can be observed in Ket with respect to Indirect objects and Objects of comparison.

Marking of Indirect objects (or Recipients) in Ket depends on the type of ditransitive construction we deal with. If the verb belongs to the double object ditransitives, the indirect object receives the same marking as the direct object of verbs from Transitive Configuration I; compare (7.36)-(7.37).

(7.36) *kɛˀt qīm tīp dívijaq*

keˀd	qīm	tīb	d{u}^{8}-i^{4}-b^{3}-ij^{2}-aq^{0}
person	woman	dog	3^{8}-3F^{4}-TH^{3}-PST^{2}-give^{0}

‘The man gave (his) wife a dog.’ (Nefedov, Vajda and Malchukov 2010: 358)

(7.37) *kɛˀt qīm dítnivʌk*

keˀd	qīm	d{u}^{8}-it^{4}-n^{2}-bɤk^{0}
person	woman	3^{8}-3F^{4}-PST^{5}-find^{0}

‘The man found the woman.’

In both examples, the noun *qīm* ‘woman’ is cross-referenced with the 3rd person feminine marker in the same position on the verb, namely, in slot P4.

If the verb belongs to the indirective type of ditransitive constructions, the indirect object takes the Dative case marker (7.38), which marks oblique complements as well (7.39).[115]

(7.38) *āt háŋtip kétdaŋa tqʌ́rʲuksibɛt*

ād	haŋ-tib	ked-da-ŋa	d{i}^{8}-qəd^{7}-u^{6}-k^{5}-s^{4}-i/bed^{0}
1SG	female-dog	person-M-DAT	1SG^{8}-gift^{7}-3F^{6}-TH^{5}-NPST^{4}-make^{0}

'I give a dog to the man.' (Nefedov, Vajda and Malchukov 2010: 357)

(7.39) *āt naˀnʲ dɛsʲɔ́mdaq ájdʲiŋa*

ād	naˀn	d{i}^{8}-es^{7}-o^{4}-b^{3}-n^{2}-daq^{0}	aj-di-ŋa
1SG	bread	1^{8}-up^{7}-PST^{4}-3N^{3}-PST^{2}-throw^{0}	bag-N-DAT

'I put the bread in the bag.'

Objects of comparison are likewise treated as Obliques and require Ablative case-marking; compare (7.40)-(7.41).

(7.40) *bɛˀsʲ qɔ́jdaŋalʲ hʌ́nʲunʲda*

beˀs	qoj-da-ŋal	hʌnun-da
hare	bear-N-ABL	small-3F.PRED

'The hare (F) is smaller than the bear.'

(7.41) *ájdiŋalʲ talín tkájnɛm*

aj-di-ŋal	talín	d{i}^{8}-kaj^{7}-{b^{3}}-n^{2}-am^{0}
bag-N-ABL	flour	1^{8}-limb^{7}-3N^{3}-PST^{2}-take^{0}

'I took the flour from the bag.'

Thus, the Indirect object and Object of comparison positions of the Accessibility Hierarchy remain unrealized in Ket.

7.3.1.1 Subject

As can be seen from the examples cited above, this syntactic-semantic role is easily relativizable by all types of relative clauses in Ket, although relativization on subjects of monotransitive verbs is very rare in texts according to our research (but it was

[115] There is a minor subtype of the indirective construction which requires the Adessive case marker. This case marker is also widely used with oblique complements (see Nefedov, Vajda and Malchukov 2010 for more details).

readily obtained in elicitation). In this section, we illustrate (where possible) both kinds of subject relativization with examples from Ket texts and various grammatical descriptions of Ket.

Examples in (a) represent relativization on intransitive subjects, while those in (b) – on subjects of monotransitive verbs. The finite prenominal strategy is represented in (7.42), non-finite prenominal in (7.43), and the postnominal strategy with *qod(e)* is shown in (7.44).

(7.42a) *ɔɣátn kɛˀtʲda qɔŋ a bʌn itpɛdɛm*

[o^{6}-k^{5}-a^{4}-tn^{0}]	keˀd-da	qoŋ	ād	bān	it^{7}-ba^{6}-d{i}^{1}-am^{0}
[3M^{8}-TH^{5}-NPST^{4}-go^{0}]	person-M.POSS	image	1SG	NEG	know^{7}-1SG^{6}-1SG^{1}-R^{0}

‘I don’t know the man who is walking.’ (Dulzon 1971b: 122)

(7.42b) *aŋin thasa kɛt*

[áən	d{u}^{8}-ha^{7}-s^{4}-a^{0}]	keˀd
[branch.PL	3M^{8}-PERPENDICULAR^{7}-NPST^{4}-cut.off^{0}]	person

‘a man cutting branches’ (Knyr’ 1997: 68)[116]

(7.43a) *ad bada hɔɣúmdɛ iːsʲ kɛˀt*

ād	bada	hoɣúm-da	[īs]	keˀd
1SG	he.says/said	H.-3N.POSS	[row.ANOM]	person

‘I (am), he says, Hokum’s rowing person.’ (Dul’zon 1965: 95)

(7.43b) *qájɛ tūrʲ úddijiŋ dīlʲ qɔ́tɛ ɔɣɔ́n*

qaje	tu-d	[uddijiŋ]	dīl	qote	o^{6}-k^{5}-o^{4}-{n^{2}-t}n^{0}
then	this-M	[steal.ANOM]	child	ahead	3M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

‘Then this stealing boy went ahead.’

(7.44a) *budə bisép qɔda uɣɛt baŋ duːnu*

bu-de	biseb	[qoda	u^{6}-k^{5}-a^{4}-t{n}^{0}	baŋ	du^{8}-o^{4}-n^{2}-{q}o^{0}]
3SG-F	sibling	[REL	3F^{6}-TH^{5}-NPST^{4}-go^{0}	place	3M^{3}-PST^{4}-PST^{2}-die^{0}]

‘Her brother, who died while she was walking.’ (Dul’zon 1966: 94)

[116] Note that Knyr’ (1997: 68) incorrectly interprets *thasa* as having the nominalizer *-s*. It should also be pointed out that the word *aŋin* looks more like *aŋen*, the plural form of the word *àŋ* ‘rope’, rather than *áən* ‘branches’. In our glossing we sticked to the translation provided by the author.

(7.44b) *hīɣ qōrʲ daqīm díʁɛj árʲɛndiŋa ɔɣón*

hīk	[qō-d	da-qīm	d{u}^{8}-i^{4}-q^{2}-ej^{0}]	aden-di-ŋa	o^{6}-k^{5}-o^{4}-{n^{2}-t}n^{0}
male	[REL-M	3M.POSS-woman	3M^{8}-3F^{4}-PST^{2}-kill^{0}]	forest-N-DAT	3M^{8}-TH^{5}-NPST^{4}-go^{0}

'The man who killed his wife went to the forest.'

7.3.1.2 Direct Object

The absolute majority of relative clauses built on monotransitive verbs and corresponding action nominals in Ket texts are instances of direct object relativization. This is illustrated in example (7.45) for the finite prenominal strategy, in example (7.46) for the non-finite prenominal strategy, and in example (7.47) for the postnominal strategy with *qod(e)*.

(7.45) *ap saˀq bida silikɛ qɔj diːʁaj saˀq*

āp	saˀq	bida	[silike	qōj	d{u}^{8}-i^{6}-q^{2}-ej^{0}]	saˀq
1SG.POSS	squirrel	where	[S.	uncle	1^{8}-3F^{6}-PST^{2}-kill^{0}]	squirrel

'Where is my squirrel? The squirrel that my uncle Silike killed.'

(Belimov 1981: 61)

(7.46) *bɔːm kupkə ujbʌt tudə ilʲbɛt sʲik*

baam	kupka	uj^{7}-b^{3}-qut^{0}	tu-de	[ilbed]	siˀk
old.woman	in.front.of	R^{7}-3N^{3}-lie^{0}	this-N	[small.make.ANOM]	trough

'In front of the old woman there lies this broken trough.'

(Kotorova and Porotova 2001: 23)

(7.47) *unʲaŋdiŋta īːs bʌnsaŋ a kʌjgan qɔrɛ bāt bānʲ dbilʲ*

unaŋ-di-ŋta	īs	bənsaŋ			
net-3N.POSS-ADES	fish	not.be.present			
a	kəjga-n	[qo-de	báàd	bān	d{u}^{8}-b^{3}-l^{2}-{a^{0}}]
but.RUS	head-PL	[REL-N	old.man	NEG	3^{8}-3N^{3}-PST^{2}-eat^{0}]

'There was no fish in the net, but only (fish) heads, which the old man didn't eat.'

(Dul'zon 1962: 147)

7.3.1.3 Oblique

Relativization on oblique arguments are quite rare in texts (except for relativization on the adverbial argument *baˀŋ* 'place', see below). In general, obliques can be divided into two groups depending on whether they are marked by a 'primary' case marker or

by a 'secondary' one.[117] As we have already mentioned, noun phrases marked by some of the 'primary' cases can be relativized using the prenominal gap strategy, while those marked by 'secondary' cases require obligatory presence of a coreferent resumptive pronoun.

Example (7.48) illustrates relativization of a noun marked with the Comitative-Instrumental suffix by the finite prenominal strategy.

(7.48a) *āt qɔʔj dáʁaj attɔ́sasʲ*

ād	qoʔj	d{i}^{8}-a^{6}-q^{2}-ej^{0}	attós-as
1SG	bear	1SG^{8}-3M^{6}-PST^{2}-kill^{0}	spear-COM

'I killed the bear with a spear.'

(7.48b) *qɔʔj dáʁaj attɔ́s*

[qoʔj	d{i}^{8}-a^{6}-q^{2}-ej^{0}]	attós
[bear	1SG^{8}-3M^{6}-PST^{2}-kill^{0}]	spear

'the spear the bear was killed with'

Similarly, we can relativize this role with the help of the non-finite and headless strategies; cf. (7.49)-(7.50).

(7.49) *qɔʔj èj attɔ́s*

[qoʔj	èj]	attós
[bear	kill.ANOM]	spear

'the spear the bear was killed with'

(7.50) *qɔʔj éjsʲ*

[qoʔj	ej]-s
[bear	kill.ANOM]-s

'the one who killed the bear' or 'the thing the bear was killed with'

Note that in the case of finite headless relatives, the Instrumental interpretation is not available, as is illustrated in (7.51).

[117] The latter also includes postpositions, which usually require the possessive linker on its object.

(7.51) *qɔˀj dáʁajsʲ*

[qoˀj d{u}^{8}-a^{6}-q^{2}-ej^{0}]-s
[bear 3M^{8}-3M^{6}-PST^{2}-kill^{0}]-s
'the one who killed the bear' Not: 'something the bear was killed with'

When the suffix *-as* is used to convey a comitative meaning, as in (7.22a) above, the relativization by gapping is not possible:

(7.52) **āt díˑmɛsʲ qīm*

[ād d{i}^{8}-i{k}^{7}-n^{2}-bes^{0}] qīm
[1SG 1SG^{8}-here^{7}-PST^{2}-move^{0}] woman
Intended: 'the woman I came with'

Likewise it is not possible to relativize on noun phrases marked with the other 'primary' case markers such as the Prosecutive *-bes* and the Caritive *-an*.

Relativization on the locative complements marked by the suffix *-ka* is not available for headless relatives, whereas prenominal relatives can relativize on this role, as in (7.53).

(7.53a) *āt qúsʲka díɣaraq*

ād qus-ka di^{8}-k^{5}-a^{4}-daq^{0}
1SG tent-LOC 1^{8}-TH^{5}-NPST^{4}-live^{0}
'I live in a birch-bark tent.'

(7.53b) *āt díɣaraq quˀsʲ*

[ād di^{8}-k^{5}-a^{4}-daq^{0}] quˀs
[1SG 1^{8}-TH^{5}-NPST^{4}-live^{0}] tent
'the birch-bark tent in which/where I live'

(7.53c) *dʌˀq quˀs*

[dəˀq] quˀs
[live.ANOM] tent
'a birch-bark tent where someone lives'

The difference in accessibility of 'primary' case marked obliques to relativization by the prenominal gap strategy might be the result of restrictions imposed by the subordinate verb's argument structure. As pointed out in Mal'čukov (2008), if we deal

with a *–case* relativizing strategy (in terms of Keenan and Comrie 1977), then relativization on complements which are not part of the argument structure of a given verb would violate the principle of "case-recoverability" formulated in Givón (1990: 650-651).[118]

Nevertheless, this principle can be violated when the head noun indicates its own semantic role through its lexical meaning (cf. Givón 1990: 679). Therefore, the prenominal gap strategy can be used with nouns such as *iˀ* 'day', *sɨ̀ɨ̀* 'year', etc., which function as temporal adjuncts. In addition, relativization on temporal and (non-argumental) locative adjuncts can be achieved with the help of the noun *baˀŋ* 'place', cf. (7.54a) and (7.54b), respectively. In this case, such oblique relatives belong to the domain of locative adverbial clauses (see Chapter 6).

(7.54a) **āb ílʲɛŋ quˀs*

āb	ileŋ	quˀs
1SG.POSS	eat.ANOM	tent

Intended: 'The birch-bark tent where I eat.'

(7.54b) *qaj dɛ dʌlíːɣət ˀiːlɛŋ baŋ*

qàj	da	dəlikit	ileŋ	baˀŋ
elk	M.POSS	willow	eat.ANOM	place

'The place where the elk eats willow.' (Dul'zon 1962: 171)

When the relativized noun is marked by one of the 'secondary' cases, it triggers the occurrence of an anaphoric pronoun within the relative clause, as in (7.55b).

(7.55a) *āt dímɛsʲ kétdaŋa*

ād	d{i}^{8}-ik^{7}-n^{2}-bes^{0}	ked-da-ŋa
1SG	1^{8}-here^{7}-PST^{2}-move^{0}	person-3M.POSS-DAT

'I came to the man.'

(7.55b) *āt daŋa dímɛsʲ kɛˀt*

[ād	da-ŋa	d{i}^{8}-ik^{7}-n^{2}-bes^{0}]	keˀd
[1SG	3M.POSS-DAT	1^{8}-here^{7}-PST^{2}-move^{0}]	person

'the man I came to'

[118] In his work, Mal'čukov (2008) uses relativization as one of the main criteria in determining a verb's valence in Even.

This anaphoric pronoun represents a 'floating' relational marker which occurs without its pronominal host. As noted in Georg (2007: 117), these 'headless' occurrences are restricted to anaphoric situations when it is possible to retrieve the necessary information from the earlier context, as in (7.56).

(7.56) *ad badɛ ɔbiŋna qɔq hip ɔbɨlʲda. ād naŋálʲ bɔɣɔndɛn*

ād	bade	ob-aŋ-na	qoˀq	hiˀb	obilda
1SG	he.says/said	father-PL-AN.PL.POSS	one.AN	son	was

ād	na-ŋal	bo^{6}-k^{5}-o^{4}-n^{2}-den^{0}
1SG	AN.PL.POSS-DAT	1SG^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}

'I, he said, was (my) parents' only son. I went away from them.'

(Dul'zon 1965: 104)

The ability of the floating case marker to retrieve the information about its referent is due to the presence of the possessive linker which differentiates class and number. If the speaker wants to put emphasis on the referent, then the pronominal host is normally retained (Vajda 2008b: 192). In this case, the anaphoric pronoun in (7.56) would have been in its full form *bū-ŋ-na-ŋal* [3-PL-AN.PL-ABL]. Note that anaphoric pronouns used in the resumptive function never occur in their full form.

It should be mentioned that the occurrence of a resumptive pronoun in prenominal relative clauses is rather rare cross-linguistically. This seems to be connected with the fact that the preferred order in interclausal anaphoric situations is 'antecedent noun-anaphoric pronoun' and not vice versa (Givón 1990: 656). The languages that are known to have such constructions (often very rare and limited in use) include Chinese, Korean (Keenan and Comrie 1977), Japanese (Bernard Comrie, p.c.), Nama (Vries 2002: 37), Shipibo-Konibo (Valenzuela 2002). The occurrence of the resumptive pronoun in Ket finite prenominal relatives can be attributed to the fact that they preserve fully finite syntax (Lehmann 1992: 344). This is also corroborated by the fact that this strategy is not found with non-finite prenominal relatives clauses in Ket.

The headless relatives are likewise not capable of relativizing on the obliques marked by secondary cases. A possible explanation for this is that the anaphoric reference cannot be established due to the absence of the antecedent noun.

The non-availability of the anaphoric pronoun strategy for non-argumental noun phrases marked with primary cases seems to be connected with the fact that primary case markers lack a possessive linker and rarely occur with pronouns in general.

Interestingly, the postnominal strategy with *qod(e)* is capable of relativizing on secondary case arguments without any resumptive pronoun, as can be seen in (7.27b). A similar situation is found with headless correlative relative clauses, cf.:

(7.57) *qɔrɛ kuŋa qaj bat dasaːnilit turɛ rɔnnɛrɛj*

[qode	ku-ŋa	qaj	bāt	d{i}^{8}-asan^{7}-l^{2}-bed^{0}]	tu-de	da^{8}-o^{4}-n^{2}-a^{1}-dij^{0}
[REL	2SG.POSS-DAT	PART	PART	1^{8}-speak^{7}-PST^{2}-make^{0}]	this-F	3F^{8}-PST^{4}-PST^{2}-3SS^{1}-reach^{0}

‘That (woman) I was about to tell you about (just) showed up (lit. Which I was about to tell you about, that (just) showed up).’

(Dul’zon 1962: 176)

The verb *asan^{7}-[l^{2}]-bed^{0}* ‘tell’ in (7.57) requires its oblique complement to take the Ablative case marker. Nevertheless, the relativizer *qod(e)* remains unchanged and there is no anaphoric pronoun (in this particular case it would be *di-ŋal* [F.POSS-ABL]) within the relative clause.

7.3.1.4 Possessor

As for Possessors, they like Obliques require the presence of a resumptive element, cf. (7.56).

(7.58a) *hīɣ qímd íŋɢus^{j} dítuŋ*

hīk	qim-d	iŋqus	d{u}^{8}-i^{6}-t^{5}-oŋ^{0}
male	woman-F.POSS	house	3^{8}-3N^{6}-TH^{5}-see^{0}

‘The man sees the woman’s house.’

(7.58b) *hīɣ díŋɢus^{j} dítuŋ qīm*

hīk	d-iŋqus	d{u}^{8}-i^{6}-t^{5}-oŋ^{0}	qīm
male	F.POSS-house	3^{8}-3N^{6}-TH^{5}-see^{0}	woman

‘the woman whose house the man sees’

Relative strategies formed with the help of *wh*-words can be used to relativize on Possessors too. In this case, the role of Possessor is indicated by a *wh*-pronoun in the

possessive form. Both postnominal (7.59b) and correlative (7.59c) relative clause types are available.

(7.59a) *tūr^{j} híɣda qu^{ʔ}s^{j} bɔ^{ʔ}k dəbíl^{j}*

tū-d	hik-da	qu^{ʔ}s	bo^{ʔ}k	də^{8}-b^{3}-l^{2}-{a^{0}}
this-M	male-M.POSS	tent	fire	3N^{8}-3N^{3}-PST^{2}-eat^{0}

'This man's birch bark tent burned down (lit. fire ate it).'

(7.59b) *tūr^{j} hīɣ ásɛs^{j}da/án^{j}da/bítsɛra qu^{ʔ}s^{j} bɔ^{ʔ}k dəbíl^{j} ár^{j}ɛndiŋa ɔɣón*

tū-d	hīk	ases-da/an-da/bitse-da		qu^{ʔ}s	bo^{ʔ}k	də^{8}-b^{3}-l^{2}-{a^{0}}
this-M	male	what.k.o-M.POSS/who-M.POSS/who.M-M.POSS		tent	fire	3N^{8}-3N^{3}-PST^{2}-eat^{0}
		aden-di-ŋa	o^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}			
		forest-N-DAT	3M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}			

'This man, whose birch bark tent burned down, went to the forest.'

(7.59c) *ásɛs^{j}da/án^{j}da/bítsɛra qu^{ʔ}s^{j} bɔ^{ʔ}k dəbíl^{j} tūr^{j} hīɣ ár^{j}ɛndiŋa ɔɣón*

ases-da/an-da/bitse-da				qu^{ʔ}s	bo^{ʔ}k	də^{8}-b^{3}-l^{2}-{a^{0}}
what.k.o-M.POSS/who-M.POSS/who.M-M.POSS				tent	fire	3N^{8}-3N^{3}-PST^{2}-eat^{0}
tū-d	hīk	aden-di-ŋa	o^{6}-k^{5}-o^{4}-{n^{2}-de}n^{0}			
this-M	male	forest-N-DAT	3M^{6}-TH^{5}-PST^{4}-PST^{2}-go^{0}			

'Whose birch bark tent burned down, this man, went to the forest.'

Other types of relative clauses are not attested with Possessors.

7.4 Summary of Chapter 7

In this chapter we provided a typologically-oriented overview of relative constructions in Ket. We surveyed them with respect to their structural properties as well as the ability to relativize on different syntactic-semantic roles. With respect to the position of the head noun, all the types of relative clause constructions in Ket are externally-headed with the obvious exception of the headless type. In terms of positional characteristics, the major strategy in Ket is the prenominal strategy. It may employ both finite verbs and action nominals. The prenominal strategy has a headless variant formed with the help of the nominalizing suffix *-s*. The headless and prenominal types are parallel in many respects, but show some variation in their ability to relativize on certain syntactic-semantic roles. In addition, Ket has a postnominal type of relative clause which can be further subdivided into those marked

with the relativizer *qod(e)* and those marked by *wh*-words. The latter can be clearly attributed to the massive influence of Russian in which it represents the main relativization stategy. It seems fair to assume that the *qod(e)* strategy in Ket is probably a calque. Correlative clauses both headed and headless are also attested in Ket.

The Table 7.2 below summarizes the findings concerning the accessibility of certain syntactic-semantic roles and strategies involved in each case in accordance with Keenan and Comrie's Accessibility Hierarchy. Note that Indirect objects in Ket are treated either as Directs objects or as Obliques depending on the verb type. Objects of comparison are also subsumed under Obliques due to the identical marking. Therefore, the Accessibility Hierarchy for Ket looks as follows:

SUBJECT>DIRECT OBJECT>OBLIQUE>GENITIVE

Roles→ / ↓Strategy		SU	DO	OBL				GEN
				Primary			Secondary	
				COM	LOC	PROS/ CAR		
GAP	Finite prenominal	+	+	+/-[119]	+/-	-	-	-
	Non-finite prenominal	+	+	+/-	+/-	-	-	-
	Finite headless	+	+	-	-	-	-	-
	Non-finite headless	+	+	+/-	-	-	-	-
	Postnominal with *qod(e)*	+	+	NA[120]	NA	NA	+	-
RETENTION PRONOUN	Finite Prenominal	-	-	-	-	-	+	+
NON REDUCTION	Correlative with *qod(e)*	+	+	NA	NA	NA	+	-
	Correlative with *wh*-words	+	+	+	+	+	+	+
RELATIVE PRONOUN	Postnominal with *wh*-words	+	+	+	+	+	+	+

Table 7.2. Accessibility in Ket

[119] '+/-' stands for cases where relativizability depends on the inherent argument structure of the corresponding verb.

[120] 'n/a' means that we were unable to obtain examples of primary case marked obliques from our informants, whereas texts and grammatical descriptions provide examples of a secondary case marked oblique relativized by the same strategy.

As can be seen, there is a significant difference in relativizability by the gap strategy among oblique complements. On the one hand, this difference can be attributed to restrictions imposed by the verb's argument structure, on the other hand; it also depends on the morphological marking of the oblique complement. Thus, relativization on secondary case marked complements requires the occurrence of the corresponding anaphoric pronoun. The use of anaphoric pronouns in prenominal relative clauses is a quite rare typological feature. In Ket, this can be attributed to the fact that prenominal relatives employ verbs with fully finite syntax (which is also rather uncommon typologically).

From the areal point of view, Ket follows the same prenominal positional pattern found in the languages of neighboring peoples, although the existence of finite prenominal relatives clearly distinguishes it from the rest of Siberia (see Chapter 8 for more discussion).

Chapter 8. Areal influence on Ket syntax

As we have already pointed out in Chapter 2, Ket is quite complex and hard to pigeonhole within a single typological account. The majority of structural features complicating a clear-cut typological analysis of Ket are the result of a peculiar process of structural mimicry, or 'typological accommodation' in Vajda's (2009) terms. Due to the long-term areal contact with languages of a radically different structural type, the Yeniseian languages have gradually adapted themselves to the structural type of the surrounding languages, while preserving the core features of their grammar that clearly distinguish them from the rest of Central Siberia. The aim of this chapter is to show that in addition to the phonological and morphological levels this peculiar phenomenon can also be observed at the syntactic level, namely in the formation of adverbial and relative clauses.[121]

The structure of the chapter is as follows. Section 8.1 provides a concise overview of the contact situation in Central Siberia. Section 8.2 outlines the core typological features of Ket as opposed to those of the surrounding languages. In section 8.3 we discuss the phenomenon of typological accommodation in Ket at the phonological, morphological and syntactic levels. Section 8.4 summarizes the chapter.

8.1 Contact situation in Central Siberia

Central Siberia[122] covers a vast territory in the Asian part of Russia extending from the Arctic Ocean in the north to the borders of Mongolia and China in the south, along the large watershed of the Yenisei River. In the west, the area borders on the easternmost regions of the Ob river watershed, while the westernmost watershed regions of the Lena River and Lake Baikal form its border in the east. This territory is home to a large and highly diverse group of peoples whose languages belong to at

[121] In this chapter, we consider only the indigenous languages of Central Siberia. The effect of massive Russian contact influence on Ket as well as the other Siberian languages that has mostly occurred over the past century is not relevant to the purposes of this chapter. The information about the Russian influence on clause linkage in Ket, however, can be found in the previous chapters.

[122] Central Siberia is a conventional term with no official geographic or administrative boundaries. In our definition, we follow Anderson (2004: 1). This definition encompasses the following present-day Russian administrative regions: Gorno-Altai, Tuva, Xakasia, Krasnoyarsk Krai, and Tomsk Oblast, as well as eastern Khanty-Mansi Autonomous Okrug and western parts of Irkutsk Oblast.

least five distinct genetic language units: Yeniseian, Samoyedic, Ob-Ugric, Tungusic, and Turkic.[123] The map in Map 8.1 provides a slightly simplified illustration of how these peoples used to be distributed across Central Siberia.

Map 8.1. Ethnic groups in Central Siberia (ca. 1600 AD) (Vajda 2004: ix)

As we mentioned in Chapter 2, the Yeniseian-speaking peoples seem once to have occupied a large territory stretching from Northern Mongolia to the Ural Mountains.

[123] The Samoyedic and Ob-Ugric languages are traditionally considered a part of the Uralic language family, while Tungusic and Turkic are argued to be a part of the very controversial Altaic family. Furthermore, they are sometimes united into the even more controversial 'Uralic-Altaic' genealogical unit (cf. Sinor 1988).

However, when the first Russians entered Siberia in the late 16th century, the remaining Yeniseian tribes were spread only along the Yenisei River surrounded by the other Siberian peoples. In the north, these were Nenets, Enets, and Nganasan tribes speaking Northern Samoyedic languages. In the eastern regions lived Selkups speaking a Southern Samoyedic language and the eastern Khanty. The western parts were dominated by Evenki speaking a Tungusic language, while in the south lived a number of Turkic-speaking groups and the now extinct Southern Samoyedic peoples (Mator and Kamassin).[124]

The indigenous peoples of Central Siberia have undergone centuries of interaction, which is reflected in their languages. For example, Selkup used to serve as a lingua franca among the tribes inhabiting the northwest of the region. Thus, it could have been the source of certain features like, for instance, prolative case, spread in these languages (Anderson 2004: 5). Not to mention the occurrence of various mutual loanwords, etc.

The contact situation for the Yeniseian languages depended on whether they belonged to the Northern branch or to the Southern one, though in the latter case there is not so much information available. Arin, Assan and Pumpokol, the Southern Yeniseian languages, became extinct already during the 18th century, and therefore they were rather scarcely documented. Somewhat more documentation exists on Kott, another representative of the Southern branch, which survived until the mid-19th century. Nevertheless, the existing materials on these languages show numerous Turkic loans mainly in the realms of food, stockbreeding, farming, and metallurgy proving that they were in direct association with stockbreeding Turkic-speaking tribes. Moreover, some of the southern Yeniseian groups became later absorbed by their Turkic neighbors: the Kott and Assan mainly shifted to Khakas, while some Arin and Pumpokol, in addition to Khakas, shifted also to Chulym Turkic (Anderson 2004: 8).[125]

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[124] The Mator language had three dialects: Nuclear Mator, Karagas and Taigi (the latter two are sometimes considered as separate languages). The language became extinct by the late 18th century; Taigi was replaced by Turkic varieties spoken in the Altai-Sayan area, while the Karagas shifted to Buryat, a Mongolic language. The Kamassian language had two dialects: Kamas and Koibal; the speakers of the latter shifted to a Turkic language as well.

[125] Interestingly, some groups of Turkic and Samoyedic speaking tribes living in the southern regions probably originally spoke some undocumented Yeniseian language (cf. Anderson 2004: 8-9).

Borrowing in the other direction, i.e. into Turkic varieties, happened as well. For example, Butanaev (2004: 227-8) lists a few dozen miscellaneous Yeniseian loans into Khakas ranging thematically from flora and fauna to natural phenomena and hunting and fishing.

The Northern Yeniseian languages, Ket and Yugh, unlike their southern relatives, had no direct contact with Turkic peoples. They lived as small groups nomadizing in a vast northern taiga forest along the Yenisei surrounded by reindeer-breeding tribes. The contacts with these tribes, the Nenets and Enets in the north and the Evenki in the west, were rather sporadic and tended to be generally hostile. Therefore, there are only a few identifiable loans into the Ket dialects (Northern and Central) from these languages, all belonging to the realm of winter clothing and reindeer breeding. The number of Yeniseian loans into Northern Samoyedic and Tungusic is even smaller, with a notable example being the 2nd and 3rd person pronouns in Forest Enets most likely borrowed from Ket (cf. Hajdú 1983).

Unlike its northern relatives, the Selkup, residing in the eastern territories and speaking a Southern Samoyedic language, developed quite friendly relations with the Ket to the extent that there were a considerable number of intertribal marriages.[126] Selkup borrowings into Ket are more common, though they are likewise mostly restricted to lexical items relating to reindeer breeding and clothing. Ket loanwords in Selkup are rather scarce.

In general, the contact situation in Central Siberia can be characterized as a rather complex mosaic of interactions among the indigenous languages, where all the linguistic groups have borrowed from each other at some point in their history (cf. Anderson 2004: 21). Among them, the Yeniseian languages seem to be both the most resistant and the least pervasive with respect to lexical borrowing (cf. Vajda and Nefedov 2009).[127] This fact can be accounted for by the overall complexity of the

[126] These amicable relations between Ket and Selkup peoples are best illustrated by the fact that the ethnonym *laʔk* 'Selkup' in Ket originates from the word *ляҷа~ляқа* 'friend' in Selkup.

[127] As Vajda (forthcoming) notes, a larger number of loanwords in the Southern Yeniseian languages may reflect the fact that these languages were recorded only during the final stages of obsolescence, when all of the remaining speakers had already switched either to one of the Siberian Turkic dialects or to Russian. A somewhat similar situation can be observed with the majority of modern Ket speakers.

Yeniseian languages, therefore the number of speakers of the surrounding languages conversant in a Yeniseian language was very small (cf. Vajda, forthcoming).[128] It was usually the Yeniseian who had to learn an outside language, which is another reason for a rather limited exposure of the Yeniseian lexical and structural phenomena to the neighboring languages.

8.2 Core typological features of Yeniseian

All major linguistic families in Central Siberia like Turkic, Tungusic, Samoyedic and Ob-Ugric conform to a common typological profile: they are non-tonal and have suffixing nominal and verbal inflectional morphology. By contrast, the typical grammatical and phonological characteristics of the Yeniseian family present a completely different picture. Unlike their neighbors, the Yeniseian languages have phonemic tones (tonemes), possessive prefixes, and prefixing polysynthetic verb morphology clearly distinguishing them from the rest of Central Siberia. All these characteristics in Modern Ket were already described in some detail in Chapter 2. For the sake of convenience, we will briefly outline them below with additional illustrations from the other Yeniseian languages.

Phonemic tones in the domain of monosyllabic words are a characteristic feature of Yeniseian phonology. There are four of them in Ket and Yugh: high, laryngealized, rising/falling, and falling. Example (8.1) provides an illustration of the tonemes with their Yugh counterparts respectively.

(8.1)

Ket	Yugh	
qām	*χām*	‘arrow’
dɛˀ	*dɛˀ*	‘lake’
hɨ̀l	*fɨ̀l*	‘gut’
qɔ̀j	*χɔ̀ʰ:j*	‘bear’

Although it seems impossible to prove the existence of tonemic distinctions in the other Yeniseian languages in the absence of actual audio recordings, systematic

[128] In fact, some speakers bilingual in Ket and Selkup admit that Ket is much more difficult (Kazakevič, pc.).

peculiarities in the transcription of these languages show rather convincingly that they had at least the high and laryngealized tonemes, too (cf. Verner 1990).

Possessive prefixes on nominals is another distinctive feature of Yeniseian lacking in the surrounding languages. In Chapter 2, we describe these prefixes as ditropic clitics, which is what they have actually become in Modern Ket and Yugh over the course of time. Examples (8.2) and (8.3) illustrate their prefixal use in both languages.

(8.2) Ket

daquˀsʲ

da-quˀs

3SG.M-tent

'His birch-bark tent'

(8.3) Yugh

dafɨˀp

da-fɨˀb

3SG.M-son

'His son'

In the Southern Yeniseian languages possessive morphemes are recorded as prefixes as well, but the existing records give no indication whether they really had a 'ditropic' behavior or not. In (8.4), one can see a Kott possessive phrase reconstructed by Werner (1997: 66).

(8.4) Kott

ŋoːp

ŋ-oːp

1SG.POSS-father

'my father'

Finally, probably the most prominent typological feature of Yeniseian is prefixing, highly polysynthetic verbal morphology. As claimed in Vajda (2008), the Proto-Yeniseian verbal root was always in final position preceded by a string of morphemes conveying personal cross-reference, TAM properties, animacy, and so on. A tentative

position model of the Proto-Yeniseian verb is given below in Figure 8.1 (cf. the ten-slot model of the Modern Ket verb in Section 2.3).

morphemes outside the phonological verb		**P4**	**P3**	**P2**	**P1**	verb base (bare root or verb deriving prefix *d*, *l* + root)
Subject NP	verbal complement (adverb, object NP)	shape classifier (*d*, *n*, *h*^{w}, etc.)	animacy classifier: *d* (AN), *b* (N)	tense, mood, aspect (originally auxiliary verb *s*, *ɣa*, *a*, *o* + suffix *l*, *n*)	undergoer subject agreement (1 or 2 p)	

Figure 8.1. Proto-Yeniseian finite verb (Vajda 2008)

The Modern Ket verb perfectly fits the generally accepted definition of a polysynthetic verb with obligatory pronominal marking of the arguments and incorporation, so that it can serve alone as 'a free-standing utterance without reliance on context' (Evans and Sasse 2002: 3). Example (8.5) contains a Ket verb form that cross-references two arguments, while in example (8.6) one can see a Yugh verb form with an incorporated object.

(8.5) *dbilbɛt*

d{i}^{8}-b^{3}-l^{2}-bed^{0}

1SG^{8}-3N^{3}-PST^{2}-make^{0}

'I made it.'

(8.6) *daχusiˑrgɛtʲ*[129]

da^{14}-qus^{13}-r^{3}-ked^{0}

3F^{14}-tent^{13}-PST^{3}-make^{0}

'She made a birch-bark tent.'

Similar features in the verbal system can be found in the rest of the Yeniseian languages as well. Example (8.7) illustrates a Kott finite verb form.

[129] The Yugh verb and the Kott verb below are analyzed according to the position model proposed by Werner (1997: 106-107) and (1998: 127-129) respectively.

(8.7) *bapajaŋ*

b^{5}-a^{4}-paj^{0}-aŋ$^{-3}$

3N^{5}-NPST^{4}-make^{0}-1SG^{-3}

'I make it.' (Werner 1998: 132)

All these features are genuinely Yeniseian, i.e. can be traced back to the Proto-Yeniseian stage. This sets this family apart from the other languages of Central Siberia that are exclusively non-tonal, suffixing and agglutinating. A closer inspection, though, reveals that over the centuries these features, at least in Modern Ket, have undergone some peculiar modifications mimicking the dominant language type in the surrounding languages. This process attested on all levels of Modern Ket is called 'typological accommodation'. The uniqueness of Modern Ket grammar seems to be largely a result of this process.

8.3 Typological accommodation

Typological accommodation is a term coined by Vajda (2009) to describe the hybridization phenomena undergone by Modern Ket at the phonological and morphological levels. It is distinct from more traditional terms such as 'metatypy' or 'grammatical calquing', since accommodation does not represent a replacement of an original feature but rather its adaptation to a different morphological type creating a rather unique hybrid structure.

In this section, we show how the core Yeniseian morphological and phonological traits were affected by accommodation as well as propose that this can also be observed at the syntactic level.

8.3.1 Typological accommodation at the phonological level

As we already mentioned above, the phonemic tones representing a distinctive feature of the Ket phonology occur only in the domain of monosyllabic words. Upon suffixation they usually get eroded and replaced by a rise and fall of pitch on the first two syllables that resembles word-initial stress, e.g. *báŋkà* 'on the ground' [< *baˀŋ* 'ground'+ *ka* (locative morpheme)]. A similar process can be observed in nominal compounds consisting of two monosyllabic words, e.g. *bóktìs* 'flint' [< *boˀk* 'fire' + *tiˀs* 'stone'] (cf. Georg 2007: 56ff). According to Vajda (forthcoming)

the restriction of such phonemic distinctions in Ket to monosyllables only is the result of typological accommodation under the influence of the root-initial agglutinating languages of the surrounding peoples. One of the fundamental phonological features of these languages is the difference between the vocalism of the initial syllable and that of the following syllables: only the initial syllable nucleus (i.e. one syllable) is capable of reflecting the full range of phonemic distinctions, whereas the quality of the other syllables becomes reduced (cf. Guzeev and Burykin 2007: 5). With the full range of tonal disctinctions largely restricted to the domain of monosyllabic words, Ket seems to organize its phonological system in fashion analogous to the surrounding languages.

8.3.2 Typological accommodation at the morphological level

The system of relational morphemes in Ket described in Section 2.2.6 rather closely resembles the system of nominal inflectional suffixes found in the surrounding languages. But as Vajda (forthcoming) notes they cannot be easily subsumed under the notion of 'suffix'. Their status fluctuates between that of suffix, clitic and independent word depending on various discourse factors. In addition, these 'suffixes' do not form a discrete inflectional paradigm, and therefore it is rather problematic to regard them as true inflections (cf. Vall and Kanakin 1985).

Possessive prefixes have likewise been accommodated to mimic the neighboring languages with their possessive or genitive suffixes, which has led to a rather rare phenomenon called a ditropic clitic. In Modern Ket, possessive markers are capable of encliticizing to the preceding word, even if it is outside the possessive phrase itself. The original proclitic nature of these morphemes reveals itself only in sentence-initial position or when there is a significant pause before them (cf. Section 2.2.1 for more detail).

Finally, typological accommodation can be observed in the verbal morphology of Modern Ket as well. We have already mentioned in Section 2.2.8 that Modern Ket verbs can be conventionally divided into right-headed and left-headed, depending on the position of the semantic root (head). In right-headed verbs the semantic head always occupies the rightmost position (slot P0), with a string of affixes preceding

it. Verbs of this type constitute the oldest layer of verbs in the language and belong to currently unproductive patterns. An example of a right-headed verb is provided in (8.8).

(8.8) *dáŋɕèj*

d{i}^{8}-aŋ^{4}-q^{2}-ej^{0}

1^{8}-3AN.PL^{4}-PST^{2}-kill^{0}

'I killed them'

All the productive verb patterns in Modern Ket are exclusively left-headed, i.e. with the semantic head (usually in the form of an action nominal) being placed at the leftmost margin (slot P7), so that the positions that follow it might be regarded as a string of suffixes. The original root position in the left-headed verbs contains a marker of transitivity or aspect, originating from a semantically eroded verb root, as in example (8.9) below.

(8.9) *dalʲdɔ́ɔŋgɔ̀lʲbɛt*

d{u}^{8}-aldo^{7}-aŋ^{6}-k^{5}-o^{4}-l^{2}-bed^{0}

3^{8}-fell.ANOM^{7}-3AN.PL^{6}-TH^{5}-PST^{4}-PST^{2}-ITER^{0}

'He was felling them (trees).'

Verbs of this type clearly tend to imitate the suffixing structures dominant in the surrounding languages. Nonetheless, as Vajda (forthcoming) notes, despite this rearrangement of the semantic head from final to initial position, the presence of the original root position is obligatorily required in every left-headed verb. Such behavior is not usually associated with prototypical suffixes, and therefore it is not appropriate to analyze these verbs as suffixing.

8.3.3 Typological accommodation at the syntactic level

In addition to phonology and morphology, typological accommodation in Modern Ket can be observed at the syntactic level, with regard to formation of subordinate constructions. There is a very well known cross-linguistic generalization about polysynthetic languages claiming that they are largely devoid of overtly marked

subordination (Heath 1975, Mithun 1984).[130] Baker (1996: 491) in his study of polysynthetic languages makes an even stronger claim that polysynthesis is not compatible with the existence of nonfinite clauses at all. Therefore, from the point of view of a prototypical polysynthetic language one would expect Ket to have subordinated structures in the form of formally independent strings of clauses, and indeed there are such constructions in the language, as we have seen in the previous chapters. For example, they are frequent with various types of complement taking predicates (cf. Chapter 5). At the same time, in addition to such paratactical constructions, Ket exhibits a rather wide range of formally distinct subordinating structures, especially in the realm of adverbial clauses (cf. Chapter 6). Not suprisingly, these structures clearly resemble subordinate constructions in the other languages of Central Siberia. Still, the important difference is that in these constructions Ket tends to use fully finite verbs, while the surrounding languages favor non-finite constructions (Čeremisina et al. 1984, 1986).

8.3.3.1 Adverbial clauses

One of the distinctive features of the indigenous languages in Siberia is the use of case morphology to mark various functional types of adverbial relations. Such case-marked subordinate constructions are reported in almost all languages surrounding Ket, but to varying degrees (Anderson 2004: 65). In these constructions, cases usually attach to various kinds of non-finite verb forms. In Tungusic and Turkic languages, for example, these are participles, as can be seen in examples (8.10)-(8.11) below.

(8.10) Evenki

minduk pekture:vunme ganadukin bega ittenen

min-duk	pekture:vun-me	ga-na-duk-in	bega	itten-e-n
I-ABL	gun-ACC	take-PTCP-ABL-3	month	pass-NFUT-3

'A month had passed since he took my gun from me.' (Nedjalkov 1997: 51)

[130] The number of polysynthetic languages mentioned in the literature as having overtly marked subordination is quite small. These include Chukotian languages, Eskimo, Dalabon, Rembarrnga (Evans 2006: 57), Tlingit (Mithun 1984: 507).

(8.11) Tuvan

men kelgenimde ažildaarmen

men	kel-gen-im-de	ažildaarmen
1SG	come-PST.PTCP-1-LOC	work-PRES/FUT1

'When I come (here), I work' (Anderson and Harrison 1999: 73)

In the Selkup subordinate structures, case marking appears on various verbal nouns as in (8.12).

(8.12) Selkup

qumɨtɨt kɨt qantɨ tüptääqɨn čʲasɨq ɛsɨkka

qum-ɨtɨt	kɨt qan-tɨ	tü-ptää-qɨn	čʲasɨq	ɛs-ɨkka
person-PL	river bank-ILL	come-VN-LOC	cold	become-HAB.3.PAST

'When the people were approaching the river, it was getting cold.'

(Anderson 2004: 67)

In Enets, case markers can be attached to a bare verb stem:

(8.13) Enets

sIraʔ niñ kodiahaðoñ ŋoːñ desumaʔ

sIraʔ	niñ	kodia-hað-oñ	ŋo-ːñ	desumaʔ
snow.GEN	on	sleep-ABL-PROX.1SG	leg-1SG	get.sick-AOR.3SG

'Since I was sleeping on the snow, my leg got sick.' (Künnap 1999: 35)

Finally, in Eastern Khanty, there are examples, although they seem to be quite rare, in which the locative case marker attaches to a converb to form a subordinate construction as in (8.14).

(8.14) Eastern Khanty

tʃɨmlali amisminnə, ni mənäɣən juɣatə

tʃɨml-ali	amis-min-nə	ni	mənä-ɣən	juɣa-tə
a.little-DIM	sit-CVB-LOC	woman	go-PST0.3SG	gather.woods-PST0.3SG

'After sitting awhile, the woman went off to gather firewood'

(Filchenko 2010: 470)

As demonstrated in Chapter 6, adverbial clauses in Ket make use of postposed relational morphemes in much the same fashion as in the above examples. However,

while these languages attach relational morphemes to non-finite forms, in Ket these morphemes are attached to fully finite verbs, as is illustrated in the example below.

(8.15) *búlʲaŋ hɨta bə̄nʲ tkɔ́ldɔ-diŋtɛn, lʲámga t-tɔ́lʲaraq*

bul-aŋ	hita	bə̄n	d{u}^{8}-Ø^{6}-k^{5}-o^{4}-l^{2}-do^{0}-diŋten	lamka	d{u^{8}}-t^{5}-o^{4}-l^{2}-a^{1}-daq^{0}
leg-PL	down	NEG	3^{8}-3N^{6}-TH^{5}-PST^{4}-PST^{2}-watch^{0}-ADESS	on.a.side	3^{8}-TH^{5}-PST^{4}-PST^{2}-3SS^{1}-fall^{0}

'He fell down, because he didn't mind his step (lit. he didn't watched below (his) legs).'

(Kotorova and Nefedov, forthcoming)

The use of an action nominal, i.e. the only non-finite verb form in Ket, is possible in such constructions as well, but it is less frequent and much more limited with respect to the range of relational morphemes that can be attached (cf. Chapter 6 for more details). Example (8.16) illustrates an action nominal with the locatve marker in Ket.

(8.16) *āb isqɔ-ɣa qɔnijɔbɔn*

āb	isqo-ka	qonij^{7}-o^{4}-b^{3}-{q}on^{0}
1SG.POSS	fish.ANOM-LOC	dark^{7}-PST^{4}-3N^{3}-become^{0}

'When I was fishing, it became dark.'

8.3.3.2 Relative clauses

Such functional-structural parallelism between non-finite forms in the surrounding languages and finite verbs in Ket is likewise attested in relative clauses. As shown in Pakendorf (2012), Turkic, Tungusic and Uralic languages share a common relativization pattern involving preposed participial relative clauses with a 'gapped' relativized noun phrase. The examples below illustrate this strategy in some of the neighboring languages.

(8.17) Evenki

bi Turudu alaguvʤarildu asatkardu meŋurve buːm

bi	Turu-du	alaguv-ʤari-l-du	asatka-r-du	meŋur-ve	buː-m
1SG	T.-DAT	study-SIM.PTCP-PL-DAT	girl-PL-DAT	money-ACC	give.NFUT-1SG

'I gave money to the girls who study in Tura.' (Pakendorf 2012: 258)

(8.18) Tuvan

bistiŋ dü:n čora:n čerivis čaraš boldu

bistiŋ	dü:n	čor-a:n	čer-ivis	čaraš	bol-du
1PL.GEN	yesterday	go-PPT	place-POSS.1PL	beautiful	be-PSTII.3SG

'The place we went yesterday was beautiful.' (Anderson and Harrison 1999: 20)

(8.19) Enets

otïdar enčir ni tuʔ

otï-da-r	enči-r	ni	tuʔ
wait-SIM.PTCP-POSS.2SG.NOM	person-POSS.2SG.NOM	NEG.S:3SG	come.CONNEG

'The person you are waiting for didn't come.' (Pakendorf 2012: 263)

(8.20) Nganasan

xindʒa kėmaduodejnė kolï bikė kadʒanu ičuo

xindʒa	kėma-duode-j-nė	kolï	bikė	kadʒanu	ičuo
at.night	catch-PPT-ACC.PL-GEN.POSS.1SG	fish	river.GEN	close.to	be.PRS.3SG

'The person you are waiting for didn't come.' (Pakendorf 2012: 263)

(8.21) Selkup

qorqɨt qətpɨ́ ɔ:tæ

qorqɨ-t	qət-pɨ́	ɔ:tæ
bear-GEN	kill-PST.PTCP	reindeer-NOM

'a reindeer killed by a bear' (Spencer 2013: 389)

(8.22) Eastern Khanty

mä wermäl rɨt

mä	wer-m-äl	rɨt
1SG	do-PP-3SG	canoe

'The canoe that I've made.' (Filchenko 2010: 466)

This closely resembles the major relativization pattern in Modern Ket (cf. Chapter 7), the only difference being that Ket usually makes use of finite verbs in the same way as the languages above use participles, see for example (8.23).

(8.23) *āt āp dútaʁɔt bísɛp tsítɛjqàjit*

ād	āb	du^{8}-t^{5}-a^{4}-qut^{0}	biseb	$d\{i\}^{8}$-$sitej^{7}$-q^{5}-a^{4}-it^{0}
1SG	1SG.POSS	$3M^{8}$-TH^{5}-$NPST^{4}$-lie^{0}	sibling	1^{8}-$wake^{7}$-TH^{5}-$3M^{4}$-$MOM.TR^{0}$

'I wake up my sleeping brother.'

Action nominals can also be found in relative clauses as illustrated in (8.24), but they are not that frequent and tend to be more lexicalized (cf. Chapter 7 for more details).

(8.24) *nī bʌˀn*

nī	bəˀn
dive.ANOM	duck

'a diving duck / a duck which is diving'

8.4 Summary of Chapter 8

In this chapter, we considered the Ket language in the areal environment of Central Siberia. Surrounded by languages of a radically different typological profile, Ket has undergone a number of very interesting changes. First of all, on the one hand, over the centuries Ket has remained rather resistant to lexical borrowings from the surrounding languages, with a very small number of loanwords in the basic vocabulary.[131] On the other hand, this centuries-long contact has exerted significant influence on the core typological traits of the Ket grammar that have no analog in the area, yielding a rather unique structural hybrid. Vajda (forthcoming) calls this process 'typological accommodation', since the affected traits were not replaced but rather accommodated to mimic the typological type of the surrounding languages. In addition to the phonological and morphological levels, the result of structural mimicry can be observed at the syntactic level, namely, in the domain of subordinate constructions. As we have seen, formation of adverbial and relative clauses in Ket clearly imitates that of the surrounding languages and does not conform to the expected 'polysynthetic' pattern.[132] At the same time, Ket adverbial and relative clauses resist accommodating a participle-like morphology and remain fully finite, which reflects the general tendency among polysynthetic languages not to have truly non-finite forms (cf. Nichols 1992, Baker 1996).

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[131] Indeed, Ket is one the languages with the lowest borrowing rate in the basic vocabulary according to the data of The World Loanword Database [available online at http://wold.clld.org/vocabulary/18, accessed on 2015-02-16].

[132] Interestingly, a somewhat similar situation is observed by Evans (2006) in Dalabon and Rembarrnga, Gunwinyguan languages spoken in Australia. Despite being polysynthetic languages, they exhibit a number of formally distinct subordinate constructions (including case-marked verb forms). As Evans (2006: 56) notes, this seems to be the result of regular contact with the Yolngu languages which are not polysynthetic and have case morphology and nonfinite constructions of various kinds.

This tendency to retain a fully finite verb in subordinate constructions structurally similar to those with non-finite verbs in the other languages of the area is a further evidence in support of Vajda's (forthcoming) claim about the hybrid nature of Ket grammatical structure where alongside an overlay of areal features the core features have remained intact.

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Summary

Clause linkage in Ket provides a typologically oriented description of clause linkage strategies in Ket, the last surviving member of the Yeniseian language family spoken in Central Siberia.

The book is composed of eight chapters. Chapter one outlines the scope of the study and provides general information about Ket and the Yeniseian family.

Chapter two provides a grammatical sketch of the Ket language. It covers basic facts related to phonology, morphology and simple clause syntax in Ket sufficient for understanding the language data presented in the subsequent chapters of the book.

Chapter three gives a general overview of various theoretical approaches to the problem of clause linkage. The theories dealt with in the chapter include the traditional approach, the approach adopted within Role and Reference Grammar, as well as the functional and the so-called parametric approaches. The chapter ends with a survey of the earlier studies on clause linkage in Ket.

Chapter four is concerned with strategies used to code coordination relations in Ket. It begins with an overview of morphosyntactic and semantic aspects of coordination relations from a typological perspective. The next section discusses the morphosyntactic properties of coordinating constructions in Ket. The section that follows provides a description of different semantic types of coordination in the language. The last section summarizes the chapter.

Chapter five considers strategies employed to code complement relations in Ket. The general typology of complement relations is outlined in the first section. The next section deals with the complement types and their morphosyntactic properties in Ket. The section that follows surveys complement taking predicates and their semantics in the language. The chapter ends with a summary and conclusions.

Chapter six gives a description of adverbial relations in Ket and the strategies used to code them. The first section provides a typological overview of adverbial relations. It is followed by a morphosyntactic description of the adverbial subordinators in the

language. The next section describes various semantic types of adverbial relations in Ket. Conclusions to the chapter are provided in the last section.

Chapter seven describes strategies used to code relative relations in Ket. It starts with classification and parameters of relative clauses from a typological point of view. The next section considers relative constructions in Ket with respect to their structural characteristics and defines relativization strategies in the language. The section that follows deals with the accessibility of syntactic-semantic roles in Ket and the strategies used in each case. The last section summarizes the chapter and provides a conclusion.

Chapter eight considers Ket complex constructions in the areal context. The chapter begins with a concise overview of the contact situation in Central Siberia, followed by an outline of the core typological features of Ket as opposed to those of the surrounding languages. The remainder of the chapter provides a discussion of the phenomenon of typological accommodation in Ket at the phonological, morphological and syntactic levels. The chapter is summarized in the last section.

The book ends with a list of references.

Samenvatting

De samengestelde zin in Ket is een typologisch georiënteerde beschrijving van de verschillende manieren waarop samengestelde zinnen gevormd worden in het Ket, de laatste levende taal van de Jenisejische taalfamilie, die gesproken wordt in Centraal Siberië.

Het boek bestaat uit acht hoofdstukken. Hoofdtuk één bakent het onderzoeksgebied van deze studie af en geeft algemene informatie over het Ket en over de Jenisejische taalfamilie.

Hoofdstuk twee is een grammaticale schets van het Ket. Hierin worden elementaire aspecten van de fonologie, morfonologie en syntaxis van de enkelvoudige zin in Ket behandeld, die toereikend zijn om de taaldata in de volgende hoofdstukken te begrijpen.

Hoofdstuk drie geeft een algemeen overzicht van verschillende theoretische benaderingen met betrekking tot de vorming van samengestelde zinnen. De theorieën die in dit hoofdstuk besproken worden omvatten de traditionele benadering, de benadering gekozen in Role and Reference Grammar, als ook de functionele en zogenaamde parametrische benaderingen. Het hoofdstuk eindigt met een overzicht van eerdere studies die gedaan zijn naar de vorming van samenngestelde zinnen in het Ket.

Hoofdstuk vier behandelt nevenschikkingsstrategieën in het Ket. Het begint met een overzicht van de morfosyntactische en semantische aspecten van nevenschikking vanuit een typologisch perspectief. In de volgende paragraaf worden de morfosyntactische eigenschappen besproken van constructies die nevenschikking aanduiden in het Ket. Daarna volgt een beschrijving van verschillende semantische types van nevenschikking en de laatste paragraaf vat het hoofdstuk samen.

Hoofdstuk vijf behandelt strategieën die het Ket gebruikt om complementrelaties uit te drukken. In de eerste paragraaf wordt een algemene typologie van complementrelaties geschetst. De volgende paragraaf behandelt de verschillende soorten complementen en hun morfosyntactische eigenschappen in het Ket. Hierna

volgt een overzicht van predicaten die een complement vereisen en van hun semantische eigenschappen. Het hoofdstuk eindigt met een samenvatting en een conclusie.

Hoofdstuk zes geeft een beschrijving van bijwoordelijke relaties in Ket en van de strategieën die gebruikt worden om deze uit te drukken. De eerste paragraaf geeft een typologisch overzicht van bijwoordelijke relaties, gevolgd door een morfosyntactische beschrijving van de elementen die bijwoordelijke onderschikking uitdrukken. In de volgende paragraaf worden verschillende semantische typen van bijwoordelijke relaties in Ket beschreven, waarna een conclusie volgt in de laatste paragraaf.

Hoofdstuk zeven beschrijft de strategieën die in het Ket gebruikt worden om relatieve relaties uit te drukken. Het hoofdstuk begint met een classificatie van relatieve bijzinnen en hun parameters vanuit een typologisch perspectief. De volgende paragraaf bespreekt de structurele eigenschappen van relatieve constructies in Ket en definieert relativisatiestrategieën in de taal. De paragraaf die daarop volgt gaat in op de toegankelijkheid van syntactisch-semantische rollen voor relativisatie in Ket, en de strategieën die voor elk van deze rollen gebruikt worden. De laatste paragraaf vat het hoofdstuk samen, en geeft een conclusie.

Hoofdstuk acht plaatst complexe constructies in Ket in een ruimtelijk perspectief. Het hoofdstuk begint met een beknopt overzicht van de taalcontactsituatie in Centraal Siberië, gevolgd door een overzicht van de belangrijkste typologische kenmerken van Ket, die worden afgezet tegen de eigenschappen van de omringende talen. De rest van het hoofdstuk behandelt het fenomeen typologische aanpassing in Ket op fonologisch, morfologisch en syntactisch niveau. Het hoofdstuk wordt samengevat in de laatste paragraaf.

Het boek eindigt met een referentielijst.

Curriculum Vitae

Andrey Nefedov was born on the 6th of March 1981 in Melnikovo, Russia. He obtained his Master's degree in Philology at the Tomsk State Pedagogical University, in June 2003. From October 2004 to August 2005, he held a DAAD fellowship at the University of Leipzig in Germany. In October 2005, he started a PhD position at the Department of Linguistics at the Max Planck Institute for Evolutionary Anthropology in Leipzig.