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Clause Linkage In Ket

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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	<i>b</i>	<i>t d</i>			<i>k</i>	<i>q</i>	
fricative		<i>s</i>					<i>h</i>
continuant			<i>l</i>	<i>j</i>			
nasal	<i>m</i>	<i>n</i>			<i>ŋ</i>		

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, ʏ] to [k], [ɣ, ʁ, ɕ] to [q], and [ʃ] to [s]⁹ (Vajda 2000: 5-8).

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

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Note that some of these allophones, namely [v], [r] and [ʂ], 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>i</i>	<i>i</i>	<i>u</i>
close-mid	<i>e</i>	<i>ə</i>	<i>o</i>
open		<i>a</i>	

Table 2.2. *Ket vowel inventory*

Although the articulation of the central non-open phonemes is closer to central-back, i.e. [ʉ, ɣ] (cf. Krejnovič 1969), we transcribe them as [i, 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
<i>sū'l</i> 'blood'	high-even	half-long (closed or open)	neutral	tense [e, ə, o]
<i>suʔl</i> 'a.k.o. salmon'	abrupt rising	short (closed or open)	laryngealized (creaky)	lax [ɛ, ʌ, ɔ]
<i>súùl</i> 'snowsled'	rising-falling	long (closed or open)	neutral	lax [ɛ, ʌ, ɔ]
<i>sùl</i> '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. *sú:l-dìŋa* 'into the snowsled', *sùl-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. *qópqùn* 'cuckoo' vs. *qópqùn* 'cuckoos'. The resulting acoustic effect gives the impression of a second syllable stress. Similar to monosyllabic contours, this phonemic distinction is eroded upon suffixation: *qópqùn* 'cuckoos' vs. *qópqùn-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 *sèle*, NK *sèli* 'reindeer'. In addition, there are occasional differences in tonemic marking of the same lexical item across the dialects: SK *qèŋ*, CK *qēŋ*, NK *qáàŋ/qaʔŋ* '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.

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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
<i>qīm</i> ‘woman’	<i>qīm-n</i> ‘women’
<i>dɔʔn</i> ‘knife’	<i>dɔn-aŋ</i> ‘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 expressed¹¹ 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 *ik-* / *hiy-* ‘male-’ and *haŋ-* / *qim-* ‘female-’, e.g., *igbesi* ‘he-hare’, *həŋbesi* ‘she-hare’, *hiydili* ‘boy’, *qimdili* ‘girl’.

Animacy class →		ANIMATE		INANIMATE
Gender class →		M: <i>ōks</i> , pl. <i>a²q</i> 'tree'	F: <i>qīm</i> , pl. <i>qimn</i> 'woman'	N: <i>tī²n</i> , pl. <i>tineŋ</i> 'caldron'
Number				
SG		<i>ōksdaŋa</i>	<i>qimdiŋa</i>	<i>tindiŋa</i>
		oks-da-ŋa	qim-di-ŋa	tin-di-ŋa
		tree-POSS.M-DAT 'to the tree'	woman-POSS.F-DAT 'to the woman'	caldron-POSS.N-DAT '(in)to the caldron'
PL		<i>áqnaŋa</i>	<i>qimnaŋa</i>	<i>tineŋdiŋa</i>
		aq-na-ŋa	qim-n-na-ŋa	tin-eŋ-di-ŋa
		tree.PL-POSS.AN.PL- DAT 'to the trees'	woman-PL-POSS.AN.PL- DAT 'to the women'	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=	
2	=k=	=na=
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:

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(2.1) *ʒpda#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) *ás’kar’ia#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	<i>ād</i> ‘I’	<i>āt(n)</i> ‘we’
2	<i>ū</i> ‘you.SG’	<i>āk(ŋ)</i> ‘you.PL’
3M/F	<i>bū</i> ‘s/he’	<i>būŋ</i> ‘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	<i>āb</i> ‘my’	<i>ət̪nna</i> ‘our’
2	<i>ūk</i> ‘your.SG’	<i>ək̪ɲna</i> ‘your.PL’
3M	<i>buda</i> ‘his’	<i>buɲna</i> ‘their’
3F	<i>bud(i)</i> ‘her’	

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

	SG	PL
1	<i>bindi</i> ‘myself’	<i>bindaɲ</i> ‘ourselves’
2	<i>binku</i> ‘yourself’	<i>binkaɲ</i> ‘yourselves’
3M	<i>bindu</i> ‘himself’	<i>binɲ</i> ‘themselves’
3F	<i>binda</i> ‘herself’	

The bare root *b̪ɪn* 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. *bindudana* ‘to himself’ [bin-**du-da**-ɲa self-**3M.PRED-3M.POSS-DAT**], *binɲnaɲal* ‘from themselves’ [bin-**aɲ-na**-ɲal self-**3AN.PL.PRED-3AN.PL.POSS-ABL**], etc. The same pronoun forms are used to convey intensive or emphatic meanings.

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In order to express *reciprocity*,¹³ either special denominal nouns *bkked* ‘each other’ (< [b̄ik 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 <i>tu-</i>	Near-deictic stem <i>ki-</i>	Far-deictic stem <i>qa-</i>
<i>tu-d</i> (M)	<i>ki-d</i> (M)	<i>qa-d</i> (M)
<i>tu-de</i> (F/N)	<i>ki-de</i> (F/N)	<i>qa-de</i> (F/N)
<i>tu-ne</i> (AN.PL)	<i>ki-ne</i> (AN.PL)	<i>qa-ne</i> (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) *k̄īʔ k̄étdaŋa*

k̄ī-d ked-da-ŋa
 this-M person-M-DAT
 ‘to this person (near the speaker)’

(2.4b) *k̄íne 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 quʔŋ* ‘these tents’ [ki-de quʔŋ 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) *dɔʔnɪ banga tɔvúlʔut. bũ túrʔe tkájnám.*

dɔʔn	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
bũ	tu-de	d{u} ⁸ -kaŋ 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 quʔs* ‘what kind of tent?’, *áses qīm* ‘what kind of woman?’ and *áses deʔŋ* ‘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 unspecified)’,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-ák(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’.

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

Finally, there is also a handful of *attributive pronouns* in Ket: *bilda* ‘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. *bilde deʔŋ* ‘all people’ vs. *bilde quʔŋ* ‘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) *túne áqta qimnnaŋa*

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. *qaʔ quʔs* ‘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].

qaʔ / qaʔŋ quʔŋ ‘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) *túrʔε qīm áqtarʔa*

tu-de qīm aqta-da
 this-F woman good-3F.PRED
 ‘This woman is nice.’

(2.8) *túrʔε qīm áqtasʔ*

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) *túne 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 keʔt*

anuŋ-tu keʔd
 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

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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*

<i>āb</i>	<i>ōb</i>	<i>bu-da-ŋal</i>	<i>qa-du</i>
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 *hitiŋ* ‘real, genuine’ to the adjective: *hitiŋ 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: *qoʔk seʔl* ‘one(AN) reindeer’ vs. *qūs quʔs* ‘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’, *ínamas* ‘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’, *dílsa* ‘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 só:lʌŋ áqta dúbbet*

āb	ōb	so:lʌŋ	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 só:lʌŋ dúbbet áqta*

āb	ōb	so:lʌŋ	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 kis'éŋ díyɔraq*

ād	kis'eŋ	di ⁸ -a ⁴ -daq ⁰
1SG	here	1 ⁸ -NPST ⁴ -live ⁰

‘I live here.’

(2.13b) *kis'éŋ keʔt*

kis'eŋ	keʔd
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 *dákta* ‘fast’).

2.2.6 Relational morphemes²⁰

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.

↓Case	Animacy→		ANIMATE		INANIMATE		
	Gender→	M: <i>ōb</i> , pl. <i>óbaŋ</i> 'father'	F: <i>ām</i> , pl. <i>ámaŋ</i> 'mother'		N: <i>qu's</i> pl. <i>qu'ŋ</i> 'tent'		
BASIC		<i>ōb</i>	<i>óbaŋ</i>	<i>ām</i>	<i>ámaŋ</i>	<i>qu's</i>	<i>qu'ŋ</i>
POSS		<i>óba-da</i>	<i>óba-aŋ-na</i>	<i>ám-d(i)</i>	<i>ám-aŋ-na</i>	<i>qu's-d(i)</i>	<i>qu'ŋ-d(i)</i>
DAT		<i>óba-da-ŋa</i>	<i>óba-aŋ-na-ŋa</i>	<i>ám-di-ŋa</i>	<i>ám-aŋ-na-ŋa</i>	<i>qu's-di-ŋa</i>	<i>qu'ŋ-di-ŋa</i>
ABL		<i>óba-da-ŋal</i>	<i>óba-aŋ-na-ŋal</i>	<i>ám-di-ŋal</i>	<i>ám-aŋ-na-ŋal</i>	<i>qu's-di-ŋal</i>	<i>qu'ŋ-di-ŋal</i>
ADESS		<i>óba-da-ŋt(an)</i>	<i>óba-aŋ-na-ŋt(an)</i>	<i>ám-di-ŋt(an)</i>	<i>ám-aŋ-na-ŋt(an)</i>	<i>qu's-di-ŋt(an)</i>	<i>qu'ŋ-di-ŋt(an)</i>
LOC		-	-	-	-	<i>qu's-ka</i>	<i>qu'ŋ-ka</i>
PROS		<i>óba-bes</i>	<i>óba-aŋ-bes</i>	<i>ám-bes</i>	<i>ám-aŋ-bes</i>	<i>qu's-bes</i>	<i>qu'ŋ-bes</i>
COM		<i>óba-as</i>	<i>óba-aŋ-as</i>	<i>ám-as</i>	<i>ám-aŋ-as</i>	<i>qu's-as</i>	<i>qu'ŋ-as</i>
CAR		<i>óba-an</i>	<i>óba-aŋ-an</i>	<i>ám-an</i>	<i>ám-aŋ-an</i>	<i>qu's-an</i>	<i>qu'ŋ-an</i>
VOC		<i>ob-ó</i>	<i>ob-aŋ-ó</i>	<i>am-á-am-á</i>	<i>am-aŋ-á</i>	-	-

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, *qu's=d kúbka* 'before the tent' and *qo'j ásqá* '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) *dbil'abak*

d{i}⁸-b³-l²-bak⁰
 1⁸-3N³-PST²-drag⁰
 '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' [bo⁶-k⁵-a⁴-tn⁰ 1SG⁶-TH⁵-NPST⁴-go⁰]. Finally, some finite verbs do not have a corresponding non-finite form at all, e.g. *dabátabet* 'I understand' [da⁸-ba⁶-t⁵-a⁴-bet⁰ IC⁸-1SG⁶-TH⁵-NPST⁴-understand⁰] – 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 *i'l* 'singing', *béd* 'making' (cf. *bilil* 'I sang' [di⁸-l²-il⁰ 1⁸-PST²-sing⁰] and *dibbed* 'I make' [di⁸-b³-bed⁰ 1⁸-3N³-make⁰], 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' [da⁸-nan⁷-l²-i/bed⁰ 3F⁸-bread⁷-PST²-make⁰]. 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' [da⁸-ha⁷-Ø⁶-s⁴-a⁰ 3F⁸-cut⁷-3N⁶-NPST⁴-ACTIVE⁰].

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) *keʔt datīp dúsʰuyǝvilʔet*

keʔd	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) *kérʰa tīp tàrʰ 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 *bin⁷-[n²]-qut⁰* ‘finish’ (cf. *dībbed* ‘I make’ [di⁸-b³-bed⁰ 1⁸-3N³-make⁰]).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 form²³ (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: *bimbusut* [bin⁷-b³-qut⁰]. 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.

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(2.16) *abiŋa qila ejin-es'anj nára*

ab-iŋa	qila	ejin-es'anj	nára
1SG.POSS-DAT	soon	go.ANOM-TRANSL	necessary

‘I need to go soon.’

The adverb *qila* ‘swiftly, soon’, as we have already mentioned, cannot be used to modify nouns, instead a semantically close *dákta* ‘fast’ is used (e.g. *dákta keʔt* ‘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).

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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-a⁶-q²-ej⁰ 1⁸-3M⁶-PST²-kill⁰], *dábdo* 'I cut it (hair)' [d{i}⁸-a⁴-b³-do⁰ 1⁸-NPST⁴-3N³-cut⁰].

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-ej⁷-ba⁶-k⁵-o⁴-l²-bed⁰ 3⁸-kill.ANOM⁷-1SG⁶-TH⁵-PST⁴-PST²-ITER⁰]. 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' [da⁸-ses⁷-ta⁰ 3F⁸-place⁷-be.in.position⁰]. Alternatively, they both can be semantically bleached, as in *déqsaq* 'I listen' [d{i}⁸-eq⁷-s⁴-aq⁰ 1SG⁸-R⁷-NPST⁴-R⁰], 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-o⁴-l²-daq⁰ 3⁸-PST⁴-PST²-live⁰], but *doli:n* 'they lived' [d{u}⁸-o⁴-l²-{daq⁰}-in⁻¹ 3⁸-PST⁴-PST²-live⁰-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:
<i>déjayavet</i>	<i>déjayǎl'bet</i>	<i>éjayùll'it</i>
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:
<i>dáva</i>	<i>dómna</i>	<i>án(d)a³¹</i>
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:
<i>dílsivet</i>	<i>dílil'bet</i>	<i>íllit</i>
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:
<i>tkís'itəq</i>	<i>tkíndəq</i>	<i>kíndəq</i>
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 *an'á*.

(5) **P2 -l-**

Non-past indicative:	Past indicative:	Imperative:
<i>dílʷəqŋ</i>	<i>dílʷəqŋ</i>	<i>ílʷəqŋ</i>
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:
<i>délʷàjtət</i>	<i>délʷàjtət</i>	<i>élʷàjtət</i>
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-o⁴-b³-j²-aq⁰ 1⁸-3M⁴-TH³-PST²-give⁰]. The latter can be found only with stems containing the P0 root *-ej* ‘kill’: *dáqej* [d{i}⁸-a⁶-q²-ej⁰ 1⁸-3M⁶-PST²-kill⁰]. 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’ [bis⁷-d⁵-a⁴-b³-qan⁰ evening⁷-TH⁵-NPST⁴-TH³-INCH.NPST⁰] vs. *bisdóbon* ‘evening began’ [bis⁷-d⁵-o⁴-b³-qon⁰ evening⁷-TH⁵-PST⁴-TH³-INCH.PST⁰]. 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’ [kutolej⁷-kes⁰ whistle.ANOM⁷-SEMEL⁰]. 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., *italam* ‘he knows/knew’ [it⁷-a⁴-l²-am⁰ know⁷-3M⁴-PST²-R⁰],³³ *kúma* ‘you.SG say/said’ [ku⁸-b³-n²-a⁰ 2⁸-3N³-PST²-say⁰].

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, átn 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: *sa^ʔq bīn sóòŋ dákàdaq* ‘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 dakájnám* ‘she caught a sable (once)’, and *túde séska èd bā dakájnám* ‘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 *ās* ‘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	<i>di</i> (d, t, r)	<i>ba~bɔ</i>	-	-	<i>di</i> (d, t, r)	-
2SG	<i>ku</i> (k, g, ʏ)	<i>ku</i> (gu, ʏu)	-	-	<i>ku</i> (k, g, ʏ)	-
3M.SG	<i>du</i> (d, t, r)	<i>a~ɔ~bu</i>	<i>a~ɔ</i> (aj)	-	<i>a</i>	-
3F.SG	<i>da</i> (dʌ, də)	<i>i~u~bu</i>	<i>i</i> (dit, dir, it)	-	<i>a</i>	-
3N (SG or PL)	<i>da</i> (dʌ, də)	<i>Ø~i~u~bu</i>	-	<i>b</i> (v)	<i>a</i>	-
1PL	<i>di</i> (d, t, r)	<i>dʌŋ</i> (tʌŋ, rʌŋ)	-	-	<i>daŋ</i> (taŋ, raŋ)	<i>n</i>
2PL	<i>ku</i> (k, g, ʏ)	<i>kʌŋ</i> (gʌŋ, ʏʌŋ)	-	-	<i>kaŋ</i> (gaŋ, ʏaŋ)	<i>n</i>
3AN.PL	<i>du</i> (d, t, r)	<i>aŋ~ɔŋ~bu</i>	<i>aŋ~ɔŋ</i> (aŋa~ɔŋɔ)	-	<i>aŋ</i>	<i>n</i>

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'

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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) *dasúlej̆b̆ks'a*

da⁸-sulej⁷-bo⁶-k⁵-s⁴-a⁰
 1C⁸-blood.colored⁷-1SG⁶-TH⁵-NPST⁴-event.occurs⁰
 ‘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) *dógd̆viltayin*

d{u}⁸-o⁶-k/d⁵-o⁴-b³-l²-tak⁰-n¹
 3⁸-3M⁶-TH⁵-PST⁴-TH³-PST²-drag⁰-AN.PL¹
 ‘They dragged him (by conveyance).’

(2.19) *bógavitn*

bo⁶-k⁵-a⁴-b³-den⁰
 1SG⁶-TH⁵-NPST⁴-INT³-go⁰
 ‘I rushed out.’

(2.20) *bógbinun*

bo⁶-k⁵-b³-in²-hun⁰
 1SG⁶-TH⁵-TH³-PST²-slip⁰
 ‘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-a⁴-b³-do⁰
 1⁸-NPST⁴-3N³-cut⁰
 ‘I cut it.’

(2.21b) *ávarɔ*

a⁴-b³-a¹-do⁰
 NPST⁴-3N³-RES¹-cut⁰
 ‘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	<i>tense/</i> <i>mood</i> or OBJ (3M/F)	OBJ (3N) or thematic non- agreement affix	<i>past tense/</i> <i>imperative</i>	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

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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.

daq⁷-q⁵-a⁴-[l²]-da⁰ 'smn makes smn laugh'

1SG/2SG <i>ddaqqayura</i>	[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 <i>kdaqqadda</i>	[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 <i>ddaqqijda</i>	[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 <i>dadaqqajda</i>	[da ⁸ -daq ⁷ -q ⁵ -aj ⁴ -da ⁰ 3F ⁸ -laugh.ANOM ⁷ -CAUS ⁵ -3M ⁴ -ITER.TR ⁰]
1PL/2PL <i>ddaqqɔlkanɔdan</i>	[d{i} ⁸ -daq ⁷ -q ⁵ -o ⁴ -l ² -kan ¹ -da ⁰ -n ⁻¹ 1 ⁸ -laugh.ANOM ⁷ -PST ⁴ -PST ² -2PL ¹ -ITER.TR ⁰ -AN.PL ⁻¹]
2PL/1PL <i>kdaqqɔldanɔdan</i>	[k{u} ⁸ -daq ⁷ -q ⁵ -o ⁴ -l ² -dan ¹ -da ⁰ -n ⁻¹ 2 ⁸ -laugh.ANOM ⁷ -PST ⁴ -PST ² -1PL ¹ -ITER.TR ⁰ -AN.PL ⁻¹]
3PL/3PL <i>ddaqqɔnɔdan</i>	[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' [du⁸-b³-ted⁰ 3⁸-3N³-hit⁰], *dúdis* 'he dresses me' [du⁸-di¹-s⁰ 3⁸-1SG¹-dress⁰].

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' [di⁸-ut⁷-t⁵-a⁴-b³-sin⁰ 1⁸-full⁷-TH⁵-NPST⁴-3N³-cause.to.become⁰].

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	<i>tense/</i> <i>mood</i> or OBJ (3M/F)	OBJ (3N) or thematic non- agreement affix	<i>past tense/</i> <i>imperative</i>		base 1) right semantic head 2) aspect/ voice auxiliary)	SBJ (plural number)

Table 2.11. Transitive configuration II

A sample paradigm is presented below.

taŋ⁷-k⁵-a⁴-[I²]-bed~ked⁰ ‘smn drags smn/smith over’

1SG/2SG <i>dtanŋkuyavet</i>	[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 <i>ktanŋboŋyavet</i>	[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 <i>dtanŋuyavet</i>	[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 <i>datanŋyavet</i>	[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 <i>dtanŋaŋgɔlvetin</i>	[d{i} ⁸ -taŋ ⁷ -kəŋ ⁶ -k ⁵ -o ⁴ -I 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 <i>ktanŋaŋgɔlvetin</i>	[k{u} ⁸ -taŋ ⁷ -dəŋ ⁶ -k ⁵ -o ⁴ -I 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 <i>dtanŋəŋgɔlvetin</i>	[d{u} ⁸ -taŋ ⁷ -oŋ ⁶ -k ⁵ -o ⁴ -I 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, *dakrásitbòkaked* ‘she colours me’ [da⁸-krasit⁷-bo⁶-k⁵-a⁴-bed⁰ 3F⁸-colour.RUS.ANOM⁷-1SG⁶-TH⁵-NPST⁴-ITER⁰] (from Russian *krasit’* ‘to colour, to paint’).

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A few right-headed verbs also follow this agreement configuration. They are limited to verbs of seeing, for example, *dabátoloy* ‘she saw me’ [da⁸-ba⁶-t⁵-o⁴-l²-oŋ⁰ 3F⁸-1SG⁶-TH⁵-PST⁴-PST²-see⁰] 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	<i>tense/</i> <i>mood</i> or OBJ (3M/F)	OBJ (3N) or thematic non- agreement affix	<i>past tense/</i> <i>imperative</i>	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.

əla⁷-k⁵-[n²]-qos~am⁰ ‘smn takes smn/smth out’

1SG/2SG <i>dɔlabɔgguɛɔs</i>	[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 <i>kɔlakugdiɛɔs</i>	[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 <i>dɔlabuyɛɔs</i>	[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	<i>daʌlabuŋnam</i>	[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	<i>dʌladʌŋggaŋgɔsin</i>	[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	<i>kaʌlakʌŋgdaŋgɔsin</i>	[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	<i>dʌlabuŋgɔsin</i>	[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	<i>tense/</i> <i>mood</i>		<i>past tense/</i> <i>imperative</i>	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.

k⁵-[s⁴]-[l²]-qa⁰ ‘smn sells smn/smith’

1SG/3F/N	<i>dugdixa</i>	[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	<i>kbɔkkuxa</i>	[k{u} ⁸ -bo ⁶ -k ⁵ -ku ¹ -qa ⁰ 2 ⁸ -1SG ⁶ -TH ⁵ -2SG.SS ¹ -sell ⁰]

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3M/3F	<i>daɔksaɣa</i>	[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	<i>kdanilgaŋga</i>	[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	<i>dəŋilaŋga</i>	[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’ [du⁸-bo⁶-k/t⁵-aj⁴-aŋ¹-qutn⁰ 3⁸-1SG⁶-with/TH⁵-NPST⁴-3AN.PL.SS¹-many.walk⁰] (cf. *dbóktajka* ‘he leads me around’ [d{u}⁸-bo⁶-k/t⁵-aj⁴-ka⁰ 3⁸-1SG⁶-with/TH⁵-NPST⁴-one.walks⁰]).

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	<i>tense/</i> <i>mood</i>	OBJ (3N) or thematic non- agreement affix	<i>past tense/</i> <i>imperative</i>		base 1) right semantic head 2) aspect/ voice auxiliary)	SBJ (plural number)

Table 2.14. *Intransitive configuration I*

A sample paradigm is illustrated below.

kaŋ⁷-[s⁴]-[l²]-i/bed⁰ ‘smn makes a hole’

1SG	<i>dkaŋsivət</i>	[d{i} ⁸ -hole ⁷ -s ⁴ -i/bed ⁰ 1 ⁸ -hole ⁷ -NPST ⁴ -make ⁰]
2SG	<i>kkaŋsivət</i>	[k{u} ⁸ -hole ⁷ -s ⁴ -i/bed ⁰ 2 ⁸ -hole ⁷ -NPST ⁴ -make ⁰]
3M	<i>dkaŋsivət</i>	[d{u} ⁸ -hole ⁷ -s ⁴ -i/bed ⁰ 3 ⁸ -hole ⁷ -NPST ⁴ -make ⁰]
3F	<i>dakaŋsivət</i>	[da ⁸ -hole ⁷ -s ⁴ -i/bed ⁰ 3F ⁸ -hole ⁷ -NPST ⁴ -make ⁰]
1PL	<i>dkaŋlivətin</i>	[d{i} ⁸ -hole ⁷ -l ² -i/bed ⁰ -in ⁰ 3F ⁸ -hole ⁷ -NPST ⁴ -make ⁰ -AN.PL ⁻¹]
2PL	<i>kkaŋlivətin</i>	[k{u} ⁸ -hole ⁷ -l ² -i/bed ⁰ -in ⁰ 2 ⁸ -hole ⁷ -NPST ⁴ -make ⁰ -AN.PL ⁻¹]
3PL	<i>dkaŋlivətin</i>	[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: *dapilistedabed* ‘she dances’ (< Russian *pljasat* ‘to dance’) [da⁸-pilisted⁷-a⁴-bed⁰ 3F⁸-dance.RUS.ANOM⁷-NPST⁴-ITER⁰].

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: *daqáγavan* ‘she gets big’ [da⁸-qa⁷-a⁴-qan⁰ 3F.SBJ⁸-big⁷-NPST⁴-INCH.NPST⁰], *qáγavan* ‘it gets big’ [qa⁷-a⁴-b³-qan⁰ big⁷-NPST⁴-3N.SBJ³-INCH.NPST⁰].

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	<i>tense/ mood</i>	thematic non- agreement affix	<i>past tense/ imperative</i>		base 1) right semantic head 2) aspect/ voice auxiliary)	

Table 2.15. *Intransitive configuration II*

A sample paradigm is provided below.

utbaŋ⁷-t⁵-a⁴-[n²]-aq~oq⁰ ‘smn goes blind’

1SG	<i>utpaŋbataq</i>	[utbaŋ ⁷ -ba ⁶ -t ⁵ -{a ⁴ }-aq ⁰ blind ⁸ -1SG ⁶ -TH ⁵ -NPST ⁴ -become.NPST ⁰]
2SG	<i>utpaŋkutaq</i>	[utbaŋ ⁷ -ku ⁶ -t ⁵ -aq ⁰ blind ⁸ -2SG ⁶ -TH ⁵ -NPST ⁴ -become.NPST ⁰]
3M	<i>utpaŋataq</i>	[utbaŋ ⁷ -a ⁶ -t ⁵ -aq ⁰ blind ⁸ -3M ⁶ -TH ⁵ -NPST ⁴ -become.NPST ⁰]
3F	<i>utpaŋitaq</i>	[utbaŋ ⁷ -i ⁶ -t ⁵ -aq ⁰ blind ⁸ -3F ⁶ -TH ⁵ -NPST ⁴ -become.NPST ⁰]
1PL	<i>utpaŋdlaŋtəŋəq</i>	[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	<i>utpaŋklaŋtəŋəq</i>	[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	<i>utpaŋaŋtəŋəq</i>	[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 verbs following this configurations are the so-called ‘*da*-intransitives’ such as, for example, *dakúdaŋbóksibed* ‘I become wrinkled’ [da⁸-kudaŋ⁷-bo⁶-k⁵-s⁴-bed⁰ IC⁸-wrinkles⁷-1SG⁶-TH⁵-NPST⁴-make⁰] (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	<i>tense/</i> <i>mood</i>	thematic non- agreement affix	<i>past tense/</i> <i>imperative</i>		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.

kutolej⁷-k⁵-[s⁴]-[l²]-a⁰ ‘smn whistles (with own lips)’

1SG	<i>tkutolejboksa</i>	[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	<i>kkutolejguksa</i>	[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	<i>tkutolejbuksa</i>	[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	<i>dakutolejbuksa</i>	[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	<i>tkutolejdəŋlan</i>	[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	<i>kkutolejdəŋlan</i>	[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	<i>tkutolejbulan</i>	[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’ [da⁸-tukun⁷-bu⁶-t⁵-a⁴-kit⁰ 3F⁸-comb⁷-3SS⁶-TH⁵-NPST⁴-rub⁰] (cf. *datúkunitakit* ‘she combs her’ [da⁸-tukun⁷-i⁶-t⁵-a⁴-kit⁰ 3F⁸-comb⁷-3F⁶-TH⁵-NPST⁴-rub⁰]). Most reciprocals follow Intransitive configuration III as well: *thatanbüksibedn* ‘they hug’ [d{u}⁸-hatan⁷-bu⁶-k⁵-s⁴-bed⁰-n¹ 3⁸-close⁷-3SS⁶-TH⁵-NPST⁴-make⁰-AN.PL¹] ‘they hug (each other)’. Some other intransitive verbs belonging to this configuration may express quick or intense motions, such as, for example, *daikdabutsaq* ‘she makes a quick round trip to the river’ [da⁸-igda⁷-bu⁶-t⁵-s⁴-aq⁰ 3F⁸-to.riverbank⁷-3SS⁶-TH⁵-NPST⁴-go.MOM⁰].

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	<i>tense/ mood</i>		<i>past tense/ imperative</i>	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.

olan⁷-q⁵-a⁴-[l²]-dij⁰ ‘smn undresses hself’

1SG	<i>dolanqaddij</i>	[d{i} ⁸ -olan 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	<i>kolanqayurij</i>	[k{u} ⁸ -olan ⁷ -q ⁵ -a ⁴ -ku ¹ -dij ⁰ 2 ⁸ -undress ⁷ -CAUS ⁵ -NPST ⁴ -2SG.SS ¹ -ITER.INTR ⁰]

3M	<i>dɔlanqajarij</i>	[d{u}⁸-olan⁷-q⁵-aj⁴-a¹-dij⁰ 3⁸-undress⁷-CAUS⁵-NPST⁴-3SG.SS¹-ITER.INTR⁰]
3F	<i>daɔlanqajarij</i>	[da⁸-olan⁷-q⁵-aj⁴-a¹-dij⁰ 3F⁸-undress⁷-CAUS⁵-NPST⁴-3SG.SS¹-ITER.INTR⁰]
1PL	<i>dɔlanqɔldandij</i>	[d{i}⁸-olan⁷-q⁵-o⁴-l²-dan¹-dij⁰ 1⁸-undress⁷-CAUS⁵-PST⁴-PST²-1PL.SS¹-ITER.INTR⁰]
2PL	<i>kɔlanqɔlgandij</i>	[k{u}⁸-olan⁷-q⁵-o⁴-l²-kan¹-dij⁰ 2⁸-undress⁷-CAUS⁵-PST⁴-PST²-2PL.SS¹-ITER.INTR⁰]
3PL	<i>dɔlanqɔlandij</i>	[d{u}⁸-olan⁷-q⁵-o⁴-l²-an¹-dij⁰ 3⁸-undress⁷-CAUS⁵-PST⁴-PST²-3PL.SS¹-ITER.INTR⁰]

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’ [da⁸-t⁵-aj⁴-a¹-daq⁰ 3F⁸-TH⁵-NPST⁴-3SS¹-fall⁰], *daájatij* ‘she grows’ [da⁸-aj⁴-a¹-tij⁰ 3F⁸-NPST⁴-3SS¹-grow⁰].

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)	<i>past tense/ imperative</i>	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.

don⁷-[l²]-bed⁰ ‘smn has a knife’

1SG	<i>dɔndivɛt</i>	[don ⁷ -di ¹ -bed ⁰ knife ⁷ -1SG ¹ -have ⁰]
2SG	<i>dɔnkuvɛt</i>	[don ⁷ -ku ¹ -bed ⁰ knife ⁷ -2SG ¹ -have ⁰]
3M	<i>dɔnajbɛt</i>	[don ⁷ -aj ⁴ -bed ⁰ knife ⁷ -3M ⁴ -have ⁰]
3F	<i>dɔnijbɛt</i>	[don ⁷ -ij ⁴ -bed ⁰ knife ⁷ -3F ⁴ -have ⁰]
1PL	<i>dɔnildanɣɛt</i>	[don ⁷ -l ² -dan ¹ -bed ⁰ knife ⁷ -PST ² -1PL ¹ -have ⁰]
2PL	<i>dɔnilkanɣɛt</i>	[don ⁷ -l ² -kan ¹ -bed ⁰ knife ⁷ -PST ² -2PL ¹ -have ⁰]
3PL	<i>dɔnanɣilvɛt</i>	[don ⁷ -l ² -an 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: *dɔnanɣbájbed* ‘I have knives’ [don-an⁷-baj⁶-bed⁰ knife-PL⁷-1SG⁶-have⁰]. There are also a few intransitive verbs belonging to other semantic groups that use this agreement configuration, for example, *sitkana* ‘you.PL wake up’ [sit⁷-kan¹-a⁰ awake⁷-2PL¹-process.occurs⁰] or *daétijqus* ‘she jumps’ [da⁸-et⁷-ij⁴-qos⁰ IC⁸-up⁷-3F³-take⁰] (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: *dirandɔqɣ* ‘we fly’ [di⁸-dan¹-doq/ŋ⁰ 1⁸-1PL¹-fly/PL⁰] (cf. *dirɔq* ‘I fly’ [di⁸-(ji)-doq⁰ 1⁸-fly⁰]). The past tense forms of the following intransitive verb have been recorded with the subject marking in P6 and P1: *éjbagbindiwɔs* ‘I jumped up’ [ej⁷-ba⁶-k⁵-b³-in²-di¹-qos⁰ up⁷-1SG⁶-TH⁵-TH³-PST²-1SG.SS¹-jump⁰]. 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.

kutolej⁷-b³-[l²]-a¹-ta⁰ 'whistling is heard'

1SG	<i>bkutolejbata</i>	[b=kutolej.ANOM ⁷ -b ³ -a ¹ -ta ⁰ 1SG.POSS=whistle ⁷ -TH ³ -RES ¹ -extend ⁰]
2SG	<i>kkutolejbata</i>	[k=kutolej.ANOM ⁷ -b ³ -a ¹ -ta ⁰ 2SG.POSS=whistle ⁷ -TH ³ -RES ¹ -extend ⁰]
3M	<i>dabkutolejbilata</i>	[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	<i>dbkutolejbilata</i>	[d=kutolej.ANOM ⁷ -b ³ -l ² -a ¹ -ta ⁰ 3F.POSS=whistle ⁷ -TH ³ -PST ² -RES ¹ -extend ⁰]

kutolej⁷-kes⁰ 'whistling (suddenly) resounds/resounded'

1SG	<i>bkutolejges</i>	[b=kutolej.ANOM ⁷ -kes ⁰ 1SG.POSS=whistle ⁷ -resound ⁰]
3PL	<i>nakutolejbata</i>	[na=kutolej.ANOM ⁷ -kes ⁰ 3AN.PL.POSS=whistle ⁷ -resound ⁰]

A paradigm of a verb with an incorporated subject (*sɪl* '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)', *dilda 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)'.

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sil⁷-d⁵-a⁴-b³-qan~qon⁰ ‘summer comes’

sildavzan [sil⁷-d⁵-a⁴-b³-qan⁰
summer⁷-TH⁵-NPST⁴-TH³-INCH.NPST⁰]

sildovɬən [sil⁷-d⁵-o⁴-b³-qon⁰
summer⁷-TH⁵-NPST⁴-TH³-INCH.NPST⁰]

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) *tɔʔnʲ diyaraq*

toʔn di⁸-k⁵-a⁴-daq⁰
so 1⁸-TH⁵-NPST⁴-live⁰
‘I live this way.’ (Werner 1997: 221)

(2.22b) *biksa dadɔqqadda*

biksa da⁸-dɔq⁷-q⁵-a⁴-d{i}¹-da⁰
other 3F⁸-live⁷-CAUS⁵-NPST⁴-1SG¹-ITER.TR⁰
‘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: *daúsqajarj* ‘She is getting warmed up.’ [da⁸-us⁷-q⁵-aj⁴-a¹-dij⁰ 3F⁸-warm⁷-CAUS⁵-NPST⁴-3SG.SS¹-MOM.INTR⁰].

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 dan'án/betqírit*

ām ād da⁸-nanbed⁷-q⁵-di¹-t⁰
 mother 1SG 3F⁸-bread.make.ANOM⁷-CAUS⁵-1SG¹-MOM.TR⁰
 '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 esl'ia dèr^j déraqindit*

bū ād esla dèd d{u}⁸-eda⁷-q⁵-n²-di¹-t⁰
 3SG 1SG paper read.ANOM 3⁸-send⁷-CAUS⁵-PST²-1SG¹-MOM.TR⁰
 '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) *daigbes'avet*

da⁸-ikbes⁷-a⁴-bed⁰
 3F⁸-visit.ANOM⁷-NPST⁴-ITER⁰
 '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 monotonatives 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).

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(2.26a) *dakɔ̃vaulʔitɛt*

da⁸-koq⁷-a⁴-h⁵-o⁴-l²-ted⁰
3F⁸-fist⁷-3M⁶-TH⁵-PST⁴-PST²-hit⁰
‘She hit him with a fist (once).’

(2.26b) *dakɔ̃:natavilʔitɛt*

da⁸-ko:n⁷-a⁴-t⁵-o⁴-b³-l²-ted⁰
3F⁸-fist.PL⁷-3M⁶-TH⁵-PST⁴-INT³-PST²-hit⁰
‘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) *ilʔbayawɔn*

il⁷-ba⁶-k⁵-a⁴-qan⁰
sing.ANOM⁷-1SG⁶-TH⁵-NPST⁴-INCH.NPST⁰
‘I (will) start singing.’

(2.28) *satijbayvisʔaŋ*

satij⁷-ba⁶-k⁵-b³-saŋ⁰
shame.ANOM⁷-1SG⁶-TH⁵-TH³-INCH⁰
‘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 doʔn dúbbet*

ōb doʔn du⁸-b³-bed⁰
 father knife 3⁸-3N³-make⁰
 ‘Father makes a knife.’

(2.29b) *ōp ddónibet*

ōb d{u}⁸-don⁷-bed⁰
 father 3⁸-knife⁷-make⁰
 ‘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 *doʔn* ‘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) *qiʔt déssij*

qiʔt d{u}⁸-es⁷-s⁴-ij⁰
 wolf 3⁸-shout⁷-NPST⁴-ACTIVE⁰
 ‘The wolf is howling.’

(2.31) *ōp saʔq díkej*

ōb saʔq d{u}⁸-i⁶-q²-ej⁰
 father squirrel 3⁸-3F⁶-PST²-kill⁰
 ‘Father killed a squirrel.’

(2.32) *kerʔa qīm tīb divijaq*

keʔd-da qīm tīb d{u}⁸-i⁶-b³-ij²-aq⁰
 person-M.POSS woman dog 3⁸-3F⁶-TH³-PST²-give⁰
 ‘The man gave his wife a dog.’

(2.33) *ōp ár'endiŋa ɔŋɔn*

ōb aden-di-ŋa ɔŋ⁶-{k⁵}-o⁴-{n²}-{t}n⁰
 father forest-N-DAT 3AN.PL⁶-TH⁵-PST⁴-{PST²}-go⁰
 'Father went to the forest.'⁴³

As we can see from the examples, the core noun phrases remain zero-marked, but they are cross-referenced verb-internally⁴³ 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 *qosaŋ⁷-a⁴-[n²]-den⁰* 'be afraid' in (2.34).

(2.34) *higdil'í tájdiŋal'í bān tqós'ajŋatn*

hik-dil taj-di-ŋal bān d{u}⁸-qosaŋ⁷-a⁴-den⁰
 man-child cold-N-ABL NEG 3⁸-fear⁷-NPST⁴-go⁰
 '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 sénan*

vasja sénan
 V. shaman
 ‘Vasja is a shaman.’

(2.35b) *vásja sénan óvilde*

vasja sénan obilde
 V. shaman was
 ‘Vasja was a shaman.’

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

(2.36) *būŋ āb híkbisebaŋ óvilden*

būŋ āb hík-biseb-aŋ obilde-n
 3-PL 1SG.POSS man-sibling-PL was-PL
 ‘They were my brothers.’

Pronouns are likewise simply juxtaposed without any morphological modification: *túde bŋ* ‘this is him/her’ and *túde bŋ óbilde* ‘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.

<u>Number</u> →	SG	PL
<u>↓ Person/Gender</u>		
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 s'él'du*

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

(2.38) *de'ŋ kis'eŋaŋ*

de'ŋ 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'élidu*

vasja as sel-du
 V. FUT bad-M.PRED
 'Vasja will be bad.'

Predicate concord suffixes can also be added to numerals, e.g. *bókdəm 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 élidəri*

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 *úsaj* 'be present' (2.41), while non-existentials make use of the special particle *bánsaj* '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) *tóⁿ de^ʔη úsaj*

tóⁿ de^ʔη usaj
 such people be.present
 'There are (were) such people.'

(2.42) *talín bánsaj*

talín bənsaj
 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).

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(2.43) *sés'diŋte īs' ús'aŋ*

ses-di-ŋte īs úsaŋ
river-N-ADESS fish be.present
'There is fish in the river.'

(2.44) *ópdaŋt bógdóm b'áns'aŋ*

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 *óbilde*, e.g. *ópdaŋt bókdóm óbilde* '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) *bés'ia úyat?*

besa u⁶-k⁵-a⁴-t{n}⁰
who.F 3F⁶-TH⁵-NPST⁴-go⁰
'Who is coming?'

(2.46) *án'ia kíre sa²q díŋej?*

ana ki-de sa²q d{u}⁸-i⁶-q²-ej⁰
who this-F squirrel 3⁸-3F⁶-PST²-kill⁰
'Who killed this squirrel?'

(2.47) *turɛ aks^j tavut?*

tu-de aks t⁵-a⁴-b³-qut⁰
this-N what TH⁵-NPST⁴-3N³-lie⁰
'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) *áks^j dúbbet?*

aks du⁸-b³-bed⁰
 what 3⁸-3N³-make⁰
 ‘What does he make?’

(2.49) *aj dújbet?*

aj du⁸-bed⁰
 what 3⁸-make⁰
 ‘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 anadaŋte kuýinsa:l?*

ū ana-da-ŋte ku⁸-k⁵-n²-sa:l⁰
 2SG who-M-ADESS 2⁸-TH⁵-PST²-spend.night⁰
 Q: ‘Who did you spend the night at?’

A: *āb bisepdaŋte*

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).

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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) *ār^j u aman^j bīn sībatəŋəq?*

āḍ ū ām-an bīn sī⁷-ba⁶-t⁵-o⁴-n²-oq⁰
 1SG QUEST mother-CAR MIR R⁷-1SG⁶-TH⁵-PST⁴-PST²-become.PST⁰
 ‘Was I (really) born **without a mother**?’ (Werner 1997: 316)

(2.52) *báát bəndu di mbes^j?*

báād bəndu d{u}⁸-ik⁷-n²-bes⁰
 old.man QUEST 3⁸-here⁷-PST²-move⁰
 ‘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 mán'a, ətn u dáγaksəkan*

bū mana ətn ū {i}⁸-aγa⁷-k⁵-s⁴-aq⁰-an¹
 3SG she.said 1PL QUEST 1⁸-to.forest⁷-TH⁵-NPST⁴-go.MOM⁰-AN.PL⁻¹
 ‘She asked if we are going to the forest.’ (Werner 1997: 316)

(2.54) *bū mán'a bū bənd u di mbes^j?*

bū mán'a bū bənd ū d{u}⁸-ik⁷-n²-bes⁰
 3SG she.said 3SG QUEST 3⁸-here⁷-PST²-move⁰
 ‘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 *bən* (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 vásjadana dímesʹ*

bū vásja-da-ŋa d{u}⁸-i{k}⁷-n²-bes⁰
 3SG V.-M-DAT 3⁸-here⁷-PST²-move⁰
 ‘He came to Vasja.’

(2.55b) *bū vásjadana bān dímesʹ*

bū vásja-da-ŋa bān d{u}⁸-i{k}⁷-n²-bes⁰
 3SG V.-M-DAT NEG 3⁸-here⁷-PST²-move⁰
 ‘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 sénanʹ*

vasja bān sénanʹ
 V. NEG shaman
 ‘Vasja is not a shaman.’

(2.57) *vásja bān sélʹdu*

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 *óbilde*, e.g. *vásja sénanʹ bān óbilde* ‘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) *áqaj buŋnaŋt školan bānsi óbilde*

əqaj bu-ŋ-na-ŋt škola-n bən-s obilde
 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 *bānsanʹ*, as has been illustrated in (2.42) and (2.44) above. This copular particle presumably originates from the construction ‘*bān + usanʹ*’ (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'tet*

in²-ted⁰

IMP²-hit⁰

'Hit it!'

(2.59b) *átn ín'tet*

atn in²-ted⁰

PROH IMP²-hit⁰

'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.

