Grammatical Sketches from the Field

Edited by Yasuhiro Yamakoshi



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Preface

This book presents 'grammatical sketches' created by young Japanese descriptive linguists. Each contributor describes the phonological and grammatical outline of the language which they have been working on, mainly by using the primary data researched by them.

This book aims to not only provide a general outline, but also present the typological or cross-linguistic characteristics of the studied languages. For this purpose, we considered two principles with regard to the manner of description, namely, (1) to use general linguistic terms instead of traditional, specific terms of each language and area, and (2) to share a table of contents for reference. However, these principles led to some problems. If we use general terms instead of specific terms, the description of the grammar may be incomplete. This is because many linguists have written the grammar that is adapted to the grammatical/functional structures of each language by using specific terms. If we share the table of contents, we might include an 'unnecessary' point, e.g. suffixation of isolative languages.

On the other hand, if each of us uses specific terms based on the traditional descriptions, it would be very difficult to emphasize the contrast among the structures of different languages. Furthermore, the use of 'unnecessary' description points enables us to visually capture the relative characteristics of each language. Therefore, we decided to follow these principles and discussed how to draft the table of contents.

We, along with young descriptive linguists based in Japan have attempted to describe the grammars of various languages worldwide on the basis of these principles since 2005. We published two volumes of grammatical sketches in Japanese on 2006 (including the sketches of *Bende*, *Sakha* (*Yakut*), *Upper Sorbian*, *Irabu Ryukyuan*, *nDrapa*, *Kolyma Yukaghir*, *Alutor*, *Jino*, and *Shinekhen Buryat*) and 2007 (including the sketches of *Tutuba*, *Kadorih* (*Dohoi*), *Cusco Quechua*, *Amdo Tibetan*, *Sibe* (*colloquial Manchu*), *Siberian Yupik*, *Nootka*, *Khamnigan Mongol*, and *Parauk Wa*). Most of the contributors in those volumes were graduate school students. This was a very helpful opportunity for such young researchers to acquire training in writing 'holistic' grammar, because we aimed to focus on hitherto narrowly defined topics for our dissertations in graduate school. However, by overviewing the languages studied in this project, we could find extremely significant characteristics or problems of each language in our analyses. This project also motivated us to conduct indepth research on the languages after the two related volumes. By conducting further fieldwork in the three years that passed since 2007, we sensed that we should re-write our sketches to make them more comprehensive. Fortunately, we were supported by *the Linguistics Dynamics Science Research Project (ILCAA, TUFS)*, and we finally decided to re-write in English.

Lastly, we would like to express our sincere gratitude to all of our language consultants for their expertise on the studied languages. As the editor of this book, I am also indebted to the contributors, all of whom are prominent descriptive linguists on languages. My thanks are also due to the co-editors Fuyuki Ebata, Daisuke Ebina and Iku Nagasaki, who supported the editing tasks.

Yasuhiro Үамакозні

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1st: 01-02-2009 Sunday at ILCAA, TUFS.

2nd: 14-06-2009 Sunday at ILCAA, TUFS.

3rd: 03-10-2009 Saturday at ILCAA, TUFS.

4th: 19-12-2009 Saturday at ILCAA, TUFS.

Abbreviations and symbols

1	First person	AUX	Auxiliary
2	Second person		Benefactive
3	Third person	С	Consonant
-	Affix boundary	CAUS	Causative
=	Clitic boundary	CLF	Classifier
#	Word boundary	CLM	Climactic
+	Compound boundary,	CMPR	Comparative (case)
	Reduplication bound-	CNF	Confirmative
	ary	COL	Collective
/ /	Underlying phonemic	СОМ	Comitatve
	representation	COMP	Complementizer
// //	Surface phonemic	COND	Conditional
	representation	CONJN	Conjunction
А	Agent-like argument	CONTR	Contrastive
	of canonical transitive	COOP	Cooperative
	verb	СОР	Copula
ABES	Abessive	CRCM	Circumstantive
ABL	Ablative	CSL	Causal
ABS	Absolutive	CVB	Converb
ACC	Accusative	DAT	Dative/Dative-
ADJ	Adjective		locative
ADV	Adverb(ial)	DEM	Demonstrative
ADVLZ	Adverbializer	DES	Desiderative
AFF	Affirmative	DETR	Detransitivizer
AGT	Agentive	DIFF	Different event
ANT	Anterior	DIM	Diminutive
ANTIP	Antipassive	DISTR	Distributive
APRX	Approximant	DSUB	Desubstantivized
ASC	Associative		compound
ASP	Aspectual	DU	Dual
ATTR	Attributive	DUMMY	Dummy root
AUG	Augmentative	DUR	Durative
		Е	Epenthesis

EMPH	Emphatic	LMT	Limitative/Limitative
ERG	Ergative		case
ESS	Essive	LOC	Locative
EXCL	Exclusive	LOG	Logophoric pronoun
EXST	Existence	LOW.A	Lower agentive
EXT	Extender	MAL	Malefactive
F	Falling tone	MED	Medial verb
FIL	Filler	MOD	Modality
FIN	Finite	MUL	Multiplicative
FN	Formal noun	NEG	Negative
FOC	Focus	NMLZ	Nominalizer/Nominal-
FRQ	Frequentative		ization
FUT	Future	NOM	Nominative
GEN	Genitive	NPST	Non-past
Н	High tone	NS	Nominaive stem
НВТ	Habitual	NSG	Non-singular
HON	Honorific	NUM	Numeral
HS	Hearsay	ОВЈ	Object
IDEV	Indirect evidential	OBLG	Obligative
IMP	Imperative	OMTP	Onomatopoeia
INCH	Inchoative	OPT	Optative
INCL	Inclusive	OS	Oblique stem
IND	Indicative	Р	Patient-like argument
INDF	Indefinite		of canonical transitive
INF	Infinitive		verb
INFER	Inferential	P/N	Person/number
INS	Instrumental	PART	Partitive
INT	Intentional	PASS	Passive
INTERR	Interrogative	PAST	Past
INTJ	Interjection	PFV	Perfective
INTR	Intransitive	PHS	Past hearsay
IPF	Imperfect	PL	Plural
IPFV	Imperfective	PLN	Place name
IRR	Irrealis	PLUR	Pluralizer
ITER	Iterative	POSS	Possessive
L	Low tone	РОТ	Potential

PP	Pragmatic particle	TH
PRE	Pre-inflection	TC
PRED	Predicative	TR
PRF	Perfect	TR
PROG	Progressive	TR
PROH	Prohibitive	V
PROL	Prolative (case)	VB
PROP	Proprietive	VN
PROS	Prospective	VC
PRS	Present	
PSN	Person name	
PTCL	Particle	
РТСР	Participle	
PURP	Purposive	
Q	Question particle/	
	marker	
RDP	Reduplicant	
REAL	Realis	
RECP	Reciprocal	
REFL	Reflexive	
RES	Resultative	
RN	Result nominal	
Rus.	Russian element	
S	Single argument of	
	canonical intransitive	
	verb	
SAME	Same event	
SBJV	Subjunctive	
SCC	Successive	
SEC.OBJ	Secondary object	
SEQ	Sequential	
SFP	Sentence-final particle	
SG	Singular	
SIM	Simultaneous	
Sp.	Spanish element	
TER	Terminative	

THM	Thematic vowel
ТОР	Topic
TR	Transitive
TRANS	Translative (case)
TRVZ	Transitivizer
V	Vowel
VBLZ	Verbalizer
VN	Verbal noun
VOC	Vocative

Cusco Quechua

Daisuke Ebina

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Introduction

Quechuan languages are agglutinative, and their morphology is characterized by suffixation. The word order is relatively free, and there is no overt voice alternation in terms of syntax.

1 Overview

Cusco Quechua belongs to the Quechuan language family. Quechuan languages are spoken mostly in the Andes region of Peru, Bolivia, Ecuador, Colombia, Chile, and Argentina; this region roughly corresponds to the largest extent of the Inca Empire. It is estimated that more than half of the speakers of Quechuan languages live in Peru. Cusco Quechua is spoken mainly in the department of Cusco, Peru. According to recent statistics

(Chirinos 2001), the number of speakers is estimated to be around 1 million. Hosokawa (1988a: 1455) points out that a variety of Quechuan languages spoken in northern Bolivia should be grouped with Cusco Quechua. If so, the number of speakers would be higher. To the west, Cusco Quechua Ayacucho Quechua borders in Andahuaylas, department of Apuri-Approximately, 6 million mac. people are estimated to be speaking the Quechuan languages.



The genetic relationship of the Quechuan language family with other languages has hitherto not been attested. There have been arguments in this field over a possible genetic relationship between Quechua and Aymara, i.e. the Quechumaran hypothesis. Many scholars now ascribe the similarities between the two languages to extensive linguistic contact. Nevertheless, there are a few works, for example, Campbell (1997), which argue in favor of this genetic relationship¹.

Traditional analyses divide Quechuan languages into two groups on a genetic basis. According to Torero's (1972) classification, Cusco Quechua belongs to the group called Quechua II (Quechua A in Parker's classification (1969–1971)). Quechua I (Quechua B in Parker's classification) is spoken in Central Peru, whereas Quechua II is spoken in other areas. Recently, however, some scholars argued that the internal genetic classification of the Quechuan language family is far more complex (see, for example, Heggarty (2005)).

Some group II languages, including Cusco Quechua, have voiceless aspirated stops and ejectives with voiceless non-aspirated stops. It is believed that this feature is an effect of the linguistic contact with Aymara².

 $^{^{\}rm 1}$ See Campbell (1997: 273–283) for the history of the linguistic argument of their genetic relationship.

² Those who deny their genetic relationship argue that the voiceless aspirated stops and ejectives were borrowed by some Quechua varieties from Aymara owing to linguistic contact.

The variety of Cusco Quechua, which is studied in this paper, is spoken in communities around the city of Cusco. While I do not have indepth knowledge on the internal dialectal situation of Cusco Quechua, I have noticed some differences in the varieties spoken in (a) the eastern part of the department of Apurimac and (b) the southern part of the department of Cusco with respect to the variety spoken in Cusco City. In (a), a high frequency of fricativization of stops is observed³, whereas in (b), some verbal derivational suffixes are different, which might have been borrowed recently from Aymara.

Cusco Quechua has the largest number of speakers among the Quechuan languages. In rural areas, children inherit it from their parents, and preschool children are usually Quechua monolinguals. However, Spanish is widely taught in schools nowadays, and most speakers—except preschool children and those aged over 60 years—are Quechua-Spanish bilinguals. Quechua is not inherited among people residing in urban areas. Recent years have witnessed a mass migration, which continues even at present, from rural areas to cities. Thus, the number of Quechuan languages speakers seems to be steadily decreasing.

While there is no official orthography available for Quechua, a transcription similar to a phonemic has gained popularity among scholars. However, Spanish-like transcriptions still exist (see 2.1).

Studies of Quechuan languages, which were conducted by European priests, began in the sixteenth century. Grammatical descriptions of many varieties appeared in the 1960s. In recent years, the number of studies focusing on language contact or language education has surpassed that of descriptive studies. Historical studies have always received considerable attention among scholars. For general information on Quechuan languages, see Cerrón-Palomino (1987), Adelaar (1992), Hosokawa (1988b), etc. See also Adelaar (2004) for information on Quechuan languages and other languages of the Andes. See, for example, Cusihuamán (2001) [1976] and Calvo-Pérez (1993), for grammatical descriptions of contemporary Cusco Quechua. Furthermore, dictionaries such as Cusihuamán (1976) and Academia Mayor de la Lengua Quechua (1995) are useful ref-

On the other hand, Campbell (1997) argues that linguistic contact led to the retention of the above stops and ejectives while they were lost in other Quechua varieties.

³ This seems to be the result of contact with Ayacucho Quechua.

erences.

2 Phonology

2.1 Inventory of Phonemes

	labial	alveolar	postalveolar	palatal	velar	uvular	glottal
Voiceless Non-	p[p]	t[t]	ch[t∫]	k[k~x]		q[q∼χ]	
Aspirated Stop	nh[nhh]	+h[+h]	abh[+fh]	1-h[1-h]		ah[ah. w]	
Aspirated Stop	$p [p \sim \varphi]$			К [К] 1 / Г1 / Л		$q [q \sim \chi]$	
Ejective	p[p]		ch [t]			q [q]	
(Voiced Stop)	(b[b])	(d[d])		(g[g])			
Nasal	m[m]	n[n]	ñ[ɲ]	໗[໗]			
Fricative		s[s∼∫]	sh[ʃ]				h[h]
Тар		r[r]					
Lateral Approxi-		1[1]	11[]]				
mant		ι[1]	μ[Λ]				
Approximant	w[w]				y[j]		

Table 1 Consonants

There are three series of stops: voiceless non-aspirated, aspirated, and ejective. Aspirated stops and ejectives appear only in roots and not in suffixes and enclitics. Phonetically, non-aspirated stops are accompanied by weak aspiration, while aspirated stops are accompanied by strong aspiration. The velar stop /k/ and uvular stop /q/ are likely to fricativize syllable-finally, and the uvular aspirated stop /q^h/ is likely to fricativize inter-vocalically (e.g. *rikra* [rikra ~ rixra] 'shoulder', *huq* [hoq~hox] 'one', *aqha* [aq^ha~axa] 'chicha'⁴).

Traditionally, scholars interpret the syllable final nasal as /n/, which is represented by /n/ here. I consider these two as different phonemes⁵. Phonemes /b/, /d/, and /g/ only appear in loanwords from Spanish.

⁴ An alcoholic beverage made from corn grain.

⁵ The reason behind this is as follows. This nasal realizes as $[\eta]$ word-finally, or otherwise assimilates its point of articulation to the consonant that follows directly. However, there is a contrast between /n/ and /ñ/ [n] syllable initially. Treating the syllable final [n] as /n/ is arbitrary, because whether /n/ or /ñ/ is more appropriate for occurring syllable-finally and realizing as [n] cannot be determined. Another reason is that at least some speakers pronounce this nasal as [ŋ] before /r/, as in [niŋri] 'ear', which would be rather strange if it were /n/.

2. PHONOLOGY

Tabl	e 2	Vowe	S
·uv			

	front	central	back
Close	i[i~e]		u[ų~o]
Open		a[a∼α]	

There are three vowel phonemes: /i/, /a/, and /u/. Further, there is no opposition of the vowel length. The phoneme /i/ realizes as [e], /a/ as [α], and /u/ as [o] before /(C)q/ (except when C is /s/) and after /q/. Otherwise, /i/ usually appears as [i], /a/ as [a], and /u/ as [u].

The transcription used in this paper nearly corresponds to that used in Peru, which has recently gained popularity. However, there are some differences between the two⁶, as stated below:

(a) The phonemes /i/ and /u/ are sometimes transcribed as *e* and *o*, respectively, before /(C)q/ and after /q/ in Peru. Usually, this is because of the lack of understanding of phonology.

(b) The phoneme $/\eta$ / is transcribed as *n* in Peru because of the difference in the phonological interpretation described above.

(c) In order to avoid confusion between the aspiration and the glottal /h/, this paper transcribes aspirated stops with a superscript /^h/. Aspiration is usually expressed by *h* or "in Peru.

2.2 Syllable Structure

The syllable structure of Cusco Quechua is $C_1V(C_2)$. There is no hiatus; one or two consonants always intervene between vowels. However, C_1 may be absent word-initially. Thus, a word comprising more than two syllables has the phonological form of (C)V(C)CV(C).... As for monosyllabic words, there is actually no word whose phonological form is V(C); only words with CV and CVC forms exist. Most of the roots are disyllabic, while most of the suffixes are monosyllabic.

All the consonants except /ŋ/ may appear syllable-initially. Further, the phonemes /k/, /q/, /ph/, /ŋ/, /s/, /sh/, /l/, /r/, /w/, and /y/ appear syllable-finally. In some dialects, /p/ and /ch/ also appear syllable-finally.

⁶ Both in this paper and in Peru, the fricative [f] is transcribed as *sh*. Since the phonemes /s/ and /h/ never appear adjacent to each other in this order, there is no ambiguity.

2.3 Accent

Cusco Quechua is a stress-accent language. Stress falls on the penultimate syllable and is non-distinctive.

2.4 Morphophonology

Scholars point out that morphophonological change is less frequent in Quechua than it is in Aymara. Nevertheless, there are cases where this change occurs, as shown in some examples below. Some suffixes of the phonological form C(C)u have an allomorph; that is, when two or more suffixes of the phonological form C(C)u are adjacent to each other, the vowel /u/ of the antecedent suffix changes to /a/ as in -C(C)aC(C)u (dissimilation), or drops.

- (1) $-yku + -mu \rightarrow -ykamu$
- (2) $-mu + -pu \rightarrow -mpu$

Some suffixes have two allomorphs depending on whether the preceding phoneme is a vowel or consonant. For example, the genitive suffix -q(pa)/-pa appears as -q(pa) after a vowel and as -pa after a consonant.

(3) a. *nuqa-q(pa)* 'my' (1SG-GEN)
b. *qaŋ-pa* 'your' (SG) (2SG-GEN)

When a suffix that does not have such allomorphs is attached to the stem, there is sometimes a possibility of a consonant sequence in the same syllable. This violates the syllable structure discussed in 2.2. However, this is not the case in reality. The linker -ni- is inserted between the two morphemes, and a consonant sequence is avoided.

(4) atuq 'fox' + -yki '2nd person' $\rightarrow atuq$ -ni-yki 'your fox'

Roots do not undergo morphophonological change. The only exception is when the suffix *-pu* is attached to *hamu-* 'come'; the outcome of which is *haŋpu-*. Apparently, the reason behind this has a historical basis: it is thought that the root *hamu-* was originally composed of two morphemes, as in *ha-mu-*. Observe the morphophonological change in (2).

3. WORD CLASSES

Synchronically, however, this analysis is not valid, and *hamu*- should be treated only as one morpheme.

3 Word classes

There are two categories of words: words with attached suffixes and those without. I will call these two categories inflected words and non-inflected words, respectively.

Table 3 Word Forms

	suffix	enclitic
Inflected Words	attached	attached
Non-inflected Words	not attached	attached

Inflected words are categorized into nominals and verbs. Suffixes are different in nominals and verbs⁷. See Chapter 4 for details. Thus, the categorization of words is mainly done on morphological grounds. Non-inflected words are particles and interjections.

The distinction between nominals and verbs is not always clear. Some roots are only used as nominals. For example, *papa* 'potato' can take only nominal suffixes and can function only as a nominal. On the other hand, *suwa* can be interpreted as 'steal' when it takes verbal suffixes and can function as a verb. However, it can also take nominal suffixes and function as a nominal and is interpreted as 'robber'. Several roots may function as both verbs and nominals. This might be regarded as conversion or 'zero' derivation from verbs to nominals. However, I doubt if such a simple solution is valid for this problem.

Nominals can be subclassified into nouns, numerals, demonstratives, personal pronouns, and interrogative words on syntactic and semantic grounds.

A noun can be a modifier or a modificand. I do not find any nounadjective distinction. There is no morphological evidence to distinguish nouns and adjectives. A numeral can be a modifier or can appear independently but cannot be a modificand. Demonstratives behave in the

⁷However, a few suffixes may be attached to both nominals and verbs. For details, see sections on nominal inflection and verbal inflection.

same manner as numerals. As is discussed later, there is a tendency to prevent two or more modifiers from appearing in the same noun phrase. However, if this occurs, the word order is rigid, as shown below:

demonstrative numeral other modifier(s)

A personal pronoun cannot be a modifier or a modificand, and it appears independently. An interrogative word can be a modifier or can appear independently but cannot be a modificand. Further, it is employed to form a wh-question (content question) sentence.

4 Morphology

Word formation is done by suffixation⁸; there is no prefix or infix.

(5) *tanqa-yu-ru-ra-ni.*push-into-EMPH-PAST-1
'I pushed (it) into strongly.'

In (5), suffixes -*yu*, -*ru*, -*ra*, and -*ni* are attached to the verb root *tanqa*-'push'. Derivational suffixes and inflectional suffixes are distinguishable. In the case of (5), -*yu* and -*ru* are derivational, which are attached to the root *tanqa*- and together make up a verb stem *tanqayuru*- 'push into strongly'; then, inflectional suffixes -*ra* and -*ni* are attached to it. The order of suffixes is fixed regardless of whether a noun or a verb is involved⁹. In (5), it is not possible to change the order of suffixes. Furthermore, the same suffix never appears twice in the same word.

A nominal root may appear alone as a complete word without any suffix. Verb stems may not appear alone: person suffix and/or nominalizing or adverbializing suffix are/is always attached to it.

 (6) a. *runa hamu-ŋ.* person come-3 'A person/persons come(s)/came.'

b. *runa hamu

⁸It is arguable to admit compounding. See below.

⁹ However, I have not confirmed all the dialects of Cusco Quechua.

In (6), nothing is attached to the nominal root *runa* 'person', which is a complete noun. In contrast, the 3rd person suffix $-\eta$ is attached to the verb stem (and the root) *hamu*- 'come'. (6b) is ungrammatical because nothing is attached to *hamu*-: a person suffix, nominalizing suffix, or adverbializing suffix is necessary.

4.1 Nominal morphology

4.1.1 Nominal derivation

There are nominal derivational suffixes such as the augmentative *-sapa* 'having many, much', diminutive *-cha*, proprietive *-yuq*, and *-ŋtiŋ* 'along with'. Some examples are as follows:

alqu-cha 'doggy', *qulqi-sapa* 'rich' (having a lot of money), *uma-sapa* 'one(s) that has/have a big head', *qulqi-yuq* 'rich' (having money), *wayqi-ŋtiŋ* 'with a brother/brothers'.

Some nominal derivational suffixes have very low productivity, making it difficult to judge whether the form should be treated as an independent morpheme or whether the whole word should be treated as a single morpheme.

hatuŋ 'big', hatuŋ-karay 'very big'
cf. huch'uy 'small', *huch'uy-karay

4.1.2 Nominal Inflection

Nominal inflection can be illustrated as follows:

stem-person-additional person/number-case

4.1.2.1 Person

Person-marking suffixes are mentioned below:

1st person: -y
2nd person: -yki
3rd person: -η

1st person plural inclusive: -ŋchis

These suffixes indicate the person of the possessor in the following manner:

(7) *wawa-y* (child-1) 'my child'

Agreement by a person-marking suffix is obligatory. Therefore, I consider it valid to estimate that person-marking suffixes are inflectional. Compare (8a), (8b), and (8c):

- (8) a. *nuqa-q(pa) wawa-y* 1SG-GEN child-1 'my child'
 - b. **nuqa-q(pa) wawa* 1SG-GEN child
 - c. wawa-y child-1 'my child'

While (8a) and (8c) are grammatical, (8b) is ungrammatical. As is clear in (8c), the independent possessor noun phrase does not have to necessarily appear.

The suffixes that follow, i.e. the additional person-/number-marking suffixes and case-marking suffixes, are also considered to be inflectional.

4.1.2.2 Additional Person and Number

There are two suffixes that occupy the slot directly after a person-marking suffix, which is used to indicate the plurality of the possessor. I call these suffixes additional person-marking suffixes.

(9) wawa-y-ku child-1-[+3] 'our child' (10) wawa-yki-chis child-2-[+2]
'your (PL) child'

The two suffixes are *-ku* (additional 3rd person) and *-chis* (additional 2nd person). These two may also appear on verbs. See 4.2.3 for details. The suffix *-kuna* indicates the plurality of the reference of the noun.

(11) wawa-kuna child-PL 'children'

-*kuna* and -*ku* do not co-occur¹⁰. Thus, it is not possible to express 'our (EXCL) children' by a single word.

(12) *wawa-y-ku-kuna child-1-[+3]-PL

The suffixes *-ŋchis* or *-chis* and *-kuna* may co-occur, as in (13).

- (13) a. *wawa-ŋchis-kuna* child-1pL(INCL)-pL 'our (INCL) children'
 - b. wawa-yki-chis-kuna child-2-[+2]-PL
 'your (PL) children'

Nominal plural marking is not obligatory. For example, if you say *wawa-kuna* 'children', the plurality of the referent is clearly shown. On the other hand, if you say *wawa* 'child', it is unclear whether there is one child or more as the referent.

The following table shows the person, additional person, and plural marking of nominals.

¹⁰Apparently, the reason is that ku of -kuna and -ku are cognate. Synchronically, however, it is not possible to analyze -kuna as -ku-na.

Table 4	Person a	and nu	mber o	f the	possessor	and th	ne plurality	of the
nomina	l referen	t						

Person and number of the	Corresponding form	Plurality of the nominal
possessor		referent (possible or not)
1st person singular	- <i>y</i>	possible (<i>-kuna</i>)
1st person plural (EXCL)	-y-ku	impossible
1st person plural (INCL)	-ŋchis	possible (<i>-kuna</i>)
2nd person singular	-yki	possible (<i>-kuna</i>)
2nd person plural	-yki-chis	possible (<i>-kuna</i>)
3rd person singular	-ŋ	possible (<i>-kuna</i>)
3rd person plural	-ŋ-ku	impossible

4.1.2.3 Case

Case suffixes are as follows: -*q(pa)/-pa* (genitive), -*ta* (accusative), -*maŋ* (dative), -*maŋta* (ablative), -*pi* (locative), -*paq* (benefactive), -*rayku* (causal), -*waŋ* (comitative), -*kama* (limitative 'until').

These suffixes do not appear in the same position. See the following table:

Table 5 Case

-q(pa)/-pa (genitive) -ta (accusative) -waŋ (comitative) -kama (limitative) -maŋ (dative) -maŋta (ablative) -pi (locative) -rayku (causal) -paq (benefactive)

Thus, up to four case-marking suffixes can appear successively, although it is uncertain if all the possible combinations are grammatical. In (14), the accusative *-ta* and comitative *-waŋ* co-occur.

(14) mik^hu-ni=ŋ aycha-ta-waŋ papa-ta-waŋ.
 eat-1=AFF meat-ACC-COM potato-ACC-COM 'I eat/ate meat and a potato/potatoes.'

4.2 Verbal Morphology

4.2.1 Verbal Derivation

Some examples of verbal derivational suffixes are provided as follows: - *cha* (verbalizer 'make'), -*ya* (verbalizer 'become'), -*paya* (iterative), -*y*(*k*)*u* ('into'), -*ru* ('strongly'), -*chi* (causative), -*na* (reciprocal), -*ku* (reflexive), -*mu* (aspectual 'come ...ing'), and -*pu* (aspectual, benefactive).

4.2.2 Verbal Inflection

The person, number, tense, aspect, and mood are shown by inflection. The order of the suffixes is shown below:

stem	-person of	-aspect	-tense	-person of	-additional	-mood
	object		/nominalizer	subject	person	
			/adverbializer			

See (15) as an example:

(15) maqa-wa-sha-ra-ŋki-chis-maŋ.
beat-1.OBJ-PROG-PAST-2-[+2]-COND
'If you (PL) had beaten me.'

In (15), each suffix and the corresponding meaning can be clearly identified. However, the verbal inflection of Cusco Quechua is somewhat fusional. I will show this by investigating the paradigm of non-future tense form.

Table 6 Non-future tense inflection of intransitive verb

1st person singular (1sG)	-ni
1st person plural exclusive (1pl (EXCL))	-y-ku
1st person plural inclusive (1PL (INCL))	-ŋchis
2nd person singular (2sG)	-ŋki
2nd person plural (2pl)	-ŋki-chis
3rd person singular (3sG)	-ŋ
3rd person plural (3PL)	-ŋ(-ku)

Table 7 Non-future tense inflection of transitive verb¹¹

OBJ SBJ	1 SG	1PL(EXCL)	1PL(INCL)	2SG	2PL	3sG	3PL
1 SG				-yki	-yki-chis	-ni	-ni
1PL(EXCL)				-yki-ku	-yki-ku -yki-chis	-y-ku	-y-ku
1PL(INCL)						-ŋchis	-ŋchis
2SG	-wa-ŋki	-wa-ŋki-ku				-ŋki	-ŋki
2pl	-wa-ŋki-chis	-wa-ŋki-ku -wa-ŋki-chis				-ŋki-chis	-ŋki-chis
3SG	-wa-ŋ	-wa-ŋ-ku	-wa-ŋchis	-su-ŋki	-su-ŋki-chis	-ŋ	-ŋ
3PL	-wa-ŋ(-ku)	-wa-ŋ-ku	-wa-ŋchis	-su-ŋki(-ku)	-su-ŋki-chis -su-ŋki-ku	-ŋ(-ku)	$-\eta(-ku)$

¹¹By comparing Tables 6 and 7, we can note that the intransitive and transitive verb inflections of the 3rd person object are the same; that is, there is no 3rd person object morpheme.

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The following person-marking suffixes are identified:

-y/-ni	1st person subject
-ŋki	2nd person subject
-ŋ	3rd person subject
-ŋchis	1st person plural (inclusive) subject
-wa	1st person object
-ku	additional 3rd person
-chis	additional 2nd person
-yki	1st person subject/2nd person object
-su-ŋki	3rd person subject/2nd person object ¹²

Suffixes such as 1st person plural (inclusive) subject *-ŋchis*, 1st person subject/2nd person object *-yki*, and 3rd person subject/2nd person object *-su-ŋki* are fusional and cannot be analyzed further, although they might have been further analyzable at an earlier stage of the language; however, this is mere speculation. Here, I show verb inflection being analyzed here, as far as possible although without involving many controversies. As an example apart from non-future tense, I will show future tense inflection in the following:

¹²The suffix *-su-ŋki* is discontinuous, but I consider it as a single morpheme.

Table 8 Future tense inflection of transitive verb

OBJ SBJ	1 SG	1PL(EXCL)	1PL(INCL)	2SG	2PL	3SG	3PL
1SG				-sqayki	-sqayki-chis	-saq	-saq
1PL(EXCL)				-sqayki-ku	-sqayki-ku -sqayki-chis	-saq-ku	-saq-ku
1PL(INCL)						-suŋ(chis)	-sun(chis)
2SG	-wa-ŋki	-wa-ŋki-ku				-ŋki	-ŋki
2PL	-wa-ŋki-chis	-wa-ŋki-ku -wa-nki-chis				-ŋki-chis	-ŋki-chis
3SG	-wa-ŋga	-wa-ŋga-ku	-wa-suŋ(chis)	-su-ŋki	-su-ŋki-chis	-ŋqa	-ŋqa
3 DI	-wa-ŋqa(-ku)	-wa-ŋqa-ku	-wa-suŋ(chis)	-su-ŋki(-ku)	-su-ŋki-chis	-ŋqa(-ku)	-ŋqa(-ku)
JI L					-su-ŋki-ku		

4. MORPHOLOGY

The following person-marking suffixes are identified:

-saq	1st person subject future
-ŋqa	3rd person subject future
-suŋ(chis)	1st person plural (inclusive) subject future
-sqayki	1st person subject/2nd person object future

4.2.3 Number Marking

The marking of plurality is done by adding -ku or -chis after the subjectmarking suffix. I analyze these suffixes as the additional 3rd person marker and additional 2nd person marker, respectively. For example, the form -y-ku comprises -y '1st person subject' and -ku 'additional 3rd person', i.e. '1+3'; it expresses '1st person plural (exclusive) subject' as a whole. The form $-\eta ki$ -chis comprises $-\eta ki$ '2nd person subject' and -chis 'additional 2nd person', i.e. '2+2'; it expresses '2nd person plural subject' as a whole. The form $-\eta$ -ku comprises $-\eta$ '3rd person subject' and -ku 'additional 3rd person', i.e. '3+3'; it expresses '3rd person plural subject' as a whole. Agreement is obligatory, except when the subject is 3rd person plural: it can be $-\eta$ '3' or $-\eta$ -ku '3+3', as in (16).

(16) paykuna hamu-ŋ(-ku).
they come-3(-[+3])
'They come/came.'

Number marking with -ku or -chis is applied for not only the subject but also the object. For example, the form $-wa-\eta-ku$ '-1.0BJ-3-[+3]' can be interpreted as '3rd person singular subject/1st person plural (exclusive) object', '3rd person plural subject/1st person singular object', or '3rd person plural subject/1st person plural (exclusive) object'. Thus, it is unclear whether the referent of -ku or -chis is agent, patient, or both.

However, the form $-\eta$ -*ku* can only be interpreted as '3rd person plural subject', as in (17).

(17) *maqa-ŋ-ku.* beat-3-[+3] 'They beat.' In (17), *-ku* cannot be interpreted as expressing the plurality of the patient. This is because of the absence of any form expressing the 3rd person object. The suffixes *-ku* and *-chis* can only function in the presence of the subject marker or object marker. For details on the system of plural marking in Cusco Quechua, see Ebina (1998).

4.2.4 Nominalization and Adverbialization

Nominalizing and adverbializing suffixes appear in the same position as past tense suffixes do. There are four nominalizers: -sqa (realis), -na (irrealis), -y (infinitive), and -q (agentive). A word composed of a stem and a nominalizer (nominalized verb) takes nominal suffixes. Examples of nominalized verbs composed from the verb stem qilqa- 'write' are mentioned below:

- (18) *qilqa-sqa* 'written thing' (i.e. document), 'written' (state)
- (19) *qilqa-na* 'something to write' (i.e. pen, note, etc.)
- (20) *qilqa-q* 'one who writes'

Examples (18), (19), and (20) each have a referent. Nominalized verbs may also express actions or states, as in (21), (22), and (23).

- (21) qilqa-sqa-ŋ 'that s/he wrote'
- (22) qilqa-na-ŋ 'that s/he is going to write'
- (23) *qilqa-q* 'state of eating/in order to eat'
- (24) qilqa-y 'to eat'

That is to say, a nominalized verb may be interpreted semantically as a nominal or verb. Syntactically, when a verb is nominalized, it shows some nominal characteristics, but it also retains verbal characteristics. See 5.12 for details.

There are two adverbializing suffixes: *-spa* and *-qti*. A word composed of a verb stem and an adverbializer (adverbialized verb) has a morphological similarity to nominalized verbs. In other words, person suffixes are those that are attached to nominals and not to verbs.

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(25) hamu-qti-yki=qa
 come-DIFF.ADVLZ-2=TOP
 'When/If you come/came'

At the same time, it has some syntactic similarities to finite verbs. See 5.12 for details.

4.3 Particles

Particles are words other than nominals, verbs, and interjections. Some examples are negative *mana* and *ama*, *hina* 'as', *riki* (used for the confirmation or reminder to the hearer), and *ña* 'already'. *ña* has a clitic form (same form).

4.4 Interjections

Interjections have a phonological form of $aC_1aC_2a(C_3a)(C_4a)w$. Some examples are *achakaw* 'Ouch!' and *atakaw* 'Horrible!'.

In interjections, stress is on the final syllable, which is different from other parts of speech. In this paper, I treat this final stress as an accent, but it is unclear whether it should be treated as an accent or intonation. Further research is required in this regard.

4.5 Distinction between suffixes and enclitics

The following criteria are applied:

(a) A suffix may not be attached to both verbs and nominals (however, there are a few exceptions). Suffixes may not be attached to particles. An enclitic may either be attached to verbs, nominals, or particles.

(b) The enclitic $= \tilde{n}a$ has its independent counterpart $\tilde{n}a$. Suffixes do not have such counterparts.

(c) Enclitics =cha and =ma have their own stress (accent). There are no suffixes that have their own stress¹³.

(d) The 1st person subject non-future suffix has two allomorphs, namely, -*y* and -*ni*. When a suffix follows, the morph -*y* occurs; when no suffix

¹³This might be an intonation, not an accent. See also 4.4.

follows, the morph *-ni* occurs. When a morpheme that qualifies the above criteria (a), (b), and (c) directly follows, the morph *-ni* occurs. Thus, the morpheme concerned has to be analyzed as an enclitic rather than as a suffix.

However, enclitic $=\eta/=mi$ (affirmative) appears as $=\eta$ after a vowel, and as =mi after a consonant. This enclitic is thus suffix-like in that it shows a morphophonological alternation.

4.6 Compounds or Idiomatic Phrases

There are constructions composed of two nominals; however, I am unsure whether they should be classified as compounds or idiomatic phrases.

(26) *yacha-y wasi* know-INF.NMLZ house 'school'

The second nominal has a clear stress on the penultimate syllable. The stress of the first nominal is not very clear. It is unclear whether this is the same as the noun phrase. Determining whether they are compounds or phrases has been left as an open issue for further research.

4.7 Reduplication

Some stems reduplicate.

```
(27) wañu-wañu (die-die) 'weak, dying'
```

Moreover, some words reduplicate. Even here, it is uncertain whether these are compounds or idiomatic phrases.

(28) *puñu-y puñu-y* sleep-inf.nmlz sleep-inf.nmlz 'sleepy'

Sometimes, it is difficult to distinguish between a stem reduplication and word reduplication.

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(29) *pisi pisi-lla-maŋta* bit bit-only-ABL 'little by little'

5 Syntax

5.1 Predicate types

There are nominal predicative sentences and verbal predicative sentences.

A nominal predicative sentence has the structure of 'NP₁ NP₂', which is interpreted as 'NP₁ is NP₂'.

(30) chay alqu=qa hatuŋ=mi. that dog=TOP big=AFF'That dog (is) big.'

In a verbal predicative sentence, the only obligatory element is a finite verb.

(31) (nuqa=qa) (chay-ta) yacha-ni.
(1sG=TOP) (that-ACC) know-1
'I know (that).'

See 5.12 for complex sentences.

Instead of a nominal predicative sentence, a copula verb sentence that does not significantly change its meaning may be employed.

(32) a. *nuqa=qa alliŋ=mi*. 1SG=TOP good=AFF 'I (am) well.'

> b. *nuqa=qa alliŋ ka-sha-ni.* 1sG=TOP good be-PROG-1 'I am well.'

5.2 Word Order

Word order is generally free in verb predicative sentences. An exception is negation. A negative particle has to antecede a negative focus.

(33) nuqa=qa chay runa-ta mana riqsi-ni=chu.
1sG=TOP that person-ACC NEG recognize-1=NEG.FOC
'I don't know that person.'

In (33), the main verb *reqsi-ni* 'I know' with the negative focus enclitic *=chu* is the negative focus. The negative particle *mana* has to antecede the verb. However, *mana* does not have to directly precede the negative focus. In (33), it can appear before nuqa=qa 'I' (TOP), or *chay runa-ta* 'that person' (ACC).

As mentioned above, the word order is generally free. However, in nominalized clauses, the most usual word order is 'subject object verb'. Therefore, the basic word order is usually regarded as SOV. See 5.12.1 for details.

Nominal modifiers always precede the head. The noun phrasal word order is shown below:

```
[possessor] [-GEN] [modifying noun] [head] [-person] [-additional person/number]
```

The person marker and additional person marker coincide with the person and number of the possessor.

(34) *nuqa-qpa hatuŋ alqu-y* 1SG-GEN big dog-1 'my big dog'

In (34), the possessor noun is 1st person singular. The person-marking suffix attached to the head noun is -y (1st person), which corresponds to the person and number of the possessor noun. Person (and number) marking is obligatory.

The above-mentioned word order of the nominal phrase is rigid. If a (modifying) noun precedes the possessor noun, the modifier is interpreted as modifying the possessor noun and not the head noun of the entire noun phrase, as in (35).
(35) huch'uy runa-qpa yana alqu-ŋ small person-GEN black dog-3
 'a small person's black dog'

In (35), *huch'uy* 'small' can only be interpreted as modifying *runa* 'person', not *alqu* 'dog'.

As mentioned earlier, when more than one modifier exists, the word order is as follows:

demonstrative numeral other modifier(s)

(36) chay iskay hatuŋ alqu that two big dog 'those two big dogs'

However, there is a tendency to avoid modification by more than one modifier. It is not surprising that modification of the same head by two or more demonstratives or numerals does not occur; however, it is worth mentioning that simultaneous modification by other modifiers is likely to be avoided.

(37) *hatuŋ yana alqu* big black dog 'big black dog'

Thus, noun phrases with two modifiers, as is the case in (37), are grammatical but rarely used in reality.

5.3 Grammatical relations

In verb predicative sentences, noun phrases that agree with person-marking on main verbs can be seen as subjects and/or objects.

(38) *chay runa nuqa-ta maqa-wa-ŋ.* that person 1sG-ACC beat-1.OBJ-3 'That person beat(s) me.' In (38), *chay runa* 'that person' is seen as the subject noun phrase, whereas *nuqa-ta* 'me (ACC)' is seen as the object noun phrase. The person of the subject is always marked on the verb in verb predicative sentences. Therefore, there are no problems in identifying the subject. However, for the object, its person is not marked when it is in the 3rd person. This issue is complex and will not be discussed further here; however, I consider it valid to only admit objects in the 1st or 2nd person.

In clauses whose main verb is finite (hereafter 'finite clause'), subjects always appear in the zero case. Depending on the verb, objects appear in accusative, dative, ablative, or benefactive case.

- (39) Carlos¹⁴ nuqa-ta maqa-wa-ŋ. (accusative)
 PSN 1sG-ACC beat-1.овJ-3
 'Carlos beat(s) me.'
- (40) *Carlos nuqa-maŋ chay-ta qu-wa-ŋ.* (dative) PSN 1SG-DAT that-ACC give-1.OBJ-3 'Carlos gives/gave that to me.'
- (41) *Carlos nuqa-maŋta qulqli-ta suwa-wa-ŋ*. (ablative) PSN 1SG-ABL money-ACC steal-1.0BJ-3 'Carlos steals/stole me money.'
- (42) Carlos nuqa-paq llaŋk'a-pu¹⁵-wa-ŋ. (benefactive)
 PSN 1SG-BEN work-ASP-1.OBJ-3
 'Carlos works/worked for me.'

Subject noun phrases and object noun phrases may be absent¹⁶.

¹⁴Person names are usually Spanish names and are transcribed in Spanish orthography.

 $^{^{\}scriptscriptstyle 15}{\rm The}\ {\rm suffix}\ -pu$ expresses benefactive meaning in this sentence.

¹⁶ In light of this, it might be possible to treat all the noun phrases as adjuncts, and the agreeing elements, as subjects and/or objects.

5.4 Voice

5.4.1 Causative

Causative verbs are made by adding *-chi* to verb stems.

(43) a. *wañu-* 'die' *wañu-chi-* 'kill'b. *yacha-* 'know' *yacha-chi-* 'teach'

In the case of causative verbs composed of verbs with intransitive meaning, the original subject (causee) appears in the accusative.

- (44) a. Carlos sayari-ŋ. PSN stand-3 'Carlos stands/stood.'
 - b. *Jesus=mi sayari-chi-ŋ Carlos-ta.* PSN=AFF stand-CAUS-3 PSN-ACC 'Jesus makes/made Carlos stand.'

In the case of causative verbs made from verbs with transitive meaning, the original subject (causee) appears in the comitative or accusative case¹⁷. The original accusative noun phrase does not undergo case change and appears in the accusative.

- (45) a. wayqi-y=mi plato¹⁸-kuna-ta p'aki-ru-ŋ.
 brother-1=AFF plate(Sp.)-PL.NOM-ACC break-EMPH-3
 'My brother breaks/broke plates.'
 - b. *wayqi-y-waŋ=mi plato-kuna-ta* brother-1-COM=AFF plate(Sp.)-PL.NOM-ACC *p'aki-ra-chi-ni*. break-EMPH-CAUS-1
 - 'I make/made my brother break plates.'

 $^{^{\}rm 17}$ I have not considered the conditions wherein the causee appears in the comitative or accusative cases.

¹⁸ Spanish words that do not seem to have been incorporated into Quechua yet are transcribed in Spanish orthography.

- (46) a. *Carlos=mi qusqu-ta ri-ŋ.* PSN=AFF PLN-ACC go-3 'Carlos goes/went to Cusco.'
 - b. *Carlos-ta=ŋ qusqu-ta ri-chi-ni.* PSN-ACC=AFF PLN-ACC go-CAUS-1 'I make/made Carlos go to Cusco.'
- (47) a. *nuqa chay cuento-ta yacha-ni.* 1sG that story(Sp.)-ACC know-1 'I know that story.'
 - b. *pay nuqa-ta chay cuento-ta yacha-chi-wa-ŋ*. 3sg 1sg-Acc that story(Sp.)-Acc know-CAUS-1.OBJ-3 'S/he teaches me about that story.'

As is clear from the above examples (46b) and (47b), causative verbs may take two accusative case complements.

5.4.2 Reflexive

The derivational suffix *-ku* indicates reflexive voice.

(48)	a.	<i>maki-ŋ-ta</i> hand-3 ⁱ -ACC	<i>t'aqsa-ku-ŋ.</i> wash-refl-3 ⁱ
		'S/he ⁱ washes	s/washed his/her ⁱ hand(s).'
	b.	<i>maki-ŋ-ta</i> hand-3 ⁱ -ACC	<i>t'aqsa-ŋ.</i> wash-3 ^j
		'S/he ⁱ washes	s/washed his/her ^j hand(s).' (i \neq j)

In (48a), the owner of the 'hand(s)' and the agent of 'washing' are the same, whereas they are different in (48b).

In some cases, however, the difference in the meanings according to the presence/absence of -*ku* is hardly recognizable. For example, both *asi*-and *asi-ku-* mean 'laugh'. The verb stem *asi-ku-* does not mean 'laugh oneself'. Moreover, emotive verbs usually appear with -*ku* (e.g. *llaki-ku-* 'lament').

Some transitive-meaning verbs change their meaning to intransitive when -ku is attached.

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- (49) a. *nuqa=qa chay plato-ta=ŋ p'aki-ni.* 1sG=TOP that plate(Sp.)-ACC=AFF break-1 'I break/broke that plate.'
 - b. *chay* plato=ŋ p'aki-ku-ŋ.
 that plate(Sp.)=AFF break-REFL-3
 'That plate breaks/broke.'

5.4.3 Reciprocal

The combination of suffixes *-na-ku* expresses reciprocal meaning (e.g. *maqa-na-ku-* 'beat each other' (beat-RECP-REFL-)).

- (50) a. *maki-ŋ-ku-ta t'aqsa-ku-ŋ-ku.* hand-3-[+3]-ACC wash-REFL-3-[+3] 'They wash(ed) their hands.'
 - b. maki-ŋ-ku-ta t'aqsa-na-ku-ŋ-ku. hand-3-[+3]-ACC wash-RECP-REFL-3-[+3]
 'They wash(ed) each other's hands.'

(50a) signifies that each of 'them' washed their own hands, and so it has a reflexive meaning. On the other hand, (50b) signifies that each of them does/did not wash their own hands but wash(ed) each other's hands and therefore has a reciprocal meaning.

5.4.4 Pseudo-passive

The combination of causative *-chi* and reflexive *-ku* has pseudo-passive meaning.

(51) a. *suwa-chi-ku-* (steal-CAUS-REFL-) 'be stolen'b. *maqa-chi-ku-* (beat-CAUS-REFL-) 'be beaten'

However, this is not the real passive, because this form can only be used when the causer (subject) is the cause of the action. In (51a) or (51b), the causer (subject) is considered to be responsible for 'letting something be stolen' or 'being beaten', for example, s/he left the thing behind or s/he made someone angry; that is, a causative meaning still exists.

5.5 Tense and aspect

We can distinguish future tense and non-future tense according to the person suffix paradigms, as already seen in 4.3.2. The non-future tense form of stative verbs signifies the state of the time of speaking. When the verb is non-stative (and without any aspectual suffix), it signifies an action already performed or a habitual action. Future tense form signifies a state or an action in the future.

A past tense suffix can be attached to a non-future tense form. Past tense form signifies a state or an action in the past. There are two past tense suffixes: -r(q)a and -sqa. The former signifies simple past tense, while the latter, past hearsay.

There is an aspectual suffix, *-sha*, which signifies the progressive aspect. I consider this suffix as inflectional according to its position. On the other hand, two derivational suffixes, *-mu* and *-pu*, also have aspectual meaning. The suffix *-mu* signifies an action or a state of being perceived by the speaker and can be translated as 'come doing something'. The suffix *-pu* signifies a perfective meaning or a benefactive meaning.

5.6 Functions of enclitics

Examples of enclitics are provided below:

=*pas* 'too', =*ña* 'already', =*raq* 'not yet', =*taq* (contrastive), =*qa* (topic), =*mi*/ η (affirmative/direct information), =*s*(*is*) (hearsay), =*cha* (speculation), =*ma*¹⁹, =*chu* (focus of question/negation), =*ri* (echo question)

Like the suffixes, more than one enclitic can be attached to the same word; however, the same enclitic cannot be attached more than once.

Moreover, the order of the enclitics seems to be fairly rigid. In (52), =cha has to appear outside other enclitics²⁰.

(52) *chay-pi=qa ka-sha-ŋ-maŋ=pas=raq=cha riki.* that-LOC=TOP be-PROG-3-COND=too=already=INFER PTCL '(It) still might be there, right?'

¹⁹This enclitic seems to indicate doubt.

²⁰ However, according to related texts, some combinations of enclitics seem to be free of order. Either $=pas=\tilde{n}a$ or $=\tilde{n}a=pas$ is possible; furthermore, either =raq=pas or =pas=raq is possible.

5.7 Negation

There are two negative particles: *mana* and *ama*. The latter signifies prohibition.

(53) ama waqa-y=chu.NEG cry-IMP=NEG.FOC'Don't cry.'

In an independent clause, =chu has to be attached to the focus of negation. The negative particle has to precede the word to which =chu is attached. See (33) in 5.2. On the other hand, =chu cannot appear in an adverbialized clause, nominalized clause, or noun phrase.

5.8 Question

Yes-no questions (or polar questions) are formed by adding =chu to the focus of the question. Negative questions are formed by adding =chu to the negative particle *mana*.

- (54) a. wasi-y-maŋ hamu-ŋki=chu. house-1-DAT come-2=Q.FOC
 'Do you come to my house?'
 - b. wasi-y-maŋ=chu hamu-ŋki.
 house-1-DAT=Q.FOC come-2
 'Do you come to (not somebody else's but) my house?'
- (55) mana=chu wasi-y-maŋ hamu-ŋki.
 NEG=Q.FOC house-1-DAT come-2
 'Don't you come to my house?'

Wh-questions (or content questions) are made with interrogative words. The enclitic =chu is not used.

(56) *ima-ta rura-ŋki.*what-ACC do-2'What do/did you do?'

5.9 Command

There are two imperatives: one for 2nd person and the other for 3rd person.

For 2nd person, the suffix *-y*, which has the same form as the nominalizer *-y*, is used.

(57) a. *hamu-y*. come-IMP 'Come!' (for 2nd person singular)
b. *hamu-y-chis*. come-IMP-[+2]

'Come!' (for 2nd person plural)

In (57b), if -y were the nominalizer, it would not be possible to add *-chis* without a person suffix. In this respect, the imperative -y and the nominalizer -y should be regarded as two different morphemes synchronically, although they are likely to be cognates.

For 3rd person, the suffix *-chuŋ* is added to the verb stem.

- (58) a. *hamu-chuŋ.* come-імр.3 'S/he shall come!'
 - b. *hamu-chuŋ-ku*.come-IMP.3-[+3]'They shall come!'

5.10 Possession

The existential verb *ka*- or a derivational noun is used to express possession. If one wishes to express 'I have a dog', for example, the following two expressions are possible:

(59) a. (nuqa=qa) alqu-y ka-sha-ŋ.
1SG=TOP dog-1 be-PROG-3
'I have a dog/dogs.' (lit. My dog(s) is/are)

b. (nuqa=qa) alqu-yuq ka(-sha)-ni.
1SG=TOP dog-PROP be(-PROG)-1
'I have a dog/dogs.' (lit. I am a dog-possessor)

Alienable/inalieanable possessions are not differentiated.

5.11 Conjunction

There are no conjunctions in Quechua. The comitative suffix *-waŋ* is used to coordinate nouns.

(60) mik^hu-ni=ŋ aycha-ta-waŋ papa-ta-waŋ. (= (14))
eat-1=AFF meat-ACC-COM potato-ACC-COM
'I eat/ate meat and a potato/potatoes.'

A demonstrative may be used as a conjunctive at the beginning of sentences.

(61) chay=si, renega-sqa=ña that=HS get.angry(Sp.)-REAL.NMLZ=already ch'aki-y-pi rayqi-y-pi get.dry-INF.NMLZ-LOC get.hungry-INF.NMLZ-LOC asnu-cha=qa puri-yu-sha-ŋ. donkey-DIM=TOP walk-into-PROG-3 'And the donkey is walking, angry, dry, and hungry.'

5.12 Complex sentences

A complex sentence comprises an independent clause (finite clause) and more than one subordinate clause (non-finite clause). As mentioned earlier, there are two types of non-finite clauses: nominalized and adverbialized. These two types are different from finite clauses in the following respect:

a) In nominalized and adverbialized clauses, the main verb has to appear clause-finally. There is no such constraint in finite clauses.

b) In nominalized and adverbialized clauses, many enclitics (e.g. evidentials, topic markers, etc.) cannot appear.

- (62) a. *Carlos papa-ta=qa mik^hu-ŋ*. PSN potato-ACC=TOP eat-3 'Carlos eats/ate a potato/potatoes.'
 - b. [*Carlos(-pa) papa(-ta) mik^hu-sqa-ŋ-ta*] yacha-ni. PSN(-GEN) potato(-ACC) eat-REAL.NMLZ-3-ACC know-1 'I know that Carlos ate a potato/potatoes.'
 - c. *Carlos papa-ta mik^hu-qti-ŋ* PSN potato-ACC eat-DIFF.ADVLZ-3 'When/If Carlos eats a potato/potatoes'

(62a), (62b), and (62c) are examples of finite, nominalized, and adverbialized clauses, respectively. In (62a), the word order is free. On the other hand, in (62b) and (62c), the main verbs have to appear clause-finally. Moreover, in (62a), the patient noun *papa* is accompanied by the topic enclitic =*qa*, but in (62b) and (62c), =*qa* cannot be attached to it. See (63a) and (63b).

- (63) a. *[*Carlos(-pa) papa(-ta)=qa mik^hu-sqa-ŋ-ta*] PSN(-GEN) potato(-ACC)=TOP eat-REAL.NMLZ-3-ACC *yacha-ni.* know-1
 - b. **Carlos papa-ta=qa mik^hu-qti-ŋ* PSN potato-ACC eat-DIFF.ADVLZ-3

5.12.1 Nominalized Clauses

Verb forms with the nominalizers -sqa/-na/-q/-y are called nominalized verbs, and the clause whose main verb is a nominalized verb is called a nominalized clause. There are other constraints apart from those in 5.12:

c) In a finite clause, the subject always appears in the zero case form, while in a nominalized clause, it is likely to appear in the genitive case. A noun phrase that appears in the accusative case in a finite clause is likely to appear in the zero case form. This zero case form noun phrase has to appear directly before the verb. However, if it appears in the accusative case, there is no such constraint.

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- (64) a. *Carlos papa-ta=qa mik^hu-ŋ.* (= (62a)) PSN potato-ACC=TOP eat-3 'Carlos eats/ate a potato/potatoes.'
 - b. [Carlos(-pa) papa(-ta) mik^hu-sqa-ŋ-ta] PSN(-GEN) potato(-ACC) eat-REAL.NMLZ-3-ACC yacha-ni. (= (62b)) know-1
 'I know that Carlos ate a potato/potatoes.'

(64a) and (64b) are examples of finite and nominalized clauses, respectively. In the finite clause, the subject noun phrase *Carlos* appears in the zero case form, but in the nominalized clause, it is preferred to appear in the genitive case. The noun phrase *papa-ta*, which appears in the accusative case in (64a), is preferred to appear in the zero case in (64b). When it appears in the zero case, it has to appear directly before the verb. Therefore, (65) is ungrammatical.

(65) *[papa Carlos(-pa) mik^hu-sqa-ŋ-ta] yacha-ni. potato PSN(-GEN) eat-REAL.NMLZ-3-ACC know-1

We will find some similarities and differences on comparing nominal phrases and nominalized clauses. As is already described, the structure of nominal phrases is 'possessor noun-GEN modifier noun head nounperson-additional person/number', which is similar to (64b) in form. However, in a nominalized clause, a noun phrase/phrases of every case form is/are possible as a complement/complements of the main verb. In a noun phrase, on the other hand, only a genitive possessor noun phrase and a modifier noun/nouns of the zero case form are possible.

(66) a. [qusqu-maŋta hamu-q] runa PLN-ABL come-AGT.NMLZ person 'a man who comes/came from Cusco'
b. *qusqu-maŋta runa PLN-ABL person 'a man from Cusco' (Intended reading) From these differences, I conclude that the nominalized construction is not a phrase and that it is a clause.

5.12.2 Adverbialized Clauses

Here, a structure whose main verb is the verb form that has an adverbializing suffix *-spa/-qti* is called an 'adverbialized clause'. Some examples are mentioned below:

(67)	a.	Carlos	mik ^ʰ u-spa	llank'a	a-ra-ŋ.
		PSN	eat- SAME.ADVLZ	work-	past-3
		'Carlos	worked eating.'		
	b.	Carlos	mik ^h u-qti-ŋ	Jesus	llank'a-ra-ŋ.
		PSN	eat-DIFF.ADVLZ-3	PSN	work-past-3
		'When	Carlos ate, Jesus v	vorked.	•

Some scholars regard the difference between *-spa* and *-qti* as that between a same subject (*-spa*) and a different subject (*-qti*), as in (67a) and (67b). However, *-qti* may be used for both same and different subjects. The use of *-spa* or *-qti* seems to depend on whether the two actions are considered to comprise one (in case of *-spa*) or two different events (in case of *-qti*). These different events can be conducted by the same (same subject) or different entities (different subject).

In an adverbialized clause, the case form(s) of a noun phrase(s) is/are the same as that/those of a finite clause. In this respect, adverbialized clauses are different from nominalized clauses.

(68) a. Carlos papa-ta=qa mik^hu-ŋ. (= (61a))
PSN potato-ACC=TOP eat-3
'Carlos eats/ate a potato/potatoes.'
b. Carlos papa-ta mik^hu-qti-ŋ (= (62c))
PSN potato-ACC eat-DIFF.ADVLZ-3

'When Carlos eats/ate a potato/potatoes'

In the case of the *-qti* form, person marking is obligatory; however, in the *-spa* form, it is optional.

- *6. TEXT*
- (69) a. *Carlos papa-ta mik^hu-qti
 PSN potato-ACC eat-DIFF.ADVLZ
 'When Carlos eats/ate a potato/potatoes' (Intended reading)
 - b. *Carlos papa-ta mik^hu-spa(-ŋ)* PSN potato-ACC eat-SAME.ADVLZ(-3) 'Eating a potato/potatoes, Carlos...'

This seems to be because the *-spa* form is solely used for same subjects. That is to say, in an utterance, it seems necessary to formally show the agent of the action in question.

6 Text: 'Two brothers' (Folktale)

- iskay wayqiŋtiŋ kasqakuiskay wayqi-ŋtiŋka-sqa-ku.twobrother-togetherbe-рнз.3-[+3]'There were two brothers.'
- [2] huq pobre, huq=taq qulqisapa kasqa huq pobre(Sp.), huq=taq qulqi-sapa ka-sqa. one poor one=CONTR money-AUG be-PHS.3
 'One (was) poor, and the other was rich.'
- [3] chay pobre kaq risqa urquta llaŋt'aq. chay pobre(Sp.) ka-q ri-sqa urqu-ta that poor be-AGT.NMLZ go-PHS.3 mountain-ACC llaŋt'a-q. collect.firewood-AGT.NMLZ
 'The poor one went to a mountain to collect firewood.'
- [4] hinaspa llaŋt'aqtiŋ, tutayarapusqa, mana haykuŋpuyta atipusqa =chu.

hinaspa llaŋt'a-qti-ŋ, and collect.firewood-DIFF.ADVLZ-3 *tuta-ya-ru-pu-sqa, mana hayku-mu-pu-y-ta* night-VBLZ-EMPH-ASP-PHS.3 NEG enter-ASP-ASP-INF.NMLZ-ACC

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ati-pu-sqa=chu.

can-ASP-PHS.3=NEG.FOC

'And collecting firewood, it became night, and (he) could not enter (the mountain).'

[5] puñuŋpusqa chayta.

puñu-mu-pu-sqa chay-ta. sleep-ASP-ASP-PHS.3 that-ACC 'He fell asleep there.'

[6] hina=s, tuta=ña=taq awkikuna wahanakusqaku.

hina=s, tuta=ña=taq awki-kuna
and=HS night=already=CONTR spirit-PL
waha-na-ku-sqa-ku.
call-RECP-REFL-PHS.3-[+3]
'And (it was) already night, and the spirits called each other.'

[7] "kay wakchaŋchis hamusqa, imata=ŋ qusuŋ" nispa²¹.

kay wakcha-ŋchishamu-sqa, ima-ta=ŋthis poor-1.PL(INCL)come-PHS.3what-ACC=AFFqu-suŋnispa.give-1.PL(INCL).FUTCOMP'Saying, "This our poor man came. What do we give him?"'

[8] chay huqkaq²² awki, contestamusqa.

chay huqkaq awki, contesta(Sp.)-mu-sqa. that another spirit answer-ASP-PHS.3 'The other spirit answered.'

 $^{^{21}}$ *nispa* < *ni*(say)-*spa*(SAME.ADVLZ). I interpreted that this sentence comprises only one morpheme synchronically; however, there are other cases where it is difficult to make such a precise judgement. See also [15].

²²*huqkaq* < huq(one) ka-q(be-AGT.NMLZ). From its pronunciation, I consider it as a single word synchronically.

6. TEXT

[9] *"iskay choclokunata quy.*

iskay choclo(Sp.)-kuna-ta qu-y. two ear.of.corn-pl-ACC give-IMP "Give two ears of corn."

[10] huqta q'illuta huqta=taq yuraqta quy" nispa.

huq-ta q'illu-ta huq-ta=taq yuraq-ta qu-y" one-ACC yellow-ACC one-ACC=CONTR white-ACC give-IMP *nispa*. COMP 'Give one (that is) yellow, and one (that is) white" saying.'

[11] hina=s rikcharimunaŋpaq, iskay choclokuna chay ladoŋpi kasqa.

hina=s rikchari-mu-na-ŋ-paq, iskay choclo(Sp.)-kuna and=Hs wake.up-ASP-IRR.NMLZ-3-BEN two ear.of.corn-PL chay lado(Sp.)-ŋ-pi ka-sqa. that side-3-LOC be-PHS.3

'And when he woke up, there were two ears of corn by his side.'

[12] chay wakchaqpa ladoŋpi.

chay wakcha-qpa lado(Sp.)-ŋ-pi. that poor-GEN side-3-LOC 'By the side of the poor.'

[13] huq yuraq, huq=taq amarillo.

*huq yuraq, huq=taq amarillo(Sp.).*one white one=CONTR yellow'One (was) white, and the other (was) yellow.'

[14] contento wasiŋmaŋ apayamusqa.

contento(Sp.) wasi-ŋ-maŋ apa-yu-mu-sqa. satisfied house-3-DAT bring-into-ASP-PHS.3 'Satisfied, he brought (them) into his house.'

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[15] "ay kayta=qa wawaykunaqpa mut'iŋpaq apayusaq" nispa.
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ay kay-ta=qa wawa-y-kuna-qpa mut'i²³-ŋ-paq oh this-ACC=TOP child-1-PL-GEN mote-3-BEN apa-yu-saq ni-spa. bring-into-1.FUT say-SAME.ADVLZ 'Saying, "Oh, I will bring these (ears of corn to cook) motes of for my children."'

[16] "iskayta choclokunata apayamushani.

iskay-ta choclo(Sp.)-kuna-ta apa-yu-mu-sha-ni. two-ACC ear.of.corn-PL-ACC bring-into-ASP-PROG-1 "I am bringing in two ears of corn."

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[17] regalamaŋku" nispa.
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regala(Sp.)-mu-wa-ŋ-ku ni-spa. present-ASP-1.OBJ-3-[+3] say-SAME.ADVLZ 'They gave (them) to me." saying.'

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[18] q<sup>h</sup>awayuqtiŋku, quri kasqa chaypi.
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q^hawa-yu-qti-ŋ-ku, quri ka-sqa chay-pi. look-into-DIFF.ADVLZ-3-[+3] gold be-PHS.3 that-LOC 'When they looked to, there was gold.'

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²³*mut'i*: mote. boiled corn-grain.

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Amdo Tibetan

Shiho Евінага

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Introduction

Amdo Tibetan is spoken in Qinghai Province, the south part of Gansu Province, and the north part of Sichuan Province, China. As is the case with the other Tibetan languages, the word order of Amdo Tibetan is SV in an intransitive clause, and AOV in a transitive clause. In general, adjectives that modify nouns are placed after nouns. This language is agglutinative in that it has many clitics and suffixes. The case marking pattern is ergative-absolutive. Verbs do not agree with the person, number, or gender. Some verbs inflect according to aspect and mood (perfect form, imperfect form, imperative form). Many verbs do not have any inflection; instead, auxiliary verbs and sentence-final particles are used to express tense, aspect, modality and evidentiality. Nominalizers, which can derivate various kinds of nouns, are also widely used.

This language has causative expressions for phenomena concerning voice but does not have the grammatical expressions of passive or antipassive. Furthermore there are morpho-phonological pairs of intransitivetransitive verbs (such as *hkor* 'turn' and $k^h or$ 'make it turn').

Amdo Tibetan, like other Tibetan languages, has a system of expressing the speaker's epistemic modality: conjunct/disjunct patterns.

1 Overview

Tibetan languages in China are traditionally divided into three: Central Tibetan (Ü-tsan), Kham Tibetan (East Tibet), and Amdo Tibetan (East Tibet), and Amdo Tibetan (North-East Tibet). Amdo Tibetan is spoken in Qinghai Province, the southern part of Gansu Province, and the northern part of Sichuan Province (see Figure1). The data in this paper is from the Amdo Tibetan spoken in Gonghe County (Gonghe di-



Figure 1: Qinghai Province and its vicinity (The black-coloured area is Gonghe County; TAR stands for 'Tibetan Autonomous Region')

alect). Genealogically, all the Tibetan languages including Amdo Tibetan belong to the Tibeto-Burman group of the Sino-Tibetan family.

According to Nanjia Cairang (1997: 65), the number of Amdo Tibetan speakers is approximately 1,300,000 and this population constitutes 33% of the Tibetan speakers in China. Tibetan speakers call their languages *wolhkel* (WT¹: *bod skad, wol* means 'Tibet', and *hkel* means 'language' in Amdo Tibetan). They use the word *amhkel* (WT: *am skad, am* is an abbreviated form of *amdo*) in order to refer to Amdo Tibetan in specific.

In nomadic areas and farming villages, there are monolingual Amdo Tibetan speakers, particularly children under school-going age, elderly people, and women who do not have access to urban areas. In particular,

¹Written Tibetan transcription.

many bilingual speakers know Amdo Tibetan and Chinese. Some of the town-bred Tibetans are Chinese monolinguals (some can only understand Tibetan).

The dialects of Amdo Tibetan are not well known. Nishi (1986) numerated 23 dialects for Amdo Tibetan (Nishi calls them 'sub-dialect'). The Gonghe dialect is one of them. From the other point of view, there are three dialects groups according to their vocation; nomad, agricultural and semi-agricultural and semi-nomad.

There are two types of schools (elementary school, junior high school, high school, and university) in this area: normal schools and ethnic schools. In normal schools, children are taught only in Chinese. Some normal schools conduct Tibetan language classes. In ethnic schools, children are taught in both Chinese and Amdo Tibetan. In the classes such as math and science, children are taught in Chinese, while the other subjects are taught in Amdo Tibetan. TV and radio broadcasts are conducted in Amdo Tibetan. The broadcasters speak Amdo Tibetan influenced by written Tibetan.

2 Phonology

As compared to other Tibetan languages, Amdo Tibetan has no tonal opposition; however, it has many consonant clusters. The inventory of phonemes varies between the dialects of Amdo Tibetan.

2.1 Syllable structure

The syllable structure of this language can be described as $(C_1)(C_2)(C_3)V(C_4)$. Two types (C_1C_2, C_2C_3) of consonant clusters are possible. The combinations of these consonant clusters are described in phonotactics (2.3).

V	/ə/	'Yes/no question marker'
VC_4	/ok/	'under'
C_2V	/n_ə/	'people'
C_2VC_4	/n_ək/	'eye'
C_1C_2V	/hn.i/	'went mad'
C_2C_3V	/kwa/	'order, command'
$C_1C_2VC_4$	/ht¢ək/	'one'
$C_2C_3VC_4$	/k ^h war/	'castle wall'

2.2 Inventory of phonemes

The Gonghe dialect of Amdo Tibetan has thirty-eight consonants and seven vowels. There are three series (voiceless-aspirated, voiceless-unaspirated, and voiced) for stop, affricate, and a part of fricative consonants. The sounds in voiced series are pronounced with light voiced-glottal-fricative [^ĥ] in the word-initial position. Sometimes, sounds in voiceless-unaspirated series are pronounced with half voiced sounds (such as /towa/ [dowa] etc.). Retroflexes (/t^h/ [t^h], /t/ [t], /d/ [^ĥd]) can also be pronounced as affricates (/t^h/ [ts^h], /t/ [ts], /d/ [^ĥdz]).

In fricatives, only /s/ has the corresponding aspirated sound /s^h/. The /f/ sound mostly appears in Chinese loanwords (for example, /fama/ [fama] 'amazing'); they also can appear in original Tibetan words (/fugen/ 'brother', /fəl/ 'take off', etc.). /x/ appears with labialization before the vowels /i/, /e/, /a/ (/xit¢^ha/ [χ^witc^ha] 'book', /xendzor/ [$\chi^wendzor$] 'economics', /xawo/ [χ^wawo] 'hero', etc.). /ç/ [ç χ] is a double articulation of [ç] and [χ] (/ç/ [ç χ a] 'meat', etc.).

	bilabial/	alveolar	retroflex	alveolo-	palatal	velar	uvular	glottal
	labiodental			palatal				
	p[p]	t[t]	t[t]			k[k]		
stop	$p^{h}[p^{h}]$	t ^h [t ^h]	t ^h [t ^h]			$k^{h}[k^{h}]$		
	b[ĥb]	d[^ĥ d]	d[^ĥ d]			g[^ĥ g]		
		ts[ts]		t¢[t¢]				
affricate		ts ^h [ts ^h]		$tc^{h}[tc^{h}]$				
		dz[^ĥ dz]		$dz[^{h}dz]$				
	f[f]	4[4] s[s]	ş[ş]	¢[¢]	ç[çχ]		$x[\chi]/[\chi^w]$	h[h]
fricative		$s^h[s^h]$						
		z[^ĥ z]		z[ĥz]			$R[_{y}R] \setminus [_{y}R_{m}]$	
nasal	m[m]	n[n]		n[n]		ŋ[ŋ]		
liquid		1[1]						
		r[ə]						
semi-vowel	w[w]					j[j]		

Table 1Consonants

There are seven vowels. Some speakers do not differentiate between /i/[i] and /y/[y] (only /i/[i] appears).

2.3 Phonotactics

2.3.1 Consonant clusters

Two consonants clusters are possible, which are of three kinds: nC_2 , hC_2 , and C_2w . The possible combinations of nC_2 and hC_2 are shown in Table 2. After $C_1 / n/$, only voiceless-aspirated stop and voiced-unaspirated stop can appear. However, for some speakers, voiceless-aspirated stops do not appear after $C_1 / n/$. After $C_1 / h/$, voiceless-unaspirated stop, voiceless-unaspirated fricative, nasal, liquid, and approximant can appear. As C_2w , only $/k^hw/$ and /kw/ are possible.

$C_1 \setminus C_2$	/p ^h /	/p/	/b/	/t ^h /	/t/	/d/	/t ^h /	/ţ/	/d/	/k ^h /	/k/	/g/
/n/	+		+	+		+	+		+	+		+
/h/		+			+			+			+	

$C_1 \setminus C_2$	/t¢ ^h /	/t¢/	/dz/	/ts ^h /	/ts/	/dz/	/m/	/n/	/n_/	/ŋ/	/1/	/j/
/n/	+		+	+		+						
/h/		+			+		+	+	+	+	+	+

2.3.2 Vowel and final consonant

In underlying forms², seven consonants (//p//, //k//, //m//, //n//, //ŋ//, //l//, //l//, //r//) can appear as final (C₄). The combinations of vowels and consonants are shown in Table 3. /an/ assimilates into /en/.

 $^{^{2}}$ In Amdo Tibetan, suffixes and clitics have numerous allomorphs which are conditioned phonologically. In most cases, allomorphs are different in their initial consonants. The phrase 'underlying form' (// //) is used for indicating the underlying representation of the phonological system.

vowel\final	p	т	п	r	l	k	ŋ
е	ep	ет	on	er	el	ek	еŋ
а	ap	am	en	ar	al	ak	aŋ
0	op	от	on	or	ol	ok	оŋ
ə	әр	әт	ən	ər	əl	ək	əŋ

Table 3 Vowel and final consonant

2.4 Morpho-phonological process

Some of the suffixes and clitics of Amdo Tibetan have numerous allomorphs which are conditioned phonologically (2.4.1). Furthermore, stems also alternate from time to time (2.4.2). In most cases, the alternation is regular, but appears complicated because it follows some alternation patterns. For details, see Ebihara (2009). Furthermore, alternations and additions of phonemes are found in some compounds (2.4.3).

2.4.1 Alternations found in suffixes and clitics

In most cases, allomorphs of a suffix or clitic are different in their initial consonants. My data have the following four patterns of allomorphs:

- [1] Voiced and unvoiced
- [2] Fricative and affricate
- [3] Retroflex and /r/
- [4] Stem-final consonant copy insertion

For example, a 'purposive' conjunction //=Gə// belongs to the pattern [1]. //=Gə// has two allomorphs /=gə/, and /=kə/. /=gə/ appears after //m//, //n//, //ŋ//, //r//, or a vowel (e.g., hta=ga 'for watching'), /=kə/ after //p/, //l//, or //k// (e.g., jek=ka 'for doing').

A 'sequential, simultaneous' conjunction //=Ni// belongs to pattern [4]. In an underlying form //=V//, a copy of the final consonant of a stem is inserted before the clitic under certain circumstances. Otherwise, the /=V/ form follows a stem. //=Ni// appears as /=ŋi/ after the consonant

//ŋ// (e.g., $s^h o \eta = \eta i$ '[somebody] went, then'), /=ni/ after //n// (e.g., c = ni '[somebody] gave, then'), and /=i/ after //p//, //k//, //m//, //l//, //r//, or a vowel (e.g., $tc^h = i$ '[something] sparkled, then', $k^h u = i$ '[somebody] got sick, then'). When /=i/ follows the stem final //p//, //p// changes to /w/ (e.g., wew = i, '[it] rained, then')

2.4.2 Alternations in stems

When the final consonant of the underlying stem is //p//, //l//, or //r//, they could be (partly) assimilated into the initial consonant of the suffix or the clitic as follows.

- //p// \rightarrow /t/ (before /tc/), /k/ (before /k/), /w/ (before /a/, /i/)
- //l// → /t/ (before /t/, /ts/, /tc/), /t/ (before /t/), /k/ (before /k/), /s/ (before /s/). Ø (before voiced consonant or at word-final position)
- //r// \rightarrow /t/ (before /t/)

For example, //l// changes into /t/, /t/, /k/, /s/, or Ø: //sel=taŋ// > /set=taŋ/ (kill:PRF=AUX1) '[somebody] killed', //jel=kokə// > /jek=kokə/ (do:IPF=AUX2) '[somebody] is doing', //wəl=s^hoŋ// > /wəs=s^hoŋ/ (go.out :PRF=AUX1) '[somebody] went out', //jol#// > /jo/ 'there.is/are [something]', //mel=nərel#// > /me=nəre/ (there.isn't/aren't=AUX2) 'There isn't/aren't [something]'.

2.4.3 Morpho-phonological process in compounds

In some compounds, alternations (e.g., (1)) and additions (e.g., (2)-(5)) of phonemes are found. The added phonemes are the fossilized clusters which reflect those in written Tibetan.

- (1) $tc^{h} \partial + ca\eta > tc^{h} \partial za\eta$ 'water field' water+field
- (2) *tçə+səm > tçəksəm* 'thirteen' ten+three
- (3) $z \partial + t c \partial$ > $z \partial p t c \partial$ 'forty' four+ten

- (4) $tc \partial + g \partial$ > $tc \partial r g \partial$ 'nineteen' ten+nine
- (5) hjə+ts^ho > hjənts^ho 'turquoise-coloured lake (or sea)' turquoise+lake (sea)

3 Word classes

Morphemes can be divided into three types: independent words, clitics, and affixes. Both independent words and clitics (enclitics) are words, but clitics cannot appear independently. According to these criteria, independent words and clitics can be divided as follows.

Table 4 Words and clitics

independent	noun, pronoun, numeral, adjective, verb, adverb, inter-
words	jection
clitics	indefinite marker, case marker, pragmatic particle,
	auxiliary verb, sentence-final particle, nominalizer

As for bound morphemes, I set two criteria for dividing clitics and affixes: (a) no other element can be inserted between a host and an affix, and (b) an affix cannot follow a clitic.

3.1 Nouns

Most common nouns are one or two-syllabled words (e.g., *hta* 'horse', $n \vartheta$ 'human being'). There are very few (non-compounded) words which have more than three syllables. Nouns do not have grammatical number and gender categories. There are plural suffixes (see 4.2.1), although these are not obligatory. Cases are mostly marked by case markers. Only an absolutive case appears with a zero-mark (see 5.2).

Nouns can be divided into honorific nouns and non-honorific nouns. Honorific nouns are much lesser than non-honorific nouns. Generally, the honorific nouns are used only for high monks. For examples, *cek* is the honorific noun of *lokkwa* 'hand', and *simo* 'daughter (HON)' is the honorific noun of *cimo* 'daughter'. In terms of cultural vocabularies, terms about domestic livestock (differentiate years, male-female, form of horns, colours) are fluent.

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3.2 Pronouns

There are two types of pronouns: personal pronouns and demonstrative pronouns.

3.2.1 Personal pronouns

Personal pronouns distinguish three numbers: singular, dual, and plural. Exclusive and inclusive are distinguished only for first-person dual and plural. Genders (male and female) are distinctive only in third-person singular and dual. The personal pronominal forms are first person ηa , second person $tc^{h}o$, third-person male $k^{h}\partial(r)ga$, and third-person female $m\partial(r)ga$. Dual forms are marked by -ni (means 'two'): $\eta\partial nika$ (1DU.EXCL), $\partial nika$ (1DU.INCL), $tc^{h}inika$ (2DU), $k^{h}\partial nika$ (3DU). Plural forms are marked by -zo or $-tc^{h}o$: $\eta\partial zo$, $\eta\partial tc^{h}o$ (1PL.EXCL), ∂zo , $\partial tc^{h}o$ (1PL.INCL), $tc^{h}itc^{h}o$ (2PL), $k^{h}\partial tc^{h}o$ (3PL). All numbers over three are expressed using plural forms with its number. In Tables 5 and 6, only absolutive and ergative/genitive forms are shown. The other cases are formed with case markers (3.2.2).

		absolutive	ergative/genitive
1st person		ђа	ŋi
2nd person		t¢ ^h o	$t c^h i, t c^h u$
3rd person	male	khə(r)ga	khə(r)gə, k ^h ə(r)gi
	female	mə(r)ga	mə(r)gə, mə(r)gi

Table 5Personal pronouns (singular)

Apart from these, there are honorific pronouns ($tc^{h}el$ for second person, $k^{h}o\eta$ for third person) and logophoric pronouns ($k^{h}o$, mo, $k^{h}o\eta$, see 5.11).

3.2.2 Demonstrative pronouns

There are three types of demonstrative pronouns: $nd\partial$ or ndi (proximal), $t\partial$ or ti (distal), and ken or ka (far distal). The pronouns $nd\partial$, and ndi are used for referring to proximal objects or contexts. The pronouns $t\partial$, and ti are used for referring to distal objects or contexts, and sometimes, to objects on the part of his/her speech partner. The pronouns ken, and ka are used for referring to far distal objects or contexts and references

which the speaker cannot remember.

Demonstrative pronouns inflect by cases. Table 6 shows only absolutive, ergative/genitive, and dative cases. The other case forms are formed with case markers (4.1.2).

Table 6Demonstrative pronouns

	absolutive	ergative/genitive	dative
proximal	ndə, ndi	ndə~ndi=kə~=ki	nde
distal	tə, ti	tə∼ti=kə~=ki	te
far distal	ken, ka	ken=kə∼=ki	ken=na

The distal demonstrative pronouns $t\partial$, and ti sometimes function as a definite marker³.

3.3 Numerals

Numerals in Amdo Tibetan follow the decimal system. There are cardinal numbers and ordinal numbers.

3.3.1 Cardinal numbers

*htcək*⁴ 'one', *hni* 'two', *səm* 'three', *zə* 'four', *hŋa* 'five', *tək* 'six', *dən* 'seven', *dzel* 'eight', *gə* 'nine', *tcə* (*t*^h*amba*) 'ten'

 $t^{h}amba$ is an optional element which means 'just'. This element can follow multiples of ten to hundred (10, 20, 30...100). Cardinal numbers over eleven are expressed as $tc \partial + htc \partial k$ (10 + 1) 'eleven', $tc \partial + t\partial k$ (10 + 6) 'sixteen'. Multiples of ten over twenty are stated as follows. These numbers can appear with $t^{h}amba$ 'just'.

hniçə 'twenty', *səmtçə* 'thirty', *zəptçə* 'forty', *hŋaptçə* 'fifty', *təktçə* 'sixty', *dəntçə* 'seventy', *dzatçə* 'eighty', *gətçə* 'ninety'

Cardinal numbers from twenty to ninety are formed by monosyllable connections inserted between the one's and ten's place digits. These

³On the other hand, indefinite is marked by $=z \partial k$ (e.g., *hnets^h \partial l = z \partial k*: story=INDF 'a story').

⁴*htcək* appears as $ts^h \partial k$ after dza 'month' ($dza # ts^h \partial k$ 'one month'), and appears as $c \partial k$ after $ts^h e$ 'day' ($ts^h e # c \partial k$ 'the first day of a month').

inserted syllables vary with the number of the ten's place digit: htsa (hnica+htcak 'twenty-one'), so(samtca+so+hni' thirty-two'), ce(zap-tca+ce+sam' forty-three'), $\eta a(h\eta aptca+\eta a+h\eta a' fifty-five')$, re(taktca+re+tak' sixty-six'), ton(dantca+ton+tak' seventy-six'), dza(dzatca+dza+ga' eighty-nine'), and ko(gatca+ko+sam' ninety-three'). Cardinal numbers over hundred are stated as follows: dza 'hundred', $hto\eta$ 'thousand', t^he 'ten thousand', nbam 'hundred thousand', saja 'million', ciwa 'ten million', and $to\eta car'$ 'hundred million'.

3.3.2 Ordinal numbers

Ordinal numbers comprise cardinal numbers with suffixes: *hni-wa* 'second', *səm-ba* 'third', *zə-wa* 'fourth', *hŋa-wa* 'fifth', *tək-kwa* 'sixth', *dən-pa* 'seventh', *dze-pa* 'eighth', *gə-wa* 'ninth', and *tcə-wa* 'tenth'. The only exception is *toŋwo* 'first'.

3.4 Adjectives

Adjectives show syntactic similarities to nouns. Most adjectives can be formed by adding nominal suffixes to stative verbs—generally, -po, -mo, -wo, -kwa, etc. (ndzok-mo 'fast', tc^hi-wo 'big, old')—or they can be formed by reduplicating stative verbs (tc^hoŋ+tc^hoŋ 'small, little, young', lep+lep 'flat'). Some verbs do not have corresponding stative verbs (htoŋwa 'empty', anamana 'look-alike', ahamaha 'cursory', nbarinbəri 'jaggy', etc.). In this paper, these three types are called adjectives. An adjective can serve as a modifier of a noun and a predicate of a copula sentence, and can sometimes modify a verb—like an adverb. There are no morphological ways to express comparative or superlative degrees in Amdo Tibetan adjectives.

3.5 Verbs

Verbs can be divided into copula verbs, existential verbs, and common verbs (stative verbs and active verbs). All verbs except compounding verbs are one-syllabled. Verbs do not agree with person, number, or gender. Only a part of the active verbs has inflections according to aspect and mood (perfect form, imperfect form, and imperative form), in which many irregular inflections are included. Furthermore, many verbs do not have any inflection. Instead, auxiliary verbs and sentence-final particles are used for expressing tense/aspect, modality, and evidentiality. The patterns of verbal conjugations are shown in Table 7.

	IPF	PRF	IMP	meaning
[three forms are different]	sa	si	SO	'eat'
[only IPF form is different]	hta	hti	hti	'watch'
[only PRF form is different]	hton	hten	hton	'show'
[only IMP form is different]	nen	nen	non	'listen'
[three forms are the same]	dom	dom	dom	'tie'

Table 7 Verbal conjugations

Only a few verbs have morphological pairs of intransitive-transitive (*hku* 'make boil (transitive)' and $k^h u$ 'boil (intransitive)', gu 'make move' and *ngu* 'move', etc.). There is no distinction between the final and non-final verbs. In non-final positions, in most cases, the conjunctions are added to verbs (see 5.12).

3.6 Adverbs

Adverbs are usually placed before verbs. These include temporal adverbs (*tatci* 'a little while ago', *ta s^homa* 'a little while ago, recently', *taroŋ* 'yet', degree adverbs (*çamts^ha*, *cigi* 'very', *at^hər* 'most', *tsəgezək* 'a little'), declarative adverbs (*li* 'of coarse', *tcaŋ* '(not) at all'), and directional adverbs (*hara* 'that way', *ts^həra* 'this way', *jara* 'upward', *mara* 'downward').

3.7 Interjections

There are several kinds of interjections, such as affirmative answers (*ole*, *ja* 'yes'), negative answers (nh^5 'no'), those expressing surprise (*ajo*, *ajoçe*, *ama* 'oh!'), and those that urge conversations (*ta* 'so what?').

 $^{^5 \}rm The}$ syllable structure of /nh/ steps out of that shown in 2.1. This is because interjections such as /nh/ are phonologically peripheral in the phonology of Amdo Tibetan.

4 Morphology

There are three ways of word formation: (1) derivation by affixation, (2) compounding, and (3) reduplication. Both (1) and (2) are productive ways.

4.1 Derivation by affixation

Some affixes and clitics are added to verbs, while some are added to nouns.

4.1.1 Verb affixation

There are two types of prefixes: negative prefixes (*ma*-, *mə*-) and interrogative prefix (*ə*-). Suffixes are of many kinds: *-pa*, *-po* (expressing person, in particular, man, *jek-pa*: beautiful-NMLZ 'good-looking man'), *-ma*, *-mo* (expressing females, *jek-ma*: beautiful-NMLZ 'good-looking woman'), *-k^hen* (expressing specialist, *hlə len-k^hen*: song sing-NMLZ 'singer'), *-htcekko* (expressing tools, *ndzo-htcekko*: go:IPF-NMLZ 'vehicle'), and *-dzi* (expressing things, events, values, *ndə-dzi*: ask:IPF-NMLZ) 'question'. Apart from the above, many kinds of nominalizing suffixes are derived from nouns: *-s^ha/-s^ho* 'place to do something' (*s^ha* means 'land'), *-k^hom* 'time to do something' (*k^hom* means 'free time'), *-ton/-don* 'reason to do something' (*ton* means 'meaning'), etc.

4.1.2 Noun affixation

Plural suffixes are added when the speaker intends to specify the plurality of nouns. There are two types of plural suffixes: one is for homogeneous plural (*-tc^ho/-tco/-zo*, *-hnem*, e.g. *awa-tco*: father-PL 'fathers'), and the other is the plural of approximation (*-lasokkwa*, *-tcenbo*, e.g. *awalas^hokkwa*: father-PL 'fathers and his company').

There are many kinds of suffixes that express person: -pa/-ba/-wa (*ne-pa*: ill-NMLZ 'patient', *hmen-ba*: medicine-NMLZ 'doctor', *xitc*^ha-wa: book-NMLZ 'scholar', female affix *-mo* (*ndzo-mo*: ndzo-NMLZ 'female ndzo'⁶). The suffix *-tcen* is used to express a person/thing that possesses something (*hpo-tcen*: anger-PROP 'people with short temper'). There are several honorific prefixes (*hk*a-: *hk*a-*ts*^he 'life (HON)').

An affix -ma- is added between two elements and means 'interme-

⁶*ndzo* is a hybrid between a female yak and an ox.

diate category between A and B'. This affix is not productive: *roŋ-ma-ndok* 'semi-agricultural and semi-nomad' (agricultural-*ma*-nomad), *dza-ma-wol* 'miscegenation between the Han Chinese and Tibetans' (Han Chinese-*ma*-Tibet).

4.2 Compounding

There are four types of compounding, namely, 'verb + noun', 'noun + verb', 'noun + noun', and 'verb + verb'.

- (6) 'verb + noun': $dop+dep^7$ (learn + book) 'text book'
- (7) 'noun + verb': $tc^ha\eta + t^ho\eta$ (alcohol + drink) 'drinker'
- (8) 'noun + noun': *do+kara* (stone + sugar) 'crystal sugar'
- (9) 'verb + verb': *maŋ+n₀oŋ* (much + little) 'muchness'

4.3 Reduplication

Reduplication is less productive than affixation (4.1) and compounding (4.2). Interrogative words, adjectives, and verbs can be reduplicated; moreover, interrogative words (Table 10) can be used to express the plurality of references.

(10) $s^{h}\partial + s^{h}\partial \qquad s^{h}\partial\eta = z\partial k$? who+who go:PRF=AUX 'Who (plural) went?'

Reduplicated adjectives lay emphasis on the meaning.

(11) *metok maro+maro re.* flowers red+red COP 'Flowers are really red'

⁷dep < tep 'book' (see 2.4.3)

Stative verbs can be reduplicated and used to form adjectives ($tc^{h}o\eta + tc^{h}o\eta$ 'small, little, young', $n o\eta + n o\eta$ 'few'). Sometimes, active verb stems can be reduplicated to express 'to do extremely' (e.g., (12)) or 'to do all the way'⁸ (e.g., (13)).

- (12) t^hoŋ+t^hoŋ+t^hoŋ=ŋi taroŋ hkom=i de drink+drink+drink=CONJN still thirsty=CONJN stay:PRF *jok=kə*. there.is/are=AUX2
 'Drinking a lot, but can still be thirsty'
- (13) $k^{h} \partial rga Aas^{h}a jo\eta + jo\eta$ re. 3SG PLN come+come COP 'He came all the way to Lhasa'

5 Syntax and Grammatical/functional categories

Amdo Tibetan shows an agglutinative feature. Grammatical relations are expressed by clitics and suffixes. The case-marking pattern is ergativeabsolutive.

5.1 Word order

5.1.1 Clause and sentence

The basic word order is SV in an intransitive clause and AOV in a transitive clause. The constraint that the verb comes to a sentence-final position is comparatively strong. OAV order is also allowed when O is topicalized. If the element involves old information in the context, it is frequently omitted or can be put in sentence-final (e.g. (14)). Adjectives that modify nouns are placed after nouns (e.g. *cimo tc^hoŋwo* 'youngest daughter').

(14) dzawo tsənmo re=mo, tc^ho.
king queen COP=SFP 2SG
(lit.) 'King's queen, you are'

⁸This constuction is rare. In this case, copula verb *rel* after the reduplicated verb is obligatory.

5.1.1.1 Intransitive and transitive clauses

The object of transitive verb is marked by absolutive or dative. Dative case marker appears according to the verb type: change-of-state verbs such as 'kill', 'cut', and 'cook' always require an unmarked argument, whereas surface-contact verbs like 'hit' and 'meet' require a dative-marked argument.

- (15) *ŋa ndzo=dzi.*1SG go:IPF=AUX2
 'I will go'
- (16) *ŋi* sama sa=dzi.
 1SG:ERG food eat:IPF=AUX2
 'I will eat food' (Ergative-absolutive)
- (17) *ŋi* soŋnbəm=ma hti=taŋ=ŋa.
 1SG:ERG book:HON=DAT watch:PRF=AUX1=AUX2
 'I have read the book'

5.1.1.2 Copula and existential/possessive clauses

Copula verbs are used in a copula clause. The word order is SCV.

(18) *ŋa hloţi jən.* 1SG PSN COP 'I am Lotri'

Existential verbs *jol* 'there is/are' (negative form: *mel* 'there is not/are not') are used in existential and possessive clauses. A location of existence appears with locative or ablative case markers. A possessor appears with dative case markers.

- (19) $\eta a \quad j = na = ni \quad jo.$ 1SG home=LOC~=ABL there.is/are 'I am at home'
- (20) sonam=ma gormo jo. PSN=DAT money there.is/are 'Sonam has money'

5.1.2 Phrases

5.1.2.1 Nominal phrase

When a noun modifies a noun, genitive modifiers (including one variety of relative clause) precede the head noun (*ama=ki lokkwa*: mother=GEN hand 'mother's hand'). In rare cases, a genitive case marker does not appear (*dzawo tsənmo*: king queen 'king's queen').

In general, adjectives are placed after a head noun. Indefinite markers or demonstrative pronouns are placed after a head noun or any modifying adjective, and they precede a numeral (e.g., (21), and (22)).

- (21) *sama cəm-bo ti* food delicious DEM 'the delicious food'
- (22) *çaji tç^hoŋ+tç^hoŋ ti səm* child small DEM three
 'the three small children'

5.1.2.2 Verbal phrase

In Amdo Tibetan, a verb stem can become a predicate without any other element, but in most cases, a verb stem is accompanied by suffixes or clitics to form a verb complex. In this paper, this verb complex is called a 'verbal phrase'. The composition of a verbal phrase can be illustrated as in (23).

(23) (NEG- or Q-) Verb (=AUX1) (=AUX2) (=AUX2) (=SFP)

There are two types of auxiliary verbs: AUX1 and AUX2. AUX2 can follow AUX1, but not vice versa. Some AUX2 can follow the other AUX2, but their combination is limited⁹. AUX1 is closer to the verb as compared to AUX2 from the viewpoint that AUX1 has conjugations. There are three kinds of AUX1, as is shown in the following paragraph. All the predicates with AUX1 express aspectual meaning (the occurence of an event,

⁹Some AUXB (*=Tcirel* 'future, inference (involitional, disjunct)', *=nəjən* (abbr. *=ni*) 'explanation (conjunct)', *=nərel* 'explanation (disjunct)', *=Zək* 'past (indirect perception)') can follow *=Kəjol* (abbr. *=Ko*) 'progressive (conjunct)'.

an event that has passed). Predicates with $=ta\eta/=to\eta$ and $=s^{h}o\eta/=ndzo$ express intentionality (intentional/unintentional) or directionality (an event that comes to/goes away from the speaker).

Predicates with AUX1

V:PRF=taŋ, *V:IPF=toŋ* (from the verb 'release'):

'intentional, the event that comes to the speaker' *V:PRF=s^hoŋ*, *V:IPF=ndzo* (from the verb 'go'):

'unintentional, an event that goes away from the speaker' *V:PRF=n₀oŋ* (from the verb 'experience'): 'experience'

There are ten kinds of AUX2. The predicates with AUX2 express temporal, aspectual, evidential, or modal meanings. As is characteristic of Tibetan languages, there is a system of expressing the speaker's epistemic modality: conjunct/disjunct patterns. Conjunct/disjunct patterns are explained in 5.10.

Some auxiliary verbs have several allomorphs. Elements with capitalized initial consonants show the underlying forms of those allomorphs.

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Predicates with AUX2

V:IPF=Tcijən^{10} (abbr. =Tci): 'future (volitional, conjunct)'

V:IPF=Tcirel^{11}: 'future, inference (involitional, disjunct)'

V:IPF=K\partial^{12}: 'state'

V:IPF=K\partial jol^{13} (abbr. =Ko): 'progressive (conjunct)'

V:IPF=K\partial jokk\partial^{14} (abbr. =Kok\partial): 'progressive (disjunct)'

V:PRF=n\partial j\partial n (abbr. =ni): 'explanation (conjunct)'

V:PRF=n\partial rel: 'explanation (disjunct)'

V:PRF=n\partial rel: 'explanation (disjunct)'

V:PRF=z\partial k^{15}: 'past (indirect perception)'

V:PRF=Z\partial k^{15}: 'past (indirect perception)'

V=A^{16}: 'an event that the speaker performed, made somebody to do,

or is familiar with'
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<sup>16</sup>=a/=na/=ŋa
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¹⁰=t¢ijən/=dzijən, =t¢i/=dzi

¹¹=t¢irel/=d*z*irel

 $^{^{12}=}k\partial/=g\partial$

¹³=kəjol/=gəjol

¹⁴=kəjokkə/=gəjokkə

 $^{^{15}=}z\partial k/=ts\partial k$
5.2 Cases

Case markers in Amdo Tibetan are enclitics. The inventory of case markers including zero marker $= \emptyset$ (glossed as ABS in 5.2) is presented in Table 8. They attach to the last word of a noun phrase, regardless of whether it is the head noun. The case marking of pronouns is slightly different from nouns, particularly for ergative/genitive and dative. These markings are shown in Table 5.

form	name	syntactic function	e.g.
=Ø	absolutive	intransitive subject, object	(24)-(26)
=kə, =ki	ergative	transitive subject, material,	(25),(27),(28)
		tools, and cause	
	genitive	possessor, modifier	(29)-(31)
=ni	ablative	start point of time/location,	(32)-(34),(36)
		location of existence/action	
=na	locative	location/time of existence/	(33)
		action	
=Ca (Table 9)	dative	recipient in ditransitive con-	(35),(37)
		struction, dative subjects of	
		predicate such as 'like' or	
		'need', possessors in 'have'	
		construction, non-agent ar-	
		gument of certain transitive	
		predicates	
$=t^h \partial k s^h i$	terminative	terminal point of time/loca-	(36),(37)
		tion	
=k ^h ari	instrumental	material, instrumental	(38),(39)

Table 8 Case markers

Only =*Ca* has morpho-phonological alternations according to the stemfinal sound.

final of stem	allomorphs of $=Ca$	example	translation
p	=wa	tondəp=wa	'to Tondrup'
m	=ma	sem= ma	'to heart'
l	=a	$t^{h}emtcel=a$	'to all'
n	=na	s ^h emt¢en= n a	'to everybody'
k	-ka -a	ht¢ək= ka	'to one'
Λ	$-\kappa u, -u$	$t^{h}ok=a$	'to top'
ŋ	=ŋa	naŋ= ŋa	'to inside'
wowol	17	ŋa= a ∕ŋa=Ø	'to me'
vower	-u, -0, = 0	$t c^h o = o$	'to you'

Table 9 Morpho-phonological alternations of dative case marker

The followings are examples of each case (Table 8).

- (24) ŋa ndzo=dzi.
 1SG:ABS go:IPF=AUX2
 'I will go'
- (25) *ŋi* sama sa=dzi.
 1SG:ERG food:ABS eat:IPF=AUX2
 'I will eat'
- (26) *ŋa gegen jən.* 1sG:ABS teacher:ABS COP 'I am a teacher'
- (27) *ŋi ama=kə sama li=gogə.*1SG:GEN mother=ERG food:ABS make=AUX2
 'My mother is cooking food'
- (28) lokkwa=kə sama ma-sa. hand=ERG food:ABS NEG-eat:IPF
 'Don't eat food by hand'

¹⁷When the final of the stem is a vowel, the dative marker =Ca usually does not appear.

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- (29) *ama=kə* lokkwa mother=GEN hand 'Mother's hand'
- (30) dordze=ki lihka
 PSN=GEN work
 'Doje's work'
- (31) ndi=ra tç^hə naŋ=kə re.
 DEM=PP water inside=GEN COP
 'This is also (the animal) from water'
- (32) tc^haptc^ha=ni joŋ=ni.
 PLN=ABL come=AUX2
 'I am from Chapcha'
- (33) *hloți jə=ni~na jo.*PSN:ABS home=ABL~=LOC there.is/are
 'Lotri is at home'
- (34) *tits^ho səm=kə t^hok=ni* time:ABS three=GEN over=ABL 'At three o'clock'
- (35) *ŋi* xaden=**na** xitc^ha hter.
 1SG:ERG PSN=DAT book:ABS give:IPF
 'I will give the book to Xaden'
- (36) teraŋ=ni naŋhka=t^həks^hi today=ABL tomorrow=TER
 'From today until tomorrow'
- (37) na ak^h hloti=a dənpa=t^h ks^h gə=zək.
 1SG:ABS Mr. PSN=DAT seven=TER wait=AUX2
 'I waited for Mr. Lotri until seven o'clock'

- (38) gem ndi k^hamo=kə saŋ=k^hari li=nəre.
 box DEM PSN=ERG copper=INS make=AUX2
 'Khamo made this box with copper'
- (39) lokkwa=k^hari sama ma-sa. hand=INS food:ABS NEG=eat:IPF
 'Don't eat food by hand'

5.3 Serial verb construction

In serial verb constructions, V1 and V2 are juxtaposed in the same clause. In most cases, there is no device linking V1 and V2. The TAM of the construction is marked on V2. While some V2 require V1 (imperfect form), some require V1 (perfect form). Sometimes, the conjunction =Ni is inserted between V1 and V2 (e.g. (43)).

V2 require V1 (imperfect form)			
V1:IPF# <i>çi</i> (know)	'know how to V1'		
V1:IPF# <i>nen</i> (be allowed)	'be allowed (by laws or ethics) to V1'		
V1:IPF# $t^h \partial p$ (can)	'can V1 (when physical or temporal conditions are right)'		
V1:IPF#go (need)	'need to V1'		
(40) <i>ŋi sama li çi=d</i> 1sg:erg food make kno 'I know how to make food	w = AUX2		
(41) <i>ŋi sama li go=</i> 1sg:erg food make need 'I need to make food'	gə. d=AUX2		
V2 require V1 (perfect form)			
V1:PRF# $ts^{h}ar$ (finish) 'f	ìnish V1'		
V1:prf# <i>ndzok/zek</i> (leave) '1	eave V1'		
V1:PRF#del (stay) 'I	progressive (until the point of refer- nce)'		
V1:prf#joŋ (come) 'I	proximal motion'		
V1:prf#ren (fit)	be time to V1'		
V1:PRF#jol (there.is/are) 'p	perfect of result'		

- (42) ηi sama li ma-ts^har.
 1SG:ERG food make NEG-finish
 'I did not finish cooking food'
- (43) hti=rit^hats^ho adza çə=i de watch:PRF=CONJN father die=CONJN stay:PRF jo=nəre. there.is/are=AUX2
 'When [they] saw, [their] father was dead' (=i is an allomorph of the conjunction =Ni)

5.4 Light verb construction

Some light verb constructions comprise a noun with a semantically empty verb: *dzek* 'do', *jel* 'do', *htoŋ* 'release', etc. When these verbs are used with nouns, they express a particular meaning.

- (44) *ts^ha dzek* fever do:IPF 'develop (a) fever'
- (45) *go dzek* door do:IPF 'shut a door'
- (46) *htoppa jel* praise do:IPF 'praise'
- (47) *dokdzə jel* kick do:IPF 'step on'
- (48) *k^hapar htoŋ* phone release:IPF 'make a call'

(49) goŋa htoŋ egg release:IPF 'lay an egg'

5.5 Question

There are mainly two types of questions in Amdo Tibetan: yes/no questions and wh-questions. In both types, the word order is the same as that in declarative sentences. There are seven kinds of interrogative words, as listed in Table 10.

interrogative words	meaning
t¢ ^h əzək	what
t¢ ^h əzəka	why
пет	where
s ^h ə	who
kaŋ	where, which
tə, t¢ ^h əmozək	much, how many
t¢ ^h əgi	how

Table 10 Interrogative words

5.5.1 Yes/no questions

Yes/no questions are expressed with an interrogative prefix ∂ - (e.g., (50), (51)), an interrogative sentence-final particle (*=ni*, *=ka*, *=na*, e.g., (52), (53)), or rising intonation. When auxiliary verbs are composed of copula verbs or existential verbs, the interrogative prefix ∂ - is placed before these verbs.

- (50) tc^ho hjənts^ho ə-jən?
 2SG PSN Q-COP
 'Are you Yumtso?'
- (51) *norbə joŋ=dzi ə-re?* PSN come=*dzi* Q-*re* 'Will Norbu come?'

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(*=dzire* is an auxiliary verb meaning 'future (disjunct)'. The interrogative prefix *ə*- is inserted before the copula verb *re*)

- (52) tc^ho wə joŋ=ni?
 2SG go.out:PRF come=SFP
 'You came back?'
- (53) tc^ho demo jən=na?
 2SG fine COP=SFP
 'How are you?' (Used for greetings)

5.5.2 Wh-questions

Wh-questions are formed with interrogative words (Table 10). The question marker *=ni* can co-occur with these interrogative words.

- (54) tc^həzəka ma-joŋ=ni?
 why NEG-come=SFP
 'Why did [you] not come?'
- (55) nem joŋ=ni?when come=sFP'When did [you] come?'
- (56) tc^ho s^hə jən?
 2sG who COP
 'Who are you?'

5.6 Negation

Negation can be formed with negating verbs or auxiliary verbs. Only copula verbs and existential verbs have negative forms of their own. The other verbs do not have their own negative forms; they can be negated by adding the negative prefixes ma- or ma-.

5.6.1 The negative forms of copula verbs and existential verbs

There are two forms of copula verbs: *jən* and *rel* (*l* of *rel* is sometimes not pronounced, or it changes into another phoneme. See 2.4.2). The negative

form of *jən* is *mən*, while that of *rel* is *marel*. The negative form of the existential verb *jol* is *mel*. When auxiliary verbs comprise copula or existential verbs, the negative forms of these auxiliary verbs are formed by changing the copula or existential affirmative forms into negative forms (e.g., (60)).

- (57) *ŋa hlama mən.* 1sG high.monk COP 'I am not a high monk'
- (58) *ŋa ndzo=dzimən*.
 1SG go:IPF=AUX2
 'I will not go'
 (=*dzimən* is a negative form of =*dzijən*)
- (59) ndəkmots^ho jə=na me.
 PSN home=LOC there.isn't/aren't
 'Drugmotsho is not at home'
- (60) k^hərgi xitç^ha hta=gə**mek**kə.
 3SG:ERG book watch:IPF=AUX2
 'He is not reading the book'
 (=gəmekkə is a negative form of =gəjokkə 'progressive (disjunct)')

5.6.2 Negation by negative prefixes

There are two negative prefixes: ma- and ma- precedes the verb perfect form (e.g., (61)) and ma- precedes imperfect form verb (e.g., (62)). However, ma- precedes an imperfect form verb only in negative imperative clauses (e.g., (63)).

- (61) ŋa łas^ha=a ma-s^hoŋ.
 1SG PLN=DAT NEG-go:PRF
 'I did not go to Lhasa'
- (62) na łas^ha=a mə-ndzo.
 1SG PLN=DAT NEG-go:IPF
 'I will not go to Lhasa'

(63) $tc^{h}o$ $4as^{h}a=a$ ma-ndzo. 2SG PLN=DAT NEG-go:IPF '[You] don't go to Lhasa'

5.7 Command

In affirmative command sentences, verb imperative forms are used (*dol* 'Stay!'). The word order is the same as that in declarative sentences. If the sentence-final particle =Ko (=ko/=go) is added, the sentence becomes more polite (dok=ko 'Please stay'). If the sentence-final particle =Ra (=ra/=ta/=nda) is added, the sentence becomes more brusque ($s^{h}o\eta=ra$ 'Go!'). If the sentence final particle $=at^{h}a\eta$ is added, politeness in tone is the same as that in a sentence without any particles.

Negative command sentences of volitional verbs can be composed by adding the negative prefix *ma*- to verb imperfect forms (5.6.2). Negative command sentences of non-volitional verbs can be composed by negating the causative clause of a non-volitional verb (e.g., (64)). The causative is discussed in 5.8.

(64) htok=kə ma-ndzək. get.hungry=CONJN NEG-put.in:IPF
'Don't be hungry'

5.8 Voice

Although this language has causative expressions, it has no grammatical expressions of passive or anti-passive. The causative expressions can be expressed with the verb $ndz\partial k$ (imperfect)/ $z\partial k$ (perfect)/ $c\partial k$ (imperative) which means 'put in'. If the verb that causes is intransitive, the causee appears with an absolutive. If the verb that causes is transitive, the causee appears with a dative, and the object of the action to be caused appears with an absolutive.

(65) ni łəndəp łas^ha ndzo=gə zək=taŋ=ŋa.
1SG:ERG PSN PLN g0:IPF=CONJN put.in:PRF=AUX1=AUX2
'I made Lhundrup go to Lhasa'

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As per my research, a double causative is not permitted. An expression corresponding to a double causative is presented by analytic expressions such as 'say to A and make B to do' or 'ask to A and make B to do'.

5.9 Evidentiality

Evidentiality can be expressed by adding particular auxiliary verbs: $=t^h a$, $=Z\partial k (=z\partial k/=ts\partial k)$, $=A (=a/=na/=\eta a)$ (see also 5.1.2.2). $V=t^h a$ is used to express an event that is perceived directly or is newly found (e.g. (68)). $V=Z\partial k$ is used to express an event that is inferred or informed about by another person (e.g. (69)). V=A is used to express the event that the speaker performed, made somebody to perform, or is familiar with (e.g. (70)).

- (68) k^hərga go=a wət=t^ha.
 3SG door=DAT go.out:PRF=AUX2
 'He went out (I know because I noticed him going out)'
- (69) k^hərga go=a wət=tsək.
 3SG door=DAT go.out:PRF=AUX2
 'He went out (I know because he is not inside, or by getting the information from somebody else)'

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(70) k^hərga go=a wət=s^hoŋ=ŋa.
3SG door=DAT go.out:PRF=AUX1=AUX2
'He went out (I know because I am familiar with him or made him go)'

5.10 Conjunct/disjunct

As with other Tibetan languages, Amdo Tibetan has a system of expressing the speaker's epistemic modality: conjunct/disjunct patterns. Shirai (2007: 140) divided 'conjunct/disjunct' patterns into two types: (1) the 'person-restricted' type such as that of Newar and (2) the 'point-of-view' type such as that of modern Tibetan. As Shirai (2007: 140) noted, 'the conjunct form is chosen if the speaker is a conscious participant in the process of the event, regardless of the person of the subject'. In Amdo Tibetan, there are conjunct and disjunct series for copula verbs and some auxiliary verbs. The conjunct form of copula verb is *jən* as in (71) and (72) (the negative form is *mən*), and the disjunct form is *re(l)*, as in (73) and (74) (the negative form is *marel*, *mare*). In question sentences for the second person, the conjunct forms are generally used according to the point-of-view of the second person (75).

- (71) ŋəzo wol jən.
 1PL Tibetan COP
 'We are Tibetans'
- (72) ndəkmots^ho ŋi cimo jən.
 PSN 1SG:GEN daughter COP
 'Drugmotsho is my daughter'
- (73) kori ndi cənbo jən.
 bread this delicious COP
 'This bread (that I made) is delicious' (The speaker is involved in the process of the event)

- (74) məga hmenba re.3SG doctor COP'She is a doctor'
- (75) tc^ho wol ə-jən?
 2sG Tibetan Q-COP
 'Are you Tibetan?'

In some instances such as those before particular auxiliary verbs or particular conjunctions, these two series are neutralized (only conjunct series can appear, as in '*jən=nara*' in (78), '*jən=na*' in [3]).

5.11 Logophoricity

Amdo Tibetan has logophoric pronouns k^{ho} (used for males), *mo* (used for females), and $k^{h}o\eta$ (family plural 'our family'). These pronouns appear in reported speech and show co-reference with the third and second-person original speaker of the reported speech.

(76) $sonam_i = ki [k^h o_i ta jo\eta = dzi] = zi$ PSN=ERG LOG now come=AUX2:conjunct =COMP $cet=ts \partial k.$ speak=AUX2 'Sonam_i said that he_i will come now'¹⁸

5.12 Complex sentence

Coordination complex sentences do not appear in my data, and thus, all the complex sentences are subordinate.

5.12.1 Types of subordinate clauses

Complex clauses comprise subordinate clause(s) and a main clause. In general, a subordinate clause precedes the main clause. On the basis of their grammatical functions, subordinate clauses can be divided into noun

¹⁸The consultants explained the logophoric pronoun k^{ho} as 'I' in quotations, but here I translated this pronoun as 'he' because this sentence is not a direct speech.

clauses, adjectival clauses, and adverbial clauses. Both noun and adjectival clauses can be formed by adding the nominalizer *=no*. The nominal clauses formed by *=no* have a special feature. When *=no* follows a verb (perfect form), the clause expresses a patient. When it follows a verb (imperfect form), the clause expresses an actor (e.g. *sa=no*: eat:IPF=NMLZ 'person who eats/ate', *si=no*: eat:PRF=NMLZ 'thing that will be eaten/was eaten').

Adverbial clauses can be formed by adding conjunctions.

In my data, there are fourteen types of subordinate clauses in Amdo Tibetan.

conjunction	function/meaning
=n0	nominalized clause, adjectival clause
=na	conditional
=Ni	sequential action, simultaneous action
=Na	sequential action, simultaneous action
=nara	adversative
=Ra	concessive, adversative
=Gə	purpose, causative
$=k^{h}a$	'just before∼'
=Rokko	'until~'
ma-verb=koŋŋa	'before~'
=Roŋkoŋŋa	ʻjust after \sim '
=Rit ^h ats ^h o	'while~, when~'
=Ø	complement clause of the verb 'think'or 'say' verbs
=zi	quotation

Table 11 Subordinate clauses

(77) $k^{h} \partial ga \quad ma - s^{h} \partial \eta = na$ $\eta a \quad ndzo.$ 3SG NEG-go:PRF=CONJN 1SG go:IPF 'If he does not go, I will go'

- (78) hjek jən=nara çə ndzo=gə. male.yak COP=CONJN die go:IPF=AUX2
 'Even male yak will die'
- (79) məga jekma ret=ta hleppa
 3sG good-looking.woman COP=CONJN brain
 mə-şa=gə.
 NEG-good=AUX2
 'Though she is a good-looking woman, [she is] not clever'
- (80) *ŋa* s^hoŋ=ŋi htcək hta.
 1SG gO:PRF=CONJN a.little watch:IPF
 'I will go and have a look'
- (81) tc^hi k^ha tsəm=a dol.
 2SG:ERG mouth shut=CONJN stay:IMP
 'Shut your mouth and stay [here]'
- (82) no=k^ha k^həga t^hon=t^ha.
 buy:IPF=CONJN 3SG arrive=AUX2
 'Just before I could buy [something], he arrived'

5.12.2 Dependency on main clauses

Dependency is the degree of the subordinate clauses' dependence on the main clauses. Givón (1984: 315) says, 'The more dependent the SUBclause is semantically/pragmatically on the MAIN-clause, the less likely are independently-expressed TAM markers to appear in the SUB-clause.' For example, in the 'purpose' clause (10), the dependency of which is the highest in fourteen subordinate clauses, sentential elements such as subject, auxiliary verb, and sentence-final particle cannot appear in the subordinate clause.

(83) ŋa [tc^ho hta=gə] ndzo=dzi.
1SG 2SG watch:NPST=CONJN g0:NPST=AUX2
'I will go to meet you'

In the 'quotation' clause, the dependency of which is the lowest (e.g. (84)), the subordinate clause is equipped with many sentential elements such as a subject (k^hamo), auxiliary verb (=dzimare), and sentence-final particle (=ba).

(84) k^hərgi [k^hamo joŋ=dzimare=ba=zi] cet=taŋ=zək.
3SG:ERG PSN come=AUX2=SFP=CONJN speak=AUX1=AUX2
'He said, "Khamo will not come"'

For illustrating the dependency on main clauses, I set up four postulates:

- (a) A subject that is different from that of the main clause can appear in a subordinate clause.
- (b) Conjugations of a verb (perfect, imperfect, and imperative forms) are not restricted in a subordinate clause.
- (c) Auxiliary verbs and sentence-final particles can appear in a subordinate clause.
- (d) Both affirmative and negative forms can appear in a subordinate clause.

The lesser the extent to which a subordinate clause meets these postulates, the higher the dependency of the subordinate clause. The greater the extent to which the subordinate clause meets these conditions, the lower the dependency of the subordinate clause. Table 12 displays the dependent hierarchy from the four perspectives ((a)–(d)). The '+' sign indicates that the condition is satisfied; ' \triangle ' indicates that it is partly satisfied, and '-' indicates that it is not satisfied.

Conjunction	(a)	(b)	(c)	(d)
<i>=Gə</i> 'purposive'	-	-	-	-
$=G\partial$ 'causative'				
= $k^h a$ 'just before \sim '				
<i>=Rokko</i> 'until~'	+	-	-	-
<i>ma</i> -verb= <i>koŋŋa</i> 'before \sim '				
= $Ronkonna$ 'just after \sim '				
=Ni 'sequential action, simultaneous action'	+	-	\triangle^{19}	-
= <i>Na</i> 'sequential action, simultaneous action'	-	+	-	+
<i>=nara</i> 'adversative'	+	-	\triangle	+
=na 'conditional'				
= $Rit^{h}ats^{h}o$ 'while~, when~'		^ 20	Λ	
<i>=no</i> 'nominalized clause, adjectival clause'	+	Δ^{-1}	\square	+
= <i>Ra</i> 'concessive, adversative'				
=Ø 'complement clause of the verb "think"	+	\triangle	+	+
=zi 'quotation'	+	+	+	+

Table 12 The dependent hierarchy of subordinate clauses

5.12.3 Clause chaining

This language permits clause chaining. In this construction, several subordinate clauses can appear with or without conjunctions in one sentence. See (85) and [1], [3], and [4] in §6.

(85)	ti=ki	laŋ=t	aŋ=	na	ta,
	DEM=	erg pick.u	ль:ы	RF=AUX1=CONJN	then
	'[He]	picked up	[wo	od] like that,'	
	ti	dza=ni	ta	s ^h oŋ=ŋi	del= i ,
	DEM	later=ABL	FIL	go:prf=conjn	stay:prf=conjn
	'after	that, [he]	wen	t and stayed,'	

¹⁹A sentence-final particle cannot appear in this clause.

²⁰An imperative form cannot appear in this clause.

jaŋhepoŋpen=na t^hək=i, PSN=DAT meet=CONJN 'met Yanghepongpen (man's name),'

6 Text: 'How to make a nomad butter cake' (Recipe)

[1] mar dzama niçə səmtçə tidokko ti zitan ni ti nan na tçoma dzama wakə tçət^hamba tçona t^haktan ni, tç^həra dzama tçət^hamba tçona t^haktan ni ta tç^hərara tagi əzo tçomara ta mark^hətç^hogi hləktan nəre.

nicə səmtçə ti=dokko ti mar dzama *zi=tan=Ni* butter half.kilo 20 DEM=PP DEM melt=AUX1=CONJN 30 wakə tcə t^hamba ti dzama $na\eta = \eta a$ tcoma DEM inside=DAT wild.smal.potato half.kilo FIL 10 just *tçoŋa t^hak=taŋ=Ni* tc^həra dzama tçə t^hamba tçoŋa crash=AUX1=CONIN cheese half.kilo 10 just 15 15 tc^həra=ra tagi əzo *t*^h*ak*=*tan*=*Ni* ta crash=AUX2=CONJN INTJ cheese=PP FIL FIL ta mark^h ∂ -tc^ho=gi tcoma=ra wild.small.potato=PP FIL melted.butter-PL=ERG *hlək=taŋ=nərel.* pour:prf=AUX1=AUX2 '[You] melt 10 or 15 kilograms of butter, and crush 5 or 7.5

kilograms of wild small potatoes into it; then crush 5 or 7.5 kilograms of cheese and pour the cheese, wild small potatoes, and melted butter [into a pot].'

[2] ti hləktaŋŋi kara titç^hoki hləknəre.

ti hlək=taŋ=Ni kara ti-tc^ho=ki hlək=nərel. DEM pour:PRF=AUX1=CONJN sugar DEM-PL=ERG pour:PRF=AUX2 'Then, [you] pour sugar and other such things.'

[3] ti hləkna tagi çən ti saŋŋaki çən jənna t^hokata əzo kara ndamənda ta dokarazo ndende ta taŋs^haŋ kara hnambahnats^hok jokkə.

hlək=na ti ti tagi cən saŋŋa=ki DEM pour:prf=CONIN FIL butter.cake DEM pan=GEN cən jən=na $t^{h}ok=Ca=ta$ əzo kara ndamənda butter.cake COP=CONJN over=DAT=PP FIL candy many.kinds tans^han kara dokara-zo ndende ta ta INTJ crystal.sugar-pl many.kinds INTJ recently candy $hnambahnats^{h}ok$ iol=ka. kinds.of there.is/are=AUX2 '[You] pour it, and if it is *con* made in a pot, on its top [can be decorated with], many kinds of candies and crystal sugar. Recently,

there are many kinds of candies.

[4] tç^hiaki t^ha dzewi (snip) karakorizo timojaŋ ti t^ha ndpkna ti t^ha dzewi tiki çi ta tidokko ti naŋ=ŋa çon zinore.

 $tc^{h}i-a=ki t^{h}a$ *dzep*=*Ni* karakori-zo ti-mo=jan big=GEN decoration do:PRF=CONJN sweets-PL DEM-NMLZ=PP $t^h a$ $t^h a$ ndək=na ti ti dzep=Ni DEM aunament arrange=CONJN DEM decoration do:PRF=CONJN ti=ki ci ta *ti=dokko ti* nan=Ca cən DEM=ERG dO:PRF INTJ DEM=PP DEM name=DAT butter.cake zi=nərel. say=AUX2

'After putting a big decoration and arranging ornaments such as sweets, the name [of this food] is called *cən* (butter cake)'.

[5] *çənta tagi ndokkaki sama aŋtoŋwo re.*

c = tatagindokka = kisama $a\eta to\eta wo$ rel.butter.cake=PPFILnomad=GENfoodnumber.oneCOP'[Butter cake]c = n is the nomad's number-one food'

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Irabu Ryukyuan

Michinori Sнімојі

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Introduction

Irabu Ryukyuan (henceforth Irabu) is a Southern Ryukyuan language of the Japonic family. Because it is Japonic, Irabu shares numerous major phonological and morphosyntactic features with Japanese: a moraic rhythm, agglutinative and suffixing morphology, a verb-final and modifierhead constituent order, a nominative-accusative case system, and a rich inventory of dependent clause markers as verb inflection (converbal inflection, medial verb inflection, etc.). However, Irabu also shows an interesting divergence from Japanese, and some of its features are highly noteworthy from the cross-linguistic perspective. This paper describes some of these features. First, Irabu has a hierarchical organization of rhythm, in which the mora is the basic rhythmic unit on the basis of which bimoraic feet are created, and the /H/ tone is assigned to every other foot to produce an alternating rhythm of tone features. Second, Irabu has two accusative markers (accusative and second accusative). The latter is almost restricted to occurring in clause-chaining constructions; it marks the non-sequential function of the chained clause in which it occurs. Third, a given property concept is expressed by a bound root, from which an adjective, nominal, verb, or adverb is formed.

1 Overview

Irabu is spoken on Irabu Island, which is part of the Ryukyu Archipelago at the extreme south of Japan (see Figure 1). Irabu Island is a part of an island group called the Miyako Islands, which are a subgroup of the Sakishima Islands.



Figure 1 Ryukyu archipelago and Miyako Islands

All the languages and dialects spoken in the Ryukyu Islands form a major subgroup of the Japonic language group Ryukyuan. Ryukyuan is divided into two lower-order subgroups, Northern Ryukyuan and Southern Ryukyuan. Irabu belongs to the latter. The number of Irabu speakers is unknown, as no official data are available for this information. The local population is 6,660 (data from 2004), and the number of Irabu speakers is likely to be much smaller than this, as proficient speakers are mostly in their fifties and older.

Four distinct dialects are spoken on Irabu Island: Sawada-Nagahama, Kuninaka, Irabu-Nakachi, and Sarahama. There is a high degree of mutual intelligibility among these four dialects across the genealogical membership. In this paper, I will sketch out a grammar of the Sawada-Nagahama dialect, unless otherwise specified.

A detailed grammar is available for Irabu (Shimoji 2008), and a comprehensive dictionary is in preparation by Sadayoshi Tomihama, a retired teacher and a native speaker of Irabu (Nakachi). Shibata (1972) is a collection of short texts of Irabu (Nagahama).

2 Phonology

2.1 Inventory of phonemes

Table 1 below shows the inventory of consonant phonemes. There are three phonemic places of articulation (labial, alveolar/palatal, and velar (/glottal)) and four phonemic manners of articulation (stop, fricative, resonant, and glide).

		LABIAL	Alveolar	/Palatal	Velar/Glottal
Stops	VOICELESS	р	t		k
	VOICED	b	d		g
Fricatives	VOICELESS	f	S	с	(h)
	VOICED	V	Z		
Resonants	NASAL	m	n		
	APPROXIMANT		ž		
	ТАР		r		
GLIDES		(w)	j		

Table 1 Inventory of consonant phonemes

The resonant $/\check{z}/$ includes allophones ranging from [z] with less friction to an approximant version of [z] ([z]). Due to assimilation, it is sometimes realized as a voiceless allophone, as in /pžtu/ [pștu] 'man' (see Section 2.2.2 for cases in which $/\check{z}/$ carries an onset). I represent these allophones as [z] and [s]. /r/ is realized as [r] when it occurs as a single onset, and as [l] otherwise. Thus, /urir/ 'descend' is realized as [uril].

Stops and fricatives have voicing opposition. /c/ [ts] and /z/ [dz] are phonemically classified as fricatives because of their phonotactic and morphophonemic behaviours (for example, /c/ and /z/ behave as fricatives according to the rules noted in Sections 2.2.3 and 2.2.4). Glide phonemes comprise /w/ and /j/. /j/ plays a major role in Irabu, whereas /w/ is peripheral, occurring only syllable-initially in the syllable /wa(V)/ (e.g. /waisi/ [waifi] 'onomatopoeic expression' and /niwaa/ [niwa:] 'garden') and only occasionally, between /k/ or /g/ and a vowel (e.g. /kwaas/ [k^wa:s] 'snack').

The inventory of vowel phonemes is given in **Table 2** below. /u/ is phonetically [υ] or [μ], i.e., a slightly lower and/or fronted version of cardinal [u]. The mid vowels are rare in native roots. Long vowels (e.g., [i:]) are phonemically treated as vowel sequences (e.g., /ii/).

Table 2 Inventory of vowel phonemes

	Front		Central		Васк
Нібн	i				u
Mid		(e)		(o)	
Low			а		

2.2 Syllable structure and phonotactics

2.2.1 Syllable structure

A syllable has the basic structure of $((O_i)O_i)N_1(N_2)(C)$, where O, N, and C are abbreviations of onset, nucleus, and coda respectively. Filling the N slot is obligatory. As will be noted in the following sections, the N may be a consonant. When both N slots are filled by vowels, the complex N may be long (/aa/, /ii/, /uu/, /ee/, and /oo/) or diphthongal (/ai/, /au/, and /ui/). When both N slots are filled by consonants, the complex N must be

a sequence of identical consonants, as in /mm/ [m:] 'potato' (see 2.2.4 for more detail).

Syllable margins consist of an (geminate) onset and a coda. Syllable margins are optional, but medial syllables usually carry a single, non-geminate onset. A syllable that has a geminate onset usually occurs root-initially, as in /ffa/ [ffa] 'child', /ssam/ [ssam] 'louse', /mma/ [mma] 'mother', etc. or only occasionally, when preceded by a syllabic consonant, as in /v.cca/ [vttsa] 'quail'. The geminate onset must be fricative or resonant. However, as an exception, /t/ may be geminated, although occurrences of this are found only in a limited number of roots such as /ttjaa/ [[?]tt^ja:] 'then' or in morpheme boundaries, as in /ttar/ [[?]ttal] 'came' (*t-tar*: come-PAST). The coda may be a single fricative or resonant wordfinally, and any consonant other than a glide medially.

The glide does not have a particular position within the syllable. I interpret it as a phoneme that fills the onset slot that is not filled by other consonants. For example, in /jaa/ [ja:] 'house', the glide is analyzed to fill the onset slot, as this slot is not filled by any other consonant. If the onset slot is already filled, then the glide does not have its own position in the syllable, and it is phonetically realized as palatalization of the onset. In /kjuu/ 'today' [k^ju:], for example, the onset slot is already filled by /k/, and thus, /j/ cannot fill the other onset slot, because the two must be filled by a geminate.

2.2.2 Nucleic resonants

Whereas vowels are inherently nucleic (i.e. they only occur as syllable nuclei), resonant consonants are *contextually* nucleic: on the one hand, they occur in syllable margins when adjacent to a vowel or vowels (see /m/ in (1a) below); on the other, they are nucleic if no vowel is adjacent (see /m/ in (1b) and (1c)). As illustrated in (1c), a resonant may be long (see Section 2.2.4 for more detail on long consonants).

			Syllabification	Syllable structure
a	. /nam/ [nam]	'wave'	nam	ONC
b	. /mna/ [mna]	'shell'	m.na	N.ON
c.	/mm/ [m:]	'potato'	mm	NN

The alveolar resonants /ž/ and /r/ may even carry an onset. The onset consonant must be bilabial (/p, b, m/), as in /pžtu/ [pștu] 'man' (ON.ON), /bžda/ [bzda] 'low' (ON.ON), /mžtaar/ [mzta:]] 'three persons' (ON.ONNC), /prrma/ [pl:ma] 'daytime' (ONN.ON), /brbrrgassa/ [blbl:-gassa] 'alocasia odora' (ON.ONN.ONC.ON), /mrrna/ [ml:na] 'green chive' (ONN.ON). Although there is a strong tendency for them to occur initially, there are exceptions (e.g., /kabžž/ [kabz] 'paper', /nabrrkja/ [nabl:k^ja] 'slippery').

2.2.3 Nucleic fricatives

Fricatives (except for /h/) are also contextually nucleic (e.g. the disyllabic /s.ma/ 'island' vs the monosyllabic /mas/ 'better'). Nucleic fricatives may be followed by an off-glide vocoid when they are not followed by a vowel (e.g. /sma/ [s^zma] 'island' and /mas/ [mas^(z)] 'better'). The vocoid is an approximant version of the preceding fricative. Thus, we have /ftai/ [f^(v)tai] 'forehead', /sta/ [s(^z)ta] 'tongue', /ckara/ [c(^z)kara] 'power', and so on. When the subsequent consonant if any is phonetically voiced (i.e. including cases where the consonant is a resonant), the off-glide is regularly present, as in /sma/ 'island' [s^zma] (cf. /sta/ [s(^z)ta] 'tongue').

These vocoids are predictable and phonologically invisible. For example, there is a rule called Geminate Copy Insertion (Shimoji 2008), whereby moraic C + V becomes the geminate C_iC_iV in the phonological word, as in /tur/ 'bird' + /a/ (topic > /turra/. Significantly, /tauf/ [tauf(v)] 'tofu' is subject to this rule, giving rise to /tauffa/, which indicates that /tauf/ ends in a fricative underlyingly.

2.2.4 Long consonants as nuclei

A long resonant or fricative may occur as a nucleus. It is phonemically interpreted as a sequence of consonant phonemes that fill the N slots, just as in the case of long vowels: /mm/ [m:] 'potato', /nn.di/ [n:di] 'Yes', /žž/ [z:] 'rice ball', /rr/ []:] 'enter', etc. A long fricative is regularly pronounced with a voiced off-glide (Section 2.2.3): /ff/ 'come' is pronounced as $[f^{\upsilon}:]$, /s:/ 'nest' as $[s^{z}:]$, /c:/ 'breast' as $[ts^{z}:]$, and /z:/ 'letter' as $[dz^{z}:]$. The long fricative /ff/ is in free variation with /fuu/ [fu:] (ONN where the nucleus is a sequence of vowels), and this latter variant seems to be more

pervasive in contemporary Irabu. There are a handful of 'consonantal hiatus', i.e. sequence of heterosyllabic consonants, which phonemically and phonotactically contrast with the above-mentioned monosyllabic sequences (e.g. /ff/ [f^v:] 'come' vs. /f.f/ [f^vf^v] 'wipe', /ss/ [s^z:] 'nest' vs. /s.s/ [s^zs^z] 'charcoal', etc.).

2.3 Morae

As in most other Japonic languages, the mora is a crucial phonological unit that is relevant in explaining word minimality, foot building, morphophonology, etc. An (O)N constitutes one mora. Other syllable slots, including the geminate-initial consonant, a coda, and the second part of a long vowel or diphthong, have one mora each.

The syllable, as opposed to the mora, also plays a role in Irabu. For example, a rising pitch is blocked within the coda of a syllable, even when the coda is assigned to /H/ tone (Shimoji 2009a); also, to explain the allomorphy of several morphemes, it is necessary to refer to syllables rather than morae: for example, the topic marker =a is realized as =ja when it attaches to a stem that ends in a taut-syllabic long vowel (with two morae) but as =a when it attaches to a stem that ends to a stem that ends in heterosyllabic ON.ON (also with two morae).

2.4 Prosody

The word-level prosody in Irabu is not lexically contrastive. It is characterized by a foot-based alternating rhythm of tone features (/H/ vs. /L/). Foot building applies to the phonological word domain. Bimoraic footing goes from left to right exhaustively. The stray if any is included in the final foot (which thus is trimoraic). Morpheme boundary affects footing, in such a way that polymoraic morphemes always commence a foot (see Shimoji 2009a for detail). PW_n in (3) below means a phonological word with *n* morae. Tone is assigned to the pre-existing foot structure according to the rules in (2).

- (2) Tone assignment rule
 - a. Group one to three adjacent feet into a single 'foot group' (indicated by a square in (3a-c) below).

- b. If a foot group will contain a sequence of four feet within it (e.g. when a foot is added to (3c) to create (3d)), regroup the quaternary feet into two foot groups (as in (3d)).
- c. Assign /H/ to the left-most foot of each foot group. Other feet are toneless or default /L/, which is lower in pitch than the /H/-toned feet.

(3)			F(oot) group formation	Tone assignment
	PW_{2-3}	a.	(F)	(H)
		b.	(F)(F)	(H)(L)
		c.	(F)(F)(F)	(H)(L)(L)
		d.	(F)(F) $(F)(F)$	(H)(L) $(H)(L)$
		e.	(F)(F) $(F)(F)(F)$	(H)(L) (H)(L)(L)
	\downarrow	f.	(F)(F) $(F)(F)$ $(F)(F)$	(H)(L) (H)(L) (H)(L)

Rule (2b) is iteratively applicable, as shown in (3e) and (3f), where the addition of a foot to the second foot group of (3e) induces its division into two foot groups in (3f), forming three foot groups in total. Therefore, *jarabi-gama-mmi=kara=gami=mai* (child-DIM-PL=from=even=too) 'even from little kids, too' is pronounced as (jarabi)_H(gama)_L(mmi)_H(kara)_L (gami)_H(mai)_L, where three foot groups are formed to produce the alternation between H and L.

2.5 Phonological alternations

There are general phonological alternations that are applicable to roots and morphologically complex structures, and there are also morphophonological alternations that are applicable only to specific morphological structures.

General phonological alternations include GCI (see Section 2.2.3). GCI applies to roots as well. For example, /v/ and /ž/ are always geminated when they occur as onsets, as in /vva/ 'you' and /žža/ 'father', and this is interpreted as follows: they are underlyingly /va/ and /ža/ (moraic C + V), and this impermissible phonotactics is fixed by GCI (e.g. /va/ > GCI > /vva/).

Morphophonological alternation rules include what I call /s/-to-/h/ alternation (which applies to the causative suffix /-as/ and honorific affix

/-sama/, see Sections 4.4.10 and 4.4.12 respectively), /s/-to-/r/ alternation (which applies to the formal noun /=su/ 'thing; person; COMP', see Section 5.2.3), stem-final stop lenition (Section 4.4.2), and *rendaku* (or sequential voicing, See Section 4.2.2).

3 Word classes

3.1 Overview of the word class assignment system

Table 3 shows the word classes identified in Irabu. There are four major word classes: nominals, verbs, adjectives, and adnominals, of which nominals, verbs, and adjectives are large classes, and the first two of these are open classes. Minor word classes are referred to here as 'others', which comprise conjunctions, interjections, adverbs, and post-phrasal markers (e.g. case markers). 3.4 to 3.8 below describe each word class in detail. Further, there are functional classes which crosscut several word classes. These include demonstratives and interrogatives (see Section 3.3).

Four criteria are suggested for word class assignment: (A) whether the word heads an NP, (B) whether it directly fills the modifier slot of an NP, (C) whether it inflects, and (D) whether it is a reduplicated form with the input-stem-final phoneme lengthened.

	(A)	(B)	(C)	(D)
Nominal	+	-	-	-
Adnominal	-	+	-	-
Verb	-	-	+	-
Adjective	+	-	-	+
Others (conjunctions, interjections, adverbs,	-	-	-	-
post-phrasal markers)				

Table 3 Criteria for word class assignment

3.2 Word class and root class

Basically, a particular root belongs to a particular word class by default (i.e. as an unmarked choice). *Nominal roots* directly serve as nominal stems (which, in turn, serve as nominal words without any further morphological makeup), and they are most likely to be realized as nominals.

These roots include $p\check{z}tu$ 'man', *jama* 'mountain', *cnu* 'yesterday', *kabas* 'smell', etc. *Verb roots* may directly serve as verb stems (i.e. may directly carry the verbal inflectional affix), and they are most likely to be realized as verbs. These roots include fa(u)- 'eat', *nak*- 'cry', *s*- 'realize; get to know', etc.

By contrast, roots that designate property concepts (*baka-* 'young', *zau-* 'good', *taka-* 'high', etc.), or *PC roots*, are not assigned to a particular word class. It is true that PC roots are the only roots that can directly fill the stem slot of the reduplication schema of the adjective word, that is [Stem_i+Stem]_{ad} (see criterion (D) of **Table 3** above; e.g., *bakaa-baka*, *zauu-zau*, *takaa-taka*, etc.),¹ which may induce us to conclude that PC roots are not necessarily realized as an adjective word. In fact, they are realized as nominals, verbs, adverbs, and adjectives roughly in equal frequency in natural discourse (see Section 5.4).

3.3 Word class and functional class

Demonstratives (see Section 4.6) and interrogatives (see Section 4.7) are functional classes that crosscut several word classes (nominal, adnominal, and adverb). As noted in Section 3.2, words containing PC roots, or PC words (4.5), are also a functional class that crosscuts nominals, verbs, adjectives, and adverbs.

3.4 Nominals

A nominal is a word that only heads an NP. An NP is independently defined as a constituent that functions as an argument or a predicate nominal. Because a nominal exclusively heads an NP, when a nominal modifies another nominal in an NP, it must first head an NP, which then fills the modifier slot of a larger NP (Section 5.2.1).

¹ Other roots (i.e. nominal and verb roots) are either inaccessible to the schema (e.g. most nominal roots) or need to be turned into a derived stem (in the case of verb roots, as in *jum*- 'read' > *jum-bus*- 'want to read' > *jumbuss-jumbus*). A limited number of nominal roots may directly fill the stem slot of the reduplication schema of the adjective word: *jarabi* 'child' > *jarabii-jarabi* 'childish', *avva* 'oil' > *avvaa-avva* 'oily', etc.

3.5 Adnominals

The adnominals form a small and closed set of words. An adnominal functions solely as a modifier of an NP. This class comprises three demonstrative words *kunu* 'this', *unu* 'that' (medial), and *kanu* 'that' (distal), and one intensifier *daizna* 'great'.

3.6 Verbs

A verb is a word that inflects. In Irabu, inflection is marked verb-finally, as in *mii-ta-m* (look-PAST-REAL) 'looked' (past realis), *mii-tar* (look-PAST) 'looked' (past unmarked), and *mii-ri-ba* (look-THM-CVB.CSL) 'since (I) look' (causal converb).² The copula is a verb because it inflects, but it occurs in a nominal predicate phrase, after a predicate nominal.

3.7 Adjectives

An adjective is created by the reduplication of a PC root (Section 3.2) or a derived PC stem, and the final phoneme of the input stem is lengthened by one mora (e.g. *taka-* 'high' \rightarrow *takaa+taka* 'high', *kiban-* 'poor' \rightarrow *kibann+kiban* 'poor'). In addition, a few nominal stems can be input stems of adjectives (e.g. *jarabi* 'child' \rightarrow *jarabii+jarabi* 'childish', avva 'oil' \rightarrow avvaa+avva 'oily'). An adjective mostly functions as a modifier of an NP (Section 5.4).

3.8 Others

The 'others' category subsumes a set of words that do not satisfy any of criteria (A) to (D). Yet, it is convenient to divide this catch-all category into several subclasses according to their syntactic distribution: conjunctions (e.g. *ttjaa* 'then', *assiba* 'so', *assuga* 'but', etc.), interjections (including onomatopoeic words; e.g. *hira* 'hey', *gammja* 'oh!', *doof* '(sound of crush)'), adverbs (e.g. *juu* 'very', *japaf* 'softly'), and post-phrasal markers (see paragraph below).

Post-phrasal markers are either argument markers (i.e. case markers, limiters such as *=mai* 'too; even', *=gami* 'even', *=tjaaki* 'only', and topic/focus markers such as *=du* (FOC), *=a* (TOP), and *=ba* (TOP)), or pred-

² The gloss THM represents a thematic vowel, which is a stem extender that appears before a certain set of inflectional affixes (Section 4.4.2).

icate markers such as bound conjunctions (e.g. =suga 'though'), modal markers (e.g. =paz 'maybe'), and discourse markers (e.g. =i 'eh?'). All of these are clitics that attach phonologically to the last word of the phrase they attach to syntactically.

4 Morphology

4.1 The word

A *grammatical word* (simply 'word' in this paper) minimally consists of a root and may be complex with affixation and/or compounding and reduplication (Section 4.2). The internal components, if any, are contiguous and follow a rigid order, making this domain distinguished from larger domains (i.e. phrases and clauses). A grammatical word can also be distinguished from smaller domains (e.g. roots) in that the former is a minimal syntactic unit: it is the minimal unit of syntactic operations such as movement, deletion, insertion, and so on. Word classes are assigned to grammatical words.

A *phonological word* is the domain in which (a) the minimality constraint applies (the constraint says that a word is minimally bimoraic), (b) tone assignment (Section 2.4) takes place, and (c) morphophonological processes apply.

A *clitic* is a bound grammatical word that forms a single phonological word with the host. Most clitics in Irabu are post-phrasal markers that syntactically attach to an NP or a VP (Section 3.8), but there are also a small number of clitic nouns (a few formal nouns such as =su(u) 'thing; person') and clitic verbs (the light verb *s*- 'do').

4.2 Morphological typology

4.2.1 Affixation

Affixation in Irabu is suffixation. Even though there are a few cases in which a verb appears to contain a prefix-like element, e.g. *pic*-'off' in *pic*-*cjaf* 'tear apart' and *pic*-*cc* 'pluck away', the prefix-like element is highly lexicalized and has no productive use. Diachronically, these elements must have developed from compound stems (e.g. *pic*- was a verb stem whose contemporary form is $p\breve{z}k$ -).

4.2.2 Compounding

The head comes finally in endocentric compounds, as in *kac+munu* (writing+thing) 'written material' vs *munu+kac* (thing+writing) '(the act of) writing things'. Examples of exocentric compounds include *mi+pana* (eye+nose) 'face', *uku+gamac* (big+cheek) 'a person who is easy to get angry', etc. All three major types of stems (nominal, verbal, and PC) can be derived by compounding: nominal stems such as those listed above, verb stems such as *us+cc* (push+crash) 'crash', and PC stems such as *cmu+daka* (heart+high) 'difficult (person)'. The last example here shows that a PC stem may be derived from a nominal root and a PC root.

The final stem of a compound may undergo *rendaku*, or sequential voicing, in which the initial voiceless consonant of a compound stem is replaced by its voiced counterpart, as in *uku* 'big' + *kan* 'crab' \rightarrow *uku*+*gan* 'big crab'.

In general, a compound is compositional in meaning and shows remarkably high productivity in word formation. Also, each stem of a compound is, in most cases, a separate phonological word. This might appear to suggest that Irabu compounds are, in fact, phrases. However, each stem of a compound is not a grammatical word by itself, as the whole compound is the target of syntactic operations, and the stems are always contiguous (i.e. no word can intervene in the sequence of compound stems).

A compound is usually made up of two roots, although longer compounds are quite common. The order of the component stems of these long compounds follows that of phrases. For example, compare *waa+ kurus+bžž* (pig+killing+day) 'New Year's Eve' with *waa=ju kurus-Ø pžž* (pig=ACC kill-NPST day) 'the day when (one) kills pigs', the latter of which is a noun phrase consisting of a relative clause + a head noun. Note here that the final stem of the compound (*bžž* 'day') is a *rendaku* form of the underlying form *pžž*.

4.2.3 Reduplication

Reduplication in Irabu is mostly full reduplication. There are just a few and rather lexicalized examples of partial reduplication: niv 'sleep' (v) > ni-niv 'snoozing' (n), maar 'get about (v)' > ma-maar 'a space around

somewhere (n)'. These examples demonstrate that partial reduplication in Irabu changes the word class assigned to an input root ($n \rightarrow v$), and the reduplication targets the stem-initial mora rather than the stem-initial syllable (**niv-niv* or **maar-maar*).

There are two major types of full reduplication: PC stem reduplication, which creates an adjective, and verb stem reduplication, which creates an adverb and designates iterativeness or habituality. In PC stem reduplication, the final phoneme of the input stem is lengthened by one mora.

PC ste	reduplication	Verb stem reduplication			
<i>taka-</i> 'high'	\Rightarrow	<i>takaa+taka</i> 'high'	as- 'do'	\Rightarrow	as+as 'doing '
<i>pjaa-</i> 'fast'	\Rightarrow	<i>pjaaa+pjaa</i> 'fast'	<i>mii-</i> 'look'	\Rightarrow	<i>mii+mii</i> 'staring'
<i>zau-</i> 'good'	\Rightarrow	<i>zauu+zau</i> 'good'	fa(u)- 'eat'	\Rightarrow	<i>fau+fau</i> 'eating'
<i>kiban-</i> 'poor'	\Rightarrow	<i>kibann+kiban</i> 'poor'	nak- 'cry'	\Rightarrow	<i>nac+nac</i> 'crying'

Table 4 Reduplication in Irabu

4.3 Nominal morphology

4.3.1 Subclasses of the nominal

The nominal word class is subdivided into several subclasses: nouns, pronouns, and numerals. In addition, most of the interrogative (e.g. *nau* 'what') and indefinite words (e.g. *nau-gagara* 'something') are nominals, although both also include adverbs (see Section 4.7).

The subclassification of nominals is mainly based on their morphological structure and syntactic distribution, and some of these features are effectively described by referring to nominal hierarchy (or animacy hierarchy), as shown in **Figure 2** below.

NOM-GEN	=ga >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					
		<<<<<<<	<<<<<<		<<<< =nu	
plurality	specific form> - <i>ta</i> >>>>>- <i>mmi</i> >>>>> analytic >>>>>none >>>>					
	Pronoun	Address noun	Human	Non-human animate	Inanimate	

Figure 2 Nominal hierarchy and nominal morphology

Address nouns are a set of nouns which can be used pronominally to address a person, such as proper names, kinship terms (*ani* 'elder sister'), and social role terms (e.g. *sinsii* 'teacher'). They are marked by nominative-genitive =ga when they function pronominally, but by =nu elsewhere. This suggests that the choice between =ga and =nu is fundamentally based on whether or not the nominal to which it is attached functions like a pronoun.

Pronouns have singular-plural opposition and unique plural affixes for pronouns (Section 4.3.3). Address nouns are marked by -ta, which encodes associative plurality (Section 4.3.2). Animate nouns are marked by -mmi, although not regularly, and an analytic expression is preferred for most (see Section 4.3.2).

4.3.2 Nouns and nominal derivational affixes

A noun stem is usually a free form, even though there are a restricted number of clitic nouns (e.g. =su(u) 'thing; man; COMP'). It may be extended by a set of derivational affixes: the (a) diminutive suffix -gama, (b) plural suffix -mmi/-ta, and (c) approximative suffix -nagi 'and so on; suchlike'. When they co-occur, there is a rigid ordering of (a)-(b)-(c), as in *jarabi-gama-mmi-nagi* (child-DIM-PL-APRX) 'little children and so on'.

The diminutive suffix *-gama* designates the smallness of an entity, as in *tur-gama* (bird-DIM) 'little bird', *midum-gama* (woman-DIM) 'a girl; a short woman', etc.

Plurality is marked by either *-mmi* or *-ta*. The affix *-mmi* is a grammaticalized form of a common noun *mmi* 'crowd'; it encodes the plurality of animate referents, as in *pžtu-mmi* (person-PL) 'people' and *turmmi* (bird-PL) 'birds'. For non-human animate referents, the suffixing of *-mmi* is somewhat disfavoured, and an analytic expression with the common noun *mmi* is preferred, as in *tur=nu mmi* (bird=GEN crowd) 'a flock of birds'. The affix *-ta* encodes associative plurality '(X and) others' as well as genuine plurality 'more than two X's'. This suffix typically attaches to an address noun, as in *zjunzi-ta* 'Junji and others', *uttu-ta* (younger.sibling-DIM-PL) 'younger sibling and others', and *sinsiita* 'teacher and others'.

The approximative suffix *-nagi* marks approximation, as in *pžtu-nagi* (person-APRX) 'a man or suchlike', *uma-nagi* (that.place-APRX) 'around there', *un-nagi* (that.time-APRX) 'in those days', etc.

4.3.3 Pronouns

There are three types of pronouns: personal, demonstrative, and reflexive. Pronouns are a coherent class with two distinct morphosyntactic properties: pronouns of all types carry the nominative =ga rather than =nu, and they distinguish in number (singular-plural).

The inventory of pronouns is listed in **Table 5** below. First and second person reference (i.e. participant reference) is marked by distinct forms that are used exclusively for person reference, or *personal pronouns*, while third person reference (non-participant reference) is obligatorily combined with demonstrative reference, formally coded by *demonstrative pronouns*. Here, only the distal form is listed.

Table 5	Pronouns	ın	Irabu

11 - 0

		Singular	Plural (root-pl)
Personal	1 st person	ba(n)	ban-ti
	2 nd person	vva	vva-du
Demonstrative	3 rd person	ka-(r)i	ka-nukja/ka-ntja
Reflexive		na(r)a	naa-du

The first person forms deserve special attention in two respects. First, the singular form is irregularly bound (*ba*-) when followed by =ga (nominative or genitive) or =a (topic). When followed by =u (accusative), it is realized as another bound stem *banu*-. Nakama (1992) reports that =n (dative) also induces the use of this latter type of stem, producing *banu*=*n*, which is also widespread across Miyako varieties. However, the dativemarked form in Irabu is *ban*, where a transparent morphophonemic rule deletes the second /n/ (/ban=n/ \rightarrow /ban/).

Second, the first person plural form is often used to encode 'us but not you' (i.e., exclusive implication). If one wants to express 'me/us and you' (inclusive) explicitly, the word *duu* 'body' is used instead. Thus *banti=ga ffa* (1PL.EXCL=GEN child) 'our child' may be used when introducing the child to someone, whereas *duu=nu ffa* (1PL.INC=GEN child) 'our child' is used when speaking to the partner. Note that the word *duu* is a noun as opposed to a pronoun, as it does not carry nominative/genitive =ga nor a plural affix.³

³ However, in traditional song lyrics, I encountered a number of instances of *duju-ta*, in
Reflexive pronouns are na(r)a 'oneself' (singular) and naa-du 'selves' (plural). The parenthesized /r/ is deleted when na(r)a is followed by nominative/genitive =ga, as in na(r)a + =ga > naa=ga, or by the plural morpheme-du, as shown above.

4.3.4 Numerals

A numeral is composed of a numeral root and a classifier suffix, except when the number is counted for isolation, in which case the numeral root stands as a word, as in *pžtu* 'one', *fta* 'two', *mžž* (or *mii*) 'three', *juu* 'four', *ic* 'five', *muju* 'six', *nana* 'seven', *jaa* 'eight', *kukunu* 'nine', and *tuu* 'ten'. The shape of a numeral root may differ depending on the type of the classifier suffix, as in *mii-c* (three-CLF.GENERAL) 'three (things)', *mž-kiv* (three-CLF.HOUSE) 'three households', and *mž:* (three) 'three (for isolate counting)'.

4.3.5 Interrogative nominals and indefinite nominals

The interrogative nominals are *nau* 'what', *taru* 'who', *ic* 'when', *nza* 'where', *nzi* 'which'. See Section 4.7 for interrogative words, which additionally include interrogative adverbs. Indefinite nominals are made by attaching the indefinite affix *-gagara* to each of these interrogative stems: *nau-gagara* 'something', *tau-gagara* 'someone', *ic-gagara* 'sometime', *nza-gagara* 'somewhere', and *nzi-gagara* 'either'. Again, indefinite words include indefinite adverbs.

4.4 Verb morphology

4.4.1 Basic structure of the verb

The structure of the verb is given in (4) below, where it is shown to comprise four parts: the stem, thematic vowel, pre-inflection, and inflection.

(4) Stem-(Thematic vowel)-(Pre-inflection)-Inflection

Pre-inflection is the part of a verb that is not neatly classified as a stem or inflection. It is specifically negative polarity. Between a stem and (pre-)inflection may occur a thematic vowel or a stem-extender segment

which -ta must be a plural affix and which attracts =ga affixation.

(see Section 4.4.2 below). In what follows, I describe each component of the verb, focusing on stem class, thematic vowel, pre-inflection, and inflection in this order. The internal structure of the stem will be described as well in Section 4.4.9.

4.4.2 Stem class and thematic vowel

Verb stems fall into two major classes: Classes 1 and 2. Class 2 stems carry a stem extender segment -a or -i ('thematic' vowel, glossed THM) at the end when they carry certain (pre-)inflectional affixes. Compare (5), which shows the Class 1 stem *idi*- 'exit', and (6), which shows the Class 2 stem *tur*- 'take'.

(5)	a.	idi-tar	b.	idi-di	c.	idi-i
		exit-past		exit-int		exit-cvb.seq
		'exited'		'will exit'		'exit, and'
(6)	a.	<i>tur-tar</i> take-past	b.	<i>tur-a-di</i> take-тнм-імт	c.	<i>tur-i-i</i> take-тнм-сvв.seq
		'took'		'will take'		'take, and'

As shown in (6a), the Class 2 stem does not carry a thematic vowel in certain inflections. Thus, in Class 2, a distinction is made between a *thematic stem*, as in (6b, c), and an *athematic stem*, as in (6a). A few inflectional affixes have different forms according to the stem class (see Sections 4.4.5 to 4.4.8).

Class 2 stems that underlyingly end in a stop undergo a morphophonemic adjustment, or stem-final Stop Lenition (b > v, t > c, k > f, g > v). For example, *tub*- 'fly' forms an athematic stem form *tuv*- when followed by conditional converb suffix *-tigaa*, yielding *tuv-tigaa* 'if fly'; in the same environment, *kat*- 'win' and *kak*- 'write' form athematic stems *kac*- and *kaf*-. Thus, we get *kac-tigaa* 'if win' and *kaf-tigaa* 'if write. For stems ending in /k/ or /g/, a variant athematic stem form is formed by turning /k/ and /g/ into /c/ and /z/ respectively.

Example	<i>tub-</i> 'fly'	<i>kat-</i> 'win'	kak- 'write'	<i>nk-</i> 'pull'	<i>kug-</i> 'paddle'
thematic -a	tub-a	kat-a	kak-a	nk-a	kug-a
thematic - <i>i</i>	tub-i	kac-i	kak-i	nk-i	kug-i
athematic	tuv	kac	kaf/kac	nf/nc	kuv/kuz

Table 6 Stem-final Stop Lenition of Class 2 stems

The athematic stem is also used for class-changing derivation (nominalization; see Section 4.8.1). For the athematic stems that have two variants for the final segment (/f/ and /c/, /v/ and /z/), the latter is used for nominalization.

The two stem classes are phonologically determined. Class 1 stems are minimally bimoraic and end in /i/ (e.g., *ibi-* 'plant'; *idi-* 'exit, come out'; *tumi-* 'search'; *nkai-* 'welcome'; *rri-* 'put'; *kui-* 'exceed'; *mii-* 'look'; *fii-* 'give', etc.). Class 2 stems may be monomoraic, and all of them end in a consonant.

4.4.3 Pre-inflection

Pre-inflection is negative polarity, which is marked by a suffix -n (or -t when followed by /t/), as in *tur-a-n-Ø* (take-THM-NEG-NPST) 'do not take' and *tur-a-t-tar* (take-THM-NEG-PAST) 'did not take'. It is not like inflection with respect to (a) semantic regularity, (b) morphological regularity, and (c) closure, three major characteristics expected of inflection (see, for example, Haspelmath 2002).

First, negative polarity shows certain semantic irregularity in that when it occurs in a PC verb, it designates the negation of a change in state ('not become X') rather than the negation of a state ('be not X'). Second, negative polarity shows certain morphological irregularity, which means that it cannot co-occur with some state verb stems such as existentials (*ar-(for inanimate referents)* and *ur- (for animate referents)*). Third, negative polarity is marked by an affix that does not necessarily close off word formation.

Even though the third characteristic also holds true for a certain inflectional affix (specifically, the tense affix, as in *tur-ta-m* (take-PAST-REAL) '(I'm certain I) took'; see Section 4.4.6), clustering of the three characteristics excludes negative polarity from canonical inflectional categories. It is also noted that when polarity, tense, and mood co-occur, polarity always come closest to the stem. Thus, negative polarity seems to be closer to derivation on the inflection-derivation continuum. On the other hand, the language-internal criterion of relative order in relation to a thematic segment (which, in principle, occurs stem-finally) tells us that the negative affix is inflection-like, because it occurs *after* a thematic segment (e.g. *tur-a-n* (take-THM-NEG) 'not take'). Hence, it is useful to treat negative polarity as a category that is distinct from both inflection and stem and to refer to it as pre-inflection.

4.4.4 Inflection

On the basis of inflectional morphology, verbs are classified into four types, shown below in **Table 7**.

Type of verb	Structure	Dependency	Tense	Mood
Participle	Stem-(PRE)-T	Ambidependent	+	-
Realis	Stem-(PRE)-T-M	Independent	+	+
Irrealis	Stem-M	Independent	-	+
Converb	Stem-C	Dependent	-	-

Table 7 Inflectional categories (T: tense, M: mood, C: converb)

Each verb form and its paradigm will be described in the sections below. As is shown above, participles and realis verbs may carry a preinflection that precedes an inflectional affix.

The inflectional categories of Irabu verbs comprise dependency, tense (past/non-past), and mood (realis/irrealis). Dependency is tripartite: dependent, independent, and ambidependent (i.e., the verb in question can serve as either a main clause predicate or an adnominal clause predicate). Whereas tense and mood are marked directly by tense and mood affixes, dependency is not marked by a unique affix. Rather, it is marked indirectly by a combination of tense and mood suffixes: ambidependent (T+, M-), independent (M+), dependent (T-, M-). For example, the participle

tur-tar (take-PAST) 'took' is inflected as an ambidependent verb form in that it only carries a tense affix, whereas the realis verb *tur-ta-m* (take-PAST-REAL) 'took' and the irrealis verb *tur-na* (take-PRH) 'don't take' are inflected as independent verb forms in that they each carry a mood affix. The converb *tur-tigaa* (take-CVB.COND) 'if take' is inflected as a dependent verb form in that it does not carry either a tense or mood affix.

4.4.5 Participles

Participles are ambidependent verbs that serve either as the predicate of either a main clause or an adnominal clause. The form of the non-past tense suffix for Class 1 differs depending on the presence or absence of pre-inflection. The inflectional paradigm of participles is shown in **Table 8** with the sample stems *idi-* 'exit' (Class 1) and *tur-* 'take' (Class 2). The square brackets indicate stem boundaries. The parenthesized (-a) in the stem-final position indicates that the thematic vowel *-a* is required for the inflection in question.

Table 8	Particip	les
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	Structure		Class 1	Class 2
Affirmative	[Stem]-tense	NPST	[idi]-r	[tur]-Ø
		PAST	[idi]-tar	[tur]-tar
Negative	[Stem(-a)]-neg-tense	NPST	[idi]-n-Ø	[tur-a]-n-Ø
		PAST	[idi]-t-tar	[tur-a]-t-tar

4.4.6 Realis verbs

Realis verbs are independent verbs that serve only as the head of a mainclause predicate. Structurally, a realis verb is formed by adding the realis mood suffix -m to a participle. Realis mood expresses the speaker's perceived certainty for both past and non-past (see Section 5.8.2 for the semantics of realis mood).

	Structure		Class 1	Class 2
Affirmative	[Stem]-tense-mood	NPST	[idi]-r-m	[tur]-Ø-m
		PAST	[idi]-ta-m	[tur]-ta-m
Negative	[Stem(-a)]-neg-tense-mood	PAST	[idi]-t-ta-m	[tur-a]-t-ta-m

Table 9Realis inflection

As shown in the table above, the negative column contains two gaps: non-past forms are absent for both Classes 1 and 2. This is due to the semantic characteristic of non-past realis (see Section 5.8.2 for detail).

4.4.7 Irrealis verb

Irrealis verbs are independent verbs that only serve as the head of a mainclause predicate. They inflect for mood but not tense. The mood suffix marks various future-related modalities such as intentional, optative, and imperative (see Section 5.8.2 for the semantics of these moods).

Table 10 Irrealis inflection

	Structure	Class 1	Class 2
Optative 'I want to V'	[Stem(-a)]-mood	[idi]-baa	[tur-a]-baa
Intentional 'I will V'	[Stem(-a)]-mood	<i>[idi]-di</i> , or	<i>[tur-a]-di</i> , or
		[id]-ju	[tur-a]-Ø
Negative intentional 'I won't V'	[Stem(-a)]-mood	[idi]-djaan	[tur-a]-djaan
Imperative 'You V'	[Stem(-i)]-mood	[idi]-ru	[tur-i]-Ø
Prohibitive 'You don't V'	[Stem]-mood	[idi]-rna	[tur]-na

4.4.8 Converbs

Converbs are dependent verbs that only serve as the predicate of an adverbial/adsentential dependent clause (see 5.10 for complex clause structure). A converb consists of a verb stem and a converbal affix that indicates one of various adverbial/adsentential dependency relations, as seen in **Table 11**.

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Table 11 Converbs

	Class 1	Class 2
conditional 1 (unproductive) 'if'	[idi]-ba	[tur-a]-ba
negative conditional 1 'if not; unless'	[idi]-dakaa	[tur-a]-dakaa
aversive 'lest'	[idi]-zm	[tur-a]-zm
negative medial verb 'noting'	[idi]-da	[tur-a]-da
medial verb ', and'	[idi]-i	[tur-i]-i
negative intentional conditional 'if will	[idi]-djaadakaa	[tur-a]-djaadakaa
not'		
causal 'because; when; if'	[idi]-(ri)-ba	[tur-i]-ba
circumstantial 'while'	[idi]-utui	[tur-i]-utui
conditional 2 (productive) 'if; when'	[idi]-tigaa	[tur]-tigaa
negative conditional 2 'if not (it's	[idi]-gurai	[tur]-gurai
OK)'		
simultaneous 'while'	[idi]-ccjaaki	[tur]-ccjaaki
purposive 'in order that'	[idi]-ga	[tur]-ga
continuous 'whenever'	[idi]-gakaaz	[tur]-gakaaz
immediate anterior 'as soon as'	[idi]-tuu	[tur]-tuu
past anterior 'did X, and then'	[idi]-tarjaa	[tur]-tarjaa

4.4.9 Internal structure of the stem: overview

The internal structure of the stem is schematized as follows:

(7) [[Nucleus](-CAUS)(-PASS)(-HON)]_{stem}

The stem nucleus may be a bare verb root or a complex verbal stem (a compound stem or a derived verb stem). The stem nucleus may further be followed by a series of non-class-changing derivational affixes: causative, passive, and honorific. These derivational affixes will be briefly described in the sections below.

4.4.10 Derivational affix: (1) causative

There are two causative affixes, *-as* and *-smi*, which only attaches to Class 2 and Class 1 stems respectively). The affix *-*as may undergo /s/-to-/h/

alternation when followed by /a/, as in *kak-as-a-di* ~ *kak-ah-a-di* (write-CAUS-THM-INT) 'will make write'. See Section 5.7.1 for the syntactic characteristics of causative constructions. The light verb (*a*)*s*- is a Class 2 stem, but the causative suffix that it carries is *-smi*. Furthermore, when it occurs with the causative suffix, the affix-initial *s* is deleted ((*a*)*s*- + *-smi* > (*a*)*s-mi*).

4.4.11 Derivational affix: (2) passive

The passive suffix is -(r)ai. The /r/ is deleted when attaching to a Class 2 stem. Thus, kak- 'write' + -(r)ai results in kak-ai (write-PASS) 'be written'. This affix is polysemous; it encodes passivization, malefactivization (or 'adversative passive'), and potential expressions. See Sections 5.7.2 and 5.7.3 for more detail.

4.4.12 Derivational affix: (3) honorific

The honorific affix -(*s*)*ama* appears after a voice affix when the two cooccur. The initial /s/ is deleted when it is attached to a Class 2 stem. Moreover, when -(*s*)*ama* is attached to a Class 1 stem, the initial /s/ frequently undergoes /s/-to-/h/ alternation, as in *mii-sama-r* ~ *mii-hama-r* (look-HON-NPST) 'look'. The honorific affix is losing productivity. Most of the attested examples of -(*s*)*ama* are in fixed greeting expressions or in traditional song lyrics. Honorific -(*s*)*ama* has an irregular form for the irrealis imperative: -*ci* (e.g. *bž-žama-ci* 'please be seated') rather than expected -*ru*. This imperative form is by far the most well-attested use of honorific -(*s*)*ama*.

4.5 Property concept words

There are four major word forms that are made from a given PC root: adjective, compound nominal, state verb, and adverb.

4.5.1 Adjective

An adjective is a reduplicated form in which the reduplicant is attached word-initially and its final segment is lengthened by one mora. An adjective does not inflect. The input stem for the reduplication may be a PC root or a derived PC stem (or a few nominal stems; Section 3.7). See Section 4.8.3 for more detail on operations that derive a PC stem from stems of other classes. A PC stem from a restricted set may be extended by the nominal derivational affix *-gama* (diminutive), as in *ssuu+ssu-gama* (RDP+white-DIM) 'whitish' and *imii+imi-gama* (RDP+ small-DIM) 'small', and so on.

4.5.2 Compound nominal

A compound nominal that designates a property concept comprise a PC root (or a derived PC stem) + a head nominal. Like other nominals, it heads an NP. Unlike ordinary nominals, however, it can attract adverbial modification (8a) as well as (expected) adnominal modification (8b).

- (8) a. kunur=ra ati pisi+dukja=i. today=TOP very cold-season=eh 'These days (we have) a very cold season, isn't it?'
 b. kunur=ra daizna pisi+dukja=i.
 - b. *kunur=ra datzha pist+dukja=t.* today=TOP great cold-season=eh 'These days (we have) quite a cold season, isn't it?'

There is a grammaticalized subtype of the above compound structure, or a 'desubstantivized compound', in which the head nominal stem is the formal noun stem *munu* 'thing'. This formal noun undergoes a grammaticalization process whereby its semantic content gradually becomes less substantive such that it is reduced to being a mere structural head (glossed as DSUB, as below). That is, in many cases, the head noun cannot be substantively translated, but its structural nominal status is retained, as is its ability to attract adnominal modification and copula support (9).

(9) cnuu=ja daizna [pisi+munu]=du a-tar=ri. yesterday=TOP great cold+DSUB=FOC COP-PAST=eh
'Yesterday (it) was cold, eh?' [cf. *Yesterday (it) was a cold thing, eh?]

4.5.3 State (or PC) verb

A verb stem may be derived from a given PC root or derived PC stem with the verbalizer -ka(r). The inflected verb word is a state verb. In (10) below,

the stem is indicated in square brackets. A comparison between (10) and (11) demonstrates that the derived stem inflects just as an ordinary verb stem.

- (10) a. [taka-ka]-ta-m high-vblz-pAST-REAL 'was high'
 - b. *[taka-ka]-tar* high-vblz-pAst 'was high'
 - c. *[taka-ka]-i-ba* high-vвlz-тнм-сvв.csl 'since (it) was high'
- (11) a. [kaf]-ta-m write-PAST-REAL 'wrote'
 - b. [kaf]-tar
 write-PAST
 'wrote'
 - c. *[kak]-i-ba* write-тнм-сvв.csL 'since (I) write'

There are certain verbal inflectional affixes that a PC verb stem cannot carry. For example, a PC verb cannot carry simultaneous converbal affix *-ccjaaki* (e.g. *kaf-ccjaaki* 'while writing'), obviously owing to the lexical property of the PC stem (i.e. persistence of a state denoted by the simultaneous suffix is already part of the lexical meaning of a PC stem).

4.5.4 Adverb (or PC adverb)

A PC stem may be transformed into an adverb by affixing -f, as in *taka-f* (high-ADVLZ) 'highly', *japa-f* (soft-ADVLZ) 'softly', *mii-bus-f* (look-want.to-ADVLZ) 'in such a way that I want to look', etc. The adverb form

derived from a PC stem (PC adverb) may serve as a predicate adjunct (which is an optional modifier of the predicate) or as a predicate complement (which is an obligatory constituent of the predicate phrase, as in (35) and (36) of Section 5.3.1).

4.6 Demonstratives

Demonstratives share the same set of roots (proximate *ku*-, medial *u*-, distal *ka*-), but crosscut several word classes (**Table 12** below).

Type of demonstrative	reference	Singular / Plural
Demonstrative pronoun	proximate	ku-(r)i / ku-nukja/ku-ntja
\Rightarrow Nominal word class	medial	u-(r)i / u-nukja/u-ntja
	distal	ka-(r)i / ka-nukja/ka-ntja
Demonstrative locative word	proximate	<i>ku-ma</i> 'this place; here'
\Rightarrow Nominal word class	medial	<i>u-ma</i> 'that place; there'
	distal	ka-ma 'that place; there'
Demonstrative manner word	proximate	<i>ku-i</i> '(in) this way'
\Rightarrow Nominal word class	medial	<i>u-i</i> '(in) that way'
(Adverbial word class)	distal	ka- i '(in) that way'
Demonstrative attributive word	proximate	<i>ku-nu</i> 'this'
\Rightarrow Adnominal word class	medial	<i>u-nu</i> 'that'
	distal	ka-nu 'that'

Table 12 Demonstrative words

Demonstrative pronouns carry nominative-genitive =ga and distinguish number, as expected of pronouns (Section 4.3.3). Demonstrative locative words are nominals but they are not pronouns, as they carry nominative-genitive =nu and do not distinguish number. Demonstrative manner words exhibit both characteristics of nominal and adverb: on the one hand, they carry nominative-genitive =nu when functioning as modifier of an NP (e.g. $kai=nu \ kutu$ (that.way=GEN thing) 'that kind of thing') and they are followed by a copula when functioning as a predicate nominal; on the other, they may directly modify a predicate without any case marking on them, as in $kai=du \ as-tar$ (that.way=FOC do-PAST) 'did that way'. Demonstrative attributive words are adnominals, directly modifying the head nominal of an NP.

4.7 Interrogatives

Interrogative words crosscut two word classes, i.e. nominal and adverb. Interrogative nominals are *nau* 'what', *taru* 'who', *ic* 'when', *nza* 'where', *nzi* 'which'. In addition to these are interrogative adverbs *nau-tti* 'why' and *nau-si* 'how', which are derived from the interrogative nominal stem *nau* 'what'.

4.8 Class-changing derivations

In this section I deal with derivations where a stem belonging to a particular word class (i.e. nominal stem and verb stem) is transformed into another. These derivations are nominalization, verbalization, and neutralization (PC stem derivation). PC stem derivation is called neutralization here because this class of stem is not assigned to any particular word class by default (Section 3.2 for detail).

4.8.1 Nominalization

A noun stem is derived from a verb stem by affixing the agent nominalizer *-ja* (e.g. *kak-* 'write' \rightarrow *kak-ja* 'a person who writes'). This is not fully productive, and is usually limited to the head stem of a compound noun, as in *munu+kakja* (thing+writer) 'writer'. This tendency is also true for another kind of nominalization where a noun stem is derived from a verb stem by morphophonemic alternation (e.g. *kak-* 'write' \rightarrow *kac* 'writing', as in *munu+kac* 'writing'), where the athematic stem of a verb is used as a nominalized stem (Stem-final Stop Lenition, Section 4.4.2).

4.8.2 Verbalization

There is only one verbalization process that derives a verb stem from a nominal stem. This involves the verbalizer suffix *-as*, as illustrated below, where the verb stem is derived from the nominal stem *dus-gama* 'friend'.

(12) kui=tu kui=tu [dus-gama-as-i-i]=du this=com this=com friend-dim-vblz-thm-med=foc Lex V
u-tar=ca.
PROG-PAST=HS Aux V
'This (one) and this (one) were friends.'

The derived verb stem *dus-gama-as* inflects for a medial verb, functioning as the lexical verb component of a verb phrase comprising a lexical verb and a progressive auxiliary verb.

4.8.3 PC stem derivation

A PC stem may be derived from a verb stem, by affixing one of the following: *-gi* 'seem; look', *-jas* 'be easy to', *-guri* 'be difficult to', and *-bus* 'want to'. For example, the verb stem *mii-* 'look' may be turned into a derived PC stem by *-bus*, and the derived PC stem *mii-bus* can be an input stem of any of the PC words described in Section 4.5 (i.e. adjective, compound nominal, PC verb, and PC adverb).

- (13) [mii-buss+mii-bus]=ti=du umu-i-ur-Ø.
 RDP+look-want.to=QT=FOC think-THM-PROG-NPST
 'I am thinking like, "I want to see (him)!"' [adjective]
- (14) uri=u=baa daizna [mii-bus+munu].
 that=ACC=TOP great look-want.to+DSUB
 '(I) want to see it very much.' [compound nominal]
- (15) uri=u=baa ati=du [mii-bus-ka-tar].
 that=ACC=TOP very=FOC look-want.to-VBLZ-PAST
 '(I) wanted to see it very much.' [PC verb]
- (16) uri=u [mii-bus-f]=du ar-Ø that=ACC look-want.to-ADVLZ=FOC be-NPST
 '(I) want to see it.' [PC adverb]

5 Syntax and grammatical/functional categories

5.1 Basic clause structure

5.1.1 Overview

Irabu clauses have the basic constituent order of S/A (+O) +V (where S, A, and O represent an intransitive subject, transitive subject, and transitive object, respectively). In an extended transitive clause, A + E + O + V seems to be common (where E is an Extended core argument encoding theme/recipient), but it is very rare to find an extended transitive clause with all the arguments being present. This is because ellipsis of constituents very frequently occurs when they are given to the hearer, so that it is difficult to find a 'fully loaded' sentence in natural discourse.

In an NP the modifier precedes the head, and case is indicated per NP unless the NP functions as a predicate. A VP has two constituents, the obligatory lexical verb and the optional auxiliary verb or second lexical verb that follows. An argument must be an NP, whereas a predicate may be either nominal or verbal. A nominal predicate consists of an NP and the copula verb, and the copula verb is absent in certain cases (see Section 5.3.2 for detail). A verbal predicate consists of a VP and optionally a predicate complement required by a certain type of VP.

5.1.2 Core, periphery, and extended core arguments

A distinction is made between core arguments (S/A, O), extended core arguments (or 'Extension to core'; E), and peripheral arguments. This distinction is based on two variables: *syntactic valence* (i.e. whether the argument in question bears grammatical relation to the predicate) and *semantic valence* (i.e. whether the argument in question is a semantically obligatory participant of the predicate). Core arguments are required by the inherent meaning of the predicate, and they bear a grammatical relation to the predicate. Thus, core arguments contribute to both semantic and syntactic valences. Extended core arguments are also required by the inherent meaning of the predicate, but they do not bear a grammatical relation with the predicate (only contributing to semantic valence). Peripheral arguments are not required by the inherent meaning of the predicate and do not bear a grammatical relation with the predicate.

Based on this distinction in argument type, four distinct types of

clauses are identified: the intransitive clause, transitive clause, and their extended subtypes.

Intransitive clause	Argument		-	Transitive clause	Argument		t
	stu	ircture			stu	rcture	
Intransitive	S		-	Transitive	А	0	
Extended intransitive	S	E		Extended transitive	А	0	E
Syntactic valence	+	-	-	Syntactic valence	+	+	-
Semantic valence	+	+	-	Semantic valence	+	+	+

Table 13 Core-periphery distinction and valency

- (17) [pžtu]_S=nu=du ff-Ø.
 man=NOM=FOC come-NPST
 'a man comes over.' [Intransitive]
- (18) $[vva]_S = a \ [sinsii]_E = n \ nar-i-\emptyset.$ 2SG=TOP teacher=DAT become-THM-IMP=QT 'You become a teacher.' [Extended intransitive]
- (19) [pžtu-kiv=nu pžtu]_A=nu [junaitama]_O=u one-CLF.HOUSE=GEN man=NOM mermaid=ACC *tu-i+cc-tar*. take-THM+come-PAST
 'A man of one household caught a mermaid' [Transitive]
- (20) [unu pžtu-mmi]_E=n [aagu]_O=u=du nara-as-tar=ca.
 that man-PL=DAT song=ACC=FOC learn-CAUS-PAST=HS
 '(She) taught those men songs.' [Extended transitive: dative indirect object]
- (21) [unu pžtu-mmi]_E=nkai [aagu]_O=u=du nara-as-tar=ca.
 that man-PL=ALL song=ACC=FOC learn-CAUS-PAST=HS
 '(She) taught those men songs.' [Extended transitive: allative indirect object]

As illustrated in (18) above, an extended intransitive clause contains S and E, where the E argument is a semantically obligatory element of the verb (typically a theme role) but is not coded as a direct object. Likewise, an extended transitive clause (or more traditionally a ditransitive clause) contains A, O, and E, where the E argument is a semantically obligatory element of the verb (typically a theme or recipient role) but is not coded as a direct object. The E argument of an extended intransitive clause is marked by dative case as shown in (18), whereas the E argument of an extended transitive clause may be marked by either dative case (20) or allative case (21). In general, the allative marking on a transitive E argument designates a more physically visible action or a shift of the goal of an action from the expected one to another (see Shimoji 2008 for more detail).

5.2 The nominal phrase

5.2.1 Overview

The structure of a nominal phrase (NP) is schematized as (modifier+) head, to which a case clitic is attached to form an extended NP.⁴ Case is thus per NP, not per constituent within an NP. Case is obligatory unless it functions as a predicate head. However, there may be case ellipsis in subject and direct object.

The modifier slot may be filled by an NP itself in a recursive manner (where the case clitic attaching to the NP is a genitive case clitic), as shown in (22) and (23), or by an adnominal word, as shown in (24).

(22)	[vva]=ga	jaa=n	asb-a-di.
	2sg=gen	house=ACC	play-тнм-імт

⁴The extended NP consisting of NP + case clitic should not be treated as a postpositional phrase, whose head must be the postposition. In Irabu, a case clitic is not the head of a phrase, but a mere extension of the NP. That is, the grammatical property of NP (i.e. case) is *externally* indicated by a distinct grammatical word (i.e. case clitic) in Irabu, and the head of the entire phrase (NP + case clitic) is still the noun within the NP. Hence the term *extended NP* is more appropriate here. In well-known European languages such as Russian, on the other hand, the case property is expressed *internally* by inflection of the head noun within an NP and the adposition that occurs outside of the NP is the controller of the case of the noun. Thus there is a reason to believe that the head of the entire phrase (case-marked NP + adposition) is the adposition, the controller of the case form of the NP head, hence the term adpositional phrase makes sense.

'Let's play at your house' [[simplex NP+case]_{modifier} + head + case]

- (23) [vva=ga jaa]=nu naka=n asb-a-di.
 2sG=GEN house=GEN inside=ACC play-THM-INT
 'Let's play inside of your house' [[complex NP +case]_{modifier} + head + case]
- (24) [kanu] jaa=n asb-a-di. that house=ACC play-THM-INT 'Let's play at that house' [[adnm w]_{modifier} + head + case]

See Section 4.5 for adjectival modification, where the adjective word may serve as head of an NP that recursively fills the modifier slot of an NP as in (22) above. The modifier slot may also be filled by an adnominal clause, as shown in (25).

(25) [ba=ga agu=nu ur-Ø] jaa=n 1SG=GEN friend=NOM exist-NPST house=DAT asb-a-di. play-THM-NPST.INT 'Let's play at a house where my friend lives.' [[adnm c]_{modifier} + head + case]

A head is obligatory in principle, but there exists a headless adnominal clause structure. This occurs only when the head may be easily recoverable from context.

(26) naf-tar=ra taru=ga? cry-PAST=TOP who=Q 'Who cried?' [lit. Who was (the person who) cried?]

5.2.2 Case

The case alignment system is of the nominative-accusative type. However, there is frequent case ellipsis of core arguments, resulting in the neutralization of core argument cases. Case is marked by a case clitic (see also footnote 4). As shown in **Table 14**, there are argument case markers (nominative, accusative, dative, allative, ablative, instrumental, associative, limitative, comparative) and a genitive case marker that marks the modifier NP of a larger NP. The same case form is used for subject and possessor (or general attributive), and I describe the case for subject marking as nominative, and the case for possessor/attributive as genitive. Nominative, accusative, and dative code core argument NPs, though dative-marked core arguments are highly constrained (occurring only in the dative subject constructions). The dative may also, along with the allative, mark an (extended) core argument. Dative and allative also function to mark locative and goal peripheral arguments.

Name	form	Function	Note
NOMinative	=ga/=nu	S/A	
GENitive	=ga/=nu	NP modifier	
ACCusative	=u/=a	O (ACC1/ACC2)	see Section 5.10.3 for ACC2
DATive	<i>=n</i>	S/A, E, locative, etc.	
ALLative	=nkai	E; goal	
INStrumental	=sii	instrument	
ASsoCiative	=tu	associated motion	A = tu B 'A and B'
CoMParative	=jarruu	comparative 'than'	A= <i>jarruu</i> B 'B than A'
ABLative	=kara	source; path	
LIMitative	=gami	limit ('as far as')	A=gami 'to A; as far as A'

Table 14 Case forms and their functions: Sort by form

5.2.3 Grammaticalized head (formal noun)

The head of an NP with an adnominal clause may be a formal noun, whose semantic content is inherently abstract or has become abstracted. The clitic noun =su(u) (which undergoes /s/-to-/r/ alternation, see Section 2.5) is a typical example.

(27) cf-tar=[ru]=u cnu=du ss-tar arrive-PAST=COMP=TOP yesterday=FOC know-PAST
'Yesterday did (I) realize [the fact that] (she) arrived.' This noun serves as complementizer as shown above, or as a lexical noun that means 'man' or 'thing'.

(28) cf-tar=[ru]=u taru=ga a-tar? arrive-PAST=COMP=TOP who=FOC COP-PAST 'Who was [the man] who arrived?'

Basically, formal nouns function to complement the function of verb inflection, especially indication of adverbial-adsentential subordination (which converbs would indicate) and various irrealis modalities (which irrealis verbs would indicate). Thus many formal nouns function to compose an adverbial/adsentential clause (tukja 'when', =njaa 'like; just as' and =jau 'in the way that; in order that'), or to express various modalities that cannot be expressed by verb inflection (e.g. =paz 'maybe', =kutu 'should', =gumata 'should; be supposed to').

In Irabu, the NP consisting of a formal noun as head and an adnominal clause as a modifier is one typical source structure of grammaticalization. Formal nouns often show phonological integration into the host, or the participle form of a verb, which is the final word of the adnominal clause. Thus there are a number of clitic formal nouns as noted above. Two formal nouns go one step further, showing morphological integration into the host, i.e. they are on their diachronic pathway to being reanalyzed as an inflectional affix. These are specifically *=kutu* 'should' and *=gumata* 'should; be supposed to'. Compare the following two examples that differ in regard to the morphological integration into the host.

- (29) vva=ga ffa-mmi=u nkai-r=kutu.
 2sG=NOM child-PL=ACC bring-NPST=should
 'You should bring the kids.' [=kutu is a separate grammatical word]
- (30) vva=ga ffa-mmi=u nkai-kutu.
 2SG=NOM child-PL=ACC bring-should
 'You should bring the kids.' [=kutu replaces the tense inflection -r

The same holds true for *=gumata*. Thus, there are two emerging inflectional affixes, i.e. *-kutu* 'should' and *-gumata* 'should; be supposed to' (both expressing future-oriented irrealis modality). Syntactically, however, they retain the characteristic expected of the head of an NP: they attract copula support.

(31) vva=a ffa-mmi=u=baa nkai-kutu ar-a-n-Ø.
2sG=TOP child-PL=ACC=TOP bring-should COP-THM-NEG-NPST 'You don't have to bring the kids.'

In summary, the adnominal clause which is followed by a formal noun head may become less and less like a subordinate clause and more and more like an independent clause, and the formal noun may become less and less like a head noun and more and more like a post-predicate marker or even a verbal inflectional affix.

5.3 The predicate

The predicate phrase is classified into two types: the verbal predicate phrase and the nominal predicate phrase. The verbal predicate comprises a verb phrase (VP) and its complement (if required). The nominal predicate comprises a nominal phrase (NP) and a copula verb which is omitted under certain conditions.

5.3.1 Verbal predicate

A VP consists of an obligatory lexical verb and an optional auxiliary verb. A lexical verb primarily determines the argument structure of the predicate.

(32) *tuz=zu=du* [*tumi-tar*]. wife=ACC=FOC look.for-PAST '(I) looked for a wife.'

An auxiliary verb is a verb that functions as an aspect marker, a benefactive marker ('do for the benefit of'), or a directional marker.

- b. tuz=zu [tumi-i fii-tar].
 wife=ACC look.for-MED BEN-PAST
 '(I am) looking for a wife (for someone's benefit).'
- c. *tuz=zu* [*tumi-i=du t-tar*].
 wife=ACC look.for-MED=FOC come-PAST
 '(I) brought a wife.' [lit. (I) looked for a wife and came back (with her).]

In a complex VP, the auxiliary verb can be an independent or ambidependent verb form, whereas the lexical verb obligatorily must be a medial verb form (which is a specific converbal form).

A VP complement is required in the following constructions: (a) the light verb construction (as shown in (34)), where the lexical verb is filled by the light verb (a) *s* 'do', (b) the state verb construction (35), where the lexical verb is filled by the state verb *ar* 'be (in a state)', ⁵ and (c) the 'become' verb construction (36), where the lexical verb is *nar* 'become'. In each example, the complement is a derived adverb.

- (34) pžtu=u mii+mii as-i+ur-Ø.
 man=ACC RDP+looking do-THM+PROG-NPST
 '(He is always) staring at persons.' [lit. He is always doing staring.]
- (35) kari=a taka-f=du ar-Ø.
 3sg=TOP tall-ADVLZ=FOC be-NPST
 'He is tall.' [lit. he is in a tall state.]
- (36) *kari=a taka-f=du nar-tar.* 3sg=TOP tall-ADVLZ=FOC become-PAST

⁵ The state verb ar is distinguished from the copula ar on the one hand, and from the existential verb ar on the other. There are two major features that distinguish between the three homophonous verb forms: (a) suppletive negation (using the negative verb stem *njaan* rather than a negative suffix *-n*) and (b) animacy constraint (*ar* for inanimate subject, *ur* for animate subject).

	Existential verb	State verb	Copula verb
(a) suppletive negation	+	+	-
(b) animacy constraint	+	-	-

'He became tall.' [lit. he became in a tall state.]

5.3.2 Nominal predicate

A nominal predicate phrase comprises an NP as a predicate head, followed by a copula verb, whose presence (as in (37a)) or absence (as in (37b)) is conditioned by several factors (see below).

(37) a. kari=a sinsii=du a-tar.
3SG=TOP teacher=FOC COP-PAST
'He was a teacher.'

b. kari=a sinsii.
3SG=TOP teacher
'He is a teacher.'

The copula verb is necessary when at least one of the following conditions is met: in past tense, when negated, when a conjunction clitic follows a predicate NP (38), and when a focus is marked on the predicate NP (39).

- (38) kari=a sinsii jar-Ø=ruga, jana+pžtu=dooi.
 3SG=TOP teacher COP-NPST=but evil+man=EMPH
 'He is a teacher, but (he is) evil.' [conjunction clitic attachment]
- (39) kari=a sinsii=du ar-Ø=ri.
 3SG=TOP teacher=FOC COP-NPST=eh
 'He is a teacher, isn't he?' [focus marking on the predicate NP]

The copula verb has the allomorph *jar*, which is obligatorily required when (a) the copula verb appears in a non-main clause and (b) the predicate head NP is not focused, as illustrated in (38). On the other hand, *jar* may also appear when the NP is focused in non-past tense in a main clause, as in (40). The tendency here is that if the copula terminates a sentence, as in (40), *jar* is more preferred (cf. (39)).

(40) kari=a sinsii=du jar-Ø.
3SG=TOP teacher=FOC COP-NPST
'He is a teacher, isn't he?' [*jar* is more preferred than *ar*]

5.4 Syntax of adjectives

There is no adjective phrase. Rather, adjectives are 'parasitic' on the NP and VP structures, and can appear in both, though an adjective mostly occurs in an NP (Shimoji 2009b).

An adjective primarily functions as the head of an NP that fills the modifier slot of a larger NP (41a) in a recursive manner. That is, the attributive function is typical. Note that the adjective in (41a) carries genitive case, just as in the case of a nominal word (41b); this demonstrates that the adjective heads an NP (rather than directly filling the modifier slot of an NP like an adnominal).

- (41) a. [*ujakii+ujaki*]=*nu pžtu=tu* [*kiban:+kiban*]=*nu pžtu* RDP+rich=GEN man=ASC RDP+poor=GEN man 'A rich man and a poor man'
 - b. [*irav*]=*nu* pžtu=tu [pžsara]=*nu* pžtu
 Irabu=GEN man=ASC Hirara=GEN man
 'A man from Irabu and a man from Hirara'

When appearing in a VP, an adjective only fills the slot for the lexical verb of a complex VP. Second, the verb that follows the lexical verb must be a progressive auxiliary.

- (42) *hira, kama=a* [*mii+imi*]=*du ur-Ø=ri*.
 INTJ that.place=TOP RDP+small=FOC PROG-NPST=eh
 'You see, that place is small, eh?' [lit. you see, that place is small-ing.]
- (43) cnuu=ja cc=nu [akaa+aka]=du u-tar=iba...
 yesterday=TOP moon=NOM RDP+bright=FOC PROG-PAST=so
 'Yesterday, the moon was bright, so...' [lit. yesterday, the moon was bright-ing, so...]
- (44) kantja=a [jarabii+jarabi]=du ur-Ø=dara.
 3SG=TOP RDP+child=FOC PROG-NPST=EMPH
 'They are childish, you see.' [lit. they are childish-ing, you see.]

Note that the verb *ur* (or *utar*) here cannot be regarded as the existential verb *ur* '(animate subject) exists': the existential verb *ur* only cooccurs with an animate subject (e.g., *pžtu=nu=du ur* 'there is a man', and *waa=nu=du ur* 'there is a pig', but **jama=nu=du ur* 'there is a mountain'), whereas the auxiliary verb *ur* has no such restriction. The examples above clearly show that *ur* is an auxiliary, and we can say that the adjective fills the lexical verb slot of a VP.

5.5 Function (1) question and command

A question is encoded by an interrogative clause. An interrogative clause may be marked by focus-marking on a clausal element (i.e., an argument, VP complement, or adjunct) and/or a question marking on the clausefinal word(-plus). There is no obligatory fronting of the interrogative word.

There are two subtypes of interrogative clauses: Yes/No and Wh. An interrogative word (such as *taru* 'who') is obligatory in wh-interrogatives. In Yes/No interrogative clauses, the focus clitic is =ru, as shown in (45) below. while in wh-interrogative clauses, it is =ga, as is shown in (46).

- (45) vva=ga=[ru] uri=u až-tar(=ru)?
 2sG=NOM=FOC that=ACC say-PAST(=Q)
 'Did you say that?'
- (46) vva=a nau=ju=[ga] až-tar(=ga)?
 2SG=TOP what=ACC=FOC say-PAST(=Q)
 'What did you say?'

As illustrated in these examples, when a focus marker is present, a question marker is optional, and its form is identical to that of the focus clitic in the same clause. I treat these two (i.e., the focus marker and question marker) as different morphemes owing to the fact that they show different allomorphic patterns, even though the focus marker may be the historical source of the question marker.

As shown in (47), when a clause has no focus marker, only the question marker appears, scoping over an entire clause. This is observed in yes/no type questions. (47) vva=a uri=u až-tar=ru?
2sG=TOP that=ACC say-PAST=Q
'Did you say that?'

Command is encoded by an imperative clause (where the predicate verb inflects as irrealis imperative form), or by a yes/no interrogative clause which is pragmatically interpreted as a polite command (as in 'could you open the window?').

5.6 Function (2) negation

Formal encodings of negation are morphological, syntactic, and lexical (suppletive), of which the first one is the most common and applies to the widest range of predicates.

5.6.1 Morphological negation

Morphological negation makes use of one of the suffixes that negate an action or a state, such as the pre-inflectional affix *-n* and various inflectional affixes related to negative semantics, e.g. *-djaan* (negative intention), *rna* (prohibition) and *-da* (negative converb). Regardless of whether they are lexical or auxiliary verbs, most verbs (including the copula verb) are negated with this strategy.

- (48) ba=a unu midum=mu=baa nuzum-a-n-Ø.
 1SG=TOP that woman=ACC=TOP want-THM-NEG-NPST
 'I don't want that woman.' [negative, lexical verb]
- (49) ba=a batafsar-i-i=ja ur-a-n-Ø.
 1SG=TOP get.angry-THM-MED=TOP PROG-THM-NEG-NPST
 'I am not angry.' [negative, auxiliary verb]
- (50) ba=a jamatu+pžtu=u ar-a-n-Ø.
 1SG=TOP mainland.Japan+man=TOP COP-THM-NEG-NPST
 'I am not a Japanese mainlander.' [negative, copula verb]

5.6.2 Stem alternation

The existential verb *ar* (for an inanimate subject) and the state verb *ar* (see footnote 5 for the distinction) are negated by using the negative verb stem *njaa*-.

(51)	a.	uma=n nagaa+naga=nu bau=nu=du that.place=DAT RDP+long=GEN stick=NOM=FOC ar-Ø. exist-NPST t(TL) bis_n						
	b.	(There) is a long stick there. [existential; antimative] $uma=n=na$ $nagaa+naga=nu$ $bau=ja$ $njaa-n-\emptyset$. that.place=DAT=TOP RDP+long=GEN stick=TOP NEG-NPST '(There) is not a long stick there.' [negative]						
(52)	a.	 <i>kari=a</i> aparagi-f=du ar-Ø. 3SG=TOP handsome-ADVLZ=FOC be-NPST 'He is (in a) handsome (state).' [state; affirmative] 						
	b.	<i>kari=a aparagi-f=fa njaa-n-Ø.</i> 3sg=top handsome-ADVLZ=TOP NEG-NPST						

5.6.3 Negation of PC verb

A PC verb (Section 4.5.3) may be negated either morphologically or syntactically. The syntactic negation uses a PC adverb and the negative form of the state verb *ar*. When a PC verb is morphologically negated, the negative form designates dynamic negation (negation of change of state) rather than stative negation (negation of state).

'He is (in a) handsome (state).' [affirmative]

(53) a. ssu-kar-Ø. white-vBLZ-NPST '(That) is white.' [affirmative: stative]
b. ssu-kar-a-n-Ø. white-vBLZ-THM-NEG-NPST '(That) does not become whitened'. [negative: dynamic] c. ssu-f=fa njaa-n-Ø.
white-ADVLZ=TOP NEG-NPST
'That is not white. [negative: stative]

5.7 Function (3) voice

5.7.1 Causative

A causative adds a causer to the existing proposition. The causer is assigned the subject (S/A) status. If an underived clause is intransitive, the original agent or the causee in the causative clause is encoded either as a direct object (as in (54)) or as an E argument (as in (55)), depending on the degree of control exerted by the causer over the causee.

- (54) uja=ga=du [ffa=u] nak-as-tar. father=NOM=FOC child=ACC cry-CAUS-PAST causer causee 'The father made the child cry.'
- (55) *uja=a* [*ffa=n*] *nak-as-tar*. father=TOP child=DAT cry-CAUS-PAST=HS causee 'The father left the child crying.'

If the underived clause is transitive, the causee is encoded regularly as an E argument, and the patient/theme in the underived clause remains a direct object in the causativized clause.

(56) sinsii=ga unu siitu=n hon=nu=du jum-as-tar.
teacher=NOM that pupil=DAT book=ACC=FOC read-CAUS-PAST causer cause theme
'The teacher had the pupil read the book.' [causative]

5.7.2 Passive

Passive derives an (extended) intransitive clause from a transitive clause with the passive suffix -(r)ai. The semantic valence of the verb remains the same, i.e., a passive agent is always implied; this results in the semantic effect that an event is brought about by some external causer. In terms

of syntactic valence, the passive agent NP is demoted either by deletion (resulting in an intransitive clause) or to an E argument (resulting in an extended intransitive clause). The syntactic inclusion of the agent depends on its importance in discourse.

(57) katabata=a jaa=nu pana=n half.body=TOP house=GEN roof=DAT patient nuus-irai+u-i-ba, nara=n=na lift-PASS+PROG-THM-CVB.CSL REFL=DAT=TOP kuu-rai-n-Ø. come-POT-NEG-NPST 'The other half of my body has been lifted on the roof of a house, so I cannot come (back).'

Although agentless passives are common, it is also common to find instances where the agent is explicitly stated with dative case, i.e., as an E argument, in both texts and elicited data.

(58) uja=n ž-žai-i=bakaar ur-Ø=ri=ti.
parent=DAT scold-PASS-MED=only PROG-NPST=CNF=QT agent
'(I would say like) (You) are always scolded by (your) parents.'

5.7.3 Malefactive

Malefactivization is a derivational process that uses the passive morphology (-(r)ai on the verb stem), but it shows both similarities and dissimilarities to passivization.

On the one hand, semantic valence increases with the introduction of a malefactee, which is encoded as a subject. The original agent of an underived verb, which is a malefactor in the derived clause, is encoded either as an E argument or is simply unstated, like a passive agent.

(59) a. *ami=nu=du ff-Ø.* rain=NOM=FOC fall-NPST 'Rain falls' [i.e., it rains]

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b. ba=a ami=n=du f-fai-r.
1SG=TOP rain=DAT=FOC fall-MAL-NPST malefactee malefactor
'I am bothered by rain (that) falls.'

In (59b), the depicted event comprises 'rain' (malefactor) and some other entity that is bothered by the fact that it is raining (malefactee). This newly introduced malefactee appears as an S syntactically, whereas the malefactor is encoded as an E argument.

Since malefactivization simply adds the malefactee, malefactivization may co-occur with both an intransitive verb and a transitive verb, deriving an extended subtype of each if the malefactor is stated, or simply rearranging the semantic roles and syntactic arguments if the malefactor is unstated (i.e. the original agent/subject is deleted, and the newly introduced malefactee now serves as subject). Moreover, the syntactic status of the original O, if any is not affected by the introduction of the malefactee, just like the causative.

5.8 Function (4) tense-mood-aspect

5.8.1 Tense

The tense system of Irabu is bipartite, distinguishing between past and non-past. Tense is an inflectional category of the participle and realis verb. Non-past tense designates an attemporal event/state (e.g. general truth), definite future, or an ongoing state (for stative verbs such as $cgav-\emptyset$ 'differ', $ur-\emptyset$ 'exist', and $taka-kar-\emptyset$ 'high' (PC verb)). Future time reference associated with speaker's guess, perceived necessity, intention, etc., is encoded by irrealis verbs which inflect for various irrealis moods.

5.8.2 Mood

The mood system of Irabu is bipartite, i.e. realis vs. irrealis. This modal distinction is inflectional in independent verb forms, i.e. the realis verb and irrealis verb. There is no mood marking for (ambi) dependent verbs (i.e. converbs and participles).

The irrealis mood expresses the speaker's future intention, desire, perceived necessity, etc., all of which are related to the speaker's weak certainty or uncertainty about the truth value of the proposition. By contrast, the realis mood expresses speaker's perceived certainty with a strong assertive force (validational in Weber's 1986 terms). Furthermore, it expresses high information value, in that the speaker indicates that his message is new information to the hearer as the hearer does not know, or has a wrong assumption about, the truth value of the proposition (see Shimoji 2008 for detail). The following dialogue illustrates how the realis mood marking works. Here, speaker A has the assumption that 'this (woman)' is ignorant, which B thinks is wrong, as she is certain that 'this (woman)' is a wise person. Thus B corrects A's assumption by using the realis form that is underlined.

- (60) A. kuri=a nau=mai s-sa-n-Ø=pazï.
 3sG=TOP what=even know-THM-NEG-NPST=maybe
 'This (woman) doesn't know anything, perhaps.'
 - B. gui! kuri=a nau=ju=mai
 INTJ 3SG=TOP what=ACC=even
 s-si+u-Ø-m!
 know-THM-PROG-NPST-REAL
 'No way! She knows everything!'

As briefly noted in Section 4.4.6, whereas the past realis inflection has both the affirmative form and the negative form, the non-past realis form lacks a negative counterpart.⁶ This asymmetry in negation is naturally explained by referring to the modal characteristic of realis: since it requires the speaker's perceived certainty, it is more difficult to use it with what will not occur (non-past tense) than with what did not actually occur (past tense).

5.8.3 Aspect

Major aspectual relations are encoded by the auxiliary verb construction (AVC, see below), which encodes progressive, resultative, prospective, and

⁶ This can be seen as an instantiation of a typologically recurrent restriction on the compatibility of negation with realis (in fact, there are languages which treat all negative clauses as irrealis; Payne 1997: 245).

perfect aspects, or by verbal stem reduplication which encodes habituality and iterativity (see 4.2.3).

An aspectual AVC may take two forms: agglutinative AVC and phrasal AVC. As shown in the following sets of examples, a phrasal AVC consists of two words, and each word is inflected, whereas an agglutinative AVC is a one-word construction, where V1 (lexical verb stem) and V2 (auxiliary verb stem) is serialised to form a single stem of a word, thus carrying a single inflectional affix or affixes.

- (61) Progressive
 - a. *ba=a tigami=u* [*kak-i-i=du u-tar*]. 1SG=TOP letter=ACC write-THM-CVB=FOC PROG-PAST 'I was writing a letter' [phrasal AVC]
 - b. ba=a tigami=u=du [kak-i+u-tar].
 1SG=TOP letter=ACC=FOC write-THM+PROG-PAST
 'I was writing a letter.' [agglutinative AVC]

(62) Resultative

- a. *ba=a tigami=u* [*kak-i-i=du ar-Ø*]. 1SG=TOP letter=ACC write-THM-CVB=FOC RES-NPST 'I have written a letter.' [phrasal AVC]
- b. ba=a tigami=u=du [kak-i+ar-Ø].
 1SG=TOP letter=ACC=FOC write-THM+RES-NPST
 'I have written a letter.' [agglutinative AVC]

(63) Prospective

- a. ba=a tigami=u [kak-i-i=du uf-kutu]. 1SG=TOP letter=ACC write-THM-CVB=FOC PROS-OBLG 'I am supposed to write a letter.' [phrasal AVC]
- b. ba=a tigami=u=du [kak-i+uf-kutu].
 1SG=TOP letter=ACC=FOC write-THM+PROS-OBLG
 'I am supposed to write a letter.' [agglutinative AVC]

(64) Perfect
ba=a tigami=u kak-i-i njaa-n-Ø.
1SG=TOP letter=ACC write-EXT-CVB PRF-NEG-NPST
'I have written a letter.' [phrasal AVC]

Habitual aspect and iterative aspect are encoded by verbal stem reduplication (Section 4.2.3). Habitual aspect describes a situation which is characteristic of an extended period of time, and is viewed as a characteristic feature of a whole period (Comrie 1976: 28). Habitual aspect is typically expressed by the verbal reduplication $as\ddot{i}+as\ddot{i}$ 'do', as illustrated in (65) below.

(65) *imi-kar-Ø=kja=gami=a, mmja, juu pinza=nu* small-VBLZ-NPST=when=EMPH=TOP INTJ often goat=GEN *fsa=u=mai kar-i-i=du u-tar.* grass=ACC=too cut-THM-MED=FOC PROG-PAST 'When (I) was small, (I) used to gather grass for goats.'

In iterative aspect it is very common for the reduplicated form to be framed in a specific construction [A=TOP B+B LV] (A is a medial verb, which is followed by a topic marker, and B+B is a reduplicated verb form, followed by LV, or a light verb (*a*)s). Here, the actions encoded by A and B are iterated.

- (66) *uki-i=ja kair+kair s-i-i=du if-tar=ca*. stand-MED=TOP RDP+turn.over do-THM-MED=FOC go-PAST=HS '(He) went standing up and turning over and over.'
- (67) *pur-i-i=ja tur+tur as-i-i=du ur-Ø*. dig-THM-MED=TOP RDP+take do-THM-MED=FOC PROG-NPST '(They) are digging and taking (potatoes).'

5.9 Function (5) topic and focus

Topic is marked by =ba(a) for object NPs (as in (y) in (68)), or by =a (elsewhere, as in (x) and (z)). Focus marking is not sensitive to the grammatical relation of the focused NP, but sensitive to sentence type (Section

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5.5): =du in declarative clauses, =ru in yes/no interrogative clauses, and =ga in wh interrogative clauses.

(68) ba=a mm=mu=baa maada=a fa-a-n-Ø.
1SG=TOP potato=ACC=TOP very=TOP eat-THM-NEG-NPST
(x) (y) (z)
'I don't really eat potatoes very much.'

There is focus-concord between a focus-marked NP and the verb inflection of the predicate, which is similar to what is traditionally called *Kakarimusubi*. The difference is that in Irabu, focus marking triggers the *exclusion* of one particular verb form (i.e. the realis verb form).

- (69) ba=a $\check{z}\check{z}u=u=du$ tur-tar1sG=TOP fish=ACC=FOC take-PAST 'I caught fish.' [participle]
- (70) ba=a $\check{z}\check{z}u=u=du$ tur-a-di. 1SG=TOP fish=ACC=FOC take-PAST 'I caught fish.' [irrealis]
- (71) *ba=a žžu=u=du tur-ta-m [participle].
 1SG=TOP fish=ACC=FOC take-PAST-REAL
 'I caught fish.' [realis]

As mentioned in Section 5.8.2, since the realis form expresses new information to the hearer, it never co-occurs with a focus marker, since the predicate in a focus construction should be presupposed (Shinzato 1998: 204). Thus, it is the pragmatic feature of the realis form that leads to the exclusion of this form as the predicate form in the focus construction.

5.10 The complex sentence

5.10.1 Coordination

Coordination falls into symmetrical coordination (where the first and second clauses are conjoined by a conjunction word) and asymmetrical coordination (where the first clause is marked by a conjunction clitic). In symmetrical coordination, two (or more) main clauses are linked by a free conjunction word such as *mata* 'and'.

(72) nkjaan=na budur-nagi=mai umissi-ka-ta-m. old.times=TOP dance-APRX=too interesting-VBLZ-PAST-REAL assuga, nnama=a mii-n-Ø=ni. but now=TOP see-NEG-NPST=CNF
'In old days, dances were fun; but now (we) don't see (dances), eh?'

In asymmetrical coordination, the first clause is marked by a conjunction clitic. This clause is inflected for a finite form like the second clause, but there is a severe restriction on the inflection of the first clause.

(73) [kuma=n nci-di=ssiba], this.place=DAT put-NPST.INT=SO muc-i+par-i-Ø=juu. have-THM+leave-THM-IMP=EMPH
'(I) will put (this bag) here, so take (it) away, OK?'

5.10.2 Subordination

Subordination falls into adsentential subordination (where the subordinate clause functions as a sentential adjunct), adverbial subordination (where it functions as a predicate adjunct), adnominal subordination (where it functions as an adnominal), and complementation (where it functions as an argument).

An adsentential subordinate clause is a sentential adjunct of the main clause. It usually occurs at the left margin of a sentence, as illustrated in (74) below, but it may also be nested within the main clause, as in (75).

(74) [saki=u num-tigaa], ba=a sugu=du
Sake=ACC drink-CVB.COND 1SG=TOP right.away=FOC niv-Ø.
sleep-NPST
'[When I drink Sake], I sleep easily.'

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(75) ba=a [saki=u num-tigaa], sugu=du
1SG=TOP Sake=ACC drink-CVB.COND right.away=FOC niv-Ø.
sleep-NPST
'[When I drink Sake], I sleep easily.'

Adverbial subordination embeds a clause within the main clause as a predicate adjunct, i.e., as an adverb. An Irabu adverbial clause modifies the main clause predicate as a manner modifier, and is encoded by a converbal clause.

(76) [*tatimma as-ccjaaki*]=*du tii=ju kai+kai*stilt do-CVB.SIM=FOC hand=ACC RDP+change *as-i+ur-Ø*.
do-THM+PROG-NPST
'(He) is taking his hands off the stilt several times [while doing stilts].'

An adnominal clause functions like an adnominal word, so that it directly fills the modifier slot of an NP without carrying a case and occurs prenominally. No relativizer is required, but the predicate verb of the adnominal clause must have a participle. Any argument, core, extended core, or peripheral can be relativized.

- (77) [kuu-ttar] pžtu=u=baa ž-ža-dakaa
 come-NEG.PST man=ACC=TOP scold-THM-NEG.CVB.COND *nar-a-n-Ø*.
 become-THM-NEG-NPST
 '(I) have to scold those men [(who) did not come].' [subject]
- (78) [žži-tar] munu=gami=a ukaasa ar-Ø.
 obtain-PAST thing=EMPH=TOP plenty exist-NPST
 '(There) are plenty of things [(I) obtained (from him)].' [direct object]

Furthermore, an NP that cannot be regarded as an argument of the adnominal clause can establish a modifying semantic relationship with the adnominal clause, where pragmatic inference determines how the adnominal clause narrows down the reference without the head noun playing any role in the adnominal clause.

Complementation is the 'syntactic situation that arises when a notional sentence or predication is an argument of a predicate' (Noonan 1985:42). It involves the adnominal clause construction with a formal noun head (Section 5.2.3), or a quotative construction as illustrated in the examples below.

- (79) [kjuu=ja ueno=nkai=du ik-i-i t-tar=tii] today=TOP Ueno=ALL=FOC go-THM-MED come-PAST=QT as+as.
 RDP+do
 '(She) goes like, ["Today (I) went to Ueno"].'
- (80) [uri=u fa-a-baa=tii]=ja umu-u-n-Ø.
 3SG=ACC eat-THM-NPST.OPT=QT=TOP think-THM-NEG-NPST
 '(I) don't think like, ["(I) want to eat it"].'

In a quotative clause, the quotative =tii introduces the complement clause that functions as object of speech act verbs such as $a\check{z}$ 'say', cf 'hear', and *tanum* 'ask', and cognitive verbs such as *umuv* 'think'.

5.10.3 Clause-chaining

Clause-chaining links one or more dependent clauses headed by a medial verb and a final main clause, encoding sequential events (foreground) or descriptive states (background). The following example illustrates a typical clause chain, in this case, comprising seven chained non-finite clauses (each of which is numbered a, b, c...g.) and a finite final clause (h).

(81)	a.	unu cmi=u=kara		guus=tii	uri=a	tur-i-i,	
		that	claw=4	ACC=first	OMTP=QT	3sg=acc2	take-тнм-мер
	b.	<i>biraf</i> baske	<i>=nkai</i> et=ALL	<i>rri-i,</i> put-меD			
c. ftaa-c, ftaa-c, kai two-clf.general two-clf.general that.way badzakar-i-i. claw-THM-MED d. *f-fa-Ø=ti* as-i-i. bite-THM-NPST.INT=OT do-THM-MED e. *uri=a* tur-i-i. 3sg=ACC2 take-THM-MED f. rri-i, put-MED g. mata kuzmi-gama=u=mai bur-i-i. and small.claw-DIM=ACC=too break-THM-MED h. *ai=sii=du* fau-tar. that.way=INS eat-PAST '(I) take the claws (of the crabs)_[a], put them into a Birafu (small basket)_[b]; (crabs) raise their claws, two (claws)_[c],

trying to bite $me_{[d]}$, (I) catch them_[e], put (them) into (the Birafu)_[f]; and (in so doing I) also break the small claws_[g]; (I) ate (crabs) in this way_[h].

As illustrated above, chained clauses encode temporally sequential events (or 'foreground') or temporally non-sequential, descriptive events/ states ('background'). For example, the foreground clauses in (81) are [a], [b], [e], and [f], which are surrounded by background clauses that describe each event, e.g., [d] describes the circumstantial event of [c], and these two clauses describe the background for the sequential events [a] and [b].

Thus, a medial clause with -i (affirmative) or -da (negative) is contextual, used either as a foreground clause or as a background clause. Although the foreground-background distinction is largely contextually inferred, there are several means to make it explicit. One such device is second accusative marking. The second accusative =a is largely restricted to medial clauses in clause chaining, and it usually indicates the background function of the medial clause in which it appears.

6 Text: 'Junaitama: a mermaid of Tooriike' (Folktale)

- [1] tooriiketiidui, ssibara, maibara, satubžtunu atarca. ftakiv. tooriike=tii=du=i, ssibara, maibara, satu+bžtu=nu Tooriike=QT=FOC=CNF back front neighbour+person=NOM a-tar=ca. fta-kiv. exist-PAST=HS two-CLF.HOUSE 'In (what is now called) Tooriike,⁷ there were two neighbouring houses, back (north) and front (south).'
- [2] ftakiv ariutuidu, pžtukivga imnu acca jaiba, unukjaa, pžtukivnu pžtunu ssibararu atarru maibararu atarru mmja ssan=suga, pžtukivnu... ftakivkara pžtukivnu pžtunu junai, ningjo, junatamau tuiccii, kurusii, mmja uria žžu jaiba, kurusii, katabataubaa jakii fai, katabataubaa jaanu panan nuusii, pusiatarca.

fta-kiv ar-i-utui=du, pžtu-kiv=ga two-clf.house exist-thm-cvb.crcm=foc one-clf.house=nom acca ja-i-ba, unukja=a, pžtu-kiv=nu im=nu sea=GEN side COP-THM-CVB.CSL 3PL=TOP one-CLF.HOUSE=GEN ssibara=ru a-tar=ru maibara=ru a-tar=ru pžtu=nu man=NOM back=FOC COP-PAST=Q front=FOC COP-PAST=Q mmja s-sa-n-Ø=suga, pžtu-kiv=nu... know-THM-NEG-NPST=but one-CLF.HOUSE=NOM INTJ pžtu-kiv=nu fta-kiv=kara pžtu=nu junai, ningjo, two-CLF.HOUSE=ABL one-CLF.HOUSE man=NOM junai mermaid junatama=u tu-i+c-ci-i, kurus-i-i. mmia Junaitama=ACC catch-THM+come-THM-MED kill-THM-MED INTJ uri=a žžu ja-i-ba, kurus-i-i. 3SG=TOP fish COP-THM-CVB.CSL kill-THM-MED *kata+bata=u=baa* jak-i-i fa-i-Ø, half+body=ACC=TOP burn-THM-MED eat-THM-MED kata+bata=u=baa jaa=nu pana=n nuusi-i, half+body=ACC=TOP house=GEN roof=DAT lift-MED

⁷*Tooriike* is literally 'trans-pond', which comprises two neighbouring ponds. These ponds developed from underground caverns. *Tooriike* is situated on Shimoji, and there are numerous legends and folktales on it.

pus-i+a-tar=ca.

dry-thm+res-past=hs

'Of the two houses, one was beside the sea, so the man from one of the houses—I'm not sure whether (the house) was of the backside or of the frontside—(the man from) one of the two houses caught and brought *junai*, I mean, a mermaid, *Junaitama*, and killed it, as it is a fish; (he) killed and burned and ate half of the body (of *Junaitama*), and laid the other half on the roof of his house.'

[3] aidu, rjuukjuu... rjuuguunu kamnu junaitama, junaitamatii assibadu, naraa mmja kurusaidu, katabata faaii, katabataa jaanu panan nuusiraiuiba, naranna kuuraintii ažtarca.

aidu, rjuukjuu... rjuuguu=nu kam=nu junaitama, sea.world=gen god=nom Junaitama then Ryukyu *junaitama=tii as-si-ba=du*, nara=a mmja Junaitama=OT say-THM-CVB.CSL=FOC REFL=TOP INTJ *kurus-ai-Ø=du*, kata+bata fa-ai-i, kata+bata=a kill-PASS-MED=FOC half+body eat-PASS-MED half+body=TOP pana=n nuusi-rai+u-i-ba. iaa=nu house=gen roof=dat lift-pass+prog-thm-cvb.csl kuu-rai-n-Ø=tii až-tar=ca. nara=n=na REFL=DAT=TOP come-pot-neg-npst=qt say-past=hs 'Then, the god of Ryukyu, no, Ryugu (sea world) said calling, "Junaitama! Junaimata!", so (Junaitama) said, "I have been killed, and half of my body was eaten, and the other half has been laid on the roof, so I cannot come back (to the sea world).""

[4] unu rjuukjuu... rjuuguunu kamnudu mmja, uisaartii ccii, jurabiba, naraa katabata faaii, katabataa jaanu panan nuusiidu, naraubaa pusii nciartii ažtarjaa, ttigaa, ukunammu jarahadissiba, urii kuujuutii ažtarjaa, nnditi astarjaa, ukunammu baatti jarastarjaa, tudukanniba, mata mmepžtunam ookii ukunammu baatti jarastarjaa, zazaattii urii, mmja uria mmja partarca.

unu rjuukjuu... rjuuguu=nu kam=nu=du mmja, that Ryukyu Ryugu=gen god=nom=foc intj ui+saar-Ø=tii c-ci-i. jurab-i-ba. nara=a 3SG+take-NPST=OT come-THM-MED call-THM-CVB.CSL REFL=TOP kata+bata fa-ai-i, *kata+bata=a* iaa=nu pana=n half+body eat-pass-med half+body=top house=gen roof=dat nuus-i-i=du. nara=u=baa pus-i-i lift-thm-med=foc refl=acc=top dry-thm-med nci+ar-Ø=tii až-tarjaa, ttigaa, uku+nam=mu put+res-npst=qt say-cvb.pst.ant then big+wave=ACC *jar-ah-a-di=ssiba*, uri-i *kuu-Ø=juu=tii* create-CAUS-THM-INT=SO come.down-MED come-IMP=EMPH=OT nndi=ti as-tarjaa, uku+nam=mu až-tarjaa, say-cvb.pst.ant yes=Qt say-cvb.pst.ant big+wave=Acc tuduk-a-n-Ø=niba. baa=tti jar-as-tarjaa, OMTP=QT create-CAUS-CVB.PST.ANT reach-THM-NEG-NPST=SO ookii uku+nam=mu baa=tti *mata mme+pžtu+nam* and another+one+wave big big+wave=ACC OMTP=QT zazaa=ttii uri-i, *jar-as-tarjaa*, mmia create-CAUS-CVB.PST.ANT OMTP=QT come.down-MED INTJ mmja par-tar=ca. uri=a 3SG=TOP INTI leave-past=hs

'The god of Ryukyu, no, Ryugu, called (Junaitama) to take her back home, so (Junaitama) said, "I have had my half eaten; as for the other half, (the man) has laid it on the roof of his house and dried", so (the god) said, "Then I will let there be a big wave, so come down riding on it", so (the god) created a big wave, but it did not reach, and (he) created another big wave, so that (Junaitama) came down riding on the wave, and left (for the sea world).'

[5] aidu umanu ssibara maibaraa mmja doofti utiii, tooriiken nartarca. *aidu uma=nu ssibara maibara=a mmja doof=ti* thus that.place=GEN back front=TOP INTJ OMTP=QT *uti-i=i, tooriike=n nar-tar=ca.* collapse-MED=CNF Tooriike=DAT become-PAST=HS 'Thus, the place around the backside and the frontside collapsed, and became what we now call *Tooriike*.'

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Further reading

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Shinekhen Buryat

Yasuhiro YAMAKOSHI

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Contents

Introduction

Shinekhen Buryat, one of the Mongolic languages, is a typical agglutinative language like those from the Altaic language family. Grammatical relations in this language are indicated by various bound morphemes (suffixes or enclitics). Suffixation is the most productive in word formation (see §4.4). The word stem takes various derivational suffixes to form new stems.

Shinekhen Buryat is spoken in Inner Mongolia, China. It is believed that Mandarin Chinese, a typical isolative language, more or less influenced Shinekhen Buryat. Therefore, we can observe some isolative characteristics in this language. One of these characteristics is mentioned in 4.4.2.

1 Overview

Shinekhen Buryat is spoken by the Shinekhen Buryat people (*Shi. s^jinexeen bor^jaad* or *s^jinexeenei bor^jaad*) who inhabit the region around the Shinekhen river basin¹ in Hulunbuir (*Chi. hulunbeier*) City, Inner Mongolia, China (see the map). Furthermore, Shinekhen Buryat is the mother tongue of another ethnic group called Khamnigan Evenki (*Shi. xamnigan* or *tuŋguus*).

The ancestors of the Shinekhen Buryat and Khamnigan Evenki people lived in the Russian Empire until the Russian Civil War. About 3,000



Buryat and Khamnigan Evenki refugees crossed the Argun River (a branch of the Amur River) after the War until 1931 when the 'Manchukuo' demarcated the border. Language consultants now say that about 6,000 people live around the Shinekhen basin and speak Shinekhen Buryat as their mother tongue.

Mongolian and Chinese are used in daily conversations in this area. The medium of instruction in primary school is standardized Mongolian (called *Barimjaa* in Mongolian) or Chinese. In Russia, other Buryat people use the Buryat orthography in the Cyrillic alphabet for writing. On the other hand, Shinekhen Buryats and Khamnigan Evenkis use Mongolian in the Mongolian script for writing. Few people use the Buryat orthography in the Shinekhen area.

The linguistic characteristics of Shinekhen Buryat are very similar to those of the eastern dialects of Buryat (i.e. the Aga and Khori dialects) because these dialects were used by most of the Buryat ancestors (refugees). Hattori (1937), who researched Mongolic languages in Hulunbuir in the 1930s, recognized their language as the Aga dialect. Three generations

¹This area is locally known as Shinekhen village (*Chi. xinihe sumu*; *sumu* means 'village' in Mongolian).

have passed since then. While Shinekhen Buryat in this area has been influenced by Chinese and Mongolian, Buryat in Russia has been influenced by Russian. It can be observed that each dialect of Buryat has changed during these three generations. Therefore, I would like to distinguish Shinekhen Buryat from other Buryat dialects spoken in Russia.

The language materials of Shinekhen Buryat were collected and published by the author (Yamakoshi 2002 (text of folktales), 2003a (basic vocabulary), 2006 (text of daily conversations)). The morphology and word formation of this language were written in 2005 (Yamakoshi 2005). However, all works were written in Japanese.

2 Phonology

2.1 Segmental phonology

2.1.1 Phonological inventory

The following tables present the inventory of phonemes of Shinekhen Buryat.

Table 1	Vowels
---------	--------



Table 2 Consonants

Stop	voiceless	р	p ^j	t	t ^j	(k ^j)	(k)		
	voiced	b	b^{j}	d	d^j				
Fricative	voiceless			S	s ^j [∫]		$x^j[c]$	$x[x\sim\chi]$	h
	voiced			Z	z ^j [ʒ]		g ^j [j]	$g[\Lambda \sim R]$	
Affricate	voiceless			(c[ts])	$(c^{j}[t])$				
Liquid				1	lj				
				r	r ^j				
Nasal		m	m^{j}	n	n ^j [ɲ]			ŋ	
Glide		W			j				

*The parenthesised consonants are only used for loanwords.

The phoneme / Θ / occurs only as a long vowel / Θ /. This is because the short vowel * Θ has merged with /u/ in the first syllable and with /e/ in the other syllable. That is, the Shinekhen Buryat vowel system has six short and seven long vowels. We could consider long vowels as a sequence of short vowels (/aa/ = /a/+/a/). The following six patterns are diphthongoid sequences: /ai [ag \sim ag \sim æ:], ɔi [ɔœ \sim ∞e:], oi [oi \sim oø], ei [ei \sim əi], ui and (ao)/. All diphthongs except /ao/, which is only used for loanwords, are descending.

With regard to the consonant system, Shinekhen Buryat has about 30 segmental phonemes. All the categories of consonants, except for the glides /ŋ/ and /h/, are characterized by an opposition between unpalatalized (plain) and palatalized segments. Phonetically, palatalization is realized either as secondary articulation (/p^j/, /b^j/, and /m^j/), alveopalatalness (/t^j/, /d^j/, /s^j/, /z^j/, /c^j/, /l^j/, /r^j/, and /n^j/), or palatalness (/k^j/, /x^j/, and /g^j/).

Stops are distributed into voiceless-aspirated and voiced-unaspirated consonants. In the syllable ending, voiced-unaspirated consonants are devoiced. Therefore, in this position, stops are differentiated by whether or not they are aspirated. Further, fricatives are differentiated by whether they are voiced.

2.1.2 Phonotactics

The syllable structure of Shinekhen Buryat can be reduced to the following structure.

 $(C_1)V_1(V_2)(C_2)$

In a polysyllabic word, a syllable break is never located before V. All consonants except /ŋ/ may appear in the syllable initial C_1 . All consonants except /w/ and /h/ may appear in the syllable final C_2 .

No sequence of consonants is ever found in the initial of free form. However, such sequences are found in some clitics (e.g. =mni, $=s^{j}ni$, $=bd^{j}a_{2}$).

As in the case of many other Altaic languages, /r/ is never found in word initial. This rule is applied strictly to loanwords (e.g. *araad^joo* (< *Rus.* radio) 'radio'). /o/ and /u/ are not found as short vowels in non-initial syllables.

2. PHONOLOGY

For details on morphophonological phonotactics such as vowel harmony, see §2.3.

2.2 Suprasegmental phonology

Shinekhen Buryat has two accent systems: pitch accent and stress accent. Both systems are phonologically indistinctive, and clitics are not accentuated.

a. Stress accent

The initial syllable is stressed. If VV (long vowel or diphthong) are found in other syllables, the syllable that has VV is stressed.

E.g. xórgan 'lamb', teméen 'camel', gas^jóon 'bitter'

b. Pitch accent

 V_1 of the last syllable are pitched higher.

E.g. xorga'n 'lamb', teme'en 'camel', jabxa '(someone) will go'²

2.3 Morphophonology

2.3.1 Monosyllabic free form

We can find many monosyllabic words in Shinekhen Buryat. As presented in 2.1.2, the syllable structure of Shinekhen Buryat is $(C_1)V_1(V_2)(C_2)$. Therefore, Shinekhen Buryat can be considered to logically have eight patterns of monosyllabic word structure, stated as follows:

 $V_1/C_1V_1/V_1V_2/V_1C_2/C_1V_1V_2/C_1V_1C_2/V_1V_2C_2/C_1V_1V_2C_2$

However, V_1 and C_1V_1 are never found in monosyllabic free forms (some clitics have these structures). If we divide the syllable into three phonological units as C_1V_1 , V_2 , and C_2 , we can define a free form to be composed of two or more phonological units in Shinekhen Buryat.

²^(') indicates pitch fall. If the last syllable has neither V_2 nor C_2 (like *jabxa* presented above), the pitch does not fall.

2.3.2 Vowel harmony

Like other neighbouring Mongolic languages, the internal coherence of words is enhanced by 'vowel harmony'. The vowels are classified as back (/a, o, ɔ/), front (/e, u, Θ /), and middle (/i/) vowels. The back vowels and front vowels never co-occur in a word. Vowel harmony also applies some clitics (e.g. *jab-xa=bdⁱa*. (go-FUT.PTCP=1.PL) vs. *ir-xe=bdⁱe*. (come-FUT.PTCP=1.PL)). The rule of vowel harmony in Shinekhen Buryat is presented in Table 3. The rule is only restricted to V₁s of the syllables.

 V_1 of the preceding syllable decides V_1 of the next syllable. The next V_1 will be (1) /i/, (2) the same vowel as the preceding V_1 , and (3) the neighbouring vowel with an arrow in Table.3.

Table 3 Vowel harmony

 $\begin{array}{ll} \text{back vowel} & \mathfrak{z} \Rightarrow \mathfrak{o} \Leftrightarrow \mathfrak{a} \\ \\ \text{front vowel} & e(, \mathfrak{i}^*) \Leftrightarrow \mathfrak{u} \Leftrightarrow \mathfrak{o} \Leftrightarrow e \end{array}$

*If /i/ is located at V₁ of the initial syllable, V₁ of the second syllable must be /e/, /u/ or /i/.

E.g. *ɔr-ool-aa*. (enter-CAUS-IPFV.PTCP) '(Someone) made (the other) enter.'

өөhe-d-өө. (own-dat-refl) 'to oneself'

The middle vowel /i/ in the initial V₁ is treated as a front vowel. The /i/ in the other position is treated as a middle vowel. A middle vowel can freely co-occur with either a front vowel or a back vowel, e.g. *i.r-ee.gui.* (come-IPFV.PTCP-NEG), *mi.nii* (1SG:GEN), *ab.-iiŋ.-g-aa.* (father-GEN-E-REFL), *e.z^jii.-hee.* (mother-ABL).

Because the distribution of vowels is governed by vowel harmony, almost all suffixes have, at most, four allomorphs. For example, the instrumental case suffix *-aar*₄ has four allomorphs such as *gar-aar* (hand-INS), *mor^j-oor* (horse-INS), *temee-g-eer* (camel-E-INS), and *boon-oor* (shaman-INS). The vowel alternation patterns of suffixes are classified into four patterns, as shown in Table 4.

	Alternation pattern	Example
4 almphs	aa4/aa~ɔɔ~ee~өө/	-ahaa $_4$ /-ahaa \sim -ɔhɔɔ \sim
		-ehee∼-ehoo∕
3 almphs	a ₃ /a ~ɔ~e/ ; ai ₃ /ai~ɔi~ei/	-han ₃ /-han~-hɔn~-hen/
2 almphs	$o_2/o\sim u/; oo_2/oo\sim uu/; oi_2/oi\sim ui/$	-00 $z^{j}a_{2}$ /-00 $z^{j}a\sim$ - $uuz^{j}e$ /
2 almphs	$a_2/a \sim e/$; $ai_2/ai \sim ei/^3$	=mnai ₂ /=mnai~=mnei/

Table 4 Vowel alternation pattern of suffixes (almphs = allomorphs)

Vowel harmony does not apply to compounds, proper nouns, and loanwords. A few suffixes derived from free forms are not also applied, e.g. *jab-aa-gui* (go-IPFV.PTCP-NEG): *-gui < ugui* (absent).

Loanwords are sometimes applied while sometimes not applied, e.g. $s^{j}ooz^{j}ii$ -g-aar~ $s^{j}ooz^{j}ii$ -g-eer (cell phone < *Chi.* shouji -E-INS). The rule of the application for loanwords is unclear.

The position of the front vowel $|\Theta |$ is very limited except for the initial syllable. When V₁ of the preceding syllable is |e| or |u|, which was originally $*\Theta$, $|\Theta |$ can be set in the next syllable.

2.3.3 Vowel deletion

Stem final vowel or suffix initial vowel is deleted in the condition presented in Table 5.

Table 5 Vowel deletion

	Deleted vowel	Example
CV_1 - V_2	V_1	$bags^{j}a$ - $ahaa_{4} > bags^{j}$ - $ahaa;$
		$horga$ - ool^{j}_{2} > $horg$ - ool^{j}
V_1V_2 - V_3C	V_3	tanai-ahaa ₄ > tanai-haa

2.3.4 Vowel addition

When a consonantal cluster C-CC occurs, a vowel is added such that C-V-CC. The distribution of vowels (/a/, /ɔ/, and /e/) is governed by vowel harmony, e.g. *ger-e-sⁱni*. (house-E-2SG.POSS).

 $^{^3}$ This pattern is limited. As presented in Table 3, /a/ usually does not appear after a syllable that includes /o/. However, some clitics including /a/ connect to a stem with /o/.

2.3.5 Consonant addition

When a hiatus VV-VV occurs, /g/ is inserted to avoid VVVV (VV-g-VV), e.g. *temee-g-eer*. (camel-E-INS).

3 Word classes

Table 6 shows word classes of Shinekhen Buryat.

Table 6 Word classes

Declinables	Nominals:
	Noun, pronoun, adjective, numeral, and postpositional
	noun
	Verb
Indeclinables	Adverb and particle (enclitical)

From the perspective of morphology and grammatical functions, we can classify the words used in Shinekhen Buryat into two categories, namely declinables and indeclinables. Nominals, which can connect declensional (case) suffixes (for nominal inflection, see §4.2), and verbs, which can connect conjugational suffixes (for verbal inflection, see §4.3), are grouped in declinables, and the others are indeclinables. The dependent indeclinables are clitics (all of which are phonologically defined as enclitic). Adverbs are independent indeclinables. Similar to other neighbouring Mongolic languages, nominals, verbs, and indeclinables can be differentiated by their word stem.

Nominals are classified into five categories: noun, pronoun, adjective, numeral, and postpositional noun.

3.1 Noun and adjective

As in other neighbouring Mongolic languages, nouns and adjectives are morphologically very similar. There are only a few syntactic differences between nouns and adjectives, as shown below.

1) As a modifier

Adjectives can attribute other words (noun, adjective, and verb) without any markers. On the other hand, nouns cannot attribute without markers.

3. WORD CLASSES

A noun should take any case marker or derivational suffix.

e.g. *gɔɔzⁱii mas^jiin* (stylish(ADJ)#car) 'a stylish car' *ger-ei sɔŋxɔ* (house(N)-GEN#window) 'a window of house' *olaan uŋge-tei mas^jiin* (red#colour(N)-prop#car) 'a red coloured car'

2) As an argument

Nouns can freely connect any case markers, whereas adjectives (and other nominals except nouns) cannot. If the referent is specific, an adjective can take some case marker. If the adjective is definite, it can also be a subject of a sentence. In this case, the adjective must take the 2nd or 3rd personal possessive particle to indicate its definiteness.

(1)	a.	olaan-ii=n		ab-jaa.	b.	c ^j eez		ab-jaa.
		red-ACC=3.P	OSS	take-1.0PT	ſ	eggp	lant:INDF	take-1.Орт
		'I will take t	he re	ed (one).'		ʻI wi	ll take an	eggplant.'
(2)	a.	<i>olaan=in</i> red=3.poss 'The red (on	<i>amt</i> taste .e) ta	<i>a-tai.</i> e-prop stes good.'	b.	<i>ene</i> this 'This	<i>cⁱeez</i> eggplant eggplant	<i>amta-tai.</i> taste-prop tastes good.'

3.2 Pronoun

The personal pronouns used in Shinekhen Buryat are presented in Table 7. A pronoun has two stems: the nominative and oblique stems. This aspect is different from the case of the noun.

Similar to other Mongolic languages, the Shinekhen Buryat second person plural *taa* (os *tan-*) is used for second person singular honorific. In nominative case, *taa*#NUMERAL, e.g. *taa*#xɔjɔr (you#two) or *taandood*, is used for second person plural. In oblique cases, *tan-* is mainly used as both unmarked second person plural and second person singular honorific: *taandood-* is only used for second person plural.

-		
	sg(ns/os*)	pl(NS/OS)
1	bii/nam-	bid ^j e~maandood/maandood-
2	s ^j ii/s ^j am-	$taa \sim$ taandood/tan- \sim taandood-
3 (distal demonstrative)	tere/tereen-	tedeen/tede-

Table 7 Personal pronoun

*NS means nominative stem, and os means oblique stem.

3.3 Numeral

Numerals in Shinekhen Buryat follow the decimal system. The main cardinal numbers are indicated as follows:

neg(en) 'one', xojor 'two', gorab(an) 'three', dureb(en) 'four', tab(an) 'five', zorgaa(n) 'six', doloo(n) 'seven', naim(an) 'eight', juhe(n) 'nine', arab(an) 'ten', $xor^{j} \sim xorin$ 'twenty', $gos^{j}(an)$ 'thirty', $dus^{j}(en)$ 'forty', $tab^{j} \sim tabin$ 'fifty', $z^{j}ar(an)$ 'sixty', dal(an) 'seventy', naj(an) 'eighty', jur(en) 'ninty', zoo(n) 'hundred', $m^{j}anga(n)$ 'thousand', tum(en) 'ten thousand', etc.

All cardinal numbers except number two has two forms like the nominative and accusative stems of nouns (see §4.2). One has /n/ (*fleeting* 'n') in stem final position (e.g. *negen*), while the other does not have /n/ in that position (e.g. *neg*). The +/n/ form is used for modifying other nominals. Cardinal numbers over eleven are expressed as *araban#neg(en*) 'eleven', $gos^{j}an#zorgaa(n)$ 'thirty six'. The preceding number (*araban* in *araban#neg(en*)), which modifies the following number, takes the +/n/ form. However, if the following number is naim(an) or juhe(n), the -/n/ form is used for the preceding number such as *arab juhe(n)* 'nineteen' and $dus^{j}e naim(an)$ 'forty eight'.

Other numerals such as ordinals are derived from the cardinal numbers (see 4.4.1B).

3.4 Postpositional noun

A postpositional noun can take case suffixes. However, it is dependent on other nouns. Therefore, a postpositional noun is used as N#POSTN. In this case, the preceding noun takes some case suffixes such as genitive or ablative. Since most of the postpositional nouns indicate a location of the preceding noun, we can semantically define this category as a locational noun.

- (3) a. *ger-ehee* **umne**. house-ABL front 'in front of the house'
 - b. *ger-ei* **sɔɔ-hɔɔ**. house-GEN inside-ABL 'from the house'
 - c. *nam deer*. 1sg above 'above me'

3.5 Particle (enclitical particle)

Indeclinable dependent words are categorized as particles. Most of them are monosyllabic. A particle is phonologically not accentuated; in other words, it is phonologically defined as enclitic. A particle is distinguished from an adverb by its dependency. It is always dependent on another independent word. All suffixes are also dependent, but particle is differentiated from suffixes by the following phonological reason:

An independent word (*IW*) has one peak of pitch accent. With a particle (*P*), i.e. IW=P, the pitch fall does not move, e.g. axa'i=mni (elder.brother=1sG.POSS). On the other hand, when *IW* takes a suffix (*SF*), i.e. *IW-SF*, the pitch fall moves, e.g. axai-g-a'a (elder.brother-E-REFL).

3.6 Adverb

Independent words in indeclinables are defined as adverbs. An adverb is not positively defined by a grammatical function. In most Mongolic languages, including Shinekhen Buryat, an adjective has adverbial function of a verb modifier. Therefore, such adjectives are traditionally categorized as both adjectives and adverbs (e.g. *hain* 'good (ADJ)'/'well (ADV)') in Mongolian linguistics. However, I will not categorize such adjectives into adverbs. In this description, I will categorize words into several classes by their morphological characteristics. Then, I will categorize all the indeclinable free words, such as conjunctions, interjections, and onomatopoeia, which do not always function as verb modifiers, as adverbs.

4 Morphology

4.1 Word structure

Like other Mongolic languages, Shinekhen Buryat is one of the typical agglutinative languages. The word stem takes various suffixes for inflection and word formation. Shinekhen Buryat does not have any prefixes; it has only suffixes. The nominal stem takes declensional (=case) suffixes, while the verbal stem takes conjugational suffixes. Suffixation is mainly used for word formation. A derivational suffix attaches to a word stem to form a new stem. Logically, a stem is allowed to take many suffixes unrestrictedly, such as in the following example:

(4) $bar^{j}-a-lda-gd-ool-s^{j}x^{j}$ -22. grab-E-RECP-PASS-CAUS-PFV-IPFV.PTCP '(Someone) made (them) wrestle each other.'

However, such cases are rare. We will discuss nominal inflection in §4.2 and verbal inflection in §4.3.

4.2 Nominal inflection

The nominals in Shinekhen Buryat are used with a case suffix (*N*-*Case*) in sentences. Grammatical gender is not differentiated. Plural markers are not grammatically obligatory. All plural markers are not inflectional but derivational suffixes. Such plural suffixes usually express a multitude as a group. Forms without plural suffixes can also express their plurality.

N-Case can take either a reflexive possessive suffix (see 4.2.2) or a personal possessive particle (see 4.2.3) to indicate its possessor, as in (5a) and (5b).

- (5) Noun-Case (-REFL / =POSS)
 - a. *aba-taj-aa.* father-сом-**REFL** 'With (someone's) own father'
- b. *ab-ahaa=mni*.
 father-ABL=1SG.POSS
 'From my father'

Shinekhen Buryat nominals have eight cases, namely *nominative*, *genitive*, *accusative*, *indefinite accusative*, *dative-locative*, *ablative*, *instrumental*, and *comitative*.

Nominative is used to indicate the subject, predicate, and dependent of the postposition. *Genitive* is mainly used to indicate the possessor. Furthermore, genitive denotes the subject of the subordinate clause. *Accusative* is used for the definite object. On the other hand, *indefinite accusative* (which does not take any case markers) is used for the indefinite object and the preceding part of compounds. Like the genitive, the accusative is sometimes used for the subject of the subordinate clause. *Dative-locative* expresses the recipient of the action, place where the action occurs, or period when the action occurs. *Ablative* is used to denote the origin, reason, object of the comparison, and dependent of some postpositions. *Instrumental* is used to indicate the tools that the subject uses, the agent of the causative sentence, or via point of the route. *Comitative* denotes the co-actor of the action. The same form of comitative case also functions as a possessor noun (see 4.4.1).

In nominative and indefinite accusative cases, the noun stem does not take any case markers. The case paradigm in Shinekhen Buryat is presented in Table 8.

The genitive, accusative, and dative-locative case suffixes have allomorphs which do not depend on vowel harmony (see 2.3.2). These allomorphs are selected on the following condition:

```
GEN: -n; Vi-_ / -iin; CV-_ > C-iin / -ai<sub>3</sub>; C-_ / -g-ai<sub>3</sub>; VV-_(exc. Vi)
ACC: -jii(ji); V-_ / -ii(ji); C-_ / -j-; _-refl
DAT: -ta<sub>3</sub>; {g,r}-_ / -da<sub>3</sub>; {not g,r}-_
```

Some of nouns in Shinekhen Buryat have two kinds of stems: the 'nominative stem' (NS in Table 8), which has /n/ in stem final position, and 'accusative stem' (AS in Table 8), which does not have /n/ in that position. Nominative stem functions as nominative and takes genitive, dative-locative, and ablative case suffixes. Accusative stem functions as indefinite accusative and takes accusative, instrumental, and comitative case suffixes.

Case	Form	e.g. sheep	e.g. yurt	e.g. elder brother	e.g. milk
NOM	NS-Ø	xənin	ger	axai	hun
GEN	NS- $n\sim$ - $iin\sim$ - ai_3	xənin-əi	ger-ei	axai-n	hun-ei
ACC	AS- <i>ii(ji)</i> ∼- <i>jii(ji)</i> ∼- <i>j</i> -*	xən-ii(ji)	ger-ii(ji)	axai-jii(ji)	hu-jii(ji)
INDF.ACC	AS-Ø	$x \circ n^j$	ger	axai	huu
DAT	NS- $da_3 \sim$ - ta_3	xənin-da	ger-te	axai-da	hun-de
ABL	NS- $ahaa_4$	xənin-əhəə	ger-ehee	axai-haa	hun-ehee
INS	AS- aar_4	xən ^j -əər	ger-eer	axai-g-aar	hu-g-eer
СОМ	AS-tai ₃	xən ^j -təi	ger-tei	axai-tai	hu-tei

Table 8Case suffixes

*-*iiji* \sim -*jiiji* are used to emphasize the object.

**Pronouns lack indefinite accusative case.

***DAT means dative-locative in this paper.

In Mongolian linguistics, the stem final /n/, which differentiates nominative and accusative stems, is called *fleeting 'n'* or *unstable 'n'*. Not all nouns have this fleeting 'n'. Whether a noun has a fleeting 'n' (=two kinds of stems) is determined lexically; it cannot be determined morphologically or phonologically.

In a sentence, the same oblique cases do not co-occur. If we juxtapose two or more arguments, only the last noun takes the case suffix. The other nouns are indicated as indefinite accusative case.

 (6) *tar^jaas^jan-ood эгээhэ*, *juimii*, *xэтtээxэ zereg-ii* farmer-PL grain, corn, potato and.so.on-ACC *tar^j-dag*. plant-нвт.ртСР 'Farmers plant grains, corns, potatoes, and so on.'

4.2.1 Reflexive possessive suffix

When a nominal word in oblique cases (=non-nominative cases) obviously belongs to the subject of a sentence, i.e. the subject possesses the noun or the noun is a part of the subject, it takes a reflexive possessive suffix $-aa_4$. The reflexive possessive suffix never co-occurs with a personal possessive particle.

The possessor of the noun with a reflexive possessive suffix usually accords with the subject of the sentence. However, in causative sentences,

the possessor rarely accords with the agent, i.e. the causee, and not the subject. In (7), the possessor of the object (*hamgan*) is not 'mine' (*bii*), but 'yours' (*sⁱamaar*).

(7) *bii* s^jam-aar hamga-j-aa
1sG:NOM 2sg-INS wife-ACC-REFL *zɔbɔɔ-lgɔ-z^jɔ* bai-na=b^j.
be.anxious.about-CAUS-IPFV.CVB be-PRS=1sG
'I make you anxious about (your) own wife.'

4.2.2 Personal possessive particles

Shinekhen Buryat has six personal possessive particles (see Table 9): 1st person singular, 1st person plural, 2nd person singular, 2nd person singular honorific, 2nd person plural, and 3rd person. These particles are positioned after not only nouns but also participles (see 4.3.2). A personal possessive particle after a participle indicates the agent.

The 1st person singular, 2nd person singular, and 3rd possessive particles each have two forms, namely general $=mni / =s^{i}ni / =ini$ and abbreviated forms $=m / =s^{j} / =in$. When the 1st singular =mni attaches to the host that ends /n/, the host final /n/ is dropped, e.g. mori=m(ni) (< morin=m(ni): horse(NOM)=1sG.POSS 'my horse'). The 3rd person has no distinction in number. =in(i) can indicate both 3rd person singular and plural.

The 2nd person singular and 3rd person possessive particles are mainly used for topic or definite markers. Therefore, these particles sometimes attach to the host that is not the possessee of the 2nd or 3rd persons (see §5.9).

 Table 9
 Personal possessive particles

	SG	PL
1	=m(ni)	$=mnai_2$
2	$=s^{j}(ni)/=tni$ (SG.HON)	= $tnai_2$
3	=in(i)	

4.3 Verbal inflection

Shinekhen Buryat verbs conjugate by taking three kinds of verb endings (suffixes) such as finite verbs, participles, and converbs. These three kinds of verb endings are categorized as per their syntactic functions.

Finite verbs, which are categorized as indicative and optative, complete the sentence at the sentence final. Participles can also function in finishing the sentence like finite indicative. Furthermore, participles function like the nominals, which can be modifiers of other nouns.

Verb endings can take further suffixes or particles. The syntagmatic structure of Shinekhen Buryat verb is presented in Table 10.

Table 10 Syntagmatic structure of verbs

```
V-FIN(-NEG)(=Q)(=PERSON)
V-PTCP(-NEG)(-CASE)(-REFL OT =POSS)<sup>4</sup>(=Q)(=PERSON)
V-CVB(-REFL OT =POSS)<sup>5</sup>
```

We will see about negative forms of each structure in §5.7.

4.3.1 Finite verbs

In Shinekhen Buryat, finite verbs are categorized as indicative and optative. Finite indicative verb suffixes are presented in Table 11.

	suffix	e.g. ab- 'take'	e.g. <i>id^j</i> 'eat'
Present	<i>-na</i> ₃	ab-na	id ^j -ne
Past	$-ba_3$	ab-ba	id ^j -be
Future	$-00z^{j}a_{2}$	ab-ooz ⁱ a	id ^j -uuz ^j e

Table 11 Finite indicative verb suffixes

Finite indicatives take personal predicative particles to indicate the person and number of the subject, e.g. ab-na= b^{j} (take-prs=1sg) 'I take it.'

⁴Similar to nominal inflection (see §4.2), reflexive possessive suffix and personal possessive particle never co-occur. Furthermore, if reflexive possessive suffix or personal possessive particle attaches to the verb, personal predicative particle cannot co-occur.

⁵Converbs, except for the durative converb *-haar*₄ and limitative converb *-tar*₃, cannot take the reflexive possessive suffix or personal possessive particle. The reflexive possessive suffix and personal possessive particle never co-occur in this case as well, as with nominal inflection.

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Past finite $-ba_3$ and future finite $-ooz^j a_2$ are mainly used in archaistic style, such as in tales or legends. In conversations, the imperfect participle $-aa_4$ indicates the past, and the future participle $-xa_3$ denotes the future.

The paradigm of finite optative verb suffixes is presented in Table 12.

	suffix	e.g. <i>ɔs^{i_}</i> 'reach'	e.g. med- 'know'
1sg / 1pl.incl?	-jaa $_4\sim$ -ji	⊃s ^j -j⊃⊃~⊃s ^j -ji	med-jee~med-ji
1sg / 1pl.excl?	$-hoo_2(=1SG/1PL)$	эs ^j -hoo	med-huu
2sg	-ø (zero)	∂S^{j}	med
2	- <i>ii</i> (=2sg/2pl)	⊃s ^j −ii	med-ii
2pl (2sg.hon)	-gtii	əs ⁱ -ə-gtii	med-e-gtii
2sg.fut	-aarai ₄	əs ^j -əərəi	med-eerei
2pl.fut	-aaragtii ₄	əs ^j -əərəgtii	med-eeregtii
3	-g	эs ^j -э-g	med-e-g
DES	-hai ₃	əs ^j -həi	med-hei

Table 12 Finite optative suffixes

1st person or 3rd person optatives can also be categorized in this paradigm since these suffixes imply the grammatical category of the person.

Finite predicative, participle and converb suffixes do not imply the grammatical person. On the other hand, finite optatives imply the grammatical person. Therefore, finite optative verbs generally do not take personal predicative particles⁶.

The 1st person optative $-hoo_2$ is mainly used for volitional expression. On the other hand, the 1st person optative -jaa/-ji is used to urge 2nd person to perform a task. Therefore, we can assume that the 1st person $-hoo_2$ has exclusive plural meaning, while the 1st person -jaa/-ji has inclusive plural meaning. However, these two suffixes are also used for first person singular. The difference between $-hoo_2$ and -jaa/-ji is unclear in 1st person singular.

Just as two suffixes are used for the 1st person, some suffixes are used for the 2nd person also. The 2nd person plural optatives *-gtii* and *-aaragtii* are also used for 2nd person singular honorific. On the other hand, zero

⁶The 1st and 2nd person optatives sometimes take personal predicative particles. In such cases, personal predicative particles are not obligatory and can be omitted.

suffix, *-ii*, and *-aarai* do not imply honorificity. *-aarai* and *-aaragtii* have future tense. Zero suffix and *-ii* have 'general' 2nd person singular optative. As 1st person *-jaa/-ji* and *-hoo*₂, the difference between zero and *-ii* is unclear.

As mentioned above, finite person optative verbs usually do not take personal predicative particles. However, only two suffixes, 1st person hoo_2 and 2nd person -*ii* can take personal predicative particles to indicate grammatical number, such as in $bol^{j}-ii=s^{j}$. (stop-2.OPT=2sG) 'Stop that!'

Interestingly, the adverb (interjection) *mai* 'here you are' can take 2nd person plural *-gtii*, e.g. *mai-gtii*. (here.you.are-2PL.OPT) '(To give something for the elderly) Here you are!'

4.3.2 Participles

Shinekhen Buryat has four participle⁷ suffixes, which are shown in Table 13.

	suffix	e.g. xaa- 'close'	e.g. in ^j ee- 'smile'
Future	$-xa_3$	хаа-ха	in ^j ee-xe
Perfective	$-han_3$	xaa-han	in ^j ee-hen
Imperfective	- <i>aa</i> ₄	xaa-g-aa	in ⁱ ee-g-ee
Habitual	$-dag_3$	xaa-dag	in ^j ee-deg

Table 13 Participle suffixes

Participles modify nouns like adjectives (adjectival function). Furthermore, participles can be an argument in the sentence (nominal function). These functions are similar to those of adjectives. In other words, participles are adjectival verbs that have tense or aspect.

Participles can also complete the sentence like finite verbs. In the past tense, the imperfective participle $-aa_4$ is mainly used to complete the sentence instead of past finite verb $-ba_3$. In the future tense, future participle $-xa_3$ is used to complete the sentence instead of future finite $-ooz^{j}a_2$.

⁷ In Altaic linguistics (including Mongolian linguistics), participles are usually called as 'verbal nouns' as they function like nouns in sentences. However, it seems that participles are more similar to adjectives than to nouns in Mongolic languages. From this perspective, I would like to call them participles, not verbal nouns.

- (8) a.
 - a. *ons^ja-xa* bis^jig. read-FUT.PTCP book 'textbook'
 - b. *xebt-ee nɔxɔi.* lay.oneself-IPFV.PTCP dog 'the lying dog'
 - c. *ir-hen zɔn*. come-PFV.PTCP people 'the people who came'
- (9) a. $s^{j}ad$ -xa= s^{j} . be.able-FUT.PTCP=2sG 'You can do.'
 - b. *ss^j-oo=b^j*.
 reach-IPFV.PTCP=1SG
 'I reached the point.'
 - c. *id^j-deg-e=bd^je*.
 eat-HBT.PTCP-E=1PL
 'We usually eat (it).'

Participles decline like nouns. The dative-locative $(V-xa_3-da_3 \text{ or } V-han_3-da_3)$ and instrumental $(V-x-aar_4)$ cases of participles make adverbial clauses. The dative-locative case of the future participle means 'the period when an action occurs', and the instrumental case means 'the purpose behind someone's action'. These functions are similar to those in other neighbouring Mongolic languages. Owing to these usage, $-xa_3-da_3$ and $-x-aar_4$ are sometimes classified as converbs (e.g. Skribnik 2003: 116-117). However, the negative forms of $-xa_3-da_3$ ($V-xa_3-gui-de$) and $-x-aar_4$ ($V-xa_3-gui-g-eer$) are different from those of other converbs (ule#V-CVB); it is better not to recognize them as converbs (see also §5.7).

(10) *ende ir-xe-de=mni taa ugui* here come-FUT.PTCP-DAT=1SG.POSS 2PL:NOM be.absent *bai-g-aa=ta.* be-E-IPFV.PTCP=2PL 'When I came here, you weren't (here).'

(11) tan-ahaa hor-x-aar ende ir-ee=b^j.
2PL-ABL ask-FUT.PTCP-INS here come-IPFV.PTCP=1SG
'I came here to ask you.'

4.3.3 Converbs

Shinekhen Buryat has seven converb suffixes, as presented in Table 14. These seven converbs are classified into two categories on the basis of whether they act as a predicate of a coordinate (perfective $-aad_4$; imperfective $-z^ja_3$; contextual $-an_3$) or a subordinate clause (conditional $-bal_3$; limitative $-tar_3$; durative $-haar_4$; successive $-oot_2$).

Table 14	Converb suffixes	

	suffix	e.g. <i>bɔl-</i> 'become'	e.g. uz- 'watch'
Perfective	$-aad_4$	bəl-əəd	uz-eed
Imperfective	$-z^{j}a_{3}$	bəl-z ⁱ ə	uz - $z^{j}e$
Contextual	<i>-an</i> ₃	bəl-ən	uz-en
Conditional	-bal $_3$	bəl-bəl	uz-bel
Limitative	$-tar_3$	bəl-tər	uz-ter
Durative	$-haar_4$	bəl-həər	uz-heer
Successive	$-oot_2$	bəl-oot	uz-uut

- (12) bii ertexen bod-ood ubhen-de 1sg.NOM early get.up-PFV.CVB grass-DAT gar-aa=b^j.
 go.out-IPFV.PTCP=1sg
 'I got up early and I went out to mow.'
- (13) tere ende ir-ter=in, bii
 3SG.NOM here come-LMT.CVB=3.POSS 1SG.NOM jab-xa=b^j.
 gO-FUT.PTCP=1SG
 'When he just comes here, I will go.'

4.4 Word formation

As mentioned in the introduction, Shinekhen Buryat is one of the typical Altaic agglutinative languages. The derivates are mainly formed by attaching suffixes to the word stem. Therefore, like other neighbouring Mongolic languages, Shinekhen Buryat has many kinds of suffixes. Compounds are not very productive. Reduplication is also found in adjectives.

4.4.1 Suffixation

A. Denominal (denominal and de-adjectival)

The main suffixes that form a denominal word are as follows:

Denominal noun suffixes:

Diminutive	-dai3 e.g. duu-dei (younger.sibling-DIM) 'younger sib-		
	ling'		
	<i>-mag</i> ₃ e.g. <i>nɔir-mɔg</i> (sleep-ым) 'nap'		
	<i>-nsag</i> ₃ e.g. <i>bule-seg</i> (group(< <i>buleg</i>)-DIM) 'small group'		
	<i>-nsar</i> ₃ e.g. <i>zee-nser</i> (maternal.grandson-DIM) 'mater-		
	nal grandson'		
Agentive	$-s^{j}an_{3} \sim -s^{j}a_{3}$ (Someone who does something with N)		
C	e.g. <i>aŋ-s^jan</i> (hunting-AGT) 'hunter'		
	-hag ₃ (Someone who likes N) e.g. sai-hag (tea-AGT)		
	'teaholic person'		
Plurality	<i>-nar</i> (only to human noun) e.g. <i>bagsⁱa-nar</i> (teacher-PL)		
	'teachers'		
	- <i>d</i> e.g. <i>hamga-d</i> (wife-PL) 'wives'		
	-nood ₂ e.g. hogtoo-nood (drunken.man-PL) 'drunken		
	people'		

Denominal adjective suffixes:

Diminutive-xan3 e.g. bɔgɔn^j-xɔn (short-DIM) 'very short'
-bar3 e.g. zaloo-bar (young-DIM) 'a little young'
-btar3 e.g. sagaa-btar (white-DIM) 'whity'
-sar3 e.g. xar-sar (black-DIM) 'blacky'

Augmentative	-msag ₃ e.g. gojo-msag (beautiful-AUG) 'showy'
	-rxag ₃ e.g. s ⁱ oloo-rxag (stone-AUG) 'rocky'
	-rxoo ₂ e.g. ixe-rxuu (big-AUG) 'arrogant'
Possession (with	n N)
	$-ta_3 \sim -tai_3$ e.g. <i>zajaa-ta</i> (luck-prop) 'lucky', <i>hamga-tai</i>
	(wife-prop) 'married (used for men)'
Existence (in N)	
	$-x^{j}a_{3}$ e.g. manai- $x^{j}a$ (1PL.GEN-EXST) 'be in my house'
Denominal verb s	uffixes:

Transitivity ⁸	-d- e.g. doo-d- (sound-VBLZ) 'call', arga-d- (method-
	VBLZ) 'plan'
	- <i>l</i> -e.g. <i>id^jee-l</i> -(meal-vBLZ) 'have a meal', <i>mex-l</i> -(trick-
	VBLZ) 'trick'
Intransitivity	- <i>r</i> - e.g. <i>xugs^je-r</i> - (old.person-VBLZ) 'become old', <i>dulii</i> -
	<i>r</i> - (deaf-vblz) 'become deaf'
	<i>-rxa</i> ₃ - e.g. <i>baja-rxa</i> - (rich-vBLz) 'become haughty'
	<i>-ta</i> ₃ - e.g. <i>booral-ta</i> - (white.haired-vBLZ) 'go white'
	$-z^{j}$ - e.g. <i>baja</i> - z^{j} - (rich-vBLZ) 'become rich'
	$-z^{j}ir_{3}$ - e.g. haj - $z^{j}ir$ - (good-VBLZ) 'become better'

B. Denumeral words

Some kinds of numerals are made from cardinal numerals (see §3.3) with some suffixes as follows:

Ordinals $-adx^{j}a_{3}$ e.g. $neg-edx^{j}e$ (one-ORD) 'first' Approximant (about Num) $-aad_{4}$ e.g. $gos^{j}-aad$ (thirty-APRX) 'about thirty' Collective (with Num persons together) $-ool_{2}$ e.g. tab-ool (five-COL) 'five persons together' Diminutive (only Num) $-xan_{3}$ e.g. nege-xen (one-DIM) 'only one'

⁸These suffixes sometimes make a denominal intransitive verb, e.g. *baga-d-* (small-vblz-) 'be small' and *s^jambaa-l-* (going.to.work < *Chi. shangban-*vblz-) 'go to the office for work'.

C. Deverbal words

The main suffixes that form a denominal word are as follows:

Deverbal noun:

Agentive	-gs ^j a_3 , -aas ^j a_4 (these two suffixes mainly refer to occu-		
	pation) e.g. <i>hora-gsⁱa</i> (study-AGT) 'pupil'; <i>manaa-sⁱan</i>		
	(watch-AGT) 'watcher'; other 'agentive' suffixes are		
	$-aaxai_4$, $-ool_2$, $-ran_3$, etc.		

Action $-dal_3$ e.g. bai-dal (be-NMLZ) 'condition'; other 'action' suffixes are $-aal_4$, $-al_3$, $-amz^ja_3$, $-dal_3$, $-dan_3$, $-la\eta_3$, $-lga_3$, $-lta_3$, etc.

Products (results of the action)

*-han*₃ e.g. *baa-han* (defecate-NMLZ) 'faeces', *s^jee-hen* (urinate-NMLZ) 'urine'; other 'products' suffixes are *-ag*₃, *-daha*₃, *-mal*₃, etc.

Tools for the action

*-oor*₂ e.g. *xad-oor* (mow-NMLZ) 'scythe'; another 'tools' suffix is *-aaha*₄.

Other deverbal noun suffixes are $-aa_4$, $-aar_4$, $-aarga_4$, $-bar_3^{i_3}$, $-l^{i_3}$, -m, $-oor_2^{i_2}$, $-ool_2^{i_2}$, etc.

Deverbal adjective:

Condition	-aatai ₄ e.g. oj-aatai (tie-NMLZ) 'be tied'; other 'cond		
	tional' suffixes are e.gmal ₃ , -aŋg ^j a ₃ , -aŋxai ₃ , -gai ₃ ,		
	<i>-xar</i> ₃ , etc.		
Diminutive?	- <i>amgai</i> $_3$ \sim - <i>amxai</i> $_3$ e.g. <i>id^j</i> - <i>emxei</i> (eat-NMLZ) 'greedy'		
Tandan are (as m			

Tendency (someone who could almost to do so)

*-xai*₃ e.g. *hɔrzⁱɔr-xɔi* (slip-NMLZ) 'slippery'

Deverbal verb:

Transitive	-aa4- e.g. zэb-ээ- (be.worried-тк-) 'worry'		
	- ga_3 - \sim - xa_3 - e.g. <i>bod</i> - xo - (get.up-TR-) 'have sb get up'		
Causative/Trans	itive		
	-ool ₂ - e.g. jab-ool- (go-CAUS-) 'have sb go'		
	- lga_3 - e.g. xe- lge - (do-CAUS-) 'have sb do'		
Passive	$-gda_3$ - \sim - da_3 - \sim - ta_3 - e.g. bar^{j} - a - gda - (grasp-E-PASS-)		
	'be arrested'		

Reciprocal	<i>-lda</i> ₃ - e.g. <i>al-a-lda</i> - (kill-E-RECP-) 'kill each other'		
Cooperative	-lsa ₃ - e.g. <i>oo-lsa-</i> (drink-COOP-) 'drink together'		
Frequentative	-sgaa ₄ - e.g. in ^j ee-sgee- (laugh-FRQ-) 'laugh many		
	times'; other suffixes are e.gal ₃ -, -gana ₃ -, -galza ₃ -		
	, <i>-lza</i> ₃ -, etc.		
Climactic (the a	Climactic (the action is almost completed)		
	-anta ₃ -e.g. xat-anta- (be.dry-CLM-) 'have almost been		
	dry'		
Perfective	$-s^{j}x^{j}z \sim -s^{j}z$ - e.g. $oo-s^{j}x^{j}a \sim oo-s^{j}a$ - (drink-PFV-) 'finish		
	drinking' (see also 5.6.3)		
Progressive	$-z^{j}ai$ - e.g. oo - $z^{j}ai$ - (drink-PROG-) 'be drinking' (see also		
	5.6.3)		

D. Verbs derived from onomatopoeia

To derivate verbs, onomatopoeia can also take some suffixes such as *ji*- or $-g^jana$ - \sim -*gine*-. It is generally used as an adverb with repeated form (e.g. $du\eta # du\eta # tons^j$ -oo OMTP#OMTP#knock-IPFV.PTCP '(S/he) knocked "Dung-dung!"'). However, such suffixes are attached to the simple form (e.g. $du\eta$ -gine- OMTP-VBLZ- '(Someone) makes sound like dung-dung.').

4.4.2 Changing word class without any suffixes

In Mongolic languages, including Shinekhen Buryat, the nominal stem and verbal stem are clearly differentiated. To make a verb from a noun or to make a noun from a verb, the stem must take any suffix. However, some stems of loanwords from Chinese can be used as both nouns and verbs, e.g. *Chi. jiehun* 'marriage; to marry with' > z^{j} eehun 'marriage'/ z^{j} eehun-'marry with'; *Chi. ganmao* 'a cold; to catch a cold' > gammoo 'a cold (or flu)'/gammoo- 'catch a cold', etc.

4.4.3 Compounding

Many N#N, N#V, or V#V constructions can be found in Shinekhen Buryat. However, almost all of these constructions are defined as phrases from the phonological characteristics of this language. For example, juxtaposed constructions like *gar#xul* (hand#foot) 'hand and foot'; *xar#sagaan* (black#white) 'black and white'; and *ir-xe#os^j-xo* (come-FUT.PTCP#reach-FUT.PTCP) 'come and go' are all judged as phrases. A few idiomatic expressions are judged only as compounds. Related examples are as follows:

N+N: *galtergen* < *gal+tergen* (fire+cart) 'locomotive', *ixehorgool^j* < *ixe+horgool^j* (big+school) 'university', *xaraz^jal* < *xar+az^jal* (black+ work) 'hardwork', etc.

N+V: *garharbai- < gar+harbai-* (hand+stretch) 'be eager to gain', *baahalda- < baaha+alda-* (faeces+lost) 'defecate unconsciously', *amaŋga- < am+aŋga-* (mouth+open) 'be thirsty', *s^jexendor- < s^jexende+or-* (ear-DAT+enter) 'hear rumour', etc.

Incorporation is not productive in Shinekhen Buryat, but the verb ss^{j_-} 'to reach' can incorporate the designated place: $gssss^{j_-} < gsss+ss^{j_-}$ (restaurant+reach) 'go to the restaurant', $japssss^{j_-} < japssn+ss^{j_-}$ (Japan+reach) 'go to Japan'.

4.4.4 Reduplication and repetition

Some kinds of repeated forms are found in Shinekhen Buryat. In those repeated forms, only one pattern, the repetition of the adjective initial $/(C)V_1+b/$, is defined as reduplication, with the following manner of word formation: *obolaan < ob+olaan* (RDP+red) 'very red', *mobmoo < mob+moo* (RDP+bad) 'very bad'.

Other syntactic repetitions are presented as follows:

Repetition of ambiguity

The repeated form /m/, wherein word initial consonants are replaced, expresses an ambiguous meaning (*A or something like A*). When the host word does not have a consonant at the initial position, /m/ is added to the initial position, i.e. VC > mVC. When the host word has /m/ or /m^j/ at the initial position, /s/ replaces /m/ or /m^j/: mVC/m^jVC > sVC. This repetition also occurs in verbs. In verbs, the host word (the preceding word) takes an imperfective converb suffix: *mɔŋgɔl#sɔŋgɔl* (Mongolia#RDP) 'Mongolia or something'. *olaan#molaan* (red#RDP) 'red or something'. *jab-z^ja#mab*-(go-IPFV.CVB#RDP-) 'to go or to do something'.

Repetition of collective plurality

When some word is repeated twice, the repeated form expresses collective plurality. This repetition occurs mainly in nouns. If the noun is modified by an adjective or another word, the modifier is repeated: *ger#ger* (house#RDP) 'houses', *under#under#ool*(high#RDP# mountain) 'high mountains', *gorab#goraban#un^jeen* (three#RDP#cow) 'each three cows'.

5 Syntax and grammatical categories

5.1 Word order

The basic word order in the sentence is S-O-V. The verb is always placed in the sentence final. On the other hand, the subject and object can freely change the positions with each other. However, if the object precedes the subject (O-S-V), the object is usually marked by the personal possessive particle. Therefore, we can observe that in Shinekhen Buryat, S-O-V is the natural word order.

The modifier precedes the modificand (dependent-head order) such as a) adjective precedes noun, b) possessor precedes possessee, c) noun precedes postposition, and d) relative clause precedes noun. There is an exception that the head-dependent order is found in possessor/possessee construction wherein the personal possessive particle is used for indicating the possessor, e.g. $ez^{j}ii=mni$ (mother=1sG.POSS) 'my mother'.⁹

5.2 Predicates

Shinekhen Buryat has two kinds of sentences: nominal predicate and verbal predicate. The nominal predicate is used only in the present tense, while the verb of existence *bai*- 'be' is used as a copula in other tenses.

Both nominal and verbal predicates take the personal predicative particle (see §5.3); this indicates the subject of the sentence. The negative forms of each predicates are presented in §5.7.

⁹ This head-dependent order occurs only if the possessor is the 1st or 2nd person. However, when the possessor is the 1st or 2nd person, the following two expressions are also found: genitive pronoun (possessor)#possessee=personal possessive particle such as *minii#ez^jii=mni* (1sG.GEN#mother=1sG.POSS) 'my mother', and genitive pronoun#possessee (the pattern wherein the personal possessive particle is omitted) such as *minii#ez^jii* (1sG.GEN#mother) 'my mother'. These patterns might have different meanings (by their alienability, controllability, or some other property).

In coordinate and subordinate clauses, except in the case of conditional subordinate clauses, the predicate must be verbal (see §5.10).

5.3 Agreement

The predicate concords the subject in a sentence. In the main clause, as mentioned in §5.2, the predicative verb or noun takes the personal predicative particle, which concords the person and number of the subject (see Table 15). Shinekhen Buryat lacks the 3rd person predicative particles. If the subject is 3rd person, the predicate is unmarked.

Similar to the paradigm of personal pronoun and personal possessive particles, the 2nd person plural $=t\sim=ta_2$ is also used for 2nd person singular honorific.

 Table 15 Personal predicative particles

	SG	PL
1	= b^j ~= bi (~ = j^*)	= $bd^{j}a_{2}\sim$ = $d^{j}a_{2}\sim$ = $md^{j}a$
2	$=s^{j} \sim =s^{j}a_{2}$	$=t\sim=ta_2$

*=*j* is the weak form of = b^{j} .

In the subordinate clause, if the subject is the same as that of the main clause, the predicate takes reflexive possessive suffix. If the subject is not the same as that of the main clause, the predicate takes the personal possessive particle which concords the person/number of the subject.

- (14) *bii* tende ɔs^j-ɔɔ=b^j.
 1sG:NOM there reach-IPFV.PTCP=1sG
 'I went there.'
- (15) *tende* $2s^{j}-x^{2}-d-2s$ *en-ii* $2l-2s=b^{j}$. there reach-FUT.PTCP-DAT-**REFL** this-ACC gain-IPFV.PTCP=1SG 'When I went there, I got this one.'

(16) *tende* ɔs^j-xɔ-d-ɔ=mni s^jii ugui there reach-FUT.PTCP-DAT=1SG.POSS 2SG:NOM absent *bai-g-aa=s^j*.
be-E-IPFV.PTCP=2SG
'When I went there, you weren't (there).'

However, the agreement of the subordinate clause is not obligatory. The personal possessive particle that attaches to the predicate of the subordinate clause is often omitted. In particular, when sentence final particles which indicate modality, attach to the predicate, the personal possessive particle is omitted (17).

(17)	bii	ir-eed	xel-ee=buddee.
	1sg.nom	come-pfv.cvb	say-IPFV.PTCP=SFP
	'I came a	nd said (so).'	

5.4 Subject and object

Specifying the subject and object in the Shinekhen Buryat is optional. If the subject or the object (or another argument) can be specified in the context or for some other reason, it can be omitted. In the main clause, the subject is indicated as the nominative case, and the predicate concords with the person and number of the subject, as presented in §5.3. In the subordinate clause, the subject is indicated as the other cases (see §5.10) and the predicate optionally concords with the subject (see §5.3).

The object is indicated by four patterns, namely reflexive possessive form (N-REFL), accusative case (N-ACC), double marking form (N-ACC-REFL), and indefinite accusative case. The form of the object is selected according to the following conditions:

Reflexive possessive form: The speaker knows that the object belongs to the subject (18).

Accusative: If the object satisfies one of the conditions wherein the object is

1) a human noun (19),

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2) higher than the subject in the animacy hierarchy,
3) definite (20), and
4) adjective or numeral

Double marking form: if the object satisfies both the conditions of reflexive possessive form and accusative case (21).

Indefinite accusative case: if the object does not satisfy all the conditions of the reflexive possessive form or accusative case (22).

- (18) *bii* nom-oo ons^ja-xa=b^j.
 1sG:NOM book-REFL read-FUT.PTCP=1sG
 'I read my own book.'
- (19) $s^{j}ii$ **xen-ii** $xul^{j}ee-z^{j}e$ $bai-na=g=s^{j}a$. 2SG:NOM who-ACC wait.for-IPFV.CVB be-PRS=Q=2SG 'Who are you waiting for ?'
- (20) *bii* ene nom-ii ab-jaa. 1sg:NOM this book-ACC take-1.OPT 'I will buy this book.'
- (21) tere hamga-j-aa zɔd-ɔɔ.
 3sG:NOM wife-ACC-REFL hit-IPFV.PTCP
 'He hit (his) own wife.'
- (22) bii nom ab-jaa.
 1sg:NOM book:INDF take-1.0PT
 'I will buy a book.'

As presented above, if the object is a human noun, the indefinite accusative case would never appear. The indefinite accusative case of human nouns is only used in juxtaposition, such as in (6) in §4.2. Therefore, the interrogative pronouns *xen* (who.sG) and *xed* (who.PL) do not have indefinite accusative case.

5.5 Voices

The voice of the sentence is switched using suffixation. Verbs take some suffixes, as shown below:

Causative voice: $-ool_2$ -, $-lga_3$ -Passive voice: $-gda_3$ -, $-da_3$ -, $-ta_3$ -Reciprocal and cooperative voice: $-lda_3$ -, $-lsa_3$ -

5.5.1 Causative

The causee of a causative sentence is indicated as the instrumental, dativelocative, or accusative case. It is unclear as to which condition determines the case. However, in Shinekhen Buryat, using the same case twice or more in a sentence is avoided (23), and the instrumental or dative-locative case is preferred to accusative in the causative expression of a transitive verb (24). If the object is not an accusative case (or is omitted), the causee can be indicated as an accusative case as shown in (25).

- (23) *?tolga-jii* or^jxan-ii bɔd-x-ool-aa. **PSN-ACC** PSN-ACC get.up-CAUS-CAUS-IPFV.PTCP '(Someone) have Tulga awake Urykhan.'
- (24) **tolg-aar** or^jxan-ii bɔd-x-ool-aa. **PSN-INS** PSN-ACC get.up-CAUS-CAUS-IPFV.PTCP '(Someone) have Tulga awake Urykhan.'
- (25) **tolga-jii** id^jeel-uul-jaa. **PSN-ACC** have.food-CAUS-1.OPT 'I will feed Tulga.'

5.5.2 Passive

The agent of the passive sentence is indicated as instrumental or dativelocative case. If the agent is specific from its contexts, the predicative verb usually takes a causative voice suffix like (26), and not a passive voice suffix. That is to say, a causative voice suffix functions as an indicator of passive voice in the sentence. If we use a passive voice suffix like (27) in such a condition, the sentence is considered ungrammatical.
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- (26) bii s^jam-aar xaraa-lg-aa=b^j.
 1SG:NOM 2SG-INS swear-CAUS-IPFV.PTCP=1SG
 'I was sworn by you.'
- (27) **bii* s^{*j*}am-aar xaraa-**gd**-aa=b^{*j*}. 1SG:NOM 2SG-INS SWear-PASS-IPFV.PTCP=1SG

Passive voice suffixes $-gda_3$ -, $-da_3$ - and $-ta_3$ - are mainly used in spontaneous action (28).

(28) *sɔŋx-ɔɔr xun xar-a-gd-aa.* window-INS person(S) see-E-PASS-IPFV.PTCP 'Someone was seen through the window.'

5.5.3 Reciprocal

The agent of the reciprocal voice is indicated by only nominative noun (29a) or nominative + comitative nouns (29b). The predicate concords with plural in both patterns.

- (29) a. $bid^{j}e$ $x \Theta er-e-ld \Theta = bd^{j}e$. 1PL:NOM talk-E-RECP-IPFV.PTCP=1PL 'We talked to each other.'
 - b. *bii tereen-tei хөөг-е-ld-өө=bd^je*. 1SG:NOM 3SG-COM talk-E-**RECP-**IPFV.PTCP=1PL 'I talked to him.'

5.6 Aspects

Participles indicate aspects such as perfective $(-han_3)$, imperfective $(-aa_4)$, and habitative $(-dag_3)$. However, the imperfective participle $-aa_4$ used in the sentence final position does not seem to be aspectual; it only indicates past tense. Among converbs, the durative $-haar_4$ has an aspectual function. The aspect of the finite verb is unclear.

Various aspects are expressed in other ways such as suffixation (and inflection), adding a particle, or verb complex (imperfective converb V- $z^{i}a_{3}#V$).

5.6.1 Suffixation

The three suffixes presented in 4.4.1C, namely climactic $-anta_3$ - (have almost finished doing), perfective $-s^j x^j z - \sim -s^j z$ - (have already finished doing), and progressive $-z^j ai$ - (be doing), are aspectual.

(30) *tere jab-s^j-ээ.*3SG:NOM go-PFV-IPFV.PTCP
'He has gone.'

5.6.2 Perfective particle

A perfective particle attaches to a participle to indicate a perfect aspect.

(31) bii tii-z^je xel-ee=hen=bi.
1SG:NOM do.SO-IPFV.CVB say-IPFV.PTCP=PFV=1SG
'I have said so.'

5.6.3 Verb complex

Some verbs can indicate an aspectual situation to follow the imperfective converb $V-z^ja_3$. Moreover, the perfective suffix $-s^jx^j - \cdots -s^j - and$ progressive suffix $-z^jai$ - originated from verbal complex. The perfective suffix $-s^jx^j - \cdots -s^j - a_j$ is the fusion form of $V-z^ja_3 + b_j - c_ja_3 + b_j$, whereas the progressive suffix $-z^jai$ - is the fusion form of $V-z^ja_3 + b_j$. (V-IPFV.CVB#abandone-), whereas the progressive suffix $-z^jai$ - is the fusion form of $V-z^ja_3 + b_j$. Other verb complexes related to some aspects are presented below:

 $V-z^{j}a_{3}$ #bai- (V-IPFV.CVB#be) 'be doing' $V-z^{j}a_{3}$ #uz- (V-IPFV.CVB#see) 'try doing' $V-z^{j}a_{3}$ #ex^{j}l- (V-IPFV.CVB#start) 'start doing' $V-z^{j}a_{3}$ #bar- (V-IPFV.CVB#run.out) 'have done'

As shown above, an imperfective converb with another verb can add various aspectual meanings. This construction can also add other meanings: for example, $V-z^ja_3\#s^jad$ - (V-IPFV.CVB#be.able) indicates possibility of an action, and $V-z^ja_3\#jad$ - (V-IPFV.CVB#be.unable) indicates the impossibility of an action.

5.7 Negation

To indicate a negative meaning, the negative suffix *-gui*, which originated from the adjective *ugui* 'absent', attaches to indicative finite verbs and participles: id^{j} -*ee-gui*. (eat-IPFV.PTCP-**NEG**) '(S/he) didn't eat.'

For converbs, the negative adverb *ule* precedes the converb: *ule*#*jab*- $z^{j}a$ (NEG#g0-IPFV.CVB) 'not to go'.

For optative finite verbs, the prohibitive adverb *buu* precedes the verb: *buu*#*os^j-o-gtii!* (**PROH**#go-E-2PL.OPT) 'Don't go please!'

In conversation, [PTCP-*gui*-INS] is used to indicate the negation of a converb: *jab-xa-gui-g-eer* (go-FUT.PTCP-NEG-E-INS) 'not going'.

Furthermore, Shinekhen Buryat has the negative imperfective adjective *udui* and negative imperfective suffix *-dui* 'has not to do yet'. The suffix *-dui* attaches to the predicative finite verb and participle instead of *-gui*: *ir-ee-dui*. (come-IPFV.PTCP -IPFV.NEG) '(S/he) has not come yet.'

For nominal predicative, we use the negative adverb *bis^je* after the predicate noun: *bii#bor^jaad#zɔn#bis^je*. (1sg.Nom#Buryat#people#NEG) 'I'm not a Buryat.'

For adjectival predicative, either *bis^je* or *-gui* can be used. However, the scope of negation between *bis^je* and *-gui* is different. *bis^je* is used for the negation of the sentence. On the other hand, *-gui* is used for the negation of the adjective: *tere mas^jiin olaan#bis^je* (that#car#red#NEG) 'That car isn't red.' / *tere mas^jiin olaan-gui* (that#car#red-NEG) 'That car is "not red."'

	Indicative finite verb &	V-FIN/PTCP-GUI
V	participle	V- fin/ptcp-dui (ipfv.neg)
predicate	Converb	<i>ule</i> #V-cvb
	Optative finite verb	<i>buu</i> #V-орт
Ν	Nominal predicate	N# bisⁱe
predicate	Adjectival predicate	Adj# bis ⁱ e / (Adj-gui)

Table 16 Negation

5.8 Question

In Shinekhen Buryat, the form of wh-questions is different from that of yes/no questions. For yes/no questions, the particle $=go_2 \sim =g$ is set between a predicate and a personal predicative particle, as in (32a). For wh-questions, the particle $=be \sim =b$ is set instead of $=go_2 \sim =g$, as in (32b). In a wh-question sentence, an interrogative word must be used. Therefore, the particle $=be \sim =b$ is often omitted, as in (32c).

- (32) a. xugs^jin-tei oolz-aa=g=s^ja.
 old.woman-COM meet-IPFV.PTCP=Q=2sG
 'Did you meet the old woman?'
 - b. *xen-tei oolz-aa=b=s^ja*. who-COM meet-IPFV.PTCP=Q=2SG 'Whom did you meet?'
 - c. *xen-tei* oolz-aa=s^j. who-COM meet-IPFV.PTCP=2SG 'Whom did you meet?'

The interrogative words used in wh-question sentences are stated as follows:

- Interrogative nouns: *jun/juu* 'what' cf. *juun-de* (what-DAT) 'why', *xen* 'who', *xed* 'who(PL)'
- Interrogative adjectives: *al^j* 'which', *jamar* 'what kinds of'
- Interrogative numerals: xedii 'how many'
- Interrogative adverbs: *xezee* 'when', *xaa* 'where' cf. *xaa-na* 'in what space', *xaa-s^j* towards which direction', and *xaa-g-oor* 'through what point'
- Interrogative verbs: *jaa* 'what to do' cf. *jaa-z^ja* 'how (adverbial)'

A question that demands the agreement of the hearer needs another question particle *=ba* (*< Chi. ba*). In this case, the personal predicative particle is omitted, as in (33a).

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- (33) a. s^jii nam-tai ɔs^j-nɔ=ba.
 2SG:NOM 1SG-COM reach-PRS=Q
 'You go with me, don't you?'
 - b. s^jii nam-tai ɔs^j-nɔ-gui=g=s^ja.
 2SG:NOM 1SG-COM reach-PRS-NEG=Q=2SG
 'You go with me, don't you?'

Indefinite expression

Interrogative words are also used for indefinite expressions, e.g. *xen* 'who', *xen#neg* (who#one) 'someone', and *xen=s^je* (who=also) 'anyone'.

5.9 Topicalization and focusization

In Shinekhen Buryat, the topic of the sentence is usually set in the sentence initial position. Some particles attach to the topic for emphasis. The particles used for topicalization are conditional particle =*haa*, 2nd person singular possessive particle = $s^i ni \sim =s^i$, and 3rd person possessive particle =in(i).

- (34) a. ene=haa hain burigaad. this=COND good group<Rus.brigad
 'This is just a good working group.'
 - b. ene=sⁱni jum=be. this=2SG.POSS what=Q 'What in the world is this?'
 - c. *tende-hee=n demii xɔl bisⁱe.* there-ABL=**3**.POSS wasteful far NEG 'From that point, it is not so far.'

 $=s^{i}e$ 'also' and =le 'only' are used for focusization.

- (35) a. *bii* tende=le $3s^{j}-33=b^{j}$. 1SG:NOM there=**only** reach-IPFV.PTCP=1SG 'Only there, I went.'
 - b. *bii tende=sⁱe cs^j-cc=b^j*.
 1SG:NOM there=also reach-IPFV.PTCP=1SG
 'Also there, I went.'

5.10 Coordination and subordination

As was mentioned in 4.4.3, converbs can make coordinate clauses or subordinate clauses. Both coordinate and subordinate clauses precede the main clause in Shinekhen Buryat. In a compound sentence, the predicate (converb) of the coordinate clause does not take any personal particles.

For the subordinate clause, the conditional converb $-bal_3$, limitative converb $-tar_3$ (13),(40), durative converb $-haar_4$, successive converb $-oot_2$, participle with dative case suffix (36)-(39), participle with instrumental suffix, conditional particle =haa, and some other markers are used. In contrast to the coordinate clause, the subordinate clause needs personal markers to indicate its subject (see §5.3).

As presented in §5.4, the subject of SC occasionally takes the genitive case (or rarely indicated as the accusative case) suffixes, but not the nominative case. If the subject of SC is different from that of MC, the subject of SC can be indicated by genitive or accusative case.

- (36) *minii/bii* tende ɔs^j-xɔ-dɔ=mni
 1SG:GEN/1SG:NOM there reach-FUT.PTCP-DAT=1SG.POSS s^jii ugui bai-g-aa=s^j.
 2SG:NOM absent be-E-IPFV.PTCP=2SG
 'When I went there, you weren't (there).'(=revised sentence of (18))
- (37) s^jamaiji ir-xe-de=s^jni bii ont-aad
 2SG:ACC come-FUT.PTCP-DAT=2SG.POSS 1SG:NOM sleep-PFV.CVB
 bai-g-aa=han=bi.
 be-E-IPFV.PTCP=PFV=1SG
 'When you came, I'd already slept.'

The period of the action is presented as V-PTCP-DAT.

(38) *tende* $2s^{j}$ -**x**2-**d**-22 *en-ii* 2l-22= b^{j} . there reach-FUT.PTCP-DAT-REFL this-ACC get-IPFV.PTCP=1SG 'When I went there, I found this one.' (=same as (15)) 6. TEXT

(39) *tende* ɔs^j-xɔ-dɔ=mni s^jii ugui there reach-FUT.PTCP-DAT=1SG.POSS 2SG:NOM absent *bai-g-aa=s^j*.
be-E-IPFV.PTCP=2SG
'When I went there, you weren't (there).' (=same as (16))

Successive action is presented as V-tar₃ (V-LMT 'until doing') or V-oot₂ (V-scc 'as soon as doing').

(40) *ir-ter-ee* $ont-aa=b^{j}$. come-LMT.CVB-REFL sleep-IPFV.PTCP=1SG 'I went to bed as soon as I came home.'

A conditional clause is presented through two patterns: verbal and nominal predicates. A verbal predicate is indicated as V-bal₃ (V-COND). A nominal predicate (including participles) is indicated as N=haa (conditional particle). In this case, the person/number agreement of the subordinate clause does not occur usually. A negative sentence is also indicated by =haa, e.g. V-PTCP-gui=haa.

In a past conditional sentence, the verb of main clause is indicated by $V-xa_3=han_3$ (V-FUT.PTCP=PFV).

(41) *ertexen bɔd-hɔn=haa, id^jeel-xe zab-tai*earlier get.up-PFV.PTCP=COND have.food-FUT.PTCP time-PROP *bai-xa=han=s^ja.*be-FUT.PTCP=PFV=2SG
'If (you) got up earlier, you would have the time to eat.'

6 Text: 'Why did people stop killing the elderly?' (Folktale)

[1] erte orⁱda sagta, dalda xurhen nahatai xunii aldag gazar baigaa gene.

erte orⁱda sag-ta, dal-da xur-hen naha-tai early before period-DAT seventy-DAT reach-PFV.PTCP age-PROP *xun-ii al-dag gazar bai-g-aa ge-ne.* person-ACC kill-HBT.PTCP place be-E-IPFV.PTCP say.that-PRS 'It is said that a long time ago, there was a country where all the elderly who crossed 70 years of age were killed.'

[2] tere gazarta neg xaan baigaa=jum=buddee.

tere gazar-ta neg xaan bai-g-aa=jum=buddee. that place-DAT one king:NOM be-E-IPFV.PTCP=MOD=MOD 'A king ruled this country.'

[3] bajan xun, ixe hambaar saŋxooda ixe bodaatai gene.

bajan xun, ixe hambaar#saŋxoo-da ixe bodaa-tai ge-ne. rich man, big store#store-DAT big grain-PROP say-PRS 'It is said that the king had abundant grain in his big storehouses.'

[4] tiigeed tere bodaajii=n sun^j bur^j neg jum id^jne.

tii-g-eed tere bodaa-jii=in sun^j#bur^j neg jum do.so-E-PFV.CVB that grain-ACC=3.POSS night#every one thing *id^j-ne.* eat-PRS

'Something eats his grain every night.'

[5] *tere manaas^jan tab^jna*.

tere manaasⁱan tabⁱ-na. 3sg:NOM guard:INDF set-prs 'He deploys a guard.'

[6] manaasⁱan tabⁱxada=n, manaasⁱanii=n idⁱesⁱxⁱ>b>.

manaas^jantab^j-xa-da=in,manaas^jan-ii=inguard:INDFset-FUT.PTCP-DAT=3.POSSguard-ACC=3.POSS $id^{j}-e-s^{j}x^{j}z-bz.$ eat-E-PFV-PAST'Whenever he deployed a guard, something ate up the guard.'

[7] tiigeed neliin $2 \ln x u n \sin^{j} \sin^{j} manaad = le id^{j} uuleed = le baina.$

tii-g-eedneliin ɔlɔnxunsun^j#sun^jdo.so-E-PFV.CVBverymanyman:NOMnight#RDPman-aad=leid^j-uul-eed=lebai-na.watch-PFV.CVB=onlyeat-CAUS-PFV.CVB=onlybe-PRS'Everynight a guard would watch the warehouse, and would beeaten.'

[8] iigeed=le xunii eelzⁱeleed=le dood doodhaar, tere=sⁱe xaana uxxegui=jum=dee.

ii-g-eed=le xun-ii eelz^jel-eed=le do.so-E-PFV.CVB=only man-ACC shift-PFV.CVB=only *dood#dood-haar, tere=s^je xaana* call#RDP-DUR.CVB that:NOM=also where *ux-xe-gui=jum=dee.* die-FUT.PTCP-NEG=MOD=MOD

'In this way (he) continues calling and changing the guards, but where exists a man who cannot die? (Everyone who guards must die.)'

[9] *iigeed=le jabhaar jabhaar neg xubuunde nɔɔgdɔbɔ*.

ii-g-eed=le jab-haar#jab-haar neg xubuun-de do.so-E-PFV.CVB=only go-DUR.CVB#RDP one boy-DAT *nɔɔ-gdɔ-bɔ.* hit-PASS-PAST 'In this way, time passed, and one day, it was a boy's turn.'

[10] tere xubuunei ab=in odoo dal garoi nahalaad, alxahaa xairlaad n'oogaad baigaa gene.

terexubuun-eiab=in>d>>d>>garoithatboy-GENfather:NOM=3.POSSnowseventyovernahal-aad,al-xa-haaxairl-aadnⁱoo-g-aadgrow.old-PFV.CVBkill-FUT.PTCP-ABLlove-PFV.CVBhide-E-PFV.CVBbai-g-aage-ne.be-E-IPFV.PTCPsay-PRS

'The boy's father was over 70 years old. However, the boy couldn't kill his father; so he had hidden his father.'

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Further information for readings on Buryat (including other Siberian languages) is available on the following webpage:

http://ext-web.edu.sgu.ac.jp/hidetos/HTML/siberiabiblio.htm

Sakha (Yakut)

Fuyuki Евата

Contents

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Introduction

Sakha (Yakut) is a language with agglutinative morphology, wherein nouns and verbs inflect or derivate mostly by suffixes. Suffixation often causes obligatory morpho-phonological alternation in both stems and suffixes. Although alternation seems to be rather complicated, it is highly regular in most cases. Sakha features a special type of combination of two words called paired words. At first sight, paired words look like compounding words, but they are peculiar in that both components must take inflectional and/or derivational suffixes.

1 Overview

Sakha is a Turkic language spoken mainly in Sakha Republic, Russia (shown in the map). Sakha is the native language of over 90% of the Sakha peo-Sakha speakers are esple. timated to be approximately 400,000. Almost all speakers of Sakha can also speak Russian. The present orthography was established in 1939, replacing the previous Latin-alphabetical one. Sakha is one of the official languages of Sakha Republic. There are newspapers, journals, short TV programs and



radio programs in Sakha language. Children can choose Sakha language as their medium of instruction at school; however, some urban schools impart education only in Russian language.

А	а	[a]	(3)	(3)	[z]	Θ	θ	[œ]	(Ц)	(ц)	[ʦ]
Б	б	[b]	И	И	[i]	П	П	[p]	Ч	Ч	[ʧ]
(B)	(в)	[v]		й	[j]	Р	р	[r]	(Ш)	(ш)	[ʃ]
Γ	Г	[g]	К	К	[k]	С	С	[s]	(Щ)	(щ)	[ʃ']
	Ð	[R]	Л	Л	[1]	h	h	[h]		(ъ)	
Д	д	[d]	М	\mathbf{M}	[m]	Т	Т	[t]	Ы	ы	[ɯ]
Дь	дь	[ʤ]	Η	н	[n]	У	у	[u]		(ь)	
(E)	(e)	[je]		н	[ŋ]	Y	Y	[y]	Э	Э	[e]
(Ë)	(ë)	[jo]	Нь	нь	[ɲ]	(Φ)	(ф)	[f]	(Ю)	(ю)	[ju]
(Ж)	(ж)	[3]	0	0	[0]	Х	Х	[χ~q]	(R)	(я)	[ja]
	The letters in parentheses are used only in loan words from Russian										

Table 1 The Sakha Orthography

Sakha has many differential features, distinguishing it from all other Turkic languages. These includes preservation of original long vowels in phonology, lack of genitive and acquisition of future imperative, and massive loan words from Mongolic languages, and recently, from the Russian language. Sakha alone is considered to form a subgroup of Turkic. Some linguists regard Dolgan, which is spoken in the erstwhile Taymyr Autonomous Region, as a dialect of Sakha.

Sakha has four main dialects: central, north-eastern, north-western, and Vilyuy dialects. The standard Sakha, which this article describes, is based on the central dialect.

2 Phonology

2.1 Segmental phonology

The inventory of phonemes is shown below.

short	vowels	long	vowels	dipht	hongs
i y	u u	ii yy	uu uu	ie voe	
e œ	a o	ee œœ	aa oo	it yu	uia uo

Table 2	Consonants
---------	------------

	labial	alveolar	palatal	velar	uvular
stop, affricate	p, b	t, d	č, ž	k, g	
fricative		S			х, в
nasal	m	n	ň	ŋ	
sonorant		l, r	j, (j ⁿ)		

It is generally accepted that long vowels and diphthongs are phonemes, and not combinations of two vowels. According to this view, the number of vowels multiplies; otherwise we will experience some problems in describing the syllable structure and vowel harmony.

The sounds [h] and [s] can be regarded as allophones. Only [h] may stand in the intervocalic position—both may appear in the word-initial—and only [s] is allowed in the other positions.

The phoneme $/j^n/$, nasalized palatal approximant, has been lost by most speakers. Original $/j^n/$ has merged in /j/, occasionally in /n/ or /n/. The orthography does not differentiate $/j^n/$ from /j/.

2.2 Syllable structure

Sakha has six possible types of syllable structure: (C)V(C)(C). Hiatus is not allowed in a single word. (C)VCC must appear in word-final, and the consonant cluster is restricted to the combinations /-lt, -rt, -lk, -rk, -mp, $-\eta k/$.

2.3 Suprasegmental feature

2.3.1 Word accent

Sakha has a stress-accent system, which does not have a distinctive function. The final syllable of a word is regularly accented. The stress does not fall in the final syllable of a few exceptional words, which originate from compounding words. Stressed vowels are usually in high pitch and only sometimes in extremely low pitch with preaching or teasing nuances.

2.3.2 Phrasal accent

Quite simply, while the accent of the former element(s) in a phrase is kept steady, that of the last element becomes less stressed.

2.4 Vowel harmony

Sakha has a strict vowel harmony rule. The rule is applicable to both stems and suffixes. The vowels of most loan-words are also altered to satisfy vowel harmony: (i) A front vowel and a back vowel must not cooccur in a single word. (ii) Succeeding vowels must be either in the same group as the preceding vowel or in the arrowed group. The rule can be schematized as in Table 3.

	[1]	\Rightarrow [2] \Rightarrow	· [3]	\Leftrightarrow [4]
Front vowel	œ, œœ	y, yy, yœ	e, ee	i, ii, ie
Back vowel	0, 00	u, uu, uo	a, aa	ш, шш, ша

Table 3 The vowel harmony rule

e.g. /os.kuo.la.bu.tut.tan/ [1] \rightarrow [2] \rightarrow [3] \rightarrow [4] \rightarrow [4] \rightarrow [3] (Back vowels)

Each suffix has a set of allomorphs owing to vowel harmony. Henceforth, we make it a rule that small capitals represent the archiphonemes of alternation. E: $/e \sim a \sim c \sim o/$, EE: $/ee \sim aa \sim c c \sim oo/$, I: $/i \sim u \sim y \sim u/$,

II: /ii~uuu~yy~uu/, IE: /ie~uua~yœ~uo/.

2.5 Other morpho-phonological alternations

2.5.1 Suffix-initial consonants

Most suffix-initial consonants must be altered according to the stem-final segment. Further, in the case of consonants, small capitals also represent the archiphonemes of the suffix-initial consonants. For example, suffix-initial {B} of 1PL possessive suffix *-BIt* would alter into /p/ after the stem-final /k/: $suok+-BIt \rightarrow suok-put$ 'our juice'. On the other hand, {B} of the same suffix would alter into /m/ after the stem-final /m/: $ilim+-BIt \rightarrow ilim-mit$ 'our net'. There are four patterns of consonant alternation, which are shown in Table 4. The suffix-initial alternation involves the manner of articulation, rather than the position.

	stem-final consonant						
	low vowels, diphthongs	high vowels	1	r, j	p, t, k, s	X	m, n, ŋ
В	b	b	b	b	р	p	m
Т	t	t	1	d	t	t	n
L	1	1	1	d	t	t	n
G	R	g	g	g	k	x	ŋ

Table 4 Alternation of suffix-initial consonants

2.5.2 Alternation by the syllable structure

In some cases, the syllable structure requires an epenthetic vowel or consonant. The 2sG imperative is *-mE* after open syllables and *-ImE*, after close syllables: *uiksaa-ma* 'Don't hurry!'; *bar-uima* 'Don't go!'. The ablative is *-ttEn* after open syllables and *-tEN* after close syllables. In such cases, epentheses are indicated in parentheses like *-(I)mE* and *-(t)tEn*, or allomorphs are juxtaposed like *-mE/-IME* and *-ttEn/-tEn*.

2.5.3 Other alternations in stems

(a) Stem-final assimilation: When suffix-initial $\{B\}$ or $\{G\}$ follows stem-final /t/ or /n/, the suffix-initial consonant assimilates the stem-final con-

sonant: $at + -BIt \rightarrow ap-puit$ 'our horse (horse-POSS.1PL)'; $at + -GE \rightarrow ak$ ka 'to a/the horse (horse-DAT)'; $oron + -BIt \rightarrow orom-mut$ 'our bed (bed-POSS.1PL)'; $oron + -GE \rightarrow oron-mo$ 'to a/the bed'.

(b) Stem-final voicing: Stem-final /p/, /k/ and /x/ become voiced in an intervocalic position: suok 'juice' > suog-u 'juice-ACC'.

(c) Syncope (loss of short high vowels) in suffixation: *taŋn-ar* 'wear-PRS:3SG' (< *taŋun* 'wear').

(d) Shortening of diphthongs¹ in suffixation: *keŋ-ee* 'to widen' (< *kieŋ* 'wide').

3 Word classes

Free forms in Sakha are grouped into three major classes: the nominals, verbals and indeclinables. This classification is based on the following morphology: nominals can take plural, possessive, and case suffixes; verbals can take voice, negation, and tense suffixes; and indeclinables do not take any inflectional suffixes.

Table 5 Word classes of Sakha

Nominals	Nouns, pronouns, adjectives, numerals and postposi-
	tions ²
Verbals	Verbs
Indeclinables	Adverbs, particles, conjunctions and interjections

3.1 Nouns and adjectives

Very few formal properties distinguish nouns from adjectives. The only formal distinction occurs in the predicates. While predicative nouns take a plural suffix with 1st/2nd person plural, adjective predicates do not take a plural suffix (see also 4.1.4): *ustužuon-nar-but* 'we are students' (student-PL-COP.1PL) and *kœŋyl-gyt* 'you are free' (free-COP.2PL).

¹This alternation rule applies to some monosyllabic words.

²Some postpositions can take possessive and/or case suffixes.

3.2 Pronouns

Sakha has four sets of pronouns. (a) The personal pronouns are *min* for 1SG, *en* for 2SG, *kini* for 3SG, *bihigi* for 1PL, *ehigi* for 2PL, and *kiniler* for 3PL. The 1st and 2nd person pronouns inflect irregularly. (b) There are three demonstratives: *bu* (proximal), *iti* (medial), and *ol* (distal). (c) Possessive pronouns denote meanings such as 'mine': *miene*, *ejiene*, *kiniene* (or *kini kiene*), *bihiene*, *ehiene*, and *kiniler kiennere*. (d) Sakha has possessive demonstratives. Examples of the 1SG are *mantum* 'this of mine' and *ontum* 'that of mine'. Possessive pronouns and demonstrative pronouns show possessive case-declension, as shown in Table 7.

3.3 Postpositions

Postpositions seem to belong to nominals because some postpositions can take case and/or possessive suffixes.

- (1) a. *xallaan dieki* sky to 'to the sky'
 - b. *xallaan dieki-tten* sky to-ABL 'from the sky'

Syntactically, postpositions govern a particular case of the preceding NP.

3.4 Verbs

Nouns and verbs are clearly differentiated by the suffixes they require. Few words seem to be used as both, but they are considered homonyms: *tot* 'full/be full up', *sanaa* 'thought/think', *toŋ* 'frozen/freeze' *uutus* 'palm/dip (with palms)'.

3.5 Adverbs

Syntactically, adverbs do not occur in predicates. Morphologically, adverbs do not usually take any suffixes. However, some adverbs can take

an 'adverbializing' or verbalizing suffix: *olus-tuk* 'very' (very-ADVLZ), *olus-taa* 'go that far' (very-VBLZ).

On the contrary, some nouns are also used as adverbs with no derivation: *bygyn* 'today', *sarswarda* 'morning/in the (next) morning', *erde* 'early', *čaxčw* 'true/truly', *souotox* 'single/singly', and others.

4 Morphology

4.1 Nominal inflection

The head of a nominal argument can take plural, possessive, and case suffixes, in that order: *at-tar-but-unan* 'by our horses' (horse-PL-POSS.1PL-INS). Nominal predicates take a copula suffix corresponding to the person/number (hereafter, 'P/N)' of the subject.

4.1.1 Plural

Morphologically, plurality is denoted by the plural suffix *-LET*. A small number of nouns have irregular plural stems occurring with a plural suffix: *dobot-tor* 'friend-PL' (*< dobor*), *kurgut-tar* 'daughter-PL' (*< kurus*). Proprietive *-LEEx* with an animate noun can be used for denoting approximant plural: *ajta-laax* 'Ayta and others.'

4.1.2 Possessive

Possessive relationships are expressed by the possessive suffixes, corresponding to three persons and two numbers: 1sG -(I)m, $2\text{sG} -(I)\eta$, 3sG -(I)E, 1PL -BIT, 2PL -GIT, 3PL -LEFE. Possessive in 3rd person plural cannot follow a plural suffix; instead, a suffix identical with 3rd person singular follows it. This leads to ambiguity such as the reading of a form *oboloro*, which has the following three possibilities.

- (2) a. *ово-loro* 'their child' (child-POSS.3PL)
 - b. *ово-lor-o* 'his/her children' (child-PL-POSS.3SG)
 - с. *ово-lor-o* 'their children' (child-pl-poss.3pl) (**ово-lor-doro*)

Irregular plural stems (4.1.1) can partially dissolve this ambiguity.

- (3) a. *kuuus-tara* 'their daughter' (daughter-POSS.3PL)
 - b. *kurgut-tar-a* 'his/her daughters' (daughter-PL-POSS.3SG)
 - c. *kurgut-tar-a* 'their daughters' (daughter-PL-POSS.3PL)

There are special forms of 3rd person possessive: -(t)In for 3sG and *-LEFIN* for 3PL. These forms are used when a noun is both the possessor and the possessed, namely 'B' in 'A of B of C'. In the example (4b), what is attached to *at* 'horse' is the special form *-un*, not the regular *-a*.

(4) a. *ава-т at-a* father-POSS.1SG horse-POSS.3SG 'My father's horse'
b. *ава-т at-шп sшагва-ta* father-POSS.1SG horse-POSS.3SG sleigh-POSS.3SG 'My father's horse-sleigh'

4.1.3 Case

Sakha has eight noun cases. The nominative lacks a case suffix. The other cases are represented by case suffixes, as in Table 6.

		taba 'reindeer'	<i>baluık</i> 'fish'
NOM	-Ø	taba	baluık
ACC	-(n)I	taba-nui	baluıg-uı
PART	-tE	taba-ta	baluık-ta
DAT	-GE	taba-ва	baluık-ka
ABL	-(t)ten	taba-ttan	baluık-tan
INS	-(I)nEn	taba-nan	baluıg-uınan
СОМ	-LIIN	taba-luuun	baluık-tuıuın
CMPR	-TEEBER	taba-taaʁar	balшk-taasar

Table 6 Case suffixes

The nominative is used for subjects and predicates. The verbs *buol* 'become', *gum* 'make', and *onor* 'make' take a nominative as their argument other than a subject.

(5) nikolaj stručkov aan dojdu čempion-a buol-la
 PSN world champion-POSS.3SG become-PAST:3SG
 'Nikolaj Struchkov became the world champion.'

The accusative and partitive mark direct objects (see also 5.3.2). The dative is used for the recipient, place, direction, and time. The ablative is used for the origin, reason, and object of comparison. The instrumental is used for the instrument, material, route, attendant circumstance, and agent of passive sentences. The comitative denotes accompanying or reciprocal agent. The comparative is used for the object of comparison. Postpositions require their objects to take a particular case, such as nominative and dative.

Successions of a possessive and a case suffix yield fused markings. (i) An accusative suffix turns into /-n/ after a possessive. (ii) A dative suffix merges with a possessive suffix. In addition, the initial consonants of the partitive, instrumental, comitative, and comparative turn into /n/; this deviates from the rule on the suffix-initial consonants (Table 4 in 2.5.1). Table 7 shows the paradigm of each person in singular.

Table 7	Fusions	of	possessive	and	case	suffixes
iupic /	i usions	<u>.</u>	p 0 0 0 0 0 0 0 1 1 C	una	cuse	Sannes

	[POSS.1SG+CASE]	[POSS.2SG+CASE]	[poss.3sg+case]
ACC	taba-buı-n	taba-вш-п	taba-tur-n
PART	taba-bui-na	taba-вш-па	taba-tui-na
DAT	taba-bar	taba-ваr	taba-tuı-gar
ABL	taba-bui-ttan	taba-вш-ttan	taba-tui-ttan
INS	taba-buı-nan	taba-вш-пап	taba-tui-nan
COM ³	taba-buı-nuıuın	taba-вш-пшшп	taba-tui-nuiuin
CMPR	taba-bш-naaвar	taba-вш-пааваr	taba-tш-пааваr

4.1.4 Copulas

Nominal predicates appear with P/N suffixes: 1SG -BIN, 2SG -GIN, 3SG -Ø, 1PL (-LEr)-BIT, 2PL (-LEr)-GIT, 3PL -LEr.

³After a possessive suffix, allomorphs with low long vowels *-neen* may appear instead of *-nun*.

(6) min bygyn illeŋ-min
 I today free-cop.1sg
 'Today, I am free.'

4.1.5 Other inflectional suffixes

The suffix -LEFI denotes secondary (accompanying) objects.

 (7) buthaв-ui kuiuin-narui aвal knife-ACC capsule-sec.OBJ bring:IMP.2sG
 'Bring the knife with the capsule.'

4.2 Verbal inflection

Traditionally, Sakha verbs are divided into three forms: verbal nouns, finite verbs, and converbs. Verbal nouns are used as attributives or arguments. Converbs are used for subordinate predicates or modifiers in complex verbal phrases.

4.2.1 Verbal nouns

Present verbal noun of affirmative is formed in the following manner. First, we divide Sakha verbs into two types: 'vowel stems' with long low vowels in the end and 'consonant stems' with consonants. With vowel stems, the verbal noun is marked by the suffix *-r*, while the stem-final long low vowels alter into long high vowels. With consonant stems, the suffix *-Er* is attached to the stem. The situation is illustrated in Table 8.

	Vowel stem		Consona	nt stem
Stem forms	ah aa 'eat'	<i>kepsee</i> 'speak'	<i>аваl</i> 'bring'	<i>kel</i> 'come'
VN.PRES	ah uu -r	keps ii -r	asal-ar	kel-er

 Table 8 Present verbal nouns (affirmative)

Other verbal nouns are formed by the following suffixes: negative present *-BEt*, past *-BIt*, negative past *-BETEX*, future *-IEX*, negative future *-(I)mIEX*, and neutral-tense *-TEX*.

Verbal nouns are used as attributives (8) or arguments (9).

- (8) beвehe kel-bit kihi yesterday come-vn.разт person
 'The person who came yesterday'
- (9) kel-bik-ker maxtan-a-bum come-vn.past-2sg:dat thank-prs-1sg
 'I thank you for your coming.'

4.2.2 Finite verbs

Finite verbs can take negation, tense, and P/N suffixes, in that order. Sakha has two sets of P/N markings, as shown in Table 9. One is identical to copula suffixes and the other, to possessive suffixes.

 Table 9 Two sets of person-number markings

Copula type				Possessive type			
1SG	-BIN	1pl	-BIt	1sg	-(I)m	1pl	-BIt
2sg	-GIN	2pl	-GIt	2sg	-(I)ŋ	2pl	-GIt
3sg	-Ø	3pl	-LET	3sg	-(t)E	3pl	-LERE

4.2.2.1 Indicatives

The present marker of affirmative is complicated. With vowel stems, the present is marked by long high vowels, i.e. alternants from long low vowels. With consonant stems, the present is marked by the suffix *-E* or *-Er*⁴. The same P/N marker, 'copula type', as in Table 9, is added to both types. In contrast, the negative present is simple, marked *-BET* with copula P/N for both types of vowel and consonant stems.

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⁴The author believes that the basic form of the present marker is *-Er*, which is seen in the 3sG form and is identical to the present verbal noun. On the condition that the present marker is followed by P/N markers of 1st/2nd person, /r/ of the present marker must drop; when it is followed by the 3PL marker, /r/ turns into /l/ by regressive assimilation. Similarly, /r/ of 3sG with vowel stems does not mark the 3rd person singular.

Table 10 The present tense of affi	irmative
------------------------------------	----------

<i>kepsee</i> 'speak'			oŋor 'make'				
1sg	kepsii-bin	1pl	kepsii-bit	1sg	oŋor-o-bun	1pl	oŋor-o-but
2sg	kepsii-gin	2pl	kepsii-git	2sg	oŋor-o-вип	2pl	oŋor-o-виt
3sg	kepsiir	3pl	kepsiil-ler	3sg	oŋor-or	3pl	oŋor-ol-lor

Sakha distinguishes three past-tense forms. The near past is formed by $-TT^5$ with possessive P/N, distant past -BIt with possessive P/N, and resultative past -BIt with copula P/N. The negative near past is -BEt with possessive P/N, negative distant past -BETEX with possessive P/N, and negative resultative past -BETEX with copula P/N.

The future is *-IEX* followed by possessive P/N. However, short forms by elision are generally used: *ih-ie-m* (*< ih-ieB-im*) 'I will drink' etc. The negative future is analytic, the short forms of the affirmative plus *suosa*, *suox* 'non-existence' with a 3sG possessive suffix.

Table 11 The tense of Sakha

[Affirmative]			[Negative]		
Present	<i>-E</i> / <i>-Er</i> + COP	kel-e-bin	<i>-BEt</i> + COP	kel-bep-pin	
N.Past	-TI + POSS	kel-li-m	<i>-BEt</i> + POSS	kel-bet-im	
D.Past	-BIt + POSS	kel-bit-im	<i>-BEtEX</i> + POSS	kel-beteв-im	
R.Past	<i>-BIt</i> + COP	kel-bip-pin	<i>-BEtEX</i> + COP	kel-betex-pin	
Future	-IEX + POSS	kel-ie-m	-IE + POSS SUOBA	kel-ie-т ѕиова	
		(< kel-ieв-im)			

4.2.2.2 Imperatives

Present imperative covers all P/N combinations; further, first person plural distinguishes the dual inclusive (the speaker and the hearer) from the exclusive (the hearer and others), and both numbers of the second person have future imperative.

⁵The tense marker turns into *-TE* in the third person singular, where the P/N marker is 'zero'.

4.2.2.3 Other forms

A subjunctive is *-TET* with copula P/N. A negative subjunctive is *-BETET* with copula P/N. Potential mood, which is used for denoting a possibility or apprehension, is *-IIHI* with copula P/N. Negative potential is -(I)mIHI with copula P/N.

4.2.3 Converbs

Converbs are formed by the following suffixes: successive -(*E*)*n*; negative successive -(*I*)*mInE*; contemporal for vowel stems -*II*, which is an alternant of the stem-final long low vowel; contemporal for consonant stems -*E*; negative contemporal -*BEkkE*; purposive -(*EE*)*rI*; negative purposive -(*I*)*mEErI*; incidental -(*EE*)*t*; and negative incidental -(*I*)*mEEt*.

4.3 Derivation in nominals

4.3.1 Nouns from nouns

(a) The suffix *-sɪt* has a function similar to '*-er*' in English: *sir-žit* 'guide' (< *sir* 'land'), *tuıl-žuıt* 'dictionary' (< *tuıl* 'word').

(b) Proprietive *-LEEX*: *xarčuı-laax* 'rich' (*< xarčuı* 'money'). Abessive *-* (*t*)*E* with *suox* 'non-existence' forms negative proprietive: *xarčuı-ta suox* 'poor' (*< xarčuı* 'money').

(c) Relational -кл: bygyŋ-ŋy 'today's' (< bygyn 'today').

(d) Locative-relational -тееы: kyœl-leеы 'in the lake' (< kyœl 'lake').

(e) Equative *-LII: ава-lurur* 'like a father' (*< ава* 'father').

(f) Symmetrical *-LII: ajmax-turui* 'being relatives of each other' (< *ajmax* 'relative').

(g) The suffix *-TIŋ1* indicates the property of closeness, similar to '*-ish*' in English: *kunhul-lunnu* 'reddish' (< *kunhul* 'red').

4.3.2 Adverbs from nouns

The suffix *-TIk* changes nouns into adverbs: *sulaas-tuk* 'warmly' (< *sulaas* 'warm').

4.3.3 Verbs from nouns

(a) The derivational suffix *-LEE* is the most productive and has four main functions: (i) 'to do N', (ii) 'to make or to get N', (iii) 'to give N', and (iv) 'to go to N'. The examples are *yle-lee* 'work' (*< yle* 'job'), *oton-noo* 'pick berries' (*< oton* 'berry'), *aat-taa* 'name, call' (*< aat* 'name'), *žie-lee* 'go home' (*< žie* 'home').

(b) Suffix *-(1)r* derives an intransitive verb; e.g. *muuh-ur* 'freeze' (< *muus* 'ice'), *iŋse-r* 'get greedy' (< *iŋse* 'greed').

(c) Suffixes *-tɪj* or *-sɪj* derive an intransitive verb, like the English '*-ize*'; e.g. *taas-tuij* 'harden into stone' (*< taas* 'stone'), *illeŋ-sij* 'be free' (*< illeŋ* 'free').

(d) Suffix -(*I*)*rgEE* means 'to feel N'; e.g. *interieh-irgee* 'be interested' (< *interies* 'interest'), *žol-uгваа* 'pretend happiness' (< *žol* 'happy').

There are many other suffixes that are less productive.

4.3.4 Diminutives

Sakha has many diminutive suffixes such as *-(k)ke*, *-kEEn*, *-čEEn*, and *-čIk*; e.g., *yčygej-keen* (< *yčygej* 'good'), *uol-čaan* (< *uol* 'boy'). These suffixes may also attach to proper names, for example, *ujbaan-čurk* (< *ujbaan* 'Ivan').

4.4 Inflection and derivation in numerals

Morphologically, cardinal numbers may behave as nouns, namely they can take the same inflectional suffixes as nouns. Besides, numerals take following derivational suffixes. Ordinals are formed by -(I)s - ikki-s 'second', multiplicative -TE - ys-te 'three times', two forms of collectives -(I)E and -(I)En - beh-ie 'by five persons' and altur-an 'by six persons', approximant $-\check{c}E - uon-\check{c}a$ 'about ten', distributive -LII - ikki-lii 'two by two', limitative -(I)Ejex - yh-yœjex 'only three'. These suffixes can co-occur within a stem: $uon-\check{c}a-luuu-ta$ 'about ten times each time' (ten-APRX-DISTR-MUL). Some nouns like *elbex* 'many', aBujax 'few', and soBotox 'single' also take some of these suffixes for numerals.

4.5 Derivation in verbs

4.5.1 Voice suffixes

Verbal stems can take voice suffixes.

(a) Sakha has a variety of causative (or transitive) suffixes: -*Er*, -*IEr*, -(*I*)*t*, -*LEr*, and -*tEr*; e.g. *œl-œr* 'kill' (< *œl* 'die'), *sutt-utar* 'lay' (< *sut* 'lie'), *ytyœr-t* 'cure' (< *ytyœr* 'get well'), *aha-t*⁶ 'feed' (< *ahaa* 'eat'), *bil-ler* 'inform' (< *bil* 'know'). The suffix -*tEr* may be used after another causative suffix: *œl-œr-tœr* 'make someone kill' (die-CAUS-CAUS).

(b) The reflexive (or intransitive) suffix is -(1)n: suu-n 'wash oneself' (< suuj⁷ 'wash'), muh-un 'get together' (< mus 'collect').

(c) The passive (or intransitive) suffix is *-(1)lin: unut-unluin* 'be sent' (< *unut* 'send'), *sab-unluin* 'be closed' (< *sap* 'close').

(d) The reciprocal (or cooperative) suffix is -(1)s or -s1s: kel-is 'come along' (< kel 'come'), ber-is 'share' (< bier 'give').

4.5.2 Verbs from verbs

Verbs may be derived with suffixes given below.

(a) Iterative is *-(I)telee*, *-elee*, or *-(I)tee*, which means 'to do repeatedly' or 'to do by turns': *unut-alaa* 'send repeatedly' or 'send in turn' (< *unut* 'send').

(b) Diminutive -(*EE*)*xtEE*: *kel-eextee* (< *kel* 'come').

(c) Intensive -*BExtEE*: kær-bæxææ (< kær 'look').

4.5.3 Nouns from verbs

(a) Action nouns are formed by the suffixes *-II* for consonant stems: *œlyy* 'death' (*< œl* 'die'), *biller-ii* 'announcement' (*< biller* 'inform'). Vowel stems take *-hIN*, *-bII*, and *-l: battaa-huIN* 'pressure' (*< battaa* 'press'), *tapta-l* 'love' (*< taptaa* 'love'), *toxto-bul* 'pause' (*< toxtoo* 'stop').

(b) Actor nouns *-(EE)ččī*: *salaj-aaččui* 'leader' (*< salaj* 'lead'), *аав-aaččui* 'reader' (*< aax* 'read'). This suffix is also used for the predicate, denoting habitualness (10).

 $^{^6}$ Long vowels in vowel stems regularly shorten after some particular derivational suffixes. 7 Stem-final /j/ usually drops before reflexive or passive suffixes.

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 (10) soroвог tyyn uıllaa-ččuı-buın sometimes night sing-нвт-1sG
 'I sometimes sing at night.'

There are many other suffixes that are less productive.

4.6 Compounding

Sakha has few genuine (stem) compounds. Some of them are: bygyn 'today' (bu 'this' + kyn 'day'), and oloppos 'chair' (olox 'seat' + mas 'wood'). Therefore, examples treated in this section are syntactic compounds.

4.6.1 N+N (Juxtaposition)

One type of compound is simple juxtapositions of two nouns: e.g. *tas suthuan* 'diplomacy' (*tas* 'outside' + *suthuan* 'relation') and *xaar žon* 'snowman' (*xaar* 'snow' + *žon* 'people'). The second element may be an action noun derived from a verb: *burduk yynnerii* 'cultivation' (*burduk* 'flour' + *yynnerii* 'growth' < *yynner* 'to grow').

4.6.2 N+N (Possessive)

A possessive suffix must be attached to the latter component: e.g. *atax taŋah-a* 'shoes' (*atax* 'foot' + *taŋas* 'clothes') and *xarax erge-te* 'cataract' (*xarax* 'eye' + *erge* 'old'). The second element may be an action noun derived from a verb: *burduk buhuuu-ta* 'harvesting' (*burduk* 'flour' + *buhuuu* 'cutting' < *bus* 'to cut').

4.6.3 N+V

A bare noun and a verb form a compounding word with no morphological markings. The examples are: *ilii battaa* 'to sign' (*ilii* 'hand' + *battaa* 'to press') and *abaahuu kœr* 'to hate' (*abaahuu* 'ogre' + *kœr* 'to look').

4.7 Reduplication

Qualitative adjectives have emphatic form owing to morphological reduplication. The reduplicant is CV of the first syllable + /p/, or that, plus an additional suffix *-Is*: up+uhun 'very long', tup+tumnuuu 'very cold', tuub-uus+tumnuuu 'very cold.'

4.8 Paired words

Sakha has a special type of compounding expression with two independent words called 'paired words' (PW)⁸. PW intuitively resemble compounds, and in several works, they are regarded as a type of compounds. However, unlike compounds, PW can take derivational and/or inflectional suffixes both on the first and second members. For instance, both elements of *yle xamnas* 'work, job, occupation' take inflectional suffix in (11).

(11) *kini* **yle-te xamnah-a** yčygej (s)he work-POSS.3SG salary-POSS.3SG good:COP.3SG 'His work/occupation is good.'

In most cases, the meaning of PW is similar but not identical to the former element and the latter element has a meaning related to it. The two elements of PW may be synonyms, antonyms, or even hyponyms of PW.

(12) žie uot 'home' (žie 'house' + uot 'fire') sonun nuomas 'news' (sonun 'news' + nuomas 'news') aax suruj 'read/write' (aax 'read' + suruj 'write') ot mas 'plant' (ot 'grass' + mas 'tree')

5 Syntax and Functional Categories

5.1 Word order

5.1.1 Word order within a sentence

SOV is the basic order. The predicate must be in the sentence final. Subjects, objects, and other NPs can be located in any position in a sentence except final, or they can be omitted. Topics are located in the sentenceinitial position. A special topic-marker *buollabuna*, which originated from the verb *buol* 'become', may succeed topics (13).

(13) *beje-te* **buollasuna** ulaxan aan-unan kiir-bit self-poss.3sg as.for big door-INS enter-PAST.3sg 'As for himself, (he) got in through the big door.'

^в'Парные слова' in Russian.

5.1.2 Word order within a phrase

Dependents almost always precede heads. Adjectival phrases or relative clauses (5.9.2) precede head nouns, and nouns precede postpositions.

5.2 Sentence types

5.2.1 Yes/no question

A yes/no question is represented by enclitic *=duo*. The enclitic is attached to the sentence-final word, regardless of the word class.

(14) kyœreвеj штша-tш-n ist-е-віп =duo lark song-poss.3sg-ACC hear-prs-2sg =Q
'Do you hear the song of larks?'

5.2.2 Alternative question

Alternative question is formed by the enclitic =duu. This enclitic is also the sentence-final type, and is attached to both predicates.

(15)ово-ŋkunus=duuuol=duuchild-POSS.2SGdaughter:COP.3SG=Qson:COP.3SG=Q'Is your child a daughter or a son?'

5.2.3 Wh-question

Wh-question sentences require the sentence-final suffix -(n)Ij⁹. This suffix always appears with the sentence-final word and does not care about the word class of its host. However, it must be altered by the vowel harmony rule.

(16) xanna baar-gum-mj where existence-COP.2SG-Q'Where are you?'

⁹This suffix turns into *-j* after the possessive suffixes of 3rd person.

5.2.4 Exclamatory sentences

Exclamation is represented by the sentence-final suffix -(t)In. This suffix also appears in the sentence-final, and must be altered by the vowel harmony rule.

(17) *ihit-ter-iŋ ulaxan-nar-шn*dish-pL-POSS.2SG big-COP.3PL-ADM
'How large your dishes are!'

5.3 Components of sentences

5.3.1 Subject

Subject is defined as a nominative NP which determines the agreement in the predicate. The grammatical notion 'subject' is supported in a syntactic way, too. In clauses with incidental converbs (4.2.3), the subject required is the same as that in the main clause. For instance, in (18), the agent of the subordinate close must be identical to that of the main clause.

(18)	yle-bi-tten	žie-ber	kel-eet,
	work-poss.1sg-abl	house-poss.1sg:dat	come-cvb
	mal-bui-n	xomun-nu-m	
	thing-poss.1sg-acc	gather-pAst-1sG	
	'I packed my things	as soon as I came bad	ck home from my work.'

5.3.2 Object

An accusative NP, partitive NP, or bare noun can occur in the position of DO. An accusative is used for (i) a plural and/or possessed NP, (ii) topical or definite NP, (iii) a generic object, and (iv) contrastiveness. A partitive is used for an indefinite NP in sentences with imperative or deontic modality.

(19) *etii-te oŋor. etii-ni aax* sentence-PART make:IMP.2sG sentence-ACC read:IMP.2sG 'Make up a sentence. Read the sentence.'

Bare nouns are used in the position directly before the verb and must be unspecific or should convey new information.

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(20) kyn aajur et sie-bip-pit day every meat eat-PAST-1PL
'We ate meat every day.'

5.3.3 Adverbial phrase

In addition to adverbs, postpositional phrases and converbs can be used as adverbial phrases. Some nouns may be used as adverbs without any suffixes. Metrological nouns plus numerals constitutes adverbial phrases for distance, length, period, etc.

(21) *ostuol-u ikki mietere suısaruıt-tuı-m* desk-ACC 2 meter move-PAST-1SG 'I moved the desk by 2 meters.'

5.3.4 Coordination of noun phrases

In the coordination of NPs, a case suffix must be added to each constituent.

(22) nam-ŋa uonna taatta-ва filial-lar-but yleliil-ler
 PLN-DAT and PLN-DAT branch-PL-POSS.1PL work:prs-3pL
 'Our branches are working in Nam and Taatta.'

5.4 Agreement

We can observe the agreement of person/number in between the (i) subject and the predicate, (ii) possessor and the possessed, and (iii) agent of the relative clause and its head noun. In all these cases, the former can be omitted.

- (23) (min) biligin žielii-bin
 (I) now go.home:prs-1sg
 'Now I go home.'

(25) (min) kepsep-pit kihi-m
(I) talk.with-vn.past person-poss.1sg
'The person I talked with'

5.5 Voice

5.5.1 Causatives

In causative sentences, the causee appears in the dative.

(26) *suruk-ku-n uol-gar suruj-tar* letter-poss.2sg-acc son-poss.2sg:dat write-Caus:imp.2sg 'Make your son write your letter.'

5.5.2 Passives

In passive sentences, the agent appears in the instrumental.

(27) sir xaar-uman byr-ylly-byt¹⁰
 land snow-INS cover-PASS-PAST:3SG
 'The land was covered with snow.'

Causative construction is sometimes used for an adversive passive.

(28) bu kihi xarčuı-nuı uor-dar-buit
 this person money-ACC steal-CAUS-PAST:3SG
 'This person got his money stolen.'

5.5.3 Reflexives

Reflexive suffixes are used for reflexive or benefactive.

(29) min ilii-bi-n suu-n-a-bum
 I hands-poss.1sG-ACC wash-REFL-PRS-1sG
 'I wash my hands.'

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¹⁰The stem form is *byr-ylyn* (cover-PASS).

5.5.4 Reciprocals and cooperatives

Reciprocal suffixes are used for reciprocals or cooperatives. The co-agent may appear in the comitative. With an animate comitative NP, the agreement in the predicate may be in plural, even when the subject is a singular entity (31).

- (30) sargui-luiun bar-s-а-вит =duo PSN-COM go-RECP-PRS-2SG =Q 'Do you go with Sargy?'
- (31)*ава-тubaj-bш-пшшпkuorattaa-tш-lar*father-POSS.1SGelder.brother-POSS.1SG-COMgo.town-PAST-3PL'My father went to the town with my brother.'

5.6 Tense

Sakha distinguishes the present, past, and future. Verbal predicates mark tense by suffixes. Nominal predicates mark tense by periphrastic constructions, using the auxiliary verb e^{-11} 'was/were' for past tense and *buol* 'become' for future tense.

- (32) a. *ajta učuutal e-te* PSN teacher be-PAST:3SG 'Ajta was a teacher.'
 - b. *ajta učuutal buol-uo*PSN teacher become-FUT:3SG
 'Ajta will be a teacher.'

5.7 Aspect

5.7.1 **Progressive**

A progressive is formed by a contemporal converb plus an auxiliary verb. The condition of the subject determines the auxiliary verb out of the four verbs: *tur* 'stand', *sut* 'lie (down)', *olor* 'sit, live', and *surrut* 'stay'. If the subject is stative and upright, *tur* 'stand' is selected. If the stative subject

¹¹The defective verb *e*- is not a free form.

is lying or on its side, *sut* 'lie (down)' is selected. If the subject is animate, *olor* 'sit, live' is used for the subject seated or at home, and *surut* 'stay' is used when the subject is active or away from home.

- (33) a. *ово utuj-a sut-ar* child sleep-CVB lie-PRS:3SG
 'A child is sleeping, lying down.'
 b. *ово utuj-a olor-or*b: bill b source it and bag
 - child sleep-сvв sit-prs:3sG 'A child is sleeping in his seat.'

5.7.2 Prospective

There is a special form *ilik* 'still not' denoting the prospective aspect. This form takes copula P/N endings and always follows the contemporal converb form.

(34) *on-ton wla ol kihi-ni kær-æ ilik-pin* that-ABL from that person-ACC see-CVB yet-COP.1SG 'From that time, I have not seen that person yet.'

5.7.3 Other aspects

Two out of the three past tenses of Sakha have their respective aspectual properties. Near-past tense implies a perfect aspect. The resultative-past implies that the speaker noticed the accomplishment of the action through its result. Various other aspects can be expressed by using complex verb phrase. For example, *kebis* 'throw' is used for denoting telicity.

(35) *kinige-ler-i umat-an kebis-pit-tere* book-PL-ACC burn-CVB AUX-PAST-3PL '(They) burned out the books.'

5.8 Mood

Sakha verbal inflection includes indicative, imperative, subjunctive, and potential mood (4.2.2).
The near past form may imply an intention in the immediate future. This usage is typical in first person of affirmative sentences and second person of question sentences.

(36) *če bar-dui-buit* now go-PAST-1PL 'Now, let's go!'

Sakha has a variety of sentence-final enclitics of modality, shown as follows. Yes/no questions: *=duo*; tag questions: *=ebeet*; wondering or alternative question: *=duu*; confirming: *=dii*; emphatic: *=ee*; evidentiality: *=ebit*; speculation: *=ini*; hearsay: *=yhy*. Some of these are illustrated in the section 5.2.

(37) *aruun oŋoruu-ta ikki tœgyl ulaap-put =yhy* butter production-POSS.3SG twice grow-VN.PAST =HS
'It is said that the amount of butter production doubled.'

5.9 Complex sentences

5.9.1 Nominal clauses

Verbal nouns are used for verbal predicates of nominal clauses.

(38) xoruočuj-an žie-ber tiij-bip-pi-n
be.drunk-CVB home-POSS.1SG:DAT arrive-VN.PAST-POSS.1SG-ACC *œjdyy-byn*know:PRS-1SG
'I remember I came home being a little drunk.'

Possessive suffixes are attached to nominal predicates of nominal clauses to demonstrate the subject of the nominal clause.

(39) kini ава-ta buraah-ш-n bil-li-m
(s)he father-poss.3sG doctor-poss.3sG-ACC know-pAst-1sG
'I got to know that his/her father was a doctor.'

5.9.2 Adjectival (relative) clauses

Verbal nouns are used for relative clauses. (see (25)). Future verbal noun does not simply denote future, it denotes potentiality or obligation: *yœreniex ово* 'a child who can learn well' or 'a child who must learn'. Verbal nouns also allow 'headless' clauses.

(40) er kihi oskuola-ва ylelii-r-e sedex
 male person school-DAT work-vn.prs-poss.3sg rare:сор.3sg
 'It is uncommon that men work in schools.'

5.9.3 Adverbial clauses

Purposive and incidental clauses are formed by the respective converb suffixes (4.2.3).

- (41) œryh-y tuoraa-ru, parom tiks-er river-ACC go.across-CVB ferry be.docked-VN.PRS sir-i-ger uuksaa-n is-pit-im land-POSS.3SG-DAT hurry-CVB head-PAST-1SG 'In order to go across the river, I hurried to the ferry dock.'
- (42) *marina uhukt-aat, yle-ti-ger utksaa-n bar-da* PSN wake-CVB work-POSS.3SG-DAT hurry-CVB go-PAST:3SG 'On waking up, Marina hurried to her office.'

Realis conditional or temporal is formed by the verbal noun *-tex* plus possessive and partitive suffixes.

(43) taba-nan bar-dax-xu-na 5-6 xonug-u buha reindeer-INS go-VN-POSS.2SG-PART 5-6 overnight-ACC through ajannuu-gun travel:PRS-2SG
'If you go on a reindeer, it takes 5 or 6 days.'

Irrealis is expressed by the suffix *-TEr* with P/N of copula type.

(44) tæhæ =da kurruj-dar-bun ylelii-bin how =PTCL grow.old-SBJV-1SG work:PRS-1SG 'However old I grow, I would work.'

5.9.4 Complement clauses

The words *dien* and *dii*, grammaticalized converbs of *die* 'say', are used as complementizers.

(45) *olox-xo mieste-bi-n bul-lu-m dii*life-DAT place-POSS.1SG-ACC find-PAST-1SG COMP *sanuuu-guin =duo*think:PRS-2SG =Q
'Do you think that you have found your position in your life?'

5.9.5 Clause chaining

In simple coordinating, the precedent clause is marked by either the finite verb or successive converb. The successive converb may take a P/N marker optionally.

(46)	ot	yrd-y-ger	utt-am-	mun,	kyn
	grass	top-poss.3sg-dat	rise-cvb-	-1sg	sun
	taxs-a	ır-ш-n	ky	ур-ру	t-ym
	come.out-vn.prs-poss.3sg-acc wait-past-1sg				
	'I clin	nbed onto the hay a	nd await	ed the	sunrise.'

In contrastive coordinating, the particle =da is used after the finite verb of the precedent clause.

(47) *kærdææ-ty-m=da bul-bat-um* look.for-PAST-1SG=PTCL find-NEG.PAST-1SG 'Though I looked for (it), I didn't find (it).'

6 Text: 'A fox and a wolf' (Folklore, printed matter)

[1] araj biirde sahl suol ustun syyren ispit.

araj biir-de sahul suol ustun syyr-en is-pit. just one-PART fox road along run-CVB head-PAST:3SG once fox road along run AUX 'Once upon a time, a fox was running along the road.'

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[2] olus aččuktaabut, ahuan basarbut.
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olusaččurk-taa-burt,ahura-nbasar-burt.veryhunger-vblz-PAST:3sgeat:vn.Fut-ACCwish-PAST:3sgverygot hungryto eathe wished'He got very hungry and wanted to eat something.'

[3] biir osoňňor swarsasa balwk tiejen iherin kærbyt.

biir овоňňог sшагва-ва balшk tiej-enone old.man sleigh-DAT fish carry-CVBan old man on a sleigh fish carry*ih-er-i-n*kær-byt.head-VN.PRS-POSS.3SG-ACCAUXsaw'He saw an old man carrying fish on his sleigh.'

[4] 'baluk siebit kihi bert buoluo ebit,' dii sanaa-but sahul. baluuk sie-bit kihi buol-uo ebit bert dii fish eat-vn.past person good be-fut:3sg ptcl comp fish ate person good be sanaa-buit sahul. think-past:3sg fox fox thought 'The fox thought that a person who ate fish would be happy.'

[5] suolga kiiren ælbyt kurduk supput.

suol-gakiir-enœl-bytkurduksup-put.road-DATenter-CVBdie-VN.PASTaslie-PAST:3SGin the roadwent indiedaslay down'He went to the road and lay down as if he had died.'

[6] osoňňor tiijen kelbit.

овоňňor tiij-en kel-bit. old.man reach-сvв come-pAST:3sG the old man reached came 'The old man came to the fox.'

6. TEXT

[7] sahulu kæræn olus yærbyt: bu zolu!

sahul-ulkær-ænolusyær-byt:buzol-u!fox-ACCsee-CVBveryget.glad-PAST:3SGthishappiness-ACCfoxfoundverygot gladthishappiness'He found the fox and got very glad, "what happiness!"'

[8] xata, emeexsin sonugar bert sawa buoluo!

xata, emeexsinson-u-garbertsaвabuol-uo!thenold.womancoat-poss.3sg-DATgoodnearlybe-FUT.3sgthenwifeto her coatfitnearlywill be'Then, it will be nearly fit for my wife's coat!'

[9] sahulu ulan suarbaba buraxput uonna ajannaan ispit.

sahul-u ul-an ѕшагва-ва burax-put uonna fox-ACC take-cvb sleigh-dat throw-past:3sg and fox took to the sleigh threw and ajan-naa-n is-pit. journey-VBLZ-CVB AUX went on with his journey

'He took the fox, threw it on the sleigh, and went on with his journey.'

[10] sahul buollasuna kuulu xaja tardubut, balugu barutun suolga buraxput uonna ojuur dieki kuotan xaalbut.

sahul buol-lau-un-na kuul-u tard-ubut. xai-a fox be-vn-poss.3sg-part sack-acc tear-cvb pull-past:3sg fox as for sack tore up balung-un barun-tun-n suol-ga burax-put uonna fish-ACC all-poss.3sg-ACC road-dat throw-past:3sg and fish all of to the road threw and ojuur dieki kuot-an xaal-but. woods towards run.away-CVB remain-PAST:3SG woods towards ran away AUX 'The fox tore up the sack and threw all the fish to the road, and ran away towards the woods.'

[11] sahul baluk sii olorbut. onu bæræ kærbyt.

sahul baluk sii olor-but. onu bæræ fox fish sit-past:3sg that:acc wolf eat:CVB fox fish was eating that kær-byt. see-past:3sg wolf 'The fox was eating fish. A wolf saw that.'

[12] doroobo, dosoččuk, bu tugu siigin?

doroobo, doвoč-čuk, bu tugu sii-gin? hello friend-DIM this what:ACC eat:PRS-2SG hello my friend now what you are eating 'Hello my friend, what are you eating now?'

[13] baluk siibin, atahuam! olus emis baluk.

baluuk sii-bin,atah-uuam!olus emis baluuk.fisheat:PRS-1SGfriend-POSS.1SG:VOCvery fatfish:COP.3SGfishI am eating my friendvery fatis fish'I am eating fish, my friend!This is a very fat fish.'

[14] miexe saatar biir balukta asal ere.

miexe saatar biir balшk-ta аваl =ere. I:DAT at.least one fish-PART give:IMP.2SG PTCL me at least one fish give 'Give me at least one fish.'

[15] *bejeŋ bultaa ee*.

beje-ŋbul-taa=ee.self-POSS.2SGhunt-VBLZ:IMP.2SGPTCLfor yourselfhunt'Hunt for yourself.'

[16] æryske kiiren kuturukkun ojboŋŋo ugan olor.

œrys-kekiir-enkuturuk-ku-nojboŋ-ŋoug-anriver-DATenter-CVBtail-POSS.2SG-ACCicehole-DATput-CVBrivergo intoyour tailiceholeputolor.sit:IMP.2SGsit'Go into the river and sit down with your tail put into an icehole.'

[17] uonna 'kura baluk xap, bædæŋ baluk xap' die.

uonna 'kura baluk xap, bædæn baluk xap' and little fish catch:IMP.2SG big fish catch:IMP.2SG and little fish catch big fish catch die. say:IMP.2SG say 'And say, "Little fish, catch it. Big fish, catch it."'

[18] bæræ æryske kelen kuturugun ojboŋŋo ugan olorbut.

bæræ ærys-ke kel-en kuturug-u-n ojboŋ-ŋo wolf соте-сув tail-poss.3sg-асс icehole-dat river-DAT wolf his tail into an icehole to the river came olor-but. ug-an put-cvb sit-past:3sg put sat 'The wolf went to the river and sat with his tail put into an icehole.'

[19] ær basaju olorbut.

œr baвајш olor-but. long very sit-PAST:3SG long very sat 'He had been sitting very long.'

[20] kuturuga muuska xam toŋon xaalbut.

kuturug-amuus-kaxamtoŋ-onxaal-burt.tail-POSS.3SGice-DATfirmlyfreeze-CVBremain-PAST:3SGhis tailto the icefirmlyfrozeAUX'His tail frozefirmly to the ice.'

[21] sarswarda žaxtallar kelen bæræny mahwnan kwrbaabwttar.

```
sarswarda žaxtal-lar kel-en bæræ-ny mah-wan
morning woman-PL come-CVB wolf-ACC stick-INS
morning women came wolf with sticks
kwrbaa-bwt-tar.
beat-PAST-3PL
beat
'The next morning, some women came and beat the wolf with
sticks.'
```

[22] bæræ kuttanan kuturugun buha tardan baran nehiile ojuurga kuopput.

bæræ	kuttan-an	kuturug-u-n	bwha	tard-an	bar-an
wolf	be.afraid-сvв	tail-poss.3sg-ACC	straight	pull-сvв	go-cvb
wolf	got afraid	his tail	straight	pull	AUX
nehiile	e ojuur-ga	kuop-put.			
barely	woods-dat	go.away-past:3sg	r		
1 1					

barely to the woods went away

'The wolf got afraid and pulled up his tail straight and barely went away to the woods.'

Further reading

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Kolyma Yukaghir

Iku Nagasaki

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Introduction

The Yukaghir language family is classified as a part of the Paleosiberian languages, which comprise several disparate languages and groups of languages spoken in the vast territory of Siberia.

In terms of typology, the Yukaghir languages exhibit the characteristics common to the 'Altaic' languages: the morphology is agglutinative; suffixation is the main process of word-formation; the word order is headfinal—SOV, and the dependent precedes its head noun; postpositions. We can consider the followings characteristic aspects of this language's grammar: the distinction between intransitive and transitive verbs in the inflectional morphology, case markings of grammatical relations according to the person hierarchy, special focus construction for intransitive subject and direct object, etc.

1 Overview

The Yukaghir languages comprise two highly endangered languages, namely Tundra Yukaghir (also known as Northern Yukaghir) and Kolyma Yukaghir (also known as Southern Yukaghir or Forest Yukaghir). The autonyms of these two groups are 'wadul' (Tundra Yukaghir) and 'odul' (Kolyma Yukaghir), which probably mean 'strong' and 'powerful' (Jochelson 1926:16).



Tundra Yukaghir is spoken in the settlements of Andryushkino, Kolymskoe, Cherskiy, and Srednekolymsk (Nizhnekolymskiy district of Sakha Republic). Kolyma Yukaghir is mainly spoken in the settlement Nelemnoe (Verkhnekolymskiy district of Sakha Republic), while a number of Kolyma Yukaghir people live in Zyryanka (Verkhnekolymskiy district), Seymchan, Balygychan, and Kokymskoe¹ (Srednekanskiy district of Magadan Region).

The genetic affiliation of the Yukaghir languages remains an open question, although the hypothesis on its relationship with the Uralic languages has been discussed at length.

The reported number of speakers of Tundra Yukaghir is about 150, while that of Kolyma Yukaghir is about 50 (Krejnovich 1990). As regards Kolyma Yukaghir, one of my consultants estimates that presently, less than 20 people speak this language fluently. Multilingualism is so widely spread that most of them usually know Russian, Yakut, and sometimes

 $^{^1\!}Balygy chan and Kolymskoe have been destroyed in recent years, and only a few families remain.$

2. PHONOLOGY

Even. The language change to Russian has occurred among the younger generation.

Yukaghir people did not have a writing system of their own, and unlike other minority languages of Russia, the attempt to create the Yukaghir orthography did not realise for a long time. In 1987, the orthography based on cyrillic was established first for Tundra Yukaghir, and then, it was adapted for Kolyma Yukaghir (Table 1). The Yukaghir orthographies are taught to the children in Andryushkino and Nelemnoe schools at present.

Table 1 The Kolyma Yukaghir Orthography (Spiridonov and Nikolaeva1993)

A, a	/a/	К, к	/k/	Уу, уу	/uu/
Aa, aa	/aa/	Л, л	/1/	Ф, ф	(for Russian words)
Б, б	/b/	Ль, ль	/l'/	Х, х	/q/
В, в	(for Russian words)	М, м	/m/	Ц, ц	(for Russian words)
Г, г	/g/	Н, н	/n/	Ч, ч	/t'/
Б, ђ	\R\	Нь, нь	/n'/	Ш, ш	/∫/
Д, д	/d/	Ӈ, ӈ	/ŋ/	Щ, щ	(for Russian words)
Дь, дь	/d'/	О, о	/o/	ъ	(for Russian words)
E, e	(for Russian words)	Oo, oo	/00/	ы	(for Russian words)
Ë, ë	(for Russian words)	Θ, θ	/ 0 /	Э, э	/e/
Ж, ж	/3/	П, п	/p/	Ээ, ээ	/ee/
З, з	(for Russian words)	P, p	/r/	Ю, ю	(for Russian words)
И, и	/i/	С, с	/s/	У, у	/ue/
Ии, ии	/ii/	Сь, сь	/t'/	Я, я	(for Russian words)
Иэ, иэ	/ie/	Т, т	/t/		
Й, й	/j/	У, у	/u/, /w/		

2 Phonology

2.1 Inventory of phonemes

Kolyma Yukaghir has 21 consonants. Table 2 shows the inventory of consonant phonemes. The obstruents (stops/affricates/fricatives) have voice opposition. In addition to the 21 consonants, there is a voiceless dental fricative [s], which appears in loanwords in most cases. This sound will be transcribed with /s/ in this paper.

		labial	alveolar	post-alveolar	palatal	velar	uvula
obstrugent	voiceless	р	t	ſ	ť'[tç∼ç]	k	$q[q \sim \chi]$
obstruent	voiced	$b[b{\sim}\beta{\sim}w]$	d	3	d'[dʑ]	g	R
trill				r			
nasal		m	n		n'[ɲ]	ŋ	
lateral			1		l'[ʎ]		
glide		W			j		

Table 2 Inventory of consonant phonemes

As Table 3 shows, there are six short vowels. The vowels /i/, /e/, and /a/ are unrounded, while /u/, / θ /, and /o/ are rounded.

Table 3 Inventory of vowel phonemes

	front				back
high	i				u
		e	θ	0	
low			а		

All vowels except / θ / have quantity opposition. The long vowels could be considered sequences of the same short vowels and will be transcribed as /ii/, /ee/, /aa/, /uu/, and /oo/. There are two rising diphthongs: /ie/ [ie] and /u θ / [u θ]. The vowels [i:] and [ie] after vowels will be interpreted as /jii/ and /jie/. Non-syllabic [i] and [u] in the sequences [Vi], [VVi], and [Vu] will be regarded as glides /j/ and /w/.

2.2 Syllable structure and phonotactics

The possible syllable structures are (C)V(C)(C) and (C)VV(C). A syllable without onset is possible only at the beginning of a word.

All consonants except for /w/ stand at the onset position. The voiced obstruents /b, d, ʒ, d', g, B/ almost never occupy the coda position, except in a few cases resulting from syncope: $kudede \rightarrow kudde$ - 'to kill'. The first consonant of coda clusters is almost always /j/.

With regard to a phonological word, the voiced obstruents and /p/do not stand at the end of a word. The voiced obstruents and /r, η , w/ tend to be avoided at the beginning of a word.

2.3 Accent

Kolyma Yukaghir has a fixed stress accent. If a multisyllabic word contains one or more CVV/CVCC/CVVC syllables, a stress falls on the rightmost CVV/CVCC/CVVC syllable: 'foo.loq 'ashes'; ar.nuu.'jaa 'wolverine'; mun.'dejk 'go for (sth)'; ku.'ruul.buj 'always'. Otherwise, a bisyllabic word has its stress on the first syllable, and a trisyllabic word and a word with more syllables have their stress on the second syllable: 'nu.me 'house'; 'to.low 'wild reindeer'; t'ol.'so.ro 'hare'; o.'sun.bej '(it) got wet'.

2.4 Phonological and morphophonological processes

2.4.1 Vowel assimilation

Kolyma Yukaghir has the vowel assimilation phenomenon, which can be considered a kind of vowel harmony, although this phenomenon is not widespread through the phonological system of this language. Vowels are divided into three classes: front (/e, Θ /), back (/a, o/), and neutral (/i, u/). Within roots, a syllable that contains a back vowel never follows that containing a front vowel; however, the reverse order is possible. The behavior of the neutral vowels is lexically determined, i.e. they behave like either the front vowels or back vowels.

Before suffixes such as -nu (imperfective), a stem-final non-high vowel alters into /ie/ if the first syllable of the stem contains a front vowel or /aa/ if it contains a back vowel: ewre- 'to walk' $\rightarrow ewrie$ -nu-; ooze- 'to drink' $\rightarrow oozaa$ -nu-. Other suffixes that alter the stem-final non-high vowels are -nun(nu) (habitual), -l'el (indirect evidential), and -die (diminutive).

There are suffixes that have a front vowel allomorph and a back vowel allomorph, such as $-ej\sim-aj$ (perfective), $-ie\sim-aa$ (inchoative), and $-kie\sim$ -qaa (inchoative). The appearance of each allomorph follows the above-mentioned circumstances. Examples of the inchoative suffix are as follows: $-ie\sim-aa$: leg- 'to eat' \rightarrow leg-ie-; kowde- 'to hit' \rightarrow kowd-ie-; jaqte-'to sing' \rightarrow jaqt-aa-; logdo- 'to dance' \rightarrow logd-aa-.

The assimilation of vowels similar to labial (rounding) vowel harmony is also observed in some speakers. The vowel /e/ of a suffix sometimes assimilates to the preceding /o/: *qorobo* 'cow' + *-lek* (predicative) \rightarrow *qorobo-loq*; *modo-* 'to sit' + *-dele* (converb) \rightarrow *modo-dolo*.

2.4.2 Assimilation of the nasals

In the consonant clusters /nl, nl', n'l, n'l', the nasals assimilate to the following laterals and become the lateral /l/. This rule is applied regularly to the word-internal domain: qon- 'to go' $\rightarrow el = qol-loq$ (NEG= go-PROH) 'don't go'; mon- 'to say' $\rightarrow mol-l'el$ (say-IDEV:IND.INTR.3) '(he) said'. It can be also applied to a domain that is larger than a word: -din (purposive converb) $\rightarrow far-dil$ l'e-m (catch-CVB.PURP exist-IND.TR.3) '(he) is going to catch up'.

2.4.3 Alternation of voiced obstruents

2.4.3.1 Morpheme-final voiced obstruents

Morpheme-final voiced obstruents alter into other segments before consonants or pause. The relatively regular alternation patterns are shown in Table 4: the underlying voiced obstrunents in the left column alter into the surface segments according to the segments indicated in the top row.

	m	ŋ	obstruents	other consonants or pause	
d_1	n				
d_2		t			
ď	n				
g	m	ŋ	k	w or u	
R	m	ŋ	q	w or u	

Table 4 Alternation of morpheme-final obstruents

There are two types of /d/s depending on whether they are nasalized (/d₁/) or devoiced (/d₂/). For instance, the stem-final /d/ of *jad*- 'to send' is /d₁/, while the /d/ of the denominalizing suffix -*d* 'to get N' is /d₂/: *jad*- 'to send \rightarrow *jan-te-m* (send-FUT-IND.TR.3) '(he/she) will send'; *aŋd'e-d*- 'to regain eyesight' \rightarrow *aŋd'e-t-te-jek* (eye-get-FUT-IND.INTR.2SG) '(you) will regain eyesight'. The final /d'/ is nasalized, i.e. it behaves like /d₁/: *mid'*- 'to take' \rightarrow *min-te-m* (take-FUT-IND.TR.3) '(he/she) will take'. Nasalized /d₁/ or /d'/ further assimilate before a lateral: *jad*- 'to send' \rightarrow *al= l'al-lek* (NEG= send-PROH) 'don't send'; *mid'*- 'to take' \rightarrow *mil-l'el-u-m* (take-IDEV-E-IND.TR.3) '(he) took'.

The morpheme-final /g/ and /B/ exhibit other patterns. They undergo full assimilation before /m/ and $/\eta/$, devoice before the obstruents, and

alternate into /w/ (or /u/) before other consonants or pause: leg- 'to eat' $\rightarrow lem$ -mek (eat-IND.TR.2SG) '(you) ate', leg- ηaa (eat-PL.IND.TR.3) '(they) ate', lek-te-m (eat-FUT-IND.TR.3) '(he/she) will eat', lew-l'el- ηaa (eat-IDEV-PL.IND.TR.3) '(they) seemed to eat', lew (eat:IND.TR.1SG) '(I) ate'.

However, this phenomenon should be studied further, because there are numerous instances that show irregular patterns. One of such patterns is the devoicing of /g/ and /ʁ/ before pause. The stem-final /g/ and /ʁ/ change into /k/ and /q/ in imperative form: leg- 'to eat' $\rightarrow lek$ (eat:IMP) 'eat'; t'os- 'to cut' $\rightarrow t'oq$ (cut:IMP) 'cut'. In some speakers' utterance, /g/ and /ʁ/ change into /w/ (or /u/) before /d/: leg- 'to eat' $\rightarrow lew$ -dele (eat-CVB.SEQ) 'after having eaten'. Some other patterns are observed only in derivational processes.

2.4.3.2 Morpheme-initial obstruents

Voiced obstruents undergo devoicing after a voiceless obstruent: -*din* (purposive converb) $\rightarrow \int \theta rile \int tin$ (write-CVB.PURP) 'in order to write'; -*ge* (locative case) $\rightarrow pesok$ -*ke* (sand(Rus.)-LOC) 'on the sand'.

If a sequence of two voiced obstruents could occur, the alternation rules are applied to the first one and to the second one if it is necessary: *jad*- 'to send' + *-din* (purposive converb) \rightarrow *jan-din* (send-CVB.PURP) 'in order to send'; *terike-d*- 'to get a wife' + *-din* (purposive converb) \rightarrow **terike-t-din* \rightarrow *terike-t-tin* (wife-get-CVB.PURP) 'in order to take a wife'; *leg*- 'to eat' + *-ge* (first-person optative) \rightarrow **lek-ge* \rightarrow *lek-ke* (eat-OPT.1PL) 'let's eat (sth)'.

2.4.4 Epenthesis of a vowel

Epenthesis of a vowel regularly occurs when the consonantal cluster except /jC/ is produced in coda position: mid'- 'to take' + -m (third-person of transitive in indicative) $\rightarrow mid'$ -u-m '(he) took'; qon- 'to go' + -l (l-participle) $\rightarrow qon$ -u-l 'to go, going'. The epenthetic vowel is usually /u/, but there are some cases where /i/ is used. In addition, the vowels /u/ or /i/ are sometimes inserted between two consonants that are adjacent over a syllable boundary and the first of which is a voiced obstruent: leg- 'to eat' + -te (causative) $\rightarrow leg$ -i-te- 'to feed'; t'oB- 'to cut' + -nu (imperfective) + -m (third-person of transitive in indicative $\rightarrow t'oB$ -u-nu-m '(he) is

cutting'.

2.4.5 Vowel deletion and epenthesis of a consonant

If a sequence of vowels V-V could occur over the morpheme boundary, the initial vowel is deleted: $t'ol_{\mathcal{B}}o$ - 'to poke' + -aj (perfective) $\rightarrow t'ol_{\mathcal{B}}-aj$ -. In the sequence of VV-VV, the epenthetic consonant /l/ is inserted: aa- 'to make' + -oo (stative) $\rightarrow aa$ -l-oo- 'to be made'. In the sequence of V-VV, both vowel deletion and epenthesis of a consonant can occur: immu- 'to get drunk' + -oo (stative) $\rightarrow imm$ -oo- 'to be drunk'; tadi- 'to give' + -oo (stative) $\rightarrow tadi$ -l-oo- 'to be given'. The epenthetic consonant can be inserted between /j/ and vowel: foj- 'to roast' + -oo (stative) $\rightarrow foj$ -l-oo- 'to be roasted'.

2.4.6 Consonant deletion

The morpheme-final laterals /l/ and /l'/ can be dropped before suffixes that begin with a consonant: nojl 'leg' \rightarrow $nojl-pe \sim noj-pe$ (leg-PL) 'legs'; marqil' 'girl' \rightarrow $marqil'-pe \sim marqi-pe$ (young.woman-PL) 'girls'.

2.4.7 CV-forms and C-forms

There are numerous suffixes in the shape of $-CV_1$, $-CV_1CV_2$, $-CV_1CV_2C$, and $-CVV_1CV_2$ having short allomorphs without a first vowel, i.e. in the shape of -C, $-CCV_2$, $-CCV_2C$, and $-CCV_2$, respectively: $-pe \sim -p(ul)$ (plural), $-tege \sim -tke$ (augmentative), $-n'e \sim -n'$ (proprietive), $-de \sim -d$ ('to get' deverbalizing suffix), $-te \sim -f$ ('to give' deverbalizing suffix), $-te \sim -t$ (future), $-jiili \sim -jli$ (first-person plural of intransitive in indicative), -jemet $\sim -jmet$ (second-person plural of intransitive in indicative), $-mele \sim -mle$ (third-person of me-participle), $-dele \sim -lle$ (sequential converb). In this paper, the long ones will be called CV-forms, and the short ones will be called C-forms.

The selection of allomorphs is conditioned by the type of stem-final syllable: a CV-form is selected if the stem ends in a heavy syllable (CVC, CVV, CVCC, and CVVC) or if the whole stem consists of two light syllables #CVCV-, whereas a C-form is selected if the stem ends in a light syllable CV. The examples of the plural $-pe \sim -p(ul)$ and the future $-te \sim -t$ are shown below.

(1)

a. nugen-pe 'hands'; kut'ie-pe 'mosquitoes'; nojl-pe~noj-pe 'legs'; qaar-pe 'hides, skins'; nume-pe 'houses'; aat'e-pul 'reindeers'; foromo-pul 'people'

b. *qon-te-je* '(I) will go'; *pon'oo-te-je* '(I) will remain'; *tami-te-je* '(I) will put on'; *l'e-t-t'e* '(I) will be'; *nied'i-t-t'e* '(I) will talk'

3 Word classes

Kolyma Yukaghir words are classified as either inflected or non-inflected. Inflected words are divided into nominals and verbs, while non-inflected words are divided into postpositions, adnominals, adverbs, and particles. Adjectives do not exist as a distinct word class in Kolyma Yukaghir. A word that has adjectival meaning, i.e. denoting the qualities or attributes of the referent of a nominal, is usually recognized as a verb.

Word classes are the categories of each word in a clause according to its morphosyntactic property; however, word classes can be determined at the stem-level in Kolyma Yukaghir, because a stem itself is usually categorized into a certain word class.

3.1 Nominals

A nominal always inflects by case and serves as the argument of a verb in a clause. Apart from the case markers, the third-person possessor marker and the predicative marker can be considered as inflectional suffixes. See §4.1 for further details.

Nominals are divided into several subgroups such as nouns (common nouns and proper nouns) and pronouns (personal pronouns, demonstrative pronouns, and interrogative pronouns). Personal pronouns distinguish between person and number: *met* (1sG), *mit* (1PL), *tet* (2sG), *tit* (2PL), *tudel* (3sG), *tittel* (3PL). Third-person singular/plural pronouns indicate only humans. Demonstrative pronouns in their deictic function vary with respect to the vicinity and distance of the object to/from the speaker: *tuon*~*tuben* 'this (an object close to the speaker)', *aduon* 'this (an object slightly further from the speaker)', *ejmituon*~*ebituon*~*ejtuon* 'that (an object distant from the speaker, but visible by him/her)', *tamun*~*tabun* 'that (an object not visible by the speaker)', etc. Unlike personal pronouns, demonstrative pronouns can be used not only for humans but also for non-humans or inanimate objects. There are four interrogative pronouns: *kin* 'who', *leme* 'what', *qadi* 'which', and *qadun* 'where (what place)'.

Kolyma Yukaghir has special type of nominals, which will be called formal nouns in this paper. A formal noun serves only as a structural head of a nominal phrase, although it does not have a substantial meaning of its own. Two formal nouns have been recognized thus far. The prospective formal noun *moguu* signifies 'something/someone expected to be...' or 'fact that ought to be...'. The formal noun *=bed~=ben* 'someone/something' is etymologically from the full noun *pen* 'something/someone'², but it does not have its own stress; hence, it is not a phonological word but a clitic.

- (2) *terike mozuu* wife:NOM FN.PROS:NOM 'fiancée'
- (3) *iŋli-t'e* =ben be.fearful-PTCP =FN:NOM 'fearful person/thing'

The formal noun $=bed \sim =ben$ is often fused with the preceding participle marker. Thus, *infli-t'e =ben* in (3) normally appears as *infli-t'uon*.

3.2 Verbs

A verb is a word that serves as the predicate of a clause. Inflectional categories vary according to verb forms. As for finite verbs, the future tense marker, plural marker, and mood/person marker can be attached to the stem. The distinction between intransitive and transitive verbs is very important in the grammar of Kolyma Yukaghir; intransitive verbs and transitive verbs have different inflectional paradigms in indicative mood. See §4.2 for further details.

Intransitive verbs include numeral verbs (*irkie-* 'to be one', *ataqloo-* 'to be two', *jaaloo-* 'to be three', etc.), demonstrative proverbs (*titimie-* 'to be like this', *taatmie-* 'to be like that', etc.), and interrogative proverbs

²The noun *pen* is typically used as the subject of a predicate referring to weather, season, heat/cold, light/darkness, and physical/mental condition.

(*qodimie*- 'how' etc.). The list of interrogative pro-forms (interrogative words) will be shown in §5.7.

Two copula verbs are identified thus far. They inflect intransitively in indicative mood but have two core arguments, namely the copula subject and the copula complement. One of the two, *titimie*-, expresses the similarity of two arguments. Another copula verb $oo-\sim\eta oo$ - simply joins the two arguments and at times expresses the existence of the complement. A copula construction with the copular verb $oo-\sim\eta oo$ - will also be considered in §5.3.

- (4) *t'umu pojne-j tochka titimie-j*all be.white-PTCP spot(Rus.):NOM be.like-IND.INTR.3
 '(It) looks like (to be covered with) white spots entirely.'
- (5) *tit odul oo-d'emet*?
 2PL:NOM yukaghir:NOM be-IND.INTR.2PL
 'Are you Yukaghirs?'

3.3 Adnominals

An adnominal is a word that serves only as a dependent of a nominal phrase.

- (6) *jaan* foromo kel-l'el three person:NOM come-IDEV:IND.INTR.3 'Three persons came.'
- (7) met tiŋ unuŋ-ge t'oваа-je
 1SG:NOM this river-LOC cross-IND.INTR.1SG
 'I crossed this river.'
- (8) tude nier-gele ien mieste-ge peni-m
 3SG:GEN clothes-ACC other place-LOC put-IND.TR.3
 'He put his clothes on the other place.'

Besides numeral adnominals (*irkin* 'one', *ataqun* 'two', *jaan* 'three', etc.), demonstrative pro-adnominals (*tiŋ* 'this (close to the speaker)', *taŋ*

'that (not visible by the speaker)', etc.), and interrogative pro-adnominals (*qamun* 'how many' etc.), a small number of words can be considered a part of this category: *ien* 'other', *ubun* 'other', *kenige* 'another', *mut'in* 'various', *ill'e* 'new', etc.

3.4 Postpositions

A postposition is a word that only occurs as a head of an adpositional phrase. The complement nominal of a postposition takes genitive case if the nominal has genitive case or nominative case, otherwise.

- (9) tudel met jalaa kie-t'
 3SG:NOM 1SG:NOM after come-IND.INTR.3
 'He followed after me.'
- (10) *met tude tite aa* 1SG:NOM 3SG:GEN like do:IND.TR.1SG 'I did (it) like him.'

Many postpositions have a complex meaning of spacial/temporal concept with that of location/source/path/direction: *jalaa* 'behind/after', *jalaat* 'from behind', *al'aa* 'near, at the side of', *al'in* 'toward', etc. Some of them seem to be etymologically derived from nouns, e.g., *jalaa* 'behind/after' relates to the noun *jolo* 'back'.

3.5 Adverbs

A phonological word that does not inflect and is not an adnominal or a postposition is regarded as an adverb. Adverbs are a 'catch-all' category at this stage. Explicit grammatical criteria for an adverb do not exist. Therefore, words that not only semantically modify a verb but also have conjunctional or interjectional meaning are categorized as adverbs in this paper.

Adverbs include demonstrative pro-adverbs (*tii* 'here (close to the speaker)', *tiit* 'from here' etc.), interrogative pro-adverbs (*qon* 'where', *qaŋide* 'to where', *qodo/qode* 'how', *qanin* 'when', etc.). Interrogative pro-adverbs will be listed in §5.7.

3.6 Particles

Clitics that do not inflect are classified as particles in this paper. There are two kinds of particles: proclitical particles and enclitical particles. The following clitics have been identified so far: n'e= (reciprocal); met= (reflexive) (the examples of these two particles will be shown in §5.5), =duu (question); =de ('even, also') (§5.7), =te (imperative) (§5.8), el= (negative); n'e= (negative) (§5.9); et= (hypothetical), me= (affirmative?), etc.

4 Morphology

4.1 Nominal inflection

As mentioned in §3.1, the third-person possessive marker, case marker, and predicative marker can be considered nominal inflectional suffixes. The order of their attachment to a nominal stem is 'stem-poss.3-CASE/PRED'.

4.1.1 The third-person possessive marker

Kolyma Yukaghir has a possessive marker only for the third-person: -gi for the nominative case and -de for the genitive case. Other case suffixes follow -de. See Table 5 in §4.1.2. The first-person and second-person possessors are indicated only by placing a pronoun as a dependent of a noun phrase. See examples (11), (12), and (13) in §4.1.2.

4.1.2 Case

There are 12 cases. Table 5 shows the case suffixes, and Table 6 shows the case forms of personal pronouns.

The case paradigm of personal pronouns differs from other nominals in the following aspects: (a) it lacks the instrumental, translative, and essive; (b) the first- and second-person singular/plural pronouns have pronominal accusative case forms marked by the suffix *-ul*. The difference between the accusative and pronominal accusative cases will be treated in §5.2.

	case		possessive.3+case	
NOM		t'uge	-gi∼-ki	t'uge-gi
GEN			$-de{\sim}-te$	t'uge-de
ACC	-gele \sim -kele	t'uge-gele	-de-jle \sim -te-jle	t'uge-de-jle
INS	$-le \sim -e$	t'uge-le	-de-le \sim -te-le	t'uge-de-le
DAT	-ŋin	t'ute-ŋin	-d-in \sim -t-in	t'uge-d-in
LOC	-ge	t'uge-ge	-de-ge∼-te-ge	t'uge-de-ge
ABL	-get∼-ket	t'uge-get	-de-get~-te-get	t'uge-de-get
PROL	-gen \sim -ken	t'uge-gen	-de-gen∼-te-gen	t'uge-de-gen
СОМ	-n'e	t'uge-n'e	-de-n'e∼-te-n'e	t'uge-de-n'e
ABES	-t'uөn	el= t'uge-t'uөn	?	?
TRANS	-ŋoot	t'uge-d-oot	-d-oot	t'uge-d-oot
ESS	-ŋoon	t'uge-d-oon	-d-oon	t'uge-d-oon

Table 5 Case suffixes (e.g., t'uge 'road, track')

Table 6Case forms of personal pronouns

	1SG	1pl	2sg	2pl	3sg	3pl
NOM	met	mit	tet	tit	tudel	tittel
GEN					tude	titte
ACC	met-kele	mit-kele	tet-kele	tit-kele	tude-gele	titte-gele
ACC	met-ul	mit-ul	tet-ul	tit-ul		
DAT	met-in	mit-in	tet-in	tit-in	tud-in	titt-in
LOC	met-ke	mit-ke	tet-ke	tit-ke	tude-ge	titte-ge
ABL	met-ket	mit-ket	tet-ket	tit-ket	tude-get	titte-get
PROL	met-ken	mit-ken	tet-ken	tit-ken	tude-gen	titte-gen
СОМ	met-n'e	mit-n'e	tet-n'e	tit-n'e	tude-n'e	titte-n'e
ABES	el= met-t'uøn	el= mit-t'uøn	el= tet-t'uøn	el= tit-t'uøn	el= tude-t'uon	el= titte-t'uon

- (11) *tude nier-gi* 3SG:GEN clothes-POSS.3:NOM 'his clothes'
- (12) *miid'ii-pe-de igeje-gele* sledge-PL-POSS.3:GEN string-ACC 'the string of their sledge'

(13) *met pulut n'uu-gi* 1sG:NOM husband:NOM name-POSS.3:NOM 'my husband's name'

The abessive always co-occurs with the negative proclitical particle el= (See the example in §5.9). The nominative and genitive do not have an explicit marker; only nouns with the third-person possessive marker and third-person singular/plural pronouns have the distinction of the nominative and genitive.

The main syntactic/semantic functions of case suffixes are shown in Table 7.

Nominative	subject, direct object, complement of copula, dependent of nom-
	inal phrase, possessor, complement of postpositon, person being
	addressed
Genitive	dependent of nominal phrase, possessor
Accusative	direct object
Instrumental	direct object, instrument/material
Dative	recipient/beneficiary, goal, range, experiencer
Locative	location, time, goal, possessor, experiencer
Ablative	starting point of location/time, reason
Prolative	path, reason
Comitative	co-actor
Abessive	lack of object
Translative	result of changing, state of being
Essive	result of changing, state of being

Table 7 Syntactic/semantic functions of the case suffixes

4.1.3 Predicative marker

The predicative *-ek* (after a consonant) \sim *-lek/-k* (after a vowel) marker is attached to the nominal that serves as a nominal predicate (§5.3) or an intransitive subject/direct object in focus construction (§5.4). It appears at the same position as the case markers. The interrogative pronouns *leme* 'what' and *kin* 'who' have special predicative forms *lem-dik* and *kin-tek*.

4.2 Verbal inflection

Verb forms are divided into three groups according to their essential syntactic function: finite verbs, participles, and converbs.

4.2.1 Finite verbs

Finite verbs have three paradigms according to mood: indicative, interrogative, and optative.

The indicative mood is semantically 'unmarked' and is used to describe various situations. Table 8 shows indicative intransitive suffixes, while Table 9 shows indicative transitive suffixes. From these tables, we can observe that the indicative suffixes include one or more different markers. In all suffixes except third-person plural, the non-future forms are composed of mood+person marker, while the future forms are composed of future and mood+person markers. In the suffixes for thirdperson plural, the non-future forms are composed of plural and mood+person markers, while the future forms are composed of plural, future, and mood+person markers. In general, each marker is easily separable, but there are some cases where a fusional process is observed.

	Non-future	Future
1sg	$-d'e \sim -t'e \sim -je$	-te-je~-t-t'e
1pl	-d'iili~-t'iili~-jiili~-jli	-te-jli∼-t-t'iili
2sg	-d'ek \sim -t'ek \sim -jek	-te-jek \sim -t-t'ek
2pl	-d'emet \sim -t'emet \sim -jemet \sim -jmet	-te-jmet~-t-t'emet
3sg	$-t$ ' \sim $-j$ \sim $-i$ \sim -Ø	$-te$ -j \sim -t-i \sim -t
3pl	-ŋi-Ø	-ŋi-te-j∼-ŋi-t-Ø

Table 8 Indicative intransitive verb suffixes

* The underlying forms of mood+person markers except third-person are those that begin with /d'/. The *t*'-initial forms usually follow a voiceless obstruent or a glide, while the *j*-initial forms follow a vowel. However, there are some vowel-final stems that take *t*'-initial forms.

** The allomorph of third-person *-t*' follows a glide, *-j* follows a vowel, and *-i* follows a consonant. However, some vowel-final stems take *-t*'.

*** The allomorph of third-person $-\emptyset$ co-occurs with the negative particle el= or the indirect evidentiality marker -l'el.

	Non-future	Future
1SG	-Ø	$-t-\emptyset$
1pl	-t'~-j~-i	$-te$ -j \sim -t-i
2sg	-mek/-mik	-te-mek~-t-mek/-te-mik~-t-mik
2pl	-met	-te-met~-t-met
3sg	- <i>m</i>	-te-m~-t-u-m
3pl	-ŋaa/-ŋam	-ŋi-te-m

Table 9 Indicative transitive verb suffixes

Interrogative mood is used exclusively in wh-questions (questionword questions). In the interrogative suffixes, the mood+person marker, future marker, and plural marker are combined in the same manner as they are in the indicative mood. Note that in wh-questions, indicative mood is also used except for first-person singular and plural, and some suffixes have not been attested hitherto (the question mark in Table 10 indicates that the suffix is not attested). Therefore, it seems that the distinction between the indicative mood and interrogative mood is not consistently maintained.

/ 1	Tał	ble	10	Interro	gative	verb	suffixes
-----	-----	-----	----	---------	--------	------	----------

	Non-future	Future
1sg	- <i>m</i>	-te-m~-t-u-m
1pl	-uøk	-t-uøk
2sg	- <i>k</i>	?
2pl	-met	-te-met~-t-met
3sg	-Ø	- <i>t-Ø</i>
3pl	?	-ŋi-t-Ø

Optative mood expresses a command or a request of action by the speaker to the addressee or the third-person. See §5.8 for further details. In the imperative suffixes, the plural marker and the mood+person marker are arranged in this order.

1pl	-ge \sim -ke		
2sg	- $k\sim$ - $\mathscr{O}\left(ext{imp} ight)$	- $gek {\sim}$ - kek (fut.imp)	<i>-lek</i> (ргон)
2pl	<i>-ŋi-k</i> (імр)	<i>-ŋi-gek</i> (fut.imp)	<i>-ŋi-lek</i> (ркон)
3sg	-gen \sim -ken		
3pl	-ŋi-gen/-Ni-kken		

Table 11 Optative verb suffixes

* The allomorph of second-person singular -Ø occurs after a consonant.

4.2.2 Participles

Participles have three paradigms. In this paper, the three participles will be called *je*-participle, *l*-participle, and *me*-participle.

The non-future *je*-participle is marked by $-d'e \sim -t'e \sim -je \sim -j$, while the future *je*-participle is marked by $-te-je \sim -t-t'e$.

The *l*-participle is marked by -l (non-future) and $-te-l \sim -t-u-l$ (future). When the subject is third-person plural, the plural marker $-\eta i$ can occur before the other markers: $-\eta i-l$ (non-future); $-\eta i-te-l$ (future). The marker itself is often deleted when followed by a consonant-initial suffix: *fubeze-gi* (run:PTCP-POSS.3:NOM) '(his/her) running'.

The paradigm of the *me*-participle is shown in Table 12. The *me*-participle suffixes consist of the plural, future, and participle+person markers. The order of their attachment to a verbal stem is the same as that of indicative mood suffixes.

	Non-future	Future
1SG	-me	$-te-me \sim -t-me$
1pl	-1	$-te-l \sim -t-u-l$
2sg	-me	$-te$ - me \sim - t - me
2pl	-met	-te-met~-t-met
3sg	-mele \sim -mle	-te-mle \sim -t-mele
3pl	-ŋi-le	-ŋi-te-mle

Table 12Me-participle suffixes

The essential syntactic function of participles is to form a relative clause (examples are provided in $\S5.10.1$). However, the *l*-participle and *me*-participle serve as predicates of the focus constructions (see $\S5.4$ for further details). The *l*-participle can also take the nominal inflectional

suffixes to form a complement clause and an adverbial clause (see §5.10.2 and §5.10.3 for further details).

4.2.3 Converb

There are seven converbs. They are marked with the following suffixes: $-dele \sim -tele \sim -lle$ (sequential), $-de \sim -te$ (simultaneous), -t (contextual), $-\eta i de \sim -\eta i t$ (conditional), $-t' u \Theta n$ (abessive), -delme (durative), $-din \sim -tin$ (purposive). The abessive converb marker is identical to the abessive case marker, and it co-occurs with the negative particle $el=:el=le\eta de-t'u\Theta n$ 'without eating'.

The converbs generally function as predicates in various types of adverbial clauses (see §5.10.3 for further details).

4.3 Word formation

There are two types of word formation processes: suffixation and compounding.

4.3.1 Suffixation

All affixes in Kolyma Yukaghir are suffixes. Suffixation can lead to a change in the word classes of the stem (denominalization and deverbalization) and the creation of a secondary stem without changing its word class. In principle, the word-formational (derivational) suffixes precede the inflectional suffixes.

4.3.1.1 Denominalization

Kolyma Yukaghir has three denominalization suffixes: the proprietive suffix $-n'e \sim -n'$ 'to have N'; the suffix $-de \sim -d$ which has an inchoative meaning 'to get N'; and the suffix $-te \sim -f$, which has the meaning 'to give N'. Stems created by the first two suffixes inflect as intransitive verb in indicative mood, while the last suffix creates a stem that inflects as transitive verb.

(14) a. *met nume-n'e-je* 1SG:NOM house-PROP-IND.INTR.1SG 'I have a house.'

- b. *met puged'e-t-t'e* 1SG:NOM sweat-get-IND.INTR.1SG 'I sweat.'
- c. met uo nikolaj n'uu-te
 1SG:NOM child:NOM psn:NOM name-give:IND.TR.1SG
 '(I) named my child Nikolay.'

It can be considered that the proprietive suffix semantically attaches not only to a noun (a noun-stem) but also to a noun phrase.

(15) *met embe-j oo-n'e-je*1SG:NOM be.black-PTCP trousers-PROP-IND.INTR.1SG
'I have black trousers/I wear black trousers.'

4.3.1.2 Deverbalization

Only one deverbalization suffix seems to be productive: the result nominal suffix *-ool* 'something as a result of V'.

- (16) *t'uuld'ii pulut leg-oo-gi*ogre:NOM eat-RN-POSS.3
 '(It) was the remaining of what the ogre had eaten.'
- (17) *tude-gele qolii-ŋaa, omot' uj-l-oo-de-gen*3SG-ACC praise well work-E-RN-POSS.3-PROL
 '(They) praised him for that; he had worked well.'

There are numerous non-productive deverbalization suffixes such as *-be* 'place where V' (*modaa-nu-be* (live-IPFV-place) 'settlement'), *-ii* 'instrument to V' (*jood-ii* (play-instrument) 'toy'), and *-n* (adverbializer) (*t'ugoo-n* (be.quick-ADVLZ) 'quickly').

4.3.1.3 Secondary verb-stems from verb-stems

Suffixes creating secondary verb-stems from verb-stems are stated below:

A. Valency changing suffixes

A1. Causative : -f(jaqte-f-(sing-CAUS-) 'to make/let sing', t'ine-f-(chop-CAUS-) 'to make/let chop'). There are numerous less productive causative suffixes such as -te(nue-te-(laugh-CAUS-) 'to make/let laugh'), -fe(meru-fe-(fly-CAUS-) 'to carry by flying'), -de(im-do-(sit.on-CAUS-) 'to put on'), -t(piede-t-(burn-CAUS-) 'to burn something'), and -re(orpu-re-(be.hung-CAUS-) 'to hang something'). Example sentences of causative will be shown §5.5.1.

A2. Transitivizer (Object increasing): *-rii* (*kimdaan'e-rii-* (lie-TRVZ-) 'to deceive somebody', *orn'e-rii-* (shout-TRVZ-) 'to shout to somebody') and *-re* (*egie-re-* (stand.up-TRVZ-) 'to tread on'). Example sentences of object increasing will be shown §5.5.2.

A3. Detransitivizer: *-de* (*leŋ-de-* (eat-DETR-) 'to eat'), *-3e* (*t'ine-3e-* (chop-DETR-) 'to chop (wood)'); *-d'e* (*qamie-d'e-* (help-DETR-) 'to help'), etc. Example sentences of detransitivizer will be shown §5.5.3.

B. Suffixes having aspectual meanings

B1. Resultative (intransitive): *-oo* (*amd-oo-* (die-RES-) 'to be dead', *kuded-oo-* (kill-RES-) 'to be killed'). Example sentences of resultative *-oo* will be shown §5.5.4.

B2. Resultative (transitive): *-ii* (*uld-ii*- (tie-RES-) 'to keep something tied') and *-ie* (*f\opsilong-ie*- (enter-RES-) 'to keep something in somewhere').

B3. Inchoative: *-ie*~*-aa* (*kθwd-ie*- (beat-INCH-) 'to begin beating', *jowl'-aa*- (be.sick-INCH-) 'to get sick'); *-mu* (*ningu-mu*- (be.many-INCH-) 'to increase in number'); etc.

B4. Perfective: $-ej \sim -aj$ (*mer-ej*- (fly-PFV-) 'to fly away', *t'in-ej*- (chop -PFV-) 'to chop down, to chop off quickly').

B5. Iterative/Durative: -*uj* (*jaq-uj-* (reach-ITER-) 'to be approaching', *mer-uj-* (fly-ITER-) 'to fly about'³); -*d'i* (*jad-d'i-* (swim-ITER-) 'to swim

³With verbs that denote movement, the iterative/durative suffix expresses the dispersive meaning.

around'); -*t*' (*kiffe-t*'- (show-ITER-) 'to show several times'); -*du* (*paj-du*- (hit-ITER-) 'to hit several times'); etc.

B6. Imperfective: -nu.

(18) tudel lot'il-e piede-t-nu-m
3SG:NOM fire-INS burn-CAUS-IPFV-IND.TR.3
'He is burning a fire.'

In addition to imperfective meaning, this suffix can be used to express a habitual situation.

- (19) met iidejnede t'aaj saaqar-n'e-t
 1SG:NOM sometimes tea:NOM sugar-PROP-CVB оозаа-пи
 drink-IPFV:IND.TR.1SG
 'I sometimes drink tea with sugar.'
- B7. Habitual: -nun(nu).
- (20) *taat tudaa mit leŋ-die-nun-d'iili, t'овоје-le* like.this before 1PL:NOM eat-DETR-HBT-IND.INTR.1PL knife-INS 'Before, we used to eat with knife like this.'
- C. Other suffixes
- C1. Indirect evidential: -l'el.
- (21) tudel aвiduu-l'el, noj-gi tol'ko
 3sG:NOM hide-IDEV:IND.INTR.3 leg-POSS.3 only(Rus.) *jed-u-l*be.seen-E-PTCP
 'He seems to be hiding, only his legs are seen.'

This suffix can indicate an unintentional or unexpected situation, especially when it is used in a clause describing the speaker's action.

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(22) nonoon met tanide qol-l'el-u-m?
for.what 1sG:NOM there go-IDEV-E-INTERR.1sG
'Why did I go there?'

C2. Desiderative ('to want/wish to V'): -ool'.

- (23) *met t'uul leg-ool'* 1SG:NOM meat:NOM eat-DES:IND.TR.1SG 'I want to eat meat.'
- C3. 'To go/come to V': -jii.
- (24) ugijelme met tet-ul juo-jii-t
 tomorrow 1sg:NOM 2sg-ACC see-go-FUT:IND.TR.1sg
 'I will come to see you tomorrow.'
- C4. 'To do V a little': -t'ii.
- (25) *modo-t'ii-k* sit-a.little-IMP 'Sit (here) for a while.'

4.3.1.4 Secondary noun-stems from noun-stems

Suffixes creating secondary noun-stems from noun-stems are stated below:

A. Diminutive/Augmentative

Diminutive suffix *-die* indicates affection or intimacy: (*t'olboraa-die* (hare-DIM) 'hare', *terikie-die* (old.woman-DIM) 'old woman'). Some nounstems take the suffixes *-lie*, *-ie* to form the diminutive form: *emej-lie* (mother-DIM) 'mother', *nungeden-ie* (PLN-DIM) 'the river Rasokha'.

The augmentative suffix *-tege*~*-tke* indicates greatness in size: (*faa-tege* (tree-AUG) 'big tree').

B. 'A place that has many N'

The suffix -t'aa attaches to a noun-stem and expresses the meaning 'a

place that has many N': *foromo-t'aa* (person-T'AA) 'crowd', *fibit'e-t'aa* (dog.rose-T'AA) 'a place where there are many bushes of dog rose'.

C. Attributive

A noun-stem with the attributive suffix $-d \sim -n$ is used as a dependent of the nominal clause. The dependent expressed by the attributive form tends to be interpreted not as the possessor but as the property of the head noun: *odu-n azuu* (Yukaghir-ATTR word) 'the Yukaghir language', *aat'e-n qaar* (reindeer-ATTR skin) 'reindeer skin'.

D. Plural

Plurality is indicated with the suffix $-pe \sim -p(ul)$: nume-pe 'houses'; foromopul 'people'. This suffix is considered as derivational because of its regularity and appearance in the morphological structure of a word — the marking of plurality is not obligatory, and it precedes the diminutive suffix: punke-p-tie (hill-PL-DIM) 'small hills', uore-p-tie (child-PL-DIM 'children'). However, $-pe \sim -p(ul)$ may be considered as inflectional because it can indicate the plurality of possessor or subject in combination with the third-person possessive suffix. (Note that in (26c), $-pe \sim -p(ul)$ indicates the plurality of both the referent of the noun and the possessor.)

- (26) a. foromo-p-t-in person-PL-POSS.3-DAT
 'to his relatives'
 - b. *marqil'-pe-gi* daughter-pL-POSS.3:NOM 'their daughter'
 - c. *noj-pe-gi* leg-pl-poss.3:NOM 'their legs'

4.3.2 Compounding

Almost all examples of compounding result in nouns and comprise two noun-stems. An irregular alternation or deletion of the phoneme often occurs at the boundary of two elements: *foj+novo* 'sand' (*fojl* 'stone', *novo* 'sand'), *pon'qar+qaar* 'birch bark' (*pon'qaraa* 'birch', *qaar* 'birch bark'). The attributive suffix $-d \sim -n$ sometimes serves as a glue that binds the elements: jaqa-d+aat'e 'horse' (jaqal 'Yakut', aat'e 'reindeer'), $pajpe-d+u\theta$ 'little girl' (pajpe 'woman', $u\theta$ 'child'), jo-n+uodo 'brain' (joo 'head', -d (ATTR), qodo 'contents').

In many cases, the compounding results in the idiomatic meaning, and the compounds behave as phonological words. However, there are cases where an expression that is semantically recognized as compounding consists of two phonological words: *aŋd'e-d ooʒii/aŋd'e ooʒii* 'tear' (*aŋd'e* 'eye', *ooʒii* 'water'), *t'aʁitii n'anme* 'alder-tree' (*t'aʁitii* 'colorant', *n'anme* 'willow').

5 Syntax

5.1 Constituent order

The basic constituent order can be regarded as (S)(O)V, although the constituent order in a clause is flexible. Nominal elements can be omitted if they are given to the hearer. In a noun phrase, the head noun follows its dependent: adnominals, possessor nominals, and relative clauses. There are numerous postpositions but no prepositions.

5.2 Case marking for the subject and the object

The verb in the main clause usually marks the person/number of the subject. The case marking of the subject is nominative in both intransitive and transitive clauses. As shown in Table 13, the direct object is marked by various case markers according to the combination of persons for the subject and the object.

Subject	Direct object	Case of direct object	Ex.
the first-/second- person	the third-person	nominative case	(28)
the first-/second- person	the first-/second- person	pronominal accusative case	(29)
the third-person	the first-/second- person	accusative case	(30)
the third-person	the third-person	accusative case (for definite	(31)
		object) / instrumental case	
		(for indefinite object)	

Table 13	Case ma	rkers for	direct	objects
rubic 15	Cuse mu	inci 5 i Oi	ancet	Objects

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- (27) *tudel kie-t*' 3SG:NOM come-IND.INTR.3 'He came.'
- (28) a. *met t'aaj oo3e* 1SG:NOM tea:NOM drink:IND.TR.1SG 'I drink (some) tea.'
 - b. *met tudel qamie* 1SG:NOM 3SG:NOM help:IND.TR.1SG 'I helped him.'
- (29) *met tet-ul qamie-t* 1SG:NOM 2SG-ACC help-FUT:IND.TR.1SG 'I will help you.'
- (30) *tudel met-kele qamie-m* 3SG:NOM 1SG-ACC help-IND.TR.3 'He helped me.'
- (31) a. *aŋd'e-de-jle jodo-m* eye-POSS.3-ACC wrap-IND.TR.3 '(He) wrapped her eyes.'
 - b. *tudel t'aaj-e oo3e-m* 3SG:NOM tea-INS drink-IND.TR.3 'He drinks (some) tea.'
 - c. *tude-gele nume-get nie-ŋaa* 3SG-ACC house-ABL call-PL.IND.TR.3 '(They) called him from the house.'

5.3 Nominal predicates

A nominal can serve as a predicate without a copula verb. Proper nouns, nouns that refer to possessed objects and third-person singular/plural pronouns, take the nominal case, as shown in example (32). Other nominals take the predicative marker, as shown in the example (33).
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- (32) a. *met n'uu iku* 1SG:NOM name:NOM PSN:NOM 'My name is Iku.'
 - b. *tendii* **mit nume** here 1PL:NOM house:NOM 'Here is our house.'
 - с. *(tuөn)* **tudel** this:NOM 3sg:NOM '(This) is him.'
- (33) a. *tudel* odul-ek 3sg:NOM Yukaghir-PRED 'He is Yukaghir.'
 - b. *mit* al'aa ninge-j kut'ie-k 1PL:NOM near.to be.many-PTCP mosquito-PRED 'There are many mosquitos around us.'
 - c. *tuon tet-ek*? this:NOM 2SG-PRED 'Is this you?'

A nominal predicate clause typically expresses a property or equality, and at times, existence. This is possible in third-person subject and non-future, i.e. unmarked tense, and when the clause does not contain any modal meaning; otherwise, the copula verb $oo-\sim \eta oo$ - 'to be' is used (see also §3.2, (5)).

- (34) a. *met* odul oo-d'e 1sg:NOM Yukaghir:NOM be-IND.INTR.1sg 'I am Yukaghir.'
 - b. *omo-t'e pod'erqo oo-te-j* good-PTCP day:NOM be-FUT-IND.INTR.3
 '(It) will be fine weather.'

c. *tit marqil' ubuj omo-t'e marqil'* 2PL:NOM girl:NOM truly good-PTCP girl:NOM *oo-l'el"* be-IDEV:IND.INTR.3 'Your daughter likes to be (a) truly beautiful girl.'

5.4 Focus construction

Focus construction functions as an indicator that determines whether the focused constituent of a clause is an intransitive subject or a direct object. The focused constituent takes the form of nominal predicate, while the verb takes either the *l*-participle form (intransitive verb) or the *me*-participle form (transitive verb). Such construction is regularly employed in wh-questions, requesting information about an intransitive subject or a direct object, and in answers to questions.

- (35) a. *kin-tek kelu-l?* who-pred come-ptcp 'Who came?'
 - b. *met pulut kelu-l* 1sg:NOM husband:NOM come-ртср 'My husband came.'
- (36) a. *tet lem-dik ooze-t-mo?* 2SG:NOM what-PRED drink-FUT-PTCP.2SG 'What will you drink?'
 - b. *met t'aaj-ek ooze-t-mo* 1sg:NOM tea-PRED drink-FUT-PTCP.1sg 'I will drink (some) tea.'

5.5 Valency changing

Valency changing is mainly caused by suffixation. Besides, two particles that affect the argument structure of the verb are recognized.

5.5.1 Causative

The regular causative suffix is -f, while there are numerous suffixes that derive causative verbs (§4.3.1.3). The suffix -f can attach to both intransitive and transitive verb stems. As shown in (37), the causative construction from an intransitive verb is the same as ordinary transitive construction: the causee is marked with the case suffixes for the direct object. In causative construction from a transitive verb, the causee is marked with dative case or cases for the direct object. See §5.2 for the case marking for direct object.

- (37) *tudel met-kele jaqte-f-u-m* 3SG:NOM 1SG-ACC sing-CAUS-E-IND.TR.3 'He made me sing.'
- (38) a. *met-in lot'il-e t'ine-f-u-m* 1SG:DAT firewood-INS chop-CAUS-E-IND.TR.3 '(She) made me chop wood.'
 - b. *emej met-kele lot'il-e t'ine-f-u-m* mother:NOM 1SG-ACC firewood-INS chop-CAUS-E-IND.TR.3 'Mother made me chop wood.'

5.5.2 Object increasing

In addition to causative suffixes, Kolyma Yukaghir has other valencyincreasing suffixes: transitivizing (object increasing) suffixes *-rii* and *-re*. These suffixes can attach only to intransitive verb stems.

(39)	a.	tudel	kimdaan	'e-j	
		3sg:nom	lie-ind.in	TR.3	
		'He told a	a lie.'		
	b.	tudel	mit-kele	kimdaan'	e- rii -m
		3sg:nom	1PL-ACC	lie-trvz-i	nd.tr.3
		'He decei	ved us.'		
(40)	a.	tudel	met	nojl-ge	egie-j
		3sg:nom	1sg:nom	foot-loc	stand.up-IND.INTR.3
		'He tread	on my fo	ot.'	

b. *tudel met-kele egie-re-m*3SG:NOM 1SG-ACC stand.up-TRVZ-IND.TR.3
'He tread on my foot (lit. on me).'

5.5.3 Object deletion

When the detransitive suffixes -3e, -de, -d'e, etc. attach to transitive verb stems, the derived verb stems are used in object deletion construction. In object deletion construction, the deleted object is usually not indicated, while it can be re-introduced as an oblique argument with some verb stems (43).

- (41)a. *tudel* lot'il-e t'ine-m 3SG:NOM firewood-INS chop-IND.TR.3 'He chopped wood.' b. *tudel t'ine-3e-j* 3SG:NOM chop-detr-ind.intr.3 'He chopped (wood).' (42)a. met anil t'umu lew 1sg:NOM fish:NOM all eat:IND.TR.1SG 'I ate all fish.' b. *met* ningoo leŋ-**de**-je 1SG:NOM much eat-detr-ind.intr.1sg 'I ate a lot.' (43)a. met tet-ul qamie-t 1SG:NOM 2SG-ACC help-fut:IND.TR.1SG 'I will help you.'
 - b. *met tet-in qamie-d'e-t-t'e* 1SG:NOM 2SG-DAT help-DETR-FUT-IND.INTR.1SG 'I will help you.'

Some derived verb-stems are used to express a reflexive situation, where the subject acts on his/her own body.

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(44) *met nigi-3e-je 1SG:NOM warm-DETR-IND.INTR.1SG 'I'm warming myself.'*

5.5.4 Resultative

The resultative suffix *-oo* primarily has an aspectual meaning; however, it also indicates valency changing when it is attached to a transitive verb stem. The resultative construction is similar to passive construction in the sense that the transitive object is introduced as the new subject. However, the transitive subject is never introduced even as an oblique argument in the resultative construction.

- (45) a. *t'omoolben-gele kudede-ŋaa* elk-ACC kill-PL.IND.TR.3 '(They) killed the elk.'
 - b. *t'omoolben kuded-oo-j* elk:NOM kill-RES-IND.INTR.3 'The elk has been killed.'

5.5.5 Reflexive and reciprocal

The proclitical particles met= and n'e= are employed to indicate the reflexive and the reciprocal. In both cases, a transitive verb stem takes intransitive suffixes in the indicative mood.

- (46) *tudel zerkalo-ge met= juθ-nu-j*3SG:NOM mirror(Rus.)-LOC REFL= see-IPFV-IND.INTR.3
 'He is looking at himself in the mirror.'
- (47) *mit* n'e= juθ-jiili
 1PL:NOM RECP= see-IND.INTR.1PL
 'We saw each other.'

5.6 Analytic TAM expressions

Tense/aspect/mood categories are generally expressed by the morphology of verbs in Kolyma Yukaghir; however, in some cases, TAM expressions are expressed analytically.

5.6.1 'Purposive converb + l'e-'

The sequence 'purposive converb + l'e- ('exist')' is used to express either a situation that will be realized in the immediate future or the subject's intention to realize the situation. If the verb in a purposive converb form is transitive, the following l'e- takes the transitive suffixes in indicative mood.

- (48) *jal'ood'e amlaj-dil l'e-j*sun:NOM dive-CVB.PURP exist-IND.INTR.3
 'The sun is going to sink.'
- (49) *tudel u300-le aj-dil l'e-m*3SG:NOM gun-INS shoot-CVB.PURP exist-IND.TR.3SG
 'He is going to shoot with a gun.'

5.6.2 'Je-participle/me-participle + =bed-ek/=ben oo-'

The sequence '*je*-participle/*me*-participle + =*bed-ek*/=*ben oo*- (formal noun + predicative marker/formal noun + copula verb 'to be')' is used to express a situation realized in the past or a strong assertion to realise the situation. The formal difference between the *je*-participle and the *me*-participle corresponds to the difference between an intransitive and a transitive verb. In an intransitive construction, the copula verb *oo*- 'to be' is used for the first-/second-person subject.

- (50) met tudaa mon-d'uon oo-d'e
 1SG:NOM before say-ртср. FN be-IND.INTR.1SG
 'I said before.'
- (51) *tudel bojt'e el= buruj-n'e-j =bed-ek*3SG:NOM completely NEG= blame-PROP-PTCP =FN-PRED
 'He absolutely wasn't to blame.'
- (52) met aduøn n'egezie medi-me =bed-ek
 1SG:NOM this.one:NOM yesterday hear-ртср.1SG =FN-ркед
 'I heard it yesterday.'

5.7 Question

Kolyma Yukaghir has two main types of question sentences: yes/no questions and wh-questions (question-word questions). In both types, the distinct constituent order is not employed.

An ordinary yes/no question does not have a special morphological marker, but the question particle =duu is sometimes added at the end of the clause.

- (53) tet t'aaj ooze-t-mek?
 2sg:NOM tea:NOM drink-FUT-IND.TR.2sg
 'Will you drink (some) tea?'
- (54) jowl'-aa-jemet =duu? be.sick-INCH-IND.INTR.2PL =Q '(Did you) get sick?'

In a wh-question, the verb usually takes the interrogative suffix; however, focus construction is used if the requested information relates to the intransitive subject or direct object (see the examples in §5.4).

- (55) kin kudede?who:NOM kill:INTERR.3'Who killed (it)?'
- (56) tet qanin kelu-k?
 2SG:NOM when come-INTERR.2SG
 'When did you come?'

The interrogative words (pro-forms) used in wh-questions span several word classes such as interrogative pronouns (*kin* 'who', *leme* 'what', *qadi* 'which', *qadun* 'where (what place)'); interrogative proverbs (*qodimie*-'how', *qamloo*- 'how many, how much', *monoBod*- 'what say'); interrogative pro-adnominals (*qamun* 'how many, how much'); and interrogative pro-adverbs (*qon* 'where', *qot* 'from where', *qaŋide* 'to where', *qodo~qode* 'how', *qanin* 'when', *qodit* 'why', *qamlid'e* 'how often', *noŋoon* 'for what', *numun* 'by what'). When the enclitical particle =de 'even, also' attaches to the interrogative words, the sequence is employed in indefinite expressions (see also (72) in §5.9).

(57) taa leme =de pod'ond'i-j
there what:NOM =INDF twinkle-IND.INTR.3
'Something twinkles there.'

5.8 Command and request

For command and request, the verb typically takes optative verb suffixes. More precisely, the first-person plural expresses the suggestion of joint action to the addressee (58); the second-person singular/plural expresses imperative/prohibitive to the addressee ((59). The example of prohibitive will be shown in (68) in §5.9). The third-person singular/plural expresses permission or demand of action to the third-person (60).

- (58) *lek-ke* eat-OPT.1PL 'Let's eat.'
- (59) *fapadaŋil' joвodaj-k* door:NOM open-IMP
 'Open the door.'
- (60) *kel-gen* come-OPT.3 'Let him come.'

The enclitical particle *=te* sometimes attaches to the imperative verb form.

(61) pundu-k =te, kimd'ef
tell-IMP =IMP please
'Tell (me), please!'

5.9 Negation

Negation is usually expressed by the negative particle el=. For a clausal negation, el= precedes the predicate. In copula construction, the negative particle el= can attach to either the complement nominal or the copula verb itself (64).

- (62) met el= iŋroo-je
 1SG:NOM NEG= sleep-IND.INTR.1SG
 'I did not sleep/could not sleep.'
- (63) tudel el= odul-ek
 3SG:NOM NEG= Yukaghir-PRED
 'He is not Yukaghir.'
- (64) a. *met* **el**= odul oo-d'e 1SG:NOM NEG= Yukaghir:NOM be-IND.INTR.1SG 'I am not Yukaghir.'
 - b. *met* odul **el**= oo-d'e 1sg:NOM Yukaghir:NOM NEG= be-IND.INTR.1sg 'I am not Yukaghir.'

The existential verb *l'e*- has the negative counterpart $\theta j l'e$ -, etymologically derived from the negative particle plus the existential verb: $\theta j l'e$ - < el= *l'e*-.

(65) *met-ke өjl'e*, *poŋdo*1sG-LOC not.exist:IND.INTR.3 money:NOM
'I do not have money.'

The verb stem that usually takes the transitive suffix in indicative mood takes the indicative intransitive in clausal negation; however, the clause syntactically remains, exhibiting the transitive construction.

(66) met tude azuu el= bierii-je
1sG:NOM 3sG:GEN word:NOM NEG= believe-IND.INTR.1sG
'I don't believe his words.'

(67) tudel met-kele el= anure
3SG:NOM 1SG-ACC NEG= like:IND.INTR.3
'He does not like me.'

The negative particle el= is also used for prohibitions. In this case, the verb stem takes the prohibitive suffix.

(68) *al= ann'e-lek* NEG= talk-PROH 'Don't talk.'

For a constituent negation, *el*= precedes a particular constituent that is negated.

- (69) *el= met-ek taat l'e-l, qmiel'-ek.* NEG= 1SG-PRED like.that exist-PTCP alcohol(Rus.)-PRED 'It's not me that behaved like that but the alcohol.'
- (70) tet al= tanide qon-d'ok?
 2SG:NOM NEG= to.there go-IND.INTR.2SG
 'Do you go not to there?'

The abessive case marker and abessive converb marker (both have the same form $-t'u \Theta n$) are always used with el=, and they express the lack of a referent or an event.

- (71) t'aaj el= saaqar-t'uon ooze tea:NOM NEG= sugar-ABES drink:IND.TR.1SG
 '(I) drink tea without sugar.'
- (72) qamun =de pod'erqo-ge el= leŋ-de-t'uon how.many =INDF day-LOC NEG= eat-DETR-CVB.ABES ewre-lle kel-te-j walk-CVB.SEQ come-FUT-IND.INTR.3 '(He) walked without eating for several days and then came back.'

The proclitical particle n'e=, which also has a negative meaning, attaches to a interrogative word and forms a negative quantifier. Such a negative quantifier is always accompanied by clausal negation, and the clause, as a whole, implies total negation.

(73) *juθ-m*, *n'e= leme θjl'e*see-IND.INTR.3 NEG= what:NOM not.exist:IND.INTR.3
'He saw (there), (but) there was nothing.'

5.10 Complex sentences

5.10.1 Relative clause

Three types of participle constructions serve as relative clause: *je*-participle, *me*-participle, and *l*-participle constructions. The usage of *me*-participle is syntactically restricted: (1) one-place intransitive verbs are never used in *me*-participle form; (2) *me*-participle can not be used for the subject relativization; and (3) the subject of a *me*-participle construction tends to be the same as that of the main clause.

(74) met [lejdii-me] foromo-pul-ge modo-jo
1SG:NOM know-PTCP.1SG person-LOC live-IND.INTR.1SG
'I live at the home of a person (I) know.'

An *l*-participle is used under particular semantic conditions: it is used either (1) when the head noun is definite and the situation described relates to specific event or (2) when it has contrastive meaning with another referent.

(75) [maqloo-l] fapadaŋil'-get uke-t'
be.close-PTCP door-ABL go.out-IND.INTR.3
'(He) went out from the nearer door.'

The *je*-participle seems to have neither syntactic nor semantic restrictions for its usage: it is more widely used when compared to other participles. A verb-stem denoting quality or attribute functions like adjectival modifier of other languages in *je*-participle form.

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- (76) [*mit-ket min-d'e*] *traktor-gele atuludaj-ŋaa* 1PL-ABL take-PTCP tractor(Rus.)-ACC sell-PL.IND.TR.3 '(They) sold the tractor which (they) took from us.'
- (77) [[t'omoo-d'e] okno-n'e-j] nume-k
 be.big-PTCP window(Rus.)-PROP-PTCP house-PRED
 '(There is) a house that has a big window.'

5.10.2 Complement clauses

An *l*-participle construction is used as a complement clause. The thirdperson possessive marker and plural marker of nouns occasionally appear before the case marker and indicate the person/number of the subject of the complement clause.

- (78) [tet-ket pon'oo-l] jewli-t'
 2SG-ABL remain-PTCP:NOM be.regrettable-IND.INTR.3SG
 'It is to be regretted that (I) remain behind after you.'
- (79) *terikie-die tiine l'ie-l'el-u-m*, old.woman-DIM:NOM a.while.ago do.that-IDEV-E-IND.TR.3 *juo-l'el-u-m*, *[t'olKoraa-die fewrej-l'el-gele]* see-IDEV-E-IND.TR.3 hare-DIM:NOM escape-IDEV:PTCP-ACC 'The old woman saw a while ago that the hare escaped.'
- (80) taat arnuujaa-die овоо-t joloвиde juө-t
 so wolverine:NOM stand-СVB backwards see-СVB
 [kebej-pe-gi] jиө-mele
 leave:PTCP-PL-POSS.3:NOM see-PTCP.3
 'So the wolverine was standing and looking backwards and (he) saw that (they) had left.'

5.10.3 Adverbial clauses

Converb and *l*-participle constructions are used as adverbial clauses. Two or more adverbial clauses sometimes appear in one sequence of clauses. A converb construction tends to be used to indicate that the subject of an adverbial clause has the same referent as that of the main clause. *6. TEXT*

- (81) nigi-ze-t modo-j warm-DETR-CVB sit-IND.INTR.3
 '(He) was sitting and warming himself.'
- (82) met kel-dele abudaa-dele iŋri-t'e
 1SG:NOM come-CVB:SEQ lay.down-CVB.SEQ sleep-IND.INTR.1SG
 'I came back, lay down, (and) fell asleep.'
- (83) tudel iŋroo-ŋide josul-e qoqfe-f-nu-m
 3SG:NOM sleep-CVB.COND nose-INS strangle-CAUS-IPFV-IND.TR.3
 'If he sleeps, he snores.'

On the other hand, *l*-participle construction is employed when two clauses have different subjects. Note that, unlike a nominal complement, the plural marker of verbs indicates the plurality of the subject in an adverbial clause.

- (84) tudel qon-do-во kojle tude
 3SG:NOM gO:PTCP-POSS.3-LOC dust:NOM 3SG:GEN nier-de-ge tondu-j
 cloth-POSS.3-LOC stick-IND.INTR.3SG
 'When he walked, the dust stuck on his clothes.'
- (85) *tittel kel-ŋi-de-jne tuөn tadi-gek* 3PL:NOM come-PL:PTCP-POSS.3-COND this.one:NOM give-FUT.IMP 'If he will come, give (him) this one.'

6 Text: 'Why the Crow is black' (Folktale)

[1] (parnaa) nodo merej ni.

(parnaa) nodo mer-ej-ŋi (crow:NOM) bird:NOM fly-PFV-PL.IND.INTR.3 'The birds flew away.' [2] pugel... pugel... pugel l'eŋin miesteŋin merejŋi.

puge-l... puge-l l'e-ŋin mieste-ŋin be.hot-ртср be.hot-ртср be.hot-ртср that.one-DAT place-DAT *mer-ej-ŋi* fly-pfv-pl.ind.intr.3 '(They) flew away to the hot... hot... place.'

[3] a parnaaŋin moni, "parnaa, tet qadunge (t'ugooj t'u ... kak eto) qadunge lejdiimek taatmiej t'uge?"

а parnaa-ŋin mon-i parnaa tet say-ind.intr.3 crow:nom 2sg:nom then(Rus.) crow-dat ťu ... kak qadun-ge (t'ugoo-j eto) where-loc (be.fast-ptcp how(Rus.) this(Rus.) qadun-ge lejdii-mek taatmie-j t'uge where-loc know-ind.tr.2sg be.like.this-ptcp road:nom 'Then (they) said to the crow, "Crow, where do you know the road like this?"

[4] "(tet) mit qontejli, tet taa l'ejek.

(tet)mitqon-te-jli,tettaa(2SG:NOM)1PL:NOMgo-FUT-IND.INTR.1PL2SG:NOMtherel'e-jekexist-IND.INTR.2SG'When we come, you are there.''When we come, you are there.'

[5] *kebejtiili, tet tii pon'oojek.*

keb-ej-tiilitettiigo.away-PFV-FUT.IND.INTR.1PL2SG:NOMherepon'oo-jekremain-IND.INTR.2SG'When (we) leave, you remain here.'

[6] punduk =ta, taŋ qadunge omot'e t'uge lejdiimek?"

pundu-k =ta taN qadun-ge omo-t'e t'uge talk-IMP =IMP that where-LOC good-PTCP road:NOM lejdii-mek know-IND.TR.2SG 'Tell (us), where do (you) know the good road?'

[7] *el= pundool'el*.

el= pund-oo-l'el
NEG= talk-DES-IDEV:IND.INTR.3
'(The crow) did not want to talk.'

[8] taat kowdieŋaa, kowdeŋaa, kowdeŋaa.

taat kowd-ie-ŋaa, kowde-ŋaa kowde-ŋaa so beat-INCH-PL.IND.TR.3 beat-PL.IND.TR.3 beat-PL.IND.TR.3 'Then (the birds) began to beat (the crow), (they) beat, beat.'

[9] t'umu pugelbiedejle t'umu jeldeŋaa.

t'umu pugelbie-de-jle t'umu jelde-ŋaa all feather-poss.3-ACC all pluck-pl.ind.tr.3 '(They) tore off all the feathers (of the crow).'

[10] taat (embej lebie) l'egen pon'qo pugelbiegen embej =bedek ukejl.

taat (*embe-j* lebie) l'e-gen pon'qo then (be.black-PTCP land:NOM) that.one-PROL white:NOM pugelbie-gen embe-j =bed-ek ukej-l feather-PROL be.black-PTCP =FN-PRED go.out-PTCP 'Then black feathers came out instead of white feathers.'

[11] tamun laŋin el= pundool'el.

tamun laŋin el= pund-oo-l'el that.one:NOM until NEG= tell-DES-IDEV:IND.INTR.3SG '(The crow) did not want to tell to that extent.'

[12] taat el= punduj.

taat el= pundu-j so NEG= tell-IND.INTR.3SG 'So (he) did not tell.'

[13] tittel merej ni, tudel tii pon'ooj.

tittelmer-ej-ŋitudeltii3PL:NOMfly-PFV-PL.IND.INTR.33SG:NOMherepon'oo-jremain-IND.INTR.3SG'They fly away, he remains here.'

[14] tittel pugel lebiege jaqaŋi, taa uzhe l'ej.

tittelpuge-llebie-gejaqa-ŋitaa3PL:NOMbe.hot-PTCPland-LOCarrive-PL.IND.INTR.3thereuzhel'e-jalready(Rus.)exist-IND.INTR.3SG'When they reach the hot land, (he) is already there.'

[15] vot tamun leŋa el= pundool'el, juomek.

vot tamun leŋa el= pundu-oo-l'el, there(Rus.) that:NOM until NEG= tell-DES-IDEV:IND.INTR.3 juo-mek see-IND.TR.2SG '(He) didn't tell to that extent, (you) see?'

[16] tude pugelbie ulumul laŋin, upryamyj, da?
 tude pugelbie ulumu-l laŋin upryamyj
 3SG:GEN feather:NOM be.exhausted-PTCP until stubborn(Rus.)
 da

yes(Rus.)

'To such an extent that his feathers are exhausted, how obstinate, isn't he?'

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Alutor

Yukari Nagayama

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Contents

Introduction

Alutor is an agglutinative and polysynthetic language of Paleo-Siberian, in which words are formed by affixation, reduplication, compounding, and incorporation of a stem. Alutor is rich in prefixes, suffixes, and circumfixes. Nominals are inflected according to a person and number.

Alutor is an ergative-absolutive language, and therefore, the subject of an intransitive verb and the object of a transitive verb are marked by the absolutive case, whereas the agent of a transitive verb is marked by the ergative case.

Verbs are inflected according to person, number, and mood by using affixation. No tense marker is used in verbal inflection, and the concept of tense is expressed by a set of mood and aspect markers.

1 Overview

Alutor is an endangered language spoken in Siberia, Russia. Alutor, to-

gether with Chukchi, Koryak, Kerek, and Itelmen, belongs to the Chukchi-Kamchatkan language family, which is included in a regional group called Paleo-Siberian.

Most Alutor speakers live in the former Koryak Autonomous Region, which is located in the northern part of Kamchatka Peninsula (Fig.1).

No statistical data are available on the Alutor language, because for a long time, the Alutors have been officially classified as a part of a related ethnic group — Koryak. It was recently, in 2000, that the Government of the Russian Federation



Figure 1: Kamchatka Peninsula

granted them the status of an independent ethnic group. Nevertheless, on the basis of data from the All-Russia Population Census in 2002 and my personal experience, I estimate the number of fluent Alutor speakers to be approximately 200 (10%—20% of the total). Some Russian resources estimate the total population of Alutor as approximately 2000—3000 (Sovet Federatsii Federalnogo Sobraniia Rossiiskoi Federatsii 2004), although we can find no valid foundation for this figure.

On an average, the youngest fluent Alutor speaker is approximately 50 years old. All Alutor speakers are bilingual with Russian. The younger generation has not acquired Alutor

Previously, a local broadcasting company in the Koryak Autonomous Region had fixed airtime hours during which only programmes in indigenous languages would be broadcasted on TV and radio. Recently, however, such airtime has been considerably reduced as of 2010, there is almost no broadcasting in Alutor.

No educational material on Alutor is available, because even in 2010, the orthography of this language has not yet been created. However, some Alutor authors and teachers in elementary schools have attempted to describe and teach the language using handmade educational materials based on the orthography of Koryak, which was created in the 1930s in the Cyrillic script.

Alutor comprises mainly three dialects: Alutor proper, Karaga, and Lesnaya. The Alutor proper and Karaga dialects are spoken along the east coast of Kamchatka, whereas the Lesnaya dialect is spoken along the west coast. All of them have a commonly-used autonym *nəməl?ən*, which can be literally translated as 'village dweller'. Some researchers group the Karaga and Lesnaya dialects not with Alutor, but with Koryak. This article is based on the Alutor proper dialect.

Zhukova (1968), for the first time, provided a brief description of the Alutor grammar. In addition, Zhukova (1980) provided a morphological description and outlined word formation in the Lesnaya dialect. Mel'chuk (1973) and Mal'tseva (1998) presented the verbal morphology of Alutor. In resent, Kibrik et al. (2000/2004) and Nagayama (2003) published a grammatical outline of Alutor with glossed text and basic vocabulary.

2 Phonology

2.1 Segmental phonology

2.1.1 Phonological inventory

Alutor has 18 consonants. The voiced and voiceless stops are not distinguished. Although Koryak and Chukchi, relative languages of Alutor, have either /S/ or /?/ as phonemes, Alutor has both of them.

	Labial	Alveolar	Postalveolar	Palatal	Velar	Uvular	Glottal
Stops	р	t			k	q	?
Nasals	m	n	n^{j}		ŋ		
Laterals		1	1^{j}				
Trills			r				
Fricatives	v	S			Y		?
Glides	W			j			

Table 1 Consonants

In addition, the consonants [b, d, f, x, z] can occur in loan words from Russian. However, the older generation may often pronounce them as [p, t (or j), v, q, s].

- (1) [briyadir] or [priyajir] (< Rus. *brigadir*) 'leader of a team'
- (2) [yazeta] or [yaseta] (< Rus. gazeta) 'newspaper'

Alutor has six vowels: /a, e, i, o, u, ə/. In many cases, the vowels /e/ and /o/ can be analyzed as combinations of /aj/ or /aw/, and therefore, they might be excluded from the phonemic inventory. In this paper, however, I retain these vowels in the phonetic inventory, because I presently do not have sufficient evidence to exclude them. I will provide additional details in this regard in section 2.2.5.

Moreover, the vowel /a/ is used as an epenthesis for breaking some consonant clusters (see 2.2.1).

2.1.2 Syllable structure

The syllable structure is (C)V(C). Two-consonant clusters are not allowed in the word-initial and the word-final position, and three consonant clusters in the word-medial position. The epenthetic vowel /ə/ is inserted for the purpose of breaking unallowable consonant clusters (2.2.1). The vowel /ə/ and the consonant / Γ / never occur in the syllable-final position.

Alutor does not have any monosyllable words, except for some conjunctions and particles. Monosyllabic roots usually have an additional second syllable depending on their final consonant.

An added second syllable contains the same consonant as the final consonant of the root and the vowel /a/.

(3) a. $\{\eta_{aj}\}^1 \rightarrow \eta_{aj-j\partial}$ 'mountain (ABS.SG)' b. $\{\operatorname{sul}^j\} \rightarrow \operatorname{sul}^j - l^j\partial$ 'salt (ABS.SG)'

These added syllables are reduced when another morpheme follows the root.

(4) a. {ŋaj} → ŋaj-uwwi 'mountains (ABS.PL)'
b. {sul^j} → sul^j-at-ək 'to salt (infinitive of a denominal verb)'

¹Curly brackets indicate a bare stem without obligate affixation.

2.1.3 Stress

Alutor has a stress accent system. The stress, in principle, falls according to the following rules. In the examples below, a period shows a syllable break.

- (i) Two-syllable words: The stress falls on the first syllable, e.g. *mí.məl* 'water'.
- (ii) Multisyllable words (more than three syllables): The stress falls on the second syllable, e.g. *qə.lá.vul* 'husband', *pə.lá.kəl.ŋən* 'boot'.

However, the stress cannot fall on open syllables containing the vowel /ə/. Instead, the stress moves to another syllable according to the following rules:

- (iii) Two-syllable words containing the vowel /ə/ in the first-syllable final position:
 The third syllable is added and the resultant word follows an accent rule for multisyllable words, i.e. the stress falls on the second syllable. The third syllable contains the same consonant as the final consonant of the second syllable and the vowel /ə/. e.g. *má.tan → mə.tán.nə 'mosquito (ABS.SG)'.
- (iv) Multisyllable words containing the vowel /ə/ in the second-syllable final position:
 The stress falls on the first syllable. e.g. *tá.wə.ja.tək* 'to feed smb'.

2.2 Morphophonological alternations

2.2.1 Epenthesis

As mentioned above, Alutor does not allow two-consonant clusters in the word-initial or word-final positions, and three-consonant clusters in the word-medial position. To avoid these clusters the vowel /a/ is inserted as an epenthesis.

(5) {ηvu} 'to start, to begin'
a. *ηəvu-kki* 'to start, to begin (INF)'

b. *mət-ə-ŋvu-la-mək* (< **mət-ŋvu-la-mək*)
1NSG.S-E-begin-PLUR-1NSG.S[PFV]
'We began.'

2.2.2 Vowel reduction

A word-final vowel of a multisyllable word is reduced in the absolutive case.

(6) {tatula} 'fox' \rightarrow tatul (ABS.SG) 'fox' (cf. tatula-wwi (ABS.PL) 'foxes')

Alutor does not allow two-vowel clusters in the word-medial position. When affixation or some other morphological operations cause a twovowel cluster, one of the vowels is reduced.

A vowel to be reduced is decided according to the vowel hierarchy. Kibrik et al. (2004: 220) schematizes the hierarchy as follows:

$$(8) \quad a < a < e, o < i < u$$

2.2.3 Palatalization

A palatalized consonant can make the consonants /n/ and /l/ palatalized.

- (9) al^ja-n^jaqu (< *ala-n^jaqu < {ala} + -n^jaqu) summer-AUG[ABS.SG]
 'all summer long'
- (10) $\partial n^{j}n^{j}-\partial -pil^{j}$ (< * $\partial nn-\partial -pil^{j}$ <{ ∂nn } + - pil^{j}) fish-E-DIM[ABS.SG] '(little) fish'

2.2.4 Assimilation

Affixation may cause assimilation of consonants. Table 2 shows the combinations of consonants which cause assimilation. The left column shows preceding consonants, while the topmost row shows subsequent consonants.

(11) a.
$$/tl/ \rightarrow /ll/$$

b. $*y$ -akmit-lin \rightarrow y-akmil-lin
RES-take-RES.3SG.P
'(He/they) took it.'

Table 2Assimilation	of consonants
---------------------	---------------

Subseque	ent m	ŋ	n	n ^j	1	lj	r	S	j
t	nm	nŋ	nn	n ^j n ^j	11	ljlì	rr	SS	_
1	-	-	-	-	-	ljlì	-	SS	ljlj
n	-	-	-	n ^j n ^j	11	-	rr	-	n ^j n ^j

2.2.5 Vocalization

According to the combination with a subsequent consonant, the vowel /a/ changes as follows. Note that in (12), the syllable-final consonant /y/ changes into the consonant /w/.

(12) a. $\Im w \to u$

b. *muməy* (< **məwməy* < **məyməy*) wave[ABS.SG] 'wave'

(13) a. $i \to i$

(14) a. $\partial ? \rightarrow a$ b. *ta-ralqiv-\partial -k* (< **t\partial?-\partial-ralqiv-\partial-k) sBJV.1SG.S-enter-E-1SG.S 'Maybe I entered (there).*'

When used with a glide, the vowel /a/ changes as shown below.

(15) a. aj
$$\rightarrow$$
 e | _# or _C (C \neq j)
b. * $\partial ssaj \rightarrow \partial sse$ 'aunt (ABS.SG)'
c. $\partial ssaj-uwwi$ 'aunts (ABS.PL)'

In (15), the combination /aj/ of the word **əssaj* 'aunt' is represented as /e/ for the absolutive singular, while it is represented as /aj/ for the absolutive plural, being followed by the plural suffix *-uwwi*.

(16) a.
$$aw \rightarrow o \mid \# \text{ or } C (C \neq w)$$

b. *lawt-uwwi \rightarrow lot-uwwi 'heads (ABS.PL)'
c. lawət 'head (ABS.SG)'

Furthermore, in (16), the combination /aw/ of the word **lawt* 'head' maintains its underlying form, being followed by the epenthesis / ∂ / in the absolutive singular. In the absolutive plural, losing the epenthesis, it is represented as the vowel /o/.

Moreover, in emphatic or vocative expressions, the vowels /a, ə, u/ change into the vowel /o/, and the vowel /i/ changes into the vowel /e/. The stress falls on the resultant vowels.

- (17) a. $tinya \rightarrow tinyó$ 'what' (emphatic)
 - b. $nutájulyən \rightarrow nutajulyón$ 'Nutaiulgyn' (man's name, vocative)
 - c. $t\dot{u} \rightarrow t\dot{o}$ 'and' (emphatic)
 - d. $miti \rightarrow mité$ 'Miti' (heroine of folktales, vocative)

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3 Word classes

Alutor words are divided into two groups: inflecting and non-inflecting. Nominals, adjectives, and verbs are inflecting words. These words are always accompanied by inflectional affixes according to the grammatical categories.

Words can be classified into word classes only when they have an inflectional affix. Nonetheless, most of the stems are used with any one of the inflectional suffixes —nominal/adjectival/verbal— and very few stems can be attached with any two or three of these suffixes. In this paper, I use the term 'nominal stems' to indicate 'stems which are mostly used with a nominal inflectional suffix', and I use the terms 'adjectival stems' and 'verbal stems' similarly.

Adverbs, conjunctions, interjections, and particles are non-inflecting words. These words do not occur with an inflectional suffix.

3.1 Nominals

Nominals inflect according to the grammatical categories of number, person, and case. Nominals include the following subclasses:

(18)	 a. Nouns (common) <i>raraŋa</i> 'house', <i>rarawwi</i> 'houses' (proper name) <i>kavav</i> 'Kavav (man's name)'
	b. Personal pronouns <i>yəmmə</i> 'I (ABS)', <i>yəmkəŋ</i> 'me (DAT)'
	c. Demonstratives <i>ŋanin</i> 'that (SG)', <i>ŋanina-wwi</i> 'those (PL)'
	d. Adjectives <i>nə-tur-qin</i> 'new (3sg)', <i>nə-tur-qina-t</i> 'new (3DU)'
	e. Numerals <i>ŋəruqqə</i> 'three', <i>ŋəruqavkina-wwi</i> 'third (3pl)'
I h	ave provided further details on nominal inflection in 4.1.

3.2 Verbs

Verbs inflect according to person and number. Verbs are divided into three groups: the first group takes intransitive affixes; the second, transitive affixes; and the third, both intransitive and transitive affixes. Each verbal affix indicates the person and number of an argument. A majority of the verbs take either intransitive or transitive affixes, and few verbal stems can take both.

- (19) Intransitive verb
 - a. {arat} 'to fall'
 - b. *qəmak t-arat-ə-k miml-ə-ŋ* barely 1sG.s-fall-E-1sG.s[PFV] water-E-DAT 'I barely fell in the water.' (Kilpalin 1993: 83)

(20) Transitive verb

- a. {yita} 'to see smt.'
- b. *na-yita-n* ən ənpəŋav LOW.A-see-3SG.P well old.woman[ABS.SG] '(They) saw an old woman.'

(21) Intransitive/Transitive verb

- a. {iv} 'to say'
- b. *əlla?-ə-ŋ iv-i* mother-E-DAT say-3sG.s[PFV] '(S/he) said to mother.'
- c. *əlla?-a iv-nin* mother-INS say-3SG.A.3SG.P[PFV] 'Mother said to (him/her).'

Further details about verbal inflection are provided in 4.2.

3.3 Non-inflecting words

Non-inflecting words do not take any of the case, number, or person affixes. Adverbs, conjunctions, interjections, particles, and clitics are classified under this group.

- (22) Adverbs: *imjak* 'already', *təttal^j* 'very', *asyi* 'now, today'
- (23) Conjunctions: tu 'and', məri 'because'
- (24) Interjections: *əŋiŋi* 'ouch (indicating a pain)', *mej* 'hey (compellation)'
- (25) Particles and clitics: *van* (emphasis), =q(i) (emphasis)
 - a. *tinya=q van t-ə-pl^jətku-k* what.ABS.SG=EMPH EMPH 1SG.S-E-finish-1SG.S[PFV] 'Well, (I) finished (my story).'
 - b. *q-oji-yi=qi* ənpəqlavul орт.2s-eat-2sg.s=Емрн old.man[ABS.sg] 'Please eat, old man.'

4 Morphology

4.1 Nominals

4.1.1 Inflection of Nouns

As mentioned above, nominals inflect according to number and case. Common nouns and proper names take different set of inflectional affixes. Some kinship terms can take both inflectional affixes. Common nouns are distinguished in number only in the absolutive case, whereas proper names are distinguished in the absolutive, instrumental, locative, and dative cases. The inflectional case suffixes of nouns are listed in Table 3.

The absolutive case is indicated in several ways: zero (26a), reduction of a word-final vowel (26b), reduplication (26c), absolutive suffixes -n/- $\eta a/-l\eta \partial n$ (26d-f) etc.

	Nouns	Proper name
Absolutive	(see 26) (sG)	-Ø or -n (sg)
	-(t)i (DU)	<i>-nti</i> (DU)
	-u(wwi)/-w(wi) (PL)	-u(wwi)/-w(wi) (PL)
Instrumental	itshape -(t)a	<i>-nak</i> (SG), <i>-tək</i> (PL)
Locative	- <i>k</i>	<i>-nak</i> (SG), <i>-tək</i> (PL)
Dative	-ŋ	<i>-naŋ</i> (SG), <i>-tək</i> (PL)
Prolative	-јрәŋ/ұәрәŋ	-јрәŋ/ ұәрәŋ
Contactive	-jit	—
Causal	-kjit	—
Essive	-(n)u	—
Comitative	<i>ya(t)a</i>	
	үе <i>q</i> ә(t)а	
	awən(m)a	

Table 3Nominal inflection

(26) a. {wala} \rightarrow wala 'knife' (cf. wala-wwi 'knives'(ABS.PL))

- b. {mil^juta} \rightarrow mil^jut 'hare' (cf. mil^juta-wwi 'hares'(ABS.PL))
- c. {ray} \rightarrow **ray-ray* \rightarrow *ro-ro* 'ptarmigan' (cf. *ray-uwwi* 'ptarmigans'(ABS.PL))
- d. {it?} \rightarrow *it?-ə-n* 'parka' (cf. *it?-uwwi* 'parkas'(ABS.PL))
- e. {rara} \rightarrow *rara-ŋa* 'house' (cf. *rara-wwi* 'houses'(ABS.PL))
- f. {məny} \rightarrow məny-ə-lŋən 'hand' (cf. məny-uwwi 'hands'(ABS.PL))
- (27) a. *kamak* 'Kamak (man's name)' (cf. *kamak-nak* (INS))
 b. *kə?us?-ə-n* 'Kusien (man's name)' (cf. *kə?us?-ə-nak* (INS))

4.1.2 Inflection of Pronouns

Alutor distinguishes singular, dual, and plural numbers for first/second/third person pronouns (Table 4).

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Table 4	Personal	pronouns
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	SG	DU	PL
First person	үәттә	muri	muru(wwi)
Second person	yəttə	turi	turu(wwi)
Third person	ənnu	ətti	ətu(wwi)

As in the case of nouns, singular/dual/plural forms are distinguished only in the absolutive case. In other cases, only the singular and plural numbers are distinguished. While nouns take the essive case, pronouns do not. Inflection of singular personal pronouns is listed in Table 5.

Table 5 Inflection of singular personal pronouns

	1SG	2sg	3sg
Absolutive	үәттә	<i>yəttə</i>	ənnu
Instrumental	yəmnan	yənan(nə)	ənan(nə)
(= ergative)			
Locative	yəməkki	yənəkki	ənəkki
Dative	yəməkə(ŋ)	yənəkə(ŋ)	ənəkə(ŋ)
Prolative	үәтәkk-ерә(ŋ)	yənəkk-epə(ŋ)	ənəkk-epə(ŋ)
Contactive	yəməkka-jit(a)	yənəkka-jit(a)	ənəkka-jit(a)
Causal	yəməkka-kjit(a)	yənəkka-kjit(a)	ənəkka-kjit(a)

4.1.3 Demonstratives

Alutor has three demonstratives. Although the function of each demonstrative has not yet been adequately clarified, two of them may be interpreted as proximal ('this') and distal ('that') demonstratives.

Table 6Demonstratives

	1sg	2sg	3sg
this (proximal)	yuttin	yuttaq-ti	yuttaq-u(wwi)
that	ənŋin	ənŋina-t	ənŋina-w(wi)
that (distal)	ŋanin	ŋanina-t	ŋanina-w(wi)

As nouns and pronouns, demonstratives may take a case suffix, although they are usually used in the absolutive case. As pointed out in Kibrik et al. (2004: 304), demonstratives take a case suffix, when they are used without a head noun (28b).

(28)t-ə-ŋanŋu-tkə a. yəmnan məri ayi yuttin I.INS because very.much 1sg.A-E-love-IPFV this.3sg navəsn-ə-n woman-E-ABS.SG 'Because I love this woman very much.' b. *ŋanina-ta ya-qta-lin* nanq-ə-n that-INS RES-strike-RES.3SG.P belly-E-ABS.SG 'That (pedicle of a wild blueberry) stuck (her) belly.' (Nagayama 2003: 165)

Besides, Alutor has one more demonstrative word; *ŋonin*. This word can be analyzed as a emphatic form of *ŋanin* 'that (distal)'.

4.1.4 Adjectives

Adjectives are formed by attaching an adjective circumfix *n*-...-*qin* to a stem which indicates quality, such as in 'good', 'new', and 'long'.

Stems which indicate quality may take adverbializing affixes (n-...-?a and - η) and function as adverbs.

- (29) a. *n-ə-mis?a-qin* ADJ-E-beautiful-ADJ.3SG 'beautiful'
 - b. *n-ə-mis?a-?a* ADJ-E-beautiful-ADV 'beautifully'
 - c. *mis?a-ŋ* beautiful-ADV 'beautifully'

An adjective circumfix can be attached to stems which are often used with verbal affixes, i.e. so-called verbal stems. Such words, however, are relatively rare.

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(30) *n-ə-Seŋa-qin* ADJ-E-shout-ADJ.3sG 'noisy'

In addition, the suffixes *-in* and *-kin* form possessive adjectives by being attached to nominal stems. Stems indicating a place or time take the suffix *-kin*, and other stems take the suffix *-in*. When used with person names or stems of personal pronouns, the suffix *-nin* forms a possessive.

4.2 Verbs

Verbs are always accompanied by inflectional affixes (prefix and/or suffix, or circumfix), and a bare stem is never used independently. Inflectional affixes indicate the mood, aspect, person, and number of an argument/arguments. Alutor has the following four moods: indicative, potential, optative, and subjunctive.

Inflectional affixes of verbs are divided into two groups: double and single marking. Verbs of the double-marking type indicate both the agent (A) and patient (P) of an action, while verbs of the single-marking type indicate either an intransitive subject (S) or a transitive patient (P).

Moreover, Alutor distinguishes three aspects: imperfective, perfective, and resultative. Intransitive verbs are always of the single-marking, and the transitive verbs are of the double-marking type, with the exception that they are used in the resultative aspect. Transitive verbs in the resultative aspect indicate only the transitive patient (P). As mentioned in 3.2, most verbs are used with either intransitive or transitive affixes, and few verbs can be used with both types.

4.2.1 Inflection of intransitive verbs

The inflectional affixes of intransitive verbs indicate the subject of a verb. Table 7 shows the inflectional affixes of an intransitive verb for the indicative perfective. The first person subject of an intransitive verb is indicated by circumfixes. The second and third person subjects are indicated by suffixes.

Note that in Alutor, only singular and nonsingular numbers are distinguished by the use of inflectional affixes. The plural number is expressed by adding the pluralizing marker *-la* to the nonsingular (= dual) form.

Table 7 Intransitive verb inflection (indicative perfective) {saju} 'to have tea'

	SG	DU	PL
First person	t-ə-saju-k	mət-saju-mək	mət-saju-la(-mək)
Second person	saju-j	saju-tək	saju-la-tək
Third person	saju-j	saju-yə?ət	saju-la-t

In the indicative mood, the second person singular and third person singular are not distinguished. The person can be interpreted only by the context.

4.2.2 Inflection of transitive verbs

The inflectional affixes of transitive verbs indicate the agent and patient of a verb. In general, prefixes tend to indicate the transitive agent.

In addition, the prefixes *na*- or *ina*-, indicating that an agent is lower than a patient in the hierarchy, are used according to the person and number of each argument. This hierarchy is schematized as follows:

(32) 3NSG < 3SG < 2NSG < 2SG < 1NSG < 1SG

The prefix *na*- is used when a second or third person agent has a higher patient in the hierarchy. For a first person patient which is the highest in the hierarchy the prefix *ina*- is used. Table 8 shows the distribution of these prefixes.

	Patient	Agent
na-	1sg	3nsg
	1nsg	2sg, 2nsg, 3sg, 3nsg
	2sg, 2nsg	3sg, 3nsg
	3sg, 3nsg	3nsg
ina-	1sg	2sg, 2nsg, 3sg

Table 8 Distribution of the prefixes na- and ina-

Table 9 shows examples of transitive verb inflection. As shown in the table, Alutor usually does not distinguish between the person and number of an agent when the agent is lower than a patient in the hierarchy. For example, when a patient is first person dual or plural, the verb takes a same form regardless of the person or number of the agent.

Table 9	Inflection	of a	transitive	verb	{pŋlu}	'to	ask	smb.'	(perfect	tive)
---------	------------	------	------------	------	--------	-----	-----	-------	----------	-------

Р	А	Example
1sg	2sg/3sg	ina-pŋəlu-j
	2du	ina-pŋəlu-tək
	2pl	ina-pŋəlu-la-tək
	3nsg	na-pŋəlu-gəm
1du	all	na-pŋəlu-mək
1pl	all	na-pŋəlu-la-mək
2sg	1SG	t-ə-pŋəlu-yət
	1du	mət-ə-pŋəlu-yət
	1pl	mət-ə-pŋəlu-la-gət
	3sg/3nsg	na-pŋəlu-yət
2du	1SG	t-ə-pŋəlu-tək
	1NSG	mət-ə-pŋəlu-tək
	3sg/3nsg	na-pŋəlu-tək
2pl	1SG	t-ə-pŋəlu-la-tək
	1NSG	mət-ə-pŋəlu-la-tək
	3sg/3nsg	na-pŋəlu-la-tək

Р	А	Example
3sg	1sg	t-ə-pŋəlu-n
	1du	mət-ə-pŋəlu-n
	1pl	mət-ə-pŋəlu-la-n
	2sg	pəŋlu-n
	2du	pəŋlu-tki
	2pl	pəŋlu-la-tki
	3sg	pəŋlu-nin
	3nsg	na-pŋəlu-n
3du	1sg	t-ə-pŋəlu-na-t
	1nsg	mət-ə-pəŋlu-na-t
	2sg	pəŋlu-na-t
	2nsg	pəŋlu-tki
	3sg	pəŋlu-nina-t
	3nsg	na-pəŋlu-na-t
3pl	1sg	t-ə-pŋəlu-na(-wwi)
	1nsg	mət-ə-pŋəlu-na(-wwi)
	2sg	pəŋlu-na(-wwi)
	2nsg	pəŋlu-la-tki
	3sg	pəŋlu-nina(-wwi)
	3nsg	na-pŋəlu-na(-wwi)

4.2.3 Inflection in the resultative

In the resultative aspect, the person and number markers indicate either the subject of an intransitive verb or the patient of a transitive verb. The case marking on the argument determines whether the verb is intransitive or transitive. When the argument to be marked on a verb is in the first person or second person, the person-number markers are attached instead of the resultative suffixes. Such person-number markers are identical with those attached to nominal or adjectival predicates (see 5.3).

Table 10 shows verbal forms in the resultative.

Table 10 Resultative

Intransitive verb {saju} 'to drink tea'		Transitive verb {pŋlu} 'to ask smb.'	
1SG	ya-saju-jyəm	1SG	ya-pəŋlu-jyəm
	'I drank tea.'		'(He/you/they) asked me.'
1DU	ya-saju-muri	1du	ya-pəŋlu-muri
	'we (DU) drank tea.'		'(He/you/they) asked us sg.'
1pl	ya-saju-muru	1pl	ya-pəŋlu-muru
	'we (PL) drank tea.'		'(He/you/they) asked us (PL).'
2sg	ya-saju-jyət	2sg	ya-pəŋlu-jyət
2du	ya-saju-turi	2du	ya-pəŋlu-turi
2pl	ya-saju-turu	2pl	ya-pəŋlu-turu
3sg	ya-saju-lin	3sg	ya-pəŋlu-lin
3du	ya-saju-lina-t	3du	ya-pəŋlu-lina-t
3pl	ya-saju-laŋ(ina)	3pl	ya-pəŋlu-laŋ(ina)

4.2.4 Converb

Converbs are derived from verbal stems by attaching the following suffixes. The suffix -k/-ki is identical with a locative case marker.

- (33) The event preceding the event indicated by a main verb:
 - a. -*k*/-*ki*, *ya*-...-(*t*)*a*
 - b. *yemat-ə-k rəkərŋ-a q-iw?isi-yi* want-E-CVB mouth-INS OPT.2s-drink-2sG.s 'When you (will) want, drink from the pot.'
- (34) The event concurrent with the event indicated by a main verb:a. *yeqə-...-(t)a*, *awən-...-(m)a*, *-kəŋ*, *-kaŋa*
b. saju-kaŋa on^jav t-ә-рŋәlu-n
drink.tea-CVB PSN[ABS.SG] 1SG.A-E-ask-3SG.P[PFV]
'Having tea, I asked O.' (Kilpalin 1993: 80)

Since no person/number marking is shown in converbs, a subject or agent is added in the converb clause when it differs from the subject of an action indicated by a main verb.

- (35) zvonit-ə-k jiyor, nural call-E-CVB PSN[ABS.SG] immediately q-in-iv-i.
 OPT.2A-1SG.P-say-2SG.A[PFV]
 'When J will call me, tell me immediately.'
- (36) tojusav+Sanqav-ə-k un^jun^ju-wwi nuta-ŋ study+finish-E-CVB child-ABS.PL tundra-DAT ujisv-ə-sqiv-la-t. play-E-PURPOSE-PLUR-3NSG.S[PFV]
 'Finishing study, children went to tundra for playing.'

4.3 Adverbs

As mentioned above, adverbs do not occur with inflectional affixes which indicate the person and number.

(37) Adverbs

- a. asyi 'today, now'
- b. *jəqmitiv* 'in the morning'
- c. *əjoyət* 'long time ago'

However, many adverbs can be analyzed into a stem and a suffix.

(38) a. *javal* 'back'
b. *javal-ə-k*back-E-LOC
'in the back (LOC)'

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- c. *javal-ə-ŋ*back-E-DAT
 'to the back (DAT)'
- (39) a. *n-ə-mal-qin* ADJ-E-good-ADJ.3sG 'good'
 - b. *n-ə-mal-?a* ADJ-E-good-ADV 'well'
 - c. *mal-ə-ŋ* good-e-dat 'well'
- (40) a. *n-ə-sem-ə-qin* ADJ-E-near-E-ADJ.3SG 'near'
 - b. *sem-ə-k* near-E-LOC 'nearly'

4.4 Word Formation

4.4.1 Affixation

Word formation by affixation is very productive. Alutor has two main groups for derivational affixes: nominal and verbal. Some affixes have substantial lexical meanings which can be expressed by a word in other languages, for example, 'tool', 'container', and 'to make'.

There are many derivational suffixes from nominal stems, while suffixes from verbal stems are considerably rare.

In the following examples, the suffix -n indicates the absolutive singular case, and the suffix -k/-ki/-kki indicates an infinitive.

Nominal derivational suffixes

- (41) Suffixes for nominal derivation from nominal stems
 - a. -mk 'mass of N': ra-mk-ə-n 'reindeer camp' (<{ra} 'house')
 - b. -*surəm* 'edge of N': *Sin^jn^j-ə-surəm* 'collar' (<{Sinn} 'neck')
 - c. *-t?ul* 'a piece of N, meat of N': *keŋ-ə-t?ul* 'bear meat' (<{keŋ} 'bear')
 - d. -n^jaq(u) '(augmentative)': yəty-ə-n^jaqu 'big lake' (< {yəty} 'lake')
 - e. -*pil^j* (diminutive)': *akka-pil^j* (little son' (< {akka} 'son')
 - f. -lwən 'collective of N, the one who is very Adj': utt-ə-lwən 'forest' (< {utt} 'tree'); ŋira-lwən 'dirt' (< {ŋira} 'ugly')
- (42) Suffixes for nominal derivation from verbal stems
 - a. *-inaŋ* 'tool for Ving': *milyəp-inaŋ* 'lighter' (< *milyəp-ə-k* 'to light')
 - b. -nə 'a place for Ving': em-ə-nə 'a place for water drawing, well' (< em-ə-k 'to draw water')
 - c. -*ju* 'an object to be V': *tu-ju-n* 'object to be eaten, feed, food' (< *tu-kki* 'to eat')
- (43) Suffixes for nominal derivation from verbal and nominal stems
 - a. -*july* 'container for N, place for Ving': *wala-july-ə-n* 'sheath (of a knife) (< *wala* 'knife')'; *milyəp-july-ə-n* 'furnace' (< *milyəp-ə-k* 'to light')
 - b. -kv 'a cover for N, the one which prevents Ving': arŋina-kv-ə-n 'raincoat (< arŋin 'rain')'; saju-kv-ə-n 'snack to go with tea' (< saju-k 'to drink tea')
 - c. -*l*? 'the one having N, the one who is Ving'; *kali-l*?-*ə*-n 'spotted seal (lit. the one who has pattern) (< {kali} 'patterns')'; *vitat-ə-l*?-*ə-n* 'worker (< *vitat-ə-k* 'to work')'

Verbal derivational affixes

- a. -at '(verbalization)': kətiy-at-ə-k 'to blow' (<{ktiy} 'wind'); um-at-ə-k 'to warm up' (< {um} 'warm')
 - b. -av '(verbalization)': sem-av-ə-k 'to come closer' (<{sem}
 'close'); yəryul-av-ə-k 'to rise' (< yəryul 'above')
 - c. -*ru*ſ 'to come (about season or period)': *anu-ru*ſ-*ə*-*k* 'to come (about spring)' (< {anu} 'spring'); *nəki-ru*ſ-*ə*-*k* 'to come (about night)' (< {nəki} 'night')
 - d. -*tku* '(to act by using N)': *wala-tku-k* 'to whittle' (< *wala* 'knife')
 - e. -u 'to eat/drink N; to kill N': saj-u-k 'to drink tea (< {saj} 'tea')'; keŋ-u-k 'to kill a bear (< {keŋ} 'bear')'
 - f. *ta-...-η*(1) 'to make N': *ta-pisy-ə-ŋ-ki* 'to cook (< {pisy} 'food')'
 - g. ta-...- η (2) 'to want to V': ta-la- η -ki 'to want to go (< {la} 'go')'

In addition, there are many verbal derivational suffixes which indicate modality.

4.4.2 Compounds

Compounding is a productive means of word formation in Alutor; it has many compounds. Most compounds are formed by two different stems, although some three-stem compouds are also found. The possible sets of stems are stated as follows:

- (45) a. nominal stem + nominal stem: (46)
 - b. adjectival stem + nominal stem: (47)
 - c. verbal stem + nominal stem: (48)
 - d. adverbial stem + nominal stem: (49)
 - e. verbal stem + verbal stem: (50), (51)
 - f. adjectival stem + verbal stem: (52)
 - g. adverbial stem + verbal stem: (53)

h. nominal stem + verbal stem: (see 5.5.3)

However, only a limited number of verbal stems can appear in the second verbal stem position for verb + verb compounds: {ŋvu} 'to start', {vi} 'to die', {pl^j > tku} 'to finish', {Sankav} 'to stop, to give up'.

Note that when the verb {vis} 'to die' is used in compounds, it loses its primary meaning and indicates the intensiveness of the action which is expressed by a preceding verb (51). Examples of compounds are listed below.

- (46) aŋqa+γərnik sea+animal[ABS.SG]'sea animal'
- (47) meŋ-ə+?iwl-ə-qama-ŋa
 big-E+long-E-dish-ABS.SG
 'big long dish'
- (48) java+fətf-ə-n use+dog-E-ABS.SG 'sledge dog'
- (49) *jaŋta+sama-n* isolated+island-ABS.SG 'isolated island'
- (50) *oji+pl^jətku-k* eat+finish-INF 'to finish eating'
- (51) tanⁱŋo+viᡗ-ə-k
 laugh+die-INF
 'to burst into laughing'
- (52) meŋ-ə+saju-k
 big-E+have.tea-INF
 'to have much tea'

(53) win^jv-ə+tirŋat-ə-k
secretly-E+cry-E-INF
'to cry secretly'

4.4.3 Reduplication

Some nominal stems are reduplicated and form the absolutive singular case. There are two types of reduplications: complete reduplication and partial reduplication. For complete reduplication, an entire nominal stem is reduplicated, and for partial reduplication, the initial three phonemes are reduplicated. However, there are some words which reduplicate the initial four phonemes, as in (54e).

- (54) a. CVC-CVC : *jaq-jaq* 'seagull'; *Səl-Səl* '(accumulated) snow'
 - b. CVCV-CVC : *riri-rir* 'beluga whale'; *yuna-yun* 'pinecone of stone pine'
 - c. CVCC-E-CVC : *tumy-ә-tum* 'comrade'; *tәll-ә-tәl* 'entrance of a fur yurt'
 - d. CVCCV-CVC : *jil^j?a-jil^j* 'ground squirrel'; *qərvu-qər* 'stone pine'
 - e. (C)CVC-E-CCVC : *yiŋ-ə-nyiŋ* 'fishing net' (the word-initial consonant is reduced in the first syllable)

5 Syntax and functional categories

5.1 Word order

Word order in Alutor is considerably unrestrained. However, the details on word order has not been elucidated sufficiently. In verbal clauses, both VO (55) and OV (56) structures are found, although in the texts I have collected, the OV-structure seems to be more frequent.

(55)	kamle-nak	pəŋlu-nin	titk-ə-p
	PSN-INS.SG	ask-3sg.a.3sg.s[pfv]	Sun-e-dim[abs.sg]
	'K asked Su	n.' (SVO) (Kilpalin 199	93: 114, Nagayama 2003: 140)

(56)	a.	qutkən ⁱ n ⁱ aqu-nak	ŋavakək	iv-ə-tkə-nin
		PSN-INS.SG	daughter.ABS.SG	say-IPFV-3SG.A.3SG.P

'Q said to (his) daughter.' (SOV) (Nagayama 2003: 178)

b. *taq-uwwi tuju-wwi* what-ABS.PL provisions-ABS.PL *ta-la§u-ŋ-ə-tkə-nina keŋ-a* want-find-want-E-IPFV-3SG.A.3PL.P bear-INS
'The bear looks for something to eat.' (OVS) (Nagayama 2010: 135)

The modifier often precedes the modified noun, but there are many cases wherein the modified noun precedes its modifier. In compounds, however, the modifier element always precedes a modified element (see 4.4.2).

5.2 Grammatical functions

5.2.1 Subject/Object marking and verb agreement

Alutor is an ergative-absolutive type language, and verb arguments are marked as follows:

- The agent of a transitive verb (A) is marked with the instrumental (= ergative) case.
- The subject of an intransitive verb (S) and the patient of a transitive verb (P) are both marked with the absolutive case.

Verbs agree with (S), (A), and (P). Verb agreement is expressed by means of prefixes and suffixes. As mentioned in 4.2, Alutor has various verb-agreement affixes (prefixes and suffixes). In an intransitive construction, the verb agrees with its subject marked in the absolutive case. In the transitive construction, the verb agrees with its agent marked in the instrumental (= ergative) case and its patient marked in the absolutive case.

(57) a. teləŋ qət-ə-jji miti there go-E-3sG.s[PFV] PSN[ABS.SG]
'M (= Subject) went there.'

In addition, ergativity is also shown in verbal inflectional suffixes. In (58), the subject of an intransitive verb and the patient of a transitive verb in the second person non-singular number are indicated by the same suffix $-t \partial k$.

(58) a. *turu jal-la-tək* you.ABS.PL come-PLUR-2NSG.S[PFV]
'You (= Subject) came.'
b. *yəmnan t-ə-laSu-la-tək* I.INS 1SG.A-E-see-PLUR-2NSG.P[PFV]
'I saw you (= Patient).'

For the first person, however, inflectional affixes are represented as the nominative-accusative type. In (59), the subject of an intransitive verb and the agent of a transitive verb in the first person singular number are indicated by the same prefix t-.

- (59) a. yəmmə t-ə-jat-ə-k
 I.ABS 1SG.S-E-come-E-1SG.S[PFV]
 'I (= Subject) came.'
 b. yəmnan t-akmit-ə-n wala
 - I.INS 1SG.A-take-E-3SG.P[PFV] knife[ABS.SG] 'I (= Agent) took a knife; I bought a knife.'

When a verb is used with negative affixes and cannot show verb agreement, an auxiliary verb is used. Alutor uses two different auxiliary verbs: {it} for intransitive verbs (60) and {tt/nt} for transitive verbs $(61)^2$.

²The form tt- is used in the word-initial position, and -nt-, in the word-medial position.

- (60) jəqmitiv allə oji-ka t-it-ə-k
 morning no eat-NEG 1SG.S-AUX-E-1SG.S[PFV]
 'I did not eat in the morning.'
- (61) allə a-yita-ka t-ə-nt-ə-yət
 no NEG-look.at-NEG 1SG.A-E-AUX-E-2SG.P[PFV]
 'I did not look at you.' (Nagayama 2003: 185)

Note that the auxiliary verb {it} is identical with the verb {it} 'be, exist'.

5.3 Nominal predicate marking

Alutor does not have copula verbs. In nominal predicate sentences, a subject and predicate are put together, and both of them are expressed in the absolutive case.

(62) yuttin lipunŋav this.3sg Japanese.woman[ABS.SG]'This is Japanese (woman).'

Furthermore, in nominal predicate sentences, which have a first or second person subject, a special suffix indicating the person and number of a subject may be attached to the predicate. These suffixes are similar to corresponding personal pronouns, shown in 4.1.2.

Table 11 shows predicative markers. For the first and second person singular, the form with the consonant -j is used after a vowel-final stem, and the form with the vowel -i, after a consonant-final stem. Note that third-person predicates do not have person-number markers.

Table 11 Predicative marker for nominal/adjectival predicate

	SG	DU	PL
1	-jyəm/-iyəm	-muri	-muru
2	-jyət/-iyət	-turi	-turu

(63) a. yəmmə an^ja-jyəm
I.ABS PSN-1SG.PRED
'I am Ania.' (Kilpalin 1993: 14)

b. mur-uwwi jəl^j?al^jŋəjər?ə-muru we-ABS.PL male.cousin-1PL.PRED 'We are cousins.' (Kibrik et al. 2004: 135)

Adjectives and adverbs modifying first and second person pronouns are also followed by a predicative marker which is identical with the one for nominal predicates. Compare the examples below.

(64)	a.	(yəmmə)	n-ənp-iyəm
		I.abs	ADJ-old-1SG.PRED
		'I am old.	' (first person)

b. ənno n-ənp-ə-qin he.ABS ADJ-old-E-ADJ.3SG 'S/he is old.' (third person)

(< a-mk-a-ka-jyam)(65)a. *a-mk-ə-k-eyəm* ADV-small-E-ADV-1SG.PRED 'I am little.' (first person)

> b. a-mk-ə-ka ADV-small-E-ADV[3SG] '(S/he) is little.' (third person)

5.4 Mood and aspect

Alutor has the following four moods: indicative, potential, optative, and subjunctive. Each mood distinguishes the imperfective and perfective aspects, and the concept of tense is expressed by a set of moods and aspects, as shown in Table 12.

Indicative (66)

- a. awwav-ə-tkən leave-E-IPFV '(S/he) is going to leave; (s/he) is leaving.' (imperfective)
- b. awwav-i

leave-3sg.s.pfv '(S/he) has left.' (perfective)

	Imperfective	Perfective
Indicative	action in progress (=	completed action (= past)
	present, past progressive,	
	past habitual etc.)	
Potential	action to be continued in	action to be completed in
	future	future (= future)
Optative	will or command to con-	will or command to start
	tinue an action in progress	and complete an action
Subjunctive	wish to continue an action	wish to start and complete
		an action

Table 12 Mood and aspect

(67) Optative

a. *q-ə-saju-yi* OPT.2S-E-drink.tea-2sG.s

'Have some tea.' (the action has not yet been started)

b. q-ə-saju-tkəni-yi

OPT.2s-E-drink.tea-IPFV-2sG.s

'Have more tea.' (the action is in progress and the speaker offers to continue it)

In addition to the imperfective aspect, Alutor has other suffixes indicating aspect, e.g. inchoative (*-lqiv*) and iterative (*-tku*). These suffixes are attached after the verbal stem.

(68) $ret-\partial k \rightarrow ret-\partial -lqiv-\partial k$ go.home-E-INF \rightarrow go.home-E-INCH-E-INF 'to go home' \rightarrow 'to start to go home'

5.5 Valency change

5.5.1 Causativization

Intransitive verbs can be changed into transitive verbs by using a set of causative affixes. The prefix t/n- has two variation forms: t- occurs in the word-initial position, and -n- in the word-medial position. When a

verbal stem ends with a vowel, the vowel /a/ of the suffixes *-at* and *-av* or the stem final vowel is reduced according to the vowel hierarchy shown in 2.2.2.

(69) a. t/n-: t-ə-passa-k 'to spoil smt.' (< {passa} 'to spoil (vi)')
b. t/n-...-at: t-ə-nvil-at-ə-k 'to stop smt.' (< {nvil} 'to stop (vi)')
c. t/n-...-av: t-ə-pSa-v-ə-k 'to dry up smt.' (< {pSa} 'to dry up (vi)')

The example (70a) shows the intransitive verb $\{pSa\}$ 'dry up', and (70b) shows the causative form.

(70) a. tok t-ə-pfa-tkə hey 1sG.s-E-dry.up-IPFV q-in^ja-n^j-iw?is-al-la-tək OPT.2A-1sG.P-CAUS-drink.smt-CAUS-PLUR-2NSG.A 'Hey, I am thirsty. γive me drink (water).'
b. aŋaŋra-kina na-n-ə-pfa-v-ə-tkə-na PLN-POSS.3PL LOW.A-CAUS-E-dry.up-CAUS-E-IPFV-3PL.P sena-wwi

hay-ABS.PL

'(They) dry hay in the cape A.'

5.5.2 Antipassive

An antipassive construction is formed by the prefix *ina*-, and it often involves the valence-increasing suffix *-at*. In each example below, (a) represents the antipassive construction and (b), the corresponding transitive construction. In (71a), the direct object — 'husband'— of the verb 'chase' is represented in the locative case.

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b. *pujyəmləl?-a* ... *əlwa-wwi*spearman-INS ... wild.reindeer-ABS.PL *na-Salap-ə-tkə-nawwi*LOW.A-catch.up-E-IPFV-3PL.P
'A spearman can catch up wild reindeer.' (Kilpalin 1993: 128)

In (72a), the direct object of the verb 'dry up' is not represented in the sentence.

(72) a. pəsa m-ina-n-ə-pîa-v-ə-k for.a.while OPT.1SG.S-ANTIP-CAUS-E-dry.up-CAUS-E-1SG.S 'I will dry up (my clothes) for a while.' (Kilpalin 1993: 82)
b. aŋaŋra-kina na-n-ə-pîa-v-ə-tkə-na PLN-POSS.3PL LOW.A-CAUS-E-dry.up-CAUS-E-IPFV-3PL.P sena-wwi hay-ABS.PL '(They) dry hay in the cape A.'

However, there are some verbs which retain transitivity even when they have the antipassive prefix.

(73)	a.	matka m-ina-tS-ə-yət
		Q OPT.1SG.A-ANTIP-pour-E-2SG.P
		'May I pour you (some water, tea, wine, etc.)?' (Nagayama 2003: 25)
	b.	ənki ak as?-a taq-a there pTCL fat-INS what-INS ina-svi-tku-nin
		ANTIP-CUT-ITER-3SG, A, 3SG, $P[PFV]$
		'(She) cut fat like that, too,' (Nagayama 2003: 25)

Note that the antipassive prefix is identical with the marker of the first singular patient for transitive verb inflection (see 4.2.2).

5.5.3 Incorporation

Incorporation in Alutor is very productive. Incorporation often involves a direct object of a transitive verb, although intransitive subjects and, rarely, oblique objects can also be incorporated into the verbal stem. The incorporated nominal stem always precedes the verbal stem. When a transitive verb incorporates its direct object, the performer of the action is moved to the subject position being marked by the absolutive case, and the verbal complex takes the intransitive conjugation pattern (74).

(74)	a.	yəmnan	pəlak-u	t-ə-tavamjat-ə-tkə-na
		I.ins	boot-abs.pl	1sg.a-e-crumple-e-ipfv-3pl.p
	b.	үәттә	t-ə-plak+tava	mjat-ə-tkən
		I.abs	1sg.s-e-boot+	crumple-e-ipfv
		'I soften	boots.'	

When an intransitive verb incorporates its subject, the sentence becomes impersonal, as in (75).

- (75) a. *yəty-ə-n qit-ə-tkən* lake-E-ABS.SG freeze-E-IPFV[3SG.S]
 - b. yəty-ə+qit-ə-tkən lake-E+freeze-E-IPFV[3SG.S]
 'The lake freezes.'

Proper nouns and pronouns are not incorporated.

Adjectival and demonstrative stems are attached into a nominal stem in oblique cases. Such operation also may be regarded as a kind of incorporation in a broad sense.

(76)	a.	ənnu	n-ə-Sum-qina-k	ŋavəsŋ-ə-k
		he.ABS.SG	ADJ-E-thick-ADJ-LOC	woman-E-LOC
		ŋavtəŋ-i		
		marry-3sG	S.S[PFV]	
	b.	ənnu	Sum+ŋavəsŋ-ə-k	ŋavtəŋ-i
		he.ABS.SG	thick+woman-E-LOC	marry-3sg.s[PFV]
		'He marrie	ed a stout woman.'	

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(77)

- a. *ənnu yutin-ə-nak ŋavəsŋ-ə-k ŋavtəŋ-i* he.ABS.SG this-E-LOC.SG woman-E-LOC marry-3SG.S[PFV]
- b. *ənnu yutin+ŋavəsŋ-ə-k ŋavtəŋ-i*he.ABS.SG this+woman-E-LOC marry-3SG.S[PFV]
 'He got married with this woman.'

5.6 Command and request

Alutor has two means for expressing commands and requests: optative and imperative forms. The optative form is used for every person (first, second, and third), whereas the imperative form is used only for the second person. Imperative forms distinguish singlular and nonsingular numbers. The optative form usually indicates the speaker's will or demand. The difference between the optative form for the second person and the imperative form remains to be elucidated.

(78) Optative

- a. *q-ə-ralqiv-yi.* OPT.2S-E-enter-2SG.S 'Come in (2SG).'
- b. *q-ə-ralqiv-la-tək.* OPT.2S-E-enter-PLUR-2NSG.S 'Come in (2PL).'
- c. *q-akmit-yən.* OPT.2A-take-2SG.A.3SG.P 'Take it (2SG>3SG).'
- d. *m-akmit-ə-n* OPT.1SG.A-take-3SG.P 'I shall take it.'
- e. *alⁱvaŋ ən-ə-pat-ə-n* gladly OPT.3NSG.A-E-boil-E-3SG.P 'Let them boil it gladly.'

(79) Imperative form

- a. *ya-ralqiv-a* IMP-come.in-IMP 'Come in (2sg).'
- b. *ya-ralqiv-la-ta* IMP-come.in-PLUR-IMP 'Come in (2NSG).'

5.7 Negation

5.7.1 Negation of nouns

The negation of nouns is expressed by attaching the word *alval?in* 'different one' before nouns. The negation of possessives is expressed in the same way.

(80)	a.	ənnu	alval?in	SOSƏV
		he.ABS.SG	different.one.ABS.SG	Koryak.man.ABS.SG
		'He is not	Koryak.'	

b. *alval?in* yəm-nin different.one.ABS.SG I-POSS.SG.3SG '(It) is not mine.'

5.7.2 Negation of adjectives

The negation of adjectives is expressed by attaching the circumfix a-...- $k \ge l$?in to a stem. The negative particle $al(l \ge)$ 'no' may or may not be added. Note that only a few negative forms of adjectives are found in texts.

(81) (al) a-meŋ-ə-kəl?in
no NEG-big-E-NEG.3SG
'(It is) not big.'

5.7.3 Negation of verbs

The negation of a verb is expressed by attaching a negative particle al(la) before a verb and a negative circumfix (*a*)-...-*ka* to a verbal stem. The

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prefixial part of this circumfix is reduced when it is attached to a vowelinitial stem. Markers for indicating person, number, mood, aspect etc., which are usually attached to a verbal stem, are attached to an auxiliary verb.

(82)	a.	allə	a-yita-ka	ı	t-ə-nt-ə-yət
		NEG	NEG-look	at-neg	1SG.A-E-AUX-E-2SG.P[PFV]
		'I dic	l not look	at you.'	(Nagayama 2003: 185)
	b.	allə	iv-ka	it-ti	
		NEG	say-neg	AUX-3SC	G.S[PFV]
		'(S/h	e) said no	thing.'	

Negative volition of the first person is expressed by the particle *qətəmmə* and the optative form.

(83) qətəmmə m-ə-pilat-ə-k
NEG OPT.1SG.S-E-stay-E-1SG.S[PFV]
'I will not stay here.'

5.7.4 Prohibition

Prohibition is expressed by the following four means. Although the difference between them remains to be elucidated, sentences with the word $in^{j}as$ 'as much as, enough' are used to refer to ongoing actions.

- (i) prohibition particle *kətvəl* + verb (optative): see (84)
- (ii) prohibition particle *kətvəl* + verb (negative): see (85)
- (iii) adverb *in^jas* 'enough' + verb (optative): see (86)
- (iv) adverb *in^jas* 'enough' + verb (negative) (+ auxialiary verb (optative)):
 see (87)

For the prohibition of plural subject actions, the plurarity marker *-la* is attached to a negative form (85, 87b).

- (84) kətvəl yəttə q-ə-pilat-yi do.not you.ABS.SG OPT.2S-E-stay-2SG.S 'Do not stay here.'
- (85) kətvəl a-n-iw?is-al-la-ka do.not NEG-CAUS-drink-CAUS-PLUR-NEG 'Do not give him drinking water.'
- (86) in^jas q-it-yi
 enough OPT.2s-be-2sG.s
 'That's enough' 'Cut it out!'
- (87) a. in^jas a-riSat-ka q-it-ə-tkə enough NEG-be.glad-NEG OPT.2-AUX-E-IPFV[2SG.S]
 'Stop being overjoyed!' (singular)
 - b. *in^jas a-tirŋ-ə-viS-ə-la-ka*enough NEG-cry-E-die-E-PLUR-NEG[2PL]
 'That's enough crying!' (plural)

5.8 Quesitons

Questions are expressed by the following means: intonation, question particles, and interrogative words. A yes/no question usually includes a dinstinctive intonation pattern, and it can optionally contain a question particle.

A wh-question (question-word question) uses a set of interrogative words: {mik} 'who', {taq} 'what' etc. These words inflect a full set of paradigms as case markers or verbal inflectional affixes (see 5.8.2).

The word order does not change in question clauses.

5.8.1 Yes/no questions

As mentioned above yes/no questions involve a dintinctive intonation. However, they can also involve the question particle *matka*. In (89), the question particle *matka* can be ommitted.

(88) *jəsusav-i* understand-2sg.s[PFV] 'Do you understand?'

(89) matka ta-lyu-ŋi
Q POT-kill.wild.reindeer-POT.PFV[3SG.S]
'Will (he) kill a wild reindeer?'

5.8.2 Interrogative words

The interrogative word {mik} 'who' is used for nouns indicating humans, and {taq} 'what' is used for other animate and non-animate nouns. Like common nouns, these interrogative words can take case suffixes, and are distinguished in number in the absolutive case.

- (90) interrogative word {mik} 'who'
 - a. miyya, mik-ə-nti, mik-uwwi 'who? (ABS.SG, DU, PL)'
 - b. *mik-nak* 'who? (INS); at whom? (LOC)'
 - c. mik-naŋ 'whom? (DAT)'
 - d. *mik-nepəŋ* 'along whom? (PROL)'
 - e. mik-u 'as who? (ESS)'
- (91) interrogative word {taq} 'what?'
 - a. tinya, taq-ti, taq-uwwi 'what? (ABS.SG, DU, PL)'
 - b. *taq-a* 'by what? (INS)'
 - c. taq- ϑ -k 'at what?; in what? (LOC)'
 - d. *taq-ə-ŋ* 'to what? (DAT)'
 - e. *taq-jipəŋ* 'along what? (PROL)'
 - f. taq-u 'as what? (ESS)'

The interrogative word {maŋ} 'how, wh-' is used for other questions: 'how', 'how many', 'when', 'which', 'where', etc.

- (92) interrogative word {maŋ} 'how, wh-'
 - a. maŋ-ki 'where? (LOC)'
 - b. maŋ-in 'which? (POSS)'

- c. *maŋ-inⁱas* 'how many, how long?' (< *inⁱas* 'so much, enough')
- d. maŋ-kət/maŋ-kətiŋ 'how, where (DAT)?'
- e. *maŋ-kepəŋ* 'from where, along where (PROL)?'

Question words appear in the sentence-initial position.

(93) miyya iv-i
who.ABS.SG say-2SG.S[PFV]
'Who said?'

The interrogative word {taq-} can be used as a verb.

- (94) a. $taq \partial -k$ 'to do what? (INF)'
 - b. *yəttə taq-ə-tkən*you.ABS.SG do.what-E-IPFV[2SG.S]
 'What are you doing?'
- (95) ya-taq-lin=qa n-is?->+sasa-qin
 RES-what.happen-RES.3SG.S=EMPH ADJ-heavy-E+taste-ADJ.3SG
 >lwa+punta
 wild.reindeer+liver[ABS.SG]
 'Why this wild reindeer liver taste funny?' (Nagayama 2003: 162)

In addition, Alutor has other interrogative words, which do not take the case suffix: *tita* 'when', *tasər* 'how much', and *maja* 'where'.

5.9 Complex sentences

5.9.1 Relative clauses

In this section, I only provide some examples of relative clauses, because I do not have adequate material to describe relative clauses in Alutor.

As Kibrik et al. (2004: 328-336) mentioned, there are some examples of relative clauses which are formed by using the interrogative word *maŋ*-'how, which' and pronoun *ŋan*- 'that' (96), or the participle marker *-l?* (97).

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- (96) ... maŋki nikə nan ən ratamra-n ... where.loc that PTCL DUMMY.ABS.SG fur.yurt-ABS.SG it-ə-tkə ya-tiwl-*ə*-laŋ ŋantiŋ ən be-e-ipfv[3sg.s] there.dat res-carry-res.3pl.p well kalil?+ə-tumju-lwən nika-w DUMMY-ABS.PL spotted.seal+E-carcass-heaps.ABS.SG ...(They) carried seal carcasses to where, there are a fur yurta. (Nagayama 2005: 73)
- (97) nik ənŋin ŋəpa-tkə ŋan
 DUMMY well get.out-3sG.s[IPFV] that.3sG
 yəty-ə-lⁱq-ə-k it-ə-l?-ə-n tinifəŋawət
 lake-E-surface-E-LOC be-E-PTCP-E-ABS.SG PSN.ABS.SG
 'Well, T who was on the surface of the lake got out (from the lake).'

5.9.2 Adverbial clauses

The adverbial clauses indicating time are formed by using the interrogative word *maŋin^jas* 'how many, how long' or adverb *kitkit* 'a little bit'. Some young speakers also use the interrogative word *tita* 'when', although elderly speakers consider such usage to be an influence of Russian. These words marking adverbial clauses often occur in the clause-initial position (98); however, we can find them in the clause-final position (99). Clauses indicating time tend to precede a main clause.

- (98) maŋin'as ya-mal+?itil-laŋ how.many RES-good+come.to.a.boil-RES.3PL.S y-ar?a+pal-laŋ >n RES-boiled.fish+boil-RES.3PL.P INTJ
 'When water (in the pot) came to a boil, (I/(s)he/they) boiled fish.'
- (99) ya-ŋarŋar-ruŷ-ə-lqiv maŋin'as ŋarŋar+?ənn-u
 RES-autumn-set.in-E-INCH when autumn+fish-ABS.PL
 ya-jal-laŋ
 RES-come-RES.3PL.S
 'When autumn had come, the autumn fish came.'

(100) kitkit jəlq-ə-lqiv-la-t ənŋina nural
a.little.bit sleep-E-INCH-PLUR-3NSG.S[PFV] those.3PL in.a.hurry
tiniSaŋawət-ə-nak ŋəvu-jji waŋil?at-ə-k
PSN-E-INS.SG begin-3SG.S[PFV] sew-E-INF
'As soon as they fell into sleep, T began sewing.' (Nagayama 2003: 223)

Conditional clauses are formed by using the conjunction $\eta avaq$ 'if' (101) or the subjunctive mood (102).

- (101) ...ŋavaq ta-lla-mla-ŋi tinnə varat
 ...if POT-blink-POT.3SG.S what.ABS.SG people[ABS.SG]
 ta-tku-ŋi
 POT-become.extinct-POT.3SG.S
 '...if (God) blinks, people will become extinct.' (Nagayama 2010: 140-141)
- (102) sasusaŋawət it-ka nəſ-it-ə-n tinya asyi
 PSN[ABS.SG] be-NEG SBJV.3SG.S-AUX-E-3SG.S INTJ now
 taq-yəmmə m-it-ə-k, t-a-viſ-ə-k
 what-I.ABS OPT.1SG.S-be-E-1SG.S 1SG.S-SBJV-die-E-1SG.S
 ənkəjap.
 long.ago
 '(If) there is no S, I would not be (here) now. I would have died
 long ago.' (Nagayama 2003: 241)

6 Text: 'Signal of Snipes' (legend)

[1] ənŋin yanikalaŋina, nu yatkivəsqivlaŋina nunuyərŋəŋ, Saqan taqyərŋəŋ, nikaŋ rəmŋəŋ.

ənŋin ya-nika-laŋina nu
that.3sg RES-DUMMY-RES.3PL.S well(Rus.)
then they.did.so well
ya-tkiv-ə-sqiv-laŋina
RES-stay.the.night-E-go.for.the.purpose.of.smt-RES.3PL.S
they.went.to.stay.some.nights

nunu-yərŋ-ə-ŋSaqantaq-yərŋ-ə-ŋnika-ŋfireweed-abundance.of-E-DATevenwhat-COL-E-DATDUMMY-DATfireweedevenwhateverhow.to.sayrəmŋ-ə-ŋroot-E-DATroots''Well, they did so; that is, they went to stay for nights to gather, andwhat does one call them—various (edible) roots.'roots.'

[2] ojjojo navəsqe yawwavətkulan yətyək yarawivlan manki.

ojjojo	ŋavəsqe		
INTJ	a.group.of.women[AB	s.sg]	
oh	a.group.pf.women		
ya-aw	wav-ə-tku-laŋ		yəty-ə-k
RES-lea	ave-E-in.great.number	-res.3pl.s	lake-e-loc
they.le	eft		at.a.lake
ya-rav	wiv-laŋ	maŋki	
RES-sta	ay.the.night-res.3pl.s	where	
they.st	tayed.the.night	somewher	re
'A lard	te number of women y	went and	they spent the nig

'A large number of women went, and they spent the night somewhere at a lake.'

[3] Saqal?u ana taqu ənŋinawwi itəlqivlat tanŋwwi.

Saqa-l?-u	ana	taq-u	ənŋina-wwi			
bad-having-ABS.PL	maybe	what-ABS.PL	that-ABS.PL			
enemies	maybe	something	those			
it-ə-lqiv-la-t		tanŋ-uwwi				
be-e-inch-plur-3n	SG.S[PFV] enemy-ABS.	PL			
there.were Chukchi						
'There were enemies, maybe someone like Chukchis.'						

[4] siririwwi ana japlu nika yantiŋavlaŋ siririwwi ənŋina.

siriri-wwi	ana	japlu	nika	ya-ntiŋav-laŋ
snipe-ABS.PL	maybe	but	DUMMY	RES-fly-RES.3PL.S
snipes	maybe	but	how.to.say	they.were.flying

siriri-wwi ənŋina snipe-ABS.PL that.3PL snipes well 'Snipes, maybe snipes were flying there.'

[5] siririwwi yəSeŋalaŋ əty-ina ənŋina nikawwi tojəvŋuwwi siririwwi, siknaluwwi.

siriri-wwi ya-Seŋa-laŋ əty-ina ənŋina snipe-ABS.PL RES-honk-RES.3PL.S they-POSS.3SG that.3PL they.honked their these snipes nika-wwi siriri-wwi siknal-uwwi tojəvŋ-uwwi DUMMY-ABS.PL signal-ABS.PL snipe-ABS.PL signal-ABS.PL how.to.say signals snipes signals 'Snipes honked. Snipe's honk, how to say, is a signal.'

[6] kitkit siririw yəSeŋalqivlaŋ, ojiv ənpəŋava yivlaŋ:

kitkitsiriri-wya-Seŋa-lqiv-laŋojiva.little.bitsnipe-ABS.PLRES-honk-INCH-RES.3PL.Sthat.iswhensnipesthey.started.to.honkthat.isanpəŋav-aya-iv-laŋold.woman-INSRES-say-RES.3PL.Pold.womansaid.themsaid.them'When snipes honked, an old woman said to all.'

[7] aŋeqəka siriri Seŋalqivi.

aŋeqəka siririSeŋa-lqiv-iINTJsnipe[ABS.SG]honk-INCH-3SG.S[PFV]oh.noa.snipeit.honked'Oh, no!A snipe honked!'

[8] maŋkətiŋ mənwalqivlamək

maŋkətiŋ mən-walqiv-la-mək
where.DAT OPT.1NSG.S-get.away-PLUR-1NSG.S[PFV]
somewhere we.shall.get.away
'We shall get away somewhere'

6. TEXT

[9] ənpəŋav

ənpəŋav old.woman[ABS.SG] old.woman 'The Old woman (said).'

[10] jaqqe nataləSulamək ənŋin.

jaqqe na-ta-ləʕu-la-mək ənŋin later LOW.A-POT-see-PLUR-1NSG.P[PFV] that.3sG soon they.will.see.us well '(Otherwise) they will find us soon.'

[11] ənpəŋav yivlin:

ənpəŋavya-iv-linold.woman[ABS.SG]RES-say-RES.[3SG.S]old.womanshe.said'The old woman said.'

[12] wiŋriwwi nikə... jəsisyatətkə.

wiŋri-wwinikəjəſisyat-ə-tkədigging.tool-ABS.PLDUMMY[ABS.SG]moon.shines-E-IPFV[3SG.S]digging.toolshow.to.sayMoon.shines'Digging tools, how to say, Moon shines.'

[13] aŋe yətyən^jaqu ənki itətkə.

aŋe yəty-ə-n^jaqu ənki it-ə-tkə very lake-E-AUG[ABS.SG] there be-E-IPFV[3SG.S] very big.lake there there.was 'There was a big lake right over there.'

[14] wiŋriwwi nikanu, rənnu yanpəlaŋ, yawalqivloŋ.

wiŋri-wwi	nika-nu	rənn-u	ya-np-ə-laŋ
digging.tool-ABS.PL	DUMMY-ESS	antler-ESS	RES-put.on-e-res.3pl.p
digging.tools	as.that	as.antlers	they.put.on.them

ya-walqiv-laŋ

RES-run.away-RES.3PL.S

they.had.run.away

'(Women) put a digging tool (on their head) as (reindeer) antlers and ran away.'

[15] qeq ənŋin nikawwi ənŋin, taqu=qa, tanŋuwwi qeq yivlaŋ:

nika-wwi ənŋin ənŋin taq-u=qa qeq they.say that.3sg DUMMY-ABS.PL that.3sg what-ABS.PL=EMPH they.say well what.are.they how.to.say well tanŋ-uwwi ya-iv-laŋ qeq enemies-ABS.PL they.say RES-say-RES.3PL.S Chukchis they.say they.said 'Then, well, how to say, Chukchis said.'

[16] qi əlwamkən van ənŋin.

qi	əlwa-mk-ə-n	van	ənŋin	
INTJ	wild.reindeer-herd-E-ABS.SG	PTCL	that.3sg	
INTJ	herd.of.wild.reindeer	PTCL	well	
'(It is) a held of wilde reindeer.'				

[17] a qənut ŋavəsŋe walqivlatkət.

a qənut ŋavəsŋe but(Rus.) as.if a.group.of.women[ABS.SG] but as.if women walqiv-la-tkə-t run.away-PLUR-IPFV-3NSG.S they.ran.away 'But indeed, women ran away.'

[18] yajuSəlaŋ amran, tinya yawalqivlaŋina.

ya-juS-ə-laŋ	am-ra-n	tinya
RES-come.at-e-res.3pl.p	only-house-ABS.SG	what.ABS.SG
they.came.to.them	empty.house	oh.no

ya-walqiv-laŋina RES-run.away-RES.3PL.S

they.had.run.away

'(When Chukchis) came to (the women), there was only an empty house. (All women) had run away.'

[19] *in^jatkin qun van in^jatkin ənŋin*.

in^jatkin qun van in^jatkin әnŋin last ЕМРН РТСL last that.3sG end ЕМРН РТСL end well 'That's all. The end.'

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