

# **A SKETCH GRAMMAR OF CHUKCHI**

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# Acknowledgements

The starting point of this thesis is probably a joke:

*Chukcha goes to Africa. When he gets home, the whole village asks him, "What did Chukcha see in Africa?" Chukcha saw many of things in Africa. "Did Chukcha see animals?" Oh, yes, Chukcha saw many animals.*

*"What kind?" Chukcha saw hippos.*

*"What kind of animal is a hippo?" Do you know the reindeer?*

*"Yes, yes, we know all about reindeers"*

*Well, it's like a reindeer, but big and fat*

*"And did Chukcha see any other animals?" Oh yes, Chukcha saw a giraffe.*

*"What kind of animal is a giraffe?" Do you know the reindeer?*

*"Yes, yes, we know all about reindeers"*

*Well, it's like a reindeer, but with a long, long neck.*

*"And did Chukcha see any other animals?" Oh yes, Chukcha saw a crocodile.*

*"What kind of animal is a crocodile?" Do you know the reindeer?*

*"Oh, yes, we know all about reindeers"*

*Well, it's completely unlike a reindeer.*

At which point the assembled company of Russians dissolved into laughter. I thought, who are these Chukchas? And what do they have against 1/2sg personal pronouns? Racial humour. Look where it leads.

First of all I must warmly thank my supervisors, Bob Dixon and Sasha Aikhenvald. Throughout the year I have spent working on this thesis they have been encouraging, enthusiastic and supportive, and their criticism and comments have always been valuable. Ulrike Mosel and Tony Liddicoat have also been of particular assistance during my honours year. Angela Terrill has spent many hours reading my drafts and dissuading me from various misguided and confused ideas, and together with Patti Steele, has kept me company at The Gods, eating cake and drinking coffee and doing linguistic analysis.

Michael Dunn  
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# Table of Contents

Acknowledgements	i
Table of Contents	ii
Abbreviations	vi
<b>1 Introduction</b>	<b>1</b>
1.1 History and culture	1
1.2 The Chukchi language	3
1.3 Sources	6
<b>2 Phonology</b>	<b>8</b>
2.1 Men's and women's speech	8
2.2 Consonants	9
2.2.1 Stops	10
2.2.2 Fricative	11
2.2.3 Nasals	12
2.2.4 Approximants	12
2.2.5 Women's /c/	13
2.3 Vowels and vowel harmony	13
2.4 Phonotactics	14
2.4.1 Syllable structure	14
2.4.2 Schwa epenthesis	15
2.5 Phonological processes	16
2.5.1 Consonant features	16
2.5.2 Assimilation of place	17
2.5.3 Assimilation of nasality	19
2.5.4 Dissimilation of backness	20
2.5.5 Dissimilation of nasality	20
2.5.6 Grave cluster transformation	20
2.5.7 Coronal cluster transformation	21
2.5.8 Vowel deletion and reduction	21
2.6 Stress	22
2.6.1 Exclamations	23
2.7 The current Chukchi orthography	23
<b>3 Word classes</b>	<b>28</b>
3.1 Nouns	32

3.2	Numerals	32
3.3	Verbs	32
3.4	Verbal base	33
3.5	Adjectives	33
3.6	Conjunctions	33
3.7	Adverbs and particles	34
3.8	Interjections	35
<b>4</b>	<b>Nominal morphology</b>	<b>36</b>
4.1	Formal characteristics of nouns	36
4.2	Declension	36
4.2.1	Declension I	39
4.2.2	Pronominal declension	41
4.2.3	Declension II	42
4.2.4	Declension III	43
4.3	Case and Number	44
4.3.1	Absolute case	44
4.3.2	Ergative and Instrumental cases	45
4.3.3	Locative case	46
4.3.4	Ablative case	47
4.3.5	Dative and allative cases	47
4.3.6	Orientalive case	48
4.3.7	Privative case	49
4.3.8	Associative case	49
4.3.9	Comitative case	50
4.3.10	Essive case	50
4.4	The genitive	51
4.4.1	Possessive genitive	51
4.4.2	Source genitive	53
4.5	Derivational morphology	54
4.5.1	Possessed predicate	54
4.5.2	Participles and - <b>lɪ</b> nominalization	54
4.5.3	- <b>jo</b> participle	56
4.5.4	- <b>lɪ</b> participles	57
4.5.5	Restrictive prefix	58
4.5.6	Distributive prefix	59
4.5.7	Augmentative and diminutive affixes	59
4.5.8	Other lexical derivational formatives	60
4.6	Compounding	61

4.7 Numerals	61
4.7.1 Grammatical behaviour	61
4.7.2 Simple numerals	62
4.7.3 Compound numerals	62
4.7.4 Analytic numerals	63
4.7.5 Derivational morphology	64
4.7.6 Numerals in non-absolute cases	64
<b>5 Verbal morphology</b>	<b>65</b>
5.1 Inflectional categories	65
5.2 Hierarchies of agentivity	67
5.2.1 Active paradigms	67
5.2.2 Stative paradigms	70
5.3 Active verbal paradigms	70
5.3.1 Nonfuture perfective	71
5.3.2 Nonfuture imperfective	74
5.3.3 Future perfective	76
5.3.4 Future imperfective	79
5.3.5 Intentional perfective	81
5.3.6 Intentional imperfective	83
5.3.7 Conditional perfective	85
5.3.8 Conditional imperfective	87
5.4 Stative verbal paradigms	89
5.4.1 The stative perfect	89
5.4.2 The stative imperfect	92
5.5 Subordinate verbs	94
5.5.1 Dependent time reference	94
5.5.2 Cause and purpose	96
5.5.3 Negative	97
5.5.4 Infinitive	99
5.5.5 Other subordinate forms	99
5.6 Analytic verbs	100
5.7 Valency changing operations	101
5.7.1 Valency-increasing (causative) affixes	102
5.7.2 Antipassive	103
5.7.3 Incorporation as a valency changing device	104
5.7.4 Inflecting and analytic formation	107
5.8 Derivational morphology	107
5.8.1 Cross categorial derivation	107

5.8.2 Deverbal derivation	108
<b>6 Adjectives</b>	<b>109</b>
6.1 Person-number agreement	112
6.2 Derivational morphology	112
6.3 Cross-categorial derivation	113
6.3.1 Deadjectival adverbs	113
6.3.2 Deadjectival verbs	113
6.3.3 Deadjectival nouns	114
<b>7 Syntax</b>	<b>115</b>
7.1 Syntactic constituents and constituent order	115
7.1.1 Absolutive noun phrases	116
7.1.2 Oblique noun phrases	118
7.2 Basic verbal clauses	118
7.2.1 Transitive and intransitive clauses	118
7.2.2 The position of peripheral elements in basic clauses	119
7.2.3 Negation	119
7.2.4 Interrogatives	120
7.3 Copula and verbless clauses	121
7.3.1 Copula clauses	121
7.3.2 Verbless clauses	121
7.3.3 Negation	122
7.4 Complex sentences	123
7.4.1 Conjunctive particles	123
7.4.2 Clauses with subordinate verbs	123
References	126
Texts	129
Vocabulary	134



# Abbreviations

This list includes all the abbreviations used in the interlinear glosses and in the lexicon entries.

*	Underlying form	INST	Instrumental case
?√	Vowel prosody unknown	INT	Intentional
1	First person	INTJ	Interjection
2	Second person	intr.	Intransitive
3	Third person	INV	Inverse
A	Transitive subject (Agent)	J	'Juveremkin' (Skorik 1977:364-370)
ABL	Ablative case	LOC	Locative case
ABS	Absolutive case	n√	Prosodically neutral
ADJ	Adjective	NEG	Negative
ADV	Adverb	nI	Noun, declension I
ALL	Allative case	nII	Noun, declension II
AP	Antipassive	nIII	Noun, declension III
ASS	Associative case	NOM	Nominalizer
AUG	Augmentative	O	Transitive object (Patient)
COM	Comitative case	ORI	Orientative case
COND	Conditional	PART	Participle
d√	Prosodically dominant	PCL	Particle
DAT	Dative case	PERF	Perfective
DEM	Demonstrative	pl	Plural
DER	Derivational affix	POSS	Possessive genitive
DESID	Desiderative	PRIV	Privative case
DIM	Diminutive	REST	Restrictive
DIST	Distributive	S	Intransitive subject
du	Dual	sg	Singular
ERG	Ergative case	SUB	Subordinate form of a verb
ESS	Essive case	tr.	Transitive
FUT	Future	v	Verb
IMPF	Imperfective		

# 1. Introduction

The Chukchi language is spoken by about fourteen thousand Chukchi living in permanent settlements and nomadic encampments spread diffusely throughout the Chukchi Peninsula, the extreme part of north-eastern Siberia bordering the Bering Strait. The term 'Chukchi' comes to us via Russian. As an ethnonym it is inaccurate, originating from the Chukchi word **čavčəv** (pl. **čavčəvat**) which refers only to the reindeer-herding Chukchi and excludes the **ankalʔən** 'coast dwellers', a division fundamental to traditional Chukchi society. The use of 'Chukchi' for the entire people came into use in Russian in the 17th century (sg. *čukca*, pl. *čukci*), whence it spread to other languages. In the 1930s the term **ləʔoravetʔan** 'proper person' (pl. **ləʔoravetʔat**) gained some popularity as a native ethnonym, and was occasionally used in (mostly technical or specialist) Russian in the form '*luoravetlan*'. Among other reasons, this term was inadequate as it was also used for self-reference by the neighbouring Korjak. Since the 1930s the Chukchi have not shown strong preferences of their own for a 'native' ethnonym, and the coinage **ləʔoravetʔat** has fallen out of use. Younger speakers, many of whom do not know whether their origins are with the sedentary fishers or the nomadic reindeer herders, have come to accept the Russian term.

## 1.1 History and Culture

In the mid-sixteenth century the Russian Empire had already begun its colonial expansion across the Urals and into North Asia. Of prime importance to the Russian colonisation effort was always the necessity to make it pay. Efforts in this direction were heavy-handed to the extreme, and the so-called 'trade' was little different to banditry. Robbery, rape, murder and slavery of the native Siberians was unpunished, if not encouraged, by the colonial administration, to whom the Siberian natives were required to pay *yasak*, tribute in furs and walrus ivory. Hostages were taken to ensure payment, which was extorted at levels many times higher than ever actually paid to the distant Tsar.

It wasn't until 1644 that the Russians first made direct contact with the Chukchi, on the river Kolyma. The Chukchi peninsula is the part of Siberia most removed from European Russia; it is mostly mountainous or hilly with only tundra vegetation and its climate is extremely cold. Along with the unfavourable environmental conditions, the Chukchi peninsula lacked large quantities of fur-animals or other valuables, and so was virtually the last place to suffer the attentions of the colonisers. Occasional fighting had been taking place ever since first contact, but when fur bearing animals began to disappear in the rest of Siberia due to overhunting, expeditions were finally sent into





Chukchi lands in earnest. From 1729 warfare intensified, with many killed and captured on both sides. Chukchi warriors were known to kill their families when capture was unavoidable. The Russian fort of Anadyrsk was besieged several times by bands of Chukchi numbering in the thousands. In 1764 the unsuccessful and costly attempts to subjugate the Chukchi were brought to a close. Anadyrsk fort was abandoned after 120 years of warfare. During this time the Chukchi themselves were not innocent of atrocities, raiding their oppressed neighbours for ironware and other manufactured goods obtained in trade from the Russians. Chukchi resistance to colonisation only dissipated in the years after the Russians abandoned their attempts at conquest. The attractions of tradegoods and the other material advantages of contact with the Russians proved strong, and ties slowly built up between the two groups. Unlike other Siberian peoples, the Chukchi managed to maintain a large degree of independence, and were still living their traditional lifestyles into the twentieth century.

With the collapse of the Russian Empire and the civil war that followed the Chukchi were left very much alone. In the 1930s the new government began to get involved in the welfare of the Chukchi. In 1931 a standard alphabet based on Latin was introduced, and school books and newspapers were published. Schools gave lessons in Chukchi, with Russian as a compulsory second language. The use of two different orthographies caused a great deal of confusion, and in 1937 it was decreed that Chukchi (along with all the other languages of the Soviet Union without long histories of literacy) would change to a Cyrillic based orthography. This orthography inherited the orthographical rules of Russian, which were completely redundant for Chukchi's radically different phonological system (§2.7). Presumably this added complexity was deemed worthwhile as it aided students in learning Russian. From the 1930s native Chukchi began to be employed as medical workers, teachers and engineers in the Chukchi autonomous *okrug*, and Chukchi writers begin to be published in Chukchi and Russian.

The benevolent interest in the Chukchi that characterised the 1930s disappeared with the beginning of the Second World War, and forced collectivisation and Stalinist nationalities policy focussing on assimilation to the Russians caused a great deal of suffering.

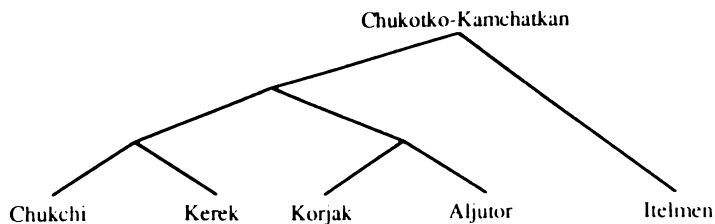
By the census of 1979, the number of Chukchi in Russia was about 13 600. Most of these live in the Chukchi autonomous *okrug*, an administrative area formed for the Chukchi in 1930. In 1983 the total population of the *okrug* was estimated at 143 000, with the huge majority of non-Chukchi being Russians, but with small numbers also of other native Siberians such as Evens, Korjaks and Yakuts. About 83% of the Chukchi claim Chukchi as their native language. This is relatively high for one of the smaller

languages of Russia, but is a noticeable drop from the 94% (out of 12 700 ethnic Chukchi) who claimed Chukchi as their native language in the census of 1959.

In contrast to their position as an economic backwater up until the nineteenth century, the Chukchi lands are now economically important to Russia. In the Chukchi autonomous *okrug* is the leading Siberian gold area, and there are also mines for tin, tungsten, mercury and coal. These developments have not brought noticeable improvement to the lives of the Chukchi. Greedy and short-sighted industrial practices have caused severe ecological degradation, rendering much of the land useless for its traditional purposes. Commercial hunting has wiped out the walrus populations relied upon by the coastal Chukchi. In 1989 it was reported that reindeer moss has for decades been showing a high level of radiation from the fallout from atmospheric nuclear tests in the 1950s and 1960s over Novaja Zemlja. This radiation passes from the moss to the deer to those who eat the deer, causing a high incidence of cancer and other diseases. The Chukchi have an infant mortality rate approaching ten percent and an average life expectancy of only forty-five years. Discussion of these problems has been taboo for many years, and such issues are only beginning to be appear in the Russian press.

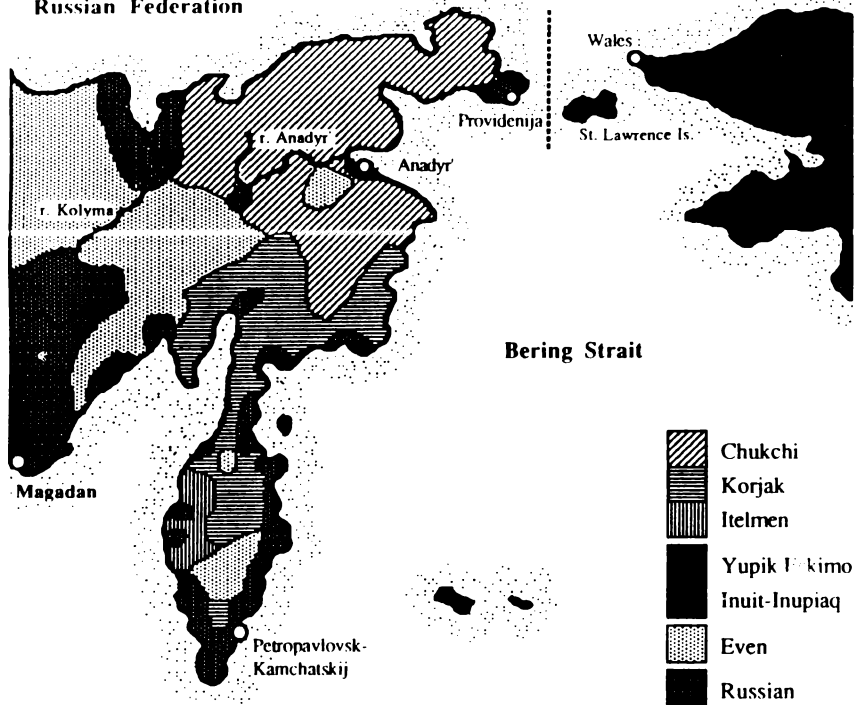
## 1.2 The Chukchi Language

Chukchi is a Paleosiberian language of the Chukotko-Kamchatkan family. The term 'paleosiberian' is used as a general label for languages of northern Siberia and does not reflect any genetic affiliation. Along with Chukchi (11 231 speakers in 1970), the main languages of the Chukotko-Kamchatkan family are Korjak (6075 speakers) and Itelmen (464 speakers, all over 40 in 1970). Chukchi and Korjak have the dialects (sometimes distinguished as separate languages) Kerek and Aljutor respectively. Chukchi, Kerek, Korjak and Aljutor are all closely related, and Comrie (1981:240) suggests that they could all be considered dialects of one language.



The present distribution of the Chukotko-Kamchatkan languages is shown on the map below (based on Mosley and Ascher 1994: maps 1 and 58). Kerek is included in Chukchi and Aljutor in Korjak):

## Russian Federation



At the time of the pioneering work of Bogaras in the late nineteenth century, Chukchi pronunciation was divided into women's and men's variants which were phonetically quite different, although this feature of the language is now disappearing in favour of the men's variant. The two phonemes in the men's language /ɕ/ and /r/ are equivalent to a single phoneme /c/ in the women's language.

The 14 consonant phonemes of erstwhile men's Chukchi are (p, t, ʔ, q, ʔ, ʕ, l, m, n, ŋ, v, r, j, ɣ). There are 6 vowels (a, i, e, u, o, ə), which are organised in a system of vowel harmony with dominant e, o, a alternating with recessive i, u, e respectively. The presence of a dominant vowel harmony in any morpheme of a word triggers the dominant vowel harmony for the entire word, otherwise the vowels follow the recessive series. Schwa is transparent to the vowel harmony rules, it does not affect the spread of the vowel harmony across the word, but neither is it affected by them. Schwa rarely makes phonemic contrasts and its position is often predictable either through reduction of

other vowels or epenthesis. In an earlier stage of the language schwa was probably not phonemic at all. Note that the vowel harmony prosody is a feature of a morpheme, not of any particular vowel. Some morphemes without any vowels at all can trigger the prosody. Chukchi words consist of syllables of the structure (C)V(C), so a word can have consonant clusters with a maximum of two members word internally and a maximum of a single consonant peripherally.

Structurally Chukchi is an agglutinating language. Nouns belong to one of two main declensions according to semantic criteria of kinship and animacy. Some nouns may be declined by more than one of the declensions. There are ten cases: Absolutive Ergative/Instrumental, Locative, Ablative, Dative-Allative, Orientative, Privative Associative, Comitative, and Essive. Singular and plural are not expressed for inanimates except in the absolutive.

Chukchi grammar shows features of ergative and features of accusative systems. The morphological marking for ergativity is extremely regular in noun phrases, with almost every noun phrase participating in the ergative-absolutive opposition. Comrie (1981:248) states that this makes the ergativity of Chukchi case-marking 'one of the most consistent found in any language of the world'. In contrast, the syntactic structure of Chukchi shows, with small exceptions, almost no ergative-absolutive organisation. Syntactic pivots are mostly nominative-accusative or neutral. Chukchi verbal morphology shows features of an inverse system.

According to grammatical criteria, it is possible to distinguish a number of word classes for Chukchi. Some of these classes are closed, rarely if ever gaining or losing lexical items. Closed word classes in Chukchi include conjunctions, verbal bases, particles and adverbs (not strongly differentiated from one another), and interjections. Of the open classes, two are clearly distinguished from one another. One of these functions only as a predicate, it requires one or more arguments from the other class, and typically expresses actions or processes. This is uncontroversially the Chukchi class of verbs. It will come as no surprise that the other open class referred to, which can be taken as a verbal argument, also fulfills the other typical functions of the class of nouns; i.e. may function as the head of a complex argument or the predicate in a copula clause, and include (although not exclusively) the names of people, places and things. The classes of noun and verb are also distinguished by their grammatical categorisation, which is shown morphologically. Verbs may be specified for person, number, tense, aspect and mood. Nouns may be specified for person, number, case and noun class ('thing', 'person or personified entity' and marginally, 'proper name'). The person and number marking on verbs and nouns fulfil different functions. Person and number marking on nouns is



determined by the noun's own referent, while verb person and number markings cross reference the verb to its nominal arguments and are not determined by anything intrinsic to the verb itself.

Other word classes which can be distinguished formally are pronouns, adjectives, numerals, and adverbs. Adjectives and adverbs are open classes, while the pronouns and numerals are closed. Pronouns and numerals have little to distinguish them from nouns, and so are treated as closed noun subclasses. In Chukchi the functional classes of interrogatives and demonstratives are morphologically identical to nouns. Adjectives form a class of stem clearly distinguished from nouns and verbs, but with similarities to both. Adverbs are frequently derived, particularly from adjective stems, but derived adverbs pattern with underived adverbs, and so they are treated together as a separate word class.

### 1.3 Sources

The earliest source of data on Chukchi that I have access to is a word list of 413 items collected by Captain A. J. von Krusenstem of the Russian Imperial Marines published in St Petersburg in 1813. The real foundation of the study of Chukchi dates to the work of Prof. V. G. Bogoras, who in 1890, at the age of 25, was exiled to Chukotka for active participation in the underground political organization *Narodnaja volja* ('The Will of the Nation'). There he became interested in indigenous Siberian ethnography and language, an involvement which continued until his death in 1936. In 1922 a grammar of Chukchi by Bogoras was published in the *Handbook of American Indian Languages* (Bogoras 1922). The Soviet scholars Skorik and Vdovin, apart from being the authors of the first school textbooks in Chukchi, published a number of papers on Chukchi from the late 1940s to the 1970s in Soviet journals. Inenlikej, a native Chukchi linguist, wrote his Doctoral Thesis on Chukchi adverbs and also published articles within the USSR. Unfortunately these early Soviet sources are not available in Australia. Skorik's two volume grammar of Chukchi (1961, 1977) remains the standard reference work. This grammar is quite extensive (over 700 pages), but it is set out in such a way that it is difficult to extract a clear picture of the language. The grammar is structured around the (wholly inappropriate) traditional grammatical categories of Indo-European philology, and mentions syntax only incidentally if at all. Important contemporary contributions on specific aspects of Chukchi include papers by Comrie, Nedjalkov and Muravyova.

My aim in this thesis is to produce a short grammar of Chukchi for linguists who cannot use Russian language materials. My materials for this grammar are all published sources; I have not had any access to native speakers of Chukchi. I have attempted to get around

this constraint by focussing on areas of the language where my lack of access to native speakers is least a hindrance. Chapter 2 'Phonology' is based on data presented in Skorik (1961), with my own generalizations. Chapter 3 'Word Classes' gives my own system of classification based on formal (morphological and syntactic) criteria. Chapter 4 'Nominal Morphology' and Chapter 5 'Verbal Morphology' are a synthesis of my own work and my interpretation of published sources. Chapter 6 'Adjectives' and Chapter 7 'Syntax' are based upon analysis of texts published as appendices to Skorik (1968), Skorik (1977), Comrie (1981) and Nedjalkov (1993). All sources are acknowledged in the text. Wherever possible I have sought examples from the texts rather than reproducing examples given without contexts. If my interpretations of other peoples' work have been biased in my attempt to produce a unified grammar, I apologize to the authors of those works and to the readers of this one, and yet I hope that this sketch grammar is generally useful in making more accessible a truly fascinating language.

## 2. Phonology

This overview of Chukchi phonology is based only upon written sources, primarily the description by Skorik (1961), but also taking note of the early phonetic (rather than phonemic) description by Bogoras (in Boas [ed.] 1922) and the brief comments published by Comrie (1981). Comrie's comments on Chukchi amount to about three pages and are intended as no more than a sketch of the major phonological features of the language. They are most useful for their clarity, and for the verification they provide of some aspects of Skorik's description. The phonetic description by Bogoras is probably the weakest part of his Chukchi grammar. It is based on fieldwork he carried out in the late nineteenth century and the first years of the twentieth and lacks some useful linguistic tools, such as the phoneme and regular phonetic description and notation, which were not so widely known at that time. Note that Bogoras began his study of Chukchi without any linguistic training (a limitation at least partially counteracted by his considerable diligence and natural talent). With reference to other work his phonetic description does contain some interesting material, particularly the comparative data with the related languages Koryak and Itelmen. Skorik's phonology is relatively extensive, but the phonetic and phonological descriptions are obscured by his lack of systematic terminology.

### 2.1 Men's and Women's speech

One particularly interesting aspect of Chukchi phonology is the difference in the phonologies of women and men. Women's Chukchi has a single phoneme /c/ (an alveolar affricate) for two phonemes of men's Chukchi, /č/ (palato-alveolar affricate) and /ɺ/ (alveolar rhotic approximant), as well as an assimilation rule:

$$/k/ \rightarrow |c| / c \_$$

Note that in this aspect of the language women's Chukchi is predictable from the basis of men's but not the reverse, eg:

	Women's pronunciation	Men's pronunciation
'what is he doing?'	/ceqəccəɲ/	/ɺeqəɺkəɲ/
'walrus'	/cəccə/	/ɺəɺkə/

(from Skorik (1968:33); he does not give an example of the correspondence between male č and female c, although he does state that it exists).

Bogoras points out that women can and do pronounce č and ɺ, such as when quoting the speech of a man in a story, but that in general conversation it is considered unbecoming for a women to speak like a man. The reverse is probably also true for men using women's speech, although none of my sources mention this.

Bogoras points out a further distinction between men's and women's speech. This is found in some rules for dropping intervocalic consonants, principally **n** and **t**. The men of the Kolyma district always drop these consonants, while among men of the coastal Chukchi both forms of a word are used. Bogoras reports that women always use the fuller forms of the words, making men's language predictable from the basis of women's, but not *vice versa*. This is the opposite situation to the previous example.

Clearly it is not useful to talk about 'conservative' vs. 'innovating' forms of the language, for women's Chukchi and men's Chukchi both contain conservative and innovating elements. Comrie (1981:244) states that *'the standard language is based on the male pronunciation, and the separate women's pronunciation is now discouraged'*. This is not entirely the case. Although written Chukchi uses men's **r** and **č** and does not have women's **c**, 'dropped' consonants (as they are called by Skorik, neglecting to mention whether they are generally dropped or only by men) are always written when they occur on morpheme boundaries and irregularly dropped consonants are always written. This aspect of written Chukchi is closer to women's pronunciation. Some of the consonant dropping peculiar to men that Bogoras describes is not even mentioned in later studies, suggesting that this aspect of the male variant subsequently died out (or was generalised to women's speech as well). In general it seems safest to say that standard Chukchi is based on the conservative elements of both men's and women's varieties.

Ideally, this study would give equal weight to the description of male and female phonology, rather than relegating the women's variant of Chukchi to a paragraph or footnote (in his description Bogoras gives four words in women's Chukchi, Skorik gives two). However, due to the sins of the fathers, it is only practical to base this sketch on the men's variant as well.

## 2.2 Consonants

This description of Chukchi phonology depends, to my regret, on written description of Chukchi phonetics. The phonetics of Bogoras is unsystematic, and so the only large body of phonetic description remaining is that of Skorik (1961:15-76). Where it has been possible to compare Skorik's phonetic description to the work of Comrie, it appears that Skorik's phonetics are not always rigorous, and so Comrie's chart of the consonant inventory will be used as a starting point. Comrie gives the following inventory of 11 consonant phonemes for Chukchi:

	bilabial	alveolar	palatal	velar	uvular	glottal
stop	<b>p</b>	<b>t</b>	<b>č</b>	<b>k</b>	<b>q</b>	<b>ʔ</b>
lateral fricative		<b>ɬ</b> (l)				
nasal	<b>m</b>	<b>n</b>		<b>ŋ</b>		
approximant	<b>β</b> (v)	<b>ɹ</b> (r)	<b>j</b>	<b>ɣ</b>		

adapted from Comrie (1981:243); orthography in brackets

This is broadly in agreement with Skorik's more detailed description of the Chukchi consonant system. The following account of the Chukchi phoneme system is based on the phonetic description by Skorik. Skorik does not use a standardised phonetic alphabet (neither IPA or any Russian equivalent) and his descriptions contain terms apparently of his own coinage, but nowhere defined in the text. With these weaknesses in mind, it remains that Skorik's phonetic description is extensive, and with some active interpretation it can be used to produce sensible phonological description. The identities of the phonemes themselves are unlikely to provide controversy as Chukchi consonantal phonology is quite simple, so it is only the exact phonetic values of the phonemes which will remain obscure.

### 2.2.1 Stops

Chukchi has one series of six stop phonemes. All stops are unvoiced and there is no phonemic aspiration (the affrication of č is not distinctive).

**/p/** Voiceless bilabial stop, unreleased word finally.

$$/p/ \rightarrow \begin{cases} [p^h] / \_ \# \\ [p] / \text{elsewhere} \end{cases}$$

**/t/** Voiceless alveolar stop, unreleased word finally.

$$/t/ \rightarrow \begin{cases} [t^h] / \_ \# \\ [t] / \text{elsewhere} \end{cases}$$

**/č/** Traditionally at least, this phoneme can be distinguished only in the male pronunciation. It is realised as a palato-alveolar fricative word initially and finally, is backed to a palatal fricative before a uvular stop, and is realised as a palato-alveolar affricate elsewhere. In female pronunciation this phoneme and the phoneme /ɬ/ collapse into one phoneme /c/ (§2.2.5).

(male pronunciation)

$$/ɕ/ \rightarrow \begin{cases} [ç] / \_ q \\ [ʃ] / \# \_ , \_ \# \\ [ɕ] / \text{elsewhere} \end{cases}$$

**/k/** Voiceless velar stop, sometimes affricated. Word finally it is strongly aspirated, or affricated, and is apparently ejective (although the word *Skorik* uses to describe this, *razmyčka*, is not recognised linguistic terminology).

$$/k/ \rightarrow \begin{cases} [kx'] / \_ \# \\ [k(-kx)] / \text{elsewhere} \end{cases}$$

In female pronunciation **/k/** assimilates to a preceding alveolar affricate:

$$/k/ \rightarrow [c] / c \_$$

**/q/** Voiceless uvular stop, usually affricated in all positions except word finally. Word final **/q/** is never ejective (or more accurately, is always without *razmyčka*, whatever this might be).

$$/q/ \rightarrow \begin{cases} [ʔ] / \_ C \\ [q] / \# \_ , \_ \# \\ [q(-qx)] / \text{elsewhere} \end{cases}$$

**/ʔ/** Glottal stop, somewhat pharyngealized (Comrie 1981:243).

$$/ʔ/ \rightarrow [ʔ]$$

Phonotactic evidence suggests that the glottal stop might be better treated as a prosody or as a type of voice quality (§2.4.1), but in the absence of the necessary data to decide conclusively, I shall continue to use **ʔ** in phonemic transcriptions.

## 2.2.2 Fricative

**/ʌ/** Lateral fricative, voiced intervocally, voiceless elsewhere.

$$/ʌ/ \rightarrow \begin{cases} [ɮ] / V \_ V \\ [ɬ] / \text{elsewhere} \end{cases}$$

### 2.2.3 Nasals

/m/ Bilabial nasal.

/m/ → [m]

/n/ Alveolar nasal. Before ŋ it partially assimilates in backness, giving the palatal nasal ɲ.

/n/ →  $\begin{cases} [\ɲ] / \_ \text{ŋ} \\ [n] / \text{elsewhere} \end{cases}$

/ŋ/ Velar nasal.

/ŋ/ → [ŋ]

### 2.2.4 Approximants

It may seem strange at first glance to group together the phonemes described as /β/, /ɹ/, /j/, /ɣ/. Skorik does seem to note that they form some kind of natural class, as he describes them all under one heading, but makes no general statement of the devoicing rule that all these phonemes have in common. Upon inspection of the phonological descriptions of these consonants, it seems to make the most sense to describe them as a series of approximants, which devoice adjacent to a voiceless fricative or stop. Three out of the four phonemes could also be described as voiced fricatives (all except /ɹ/), but any phonetic differences that might motivate such an analysis are too subtle to be derived from the given materials. Probably the most controversial aspect of the analysis of these consonants as a series of approximants is renaming the voiced velar fricative ɣ of Skorik and Comrie a velar approximant ɣ, but once again, possible phonetic differences would not show up in the data.

/β/ Bilabial approximant/fricative.

/β/ → [β]  
approximant → [- voice] / C[- voice]

/ɹ/ Apico-alveolar approximant. Much is made of the unpredictable weak trill which occasionally occurs in place of ɹ in non-initial positions, but this could be over-emphasis stemming from Skorik's interest in cross-linguistic analogy. In the female pronunciation

this phoneme collapses with the phoneme /ʁ/ into one phoneme /c/. This is an assimilation of manner of articulation (cf. /ʁ/ to /c/, an assimilation of place).

(male pronunciation)

/x/ → [x(-ʀ)]

approximant → [- voice] / C[- voice]

/j/ Palatal approximant.

/j/ → [j]

approximant → [- voice] / C[- voice]

/ɣ/ Velar approximant/fricative.

/ɣ/ → [ɣ]<sub>[α round]</sub> / — C<sub>[α round]</sub>

approximant → [- voice] / C[- voice]

### 2.2.5 Women's /c/

The phonetic realizations of the phoneme /c/, occurring only in women's speech, are not discussed in any detail. There is not phonetic information on /c/ beyond its Cyrillic transcription (the letter signifying an alveolar voiceless affricate IPA [c] or [tʃ]).

## 2.3 Vowels and vowel harmony

The Chukchi vowel system has six contrasting phonemic values, although these do not correspond to phonemes in the classical sense. The inventory of vowels is:

i		u
e	ə	o
	a	

In a recent stage of the language ə would seem to have been non-distinctive. It was inserted to break up oversized consonant clusters and certain vowels were reduced to schwa under predictable circumstances. In contemporary Chukchi schwa epenthesis is still productive (§2.4.2), but the historical process of vowel reduction has become lexicalised, so that now schwa can occasionally be distinctive. The remaining five vowels are subject to a vowel harmony prosody (schwa neither affects the domain of the



prosody nor is affected by it). These vowels can be organised into three pairs (i/e, e/a, u/o). The first vowel of each of the three pairs is the neutral form of the vowels, unaffected by the prosody. The second vowel in each pair is the prosodic variant. The prosody (which I call the 'dominance' prosody, following Comrie 1981) is attached phonologically to a morpheme as a whole rather than to any particular element of it. The presence of any morpheme in a word which contains the dominance prosody determines that all the vowels in the word will be in their dominant variants. If none of the morphemes have the dominance prosody, then all vowels appear in their neutral variants. The neutral/dominant pairs are reproduced below:

i	u	neutral
e	o	dominant
	(ə)	
e		
a		

The dominance prosody involves phonetic lowering of the neutral vowel. Note that the vowel **e** appears twice, once as a neutral vowel and once as the dominant variant of **i**. These vowels are underlyingly different, but no one has detected any phonetic differences between them (it is not clear how hard anyone has tried to do this). In my orthography I shall follow tradition and write these vowels as (i, e, u, o, a, ə) rather than writing the neutral forms and inventing an orthographic marker to indicate when the dominance prosody is present. When it is necessary to explicitly indicate prosodic dominance or neutrality of a root I shall use the convention 'n√' to indicate neutral root and 'd√' a dominant one. For example, the prosodically neutral root **tumy**- 'friend' can be realized with or without prosodic vowel mutation (d√-jŋ- AUGMENTATIVE; n√-qeŋ DIMINUTIVE): **tumy-ə-qeŋ** 'little friend' and **tomy-ə-jŋ-ə-n** 'big friend' (ə- is epenthetic, -n is an absolutive case marker). Any morpheme in the word can trigger the prosody, and the prosody spreads without interruption over the entire word. The spread of the dominance vowel prosody is an important diagnostic for determining the extent of a phonological word.

## 2.4 Phonotactics

### 2.4.1 Syllable structure

There are four basic types of syllable: V, CV, VC, CVC. These syllable types can all occur in any position in the word. The same consonants occur before and after the vowel. With extremely few exceptions (§2.5.8), no word contains sequences of more than two consonants or more than two vowels. Sequences of two vowels are relatively

rare. Insertion and deletion rules act upon segments to preserve this preferred syllable structure.

Every syllable contains one vowel, and optional onset and coda consonants.

$$\sigma = (C)V(C)$$

V = vowel: dominant/non-dominant pairs {i/e, u/o, e/a} and invariant ə

C = consonant: {p, t, k, q, č, ʃ, m, n, ŋ, β, ɹ, j, ɣ}

There is no phonological constraint on the number of syllables in a word. The longest words in the text have seven syllables, but with object incorporation and derivational affixation this could presumably be extended. The vowel harmony prosody acts over the phonological domain of word.

$$w = {}^{(d)}\sigma^*$$

w = word

d = 'dominant': vowel harmony prosody

It is not clear how to treat the glottal stop. Skorik treats it as just another consonant, which would complicate the phonotactics, as the orthography shows the intervocalic clusters **ʔCC** and **CCʔ** (but not **CʔC**) and the initial cluster **#Cʔ**. Initial clusters and intervocalic clusters of more than two members are otherwise unknown. To avoid having to give up the basic (C)V(C) representation of the structure of the syllable, the following accounts of the nature of the glottal stop can be posited:

i. The glottal stop in the orthography and in Skorik's description actually represents glottalization of the vowel (note that the 'glottal stop' is accompanied by pharyngeal constriction, so it could even be the case that the glottal stop is a phonetic byproduct of pharyngealization of the vowel or the syllable)

ii. The glottal stop does represent an actual stop, but it is a prosodic feature of the syllable rather than part of the CV-structure.

It is impossible to decide which, if either, of these accounts is best without a close analysis of real Chukchi speech data.

## 2.4.2 Schwa epenthesis

Schwa is inserted to break up disallowed consonant clusters. In the following example schwa is inserted between a non-syllabic suffix and a consonant-final stem:

**pəkɪ-ə-k** 'to arrive'

**pəkɪ-** 'arrive' stem

**-k** infinitive suffix

Schwa can be infixated into a stem with a pair of consonants on its boundary where the absence of an affix would otherwise cause the cluster to violate phonotactic constraints:

**ŋeek-e** 'girl' ergative case

**ŋeek|ə|k** 'girl' absolutive case

This epenthetic schwa is glossed in the texts and examples as 'E'.

## 2.5 Phonological processes

There are a number of regular assimilation and dissimilation rules which act upon consonant clusters. These rules are mostly regressive, that is, when morphological compounding causes two consonants  $C_1C_2$  to be in conjunction, any phonological processes will affect  $C_1$ . The data from which these generalisations are derived comes from Skorik (1961:42-52). There are also a few phonological processes which affect vowels. Once again, these are mostly regressive. There are no phonological processes in which vowels and consonants interact.

### 2.5.1 Consonant features

In this section I have adopted a generative binary feature approach as a relatively uncontroversial way of making generalisations phonological processes. All the features used are members of the 'consensus set' of binary features presented by Keating (1986:142) for use in generative frameworks:

Major class feature:

Sonorant

Place features:

Anterior; Coronal; High; Back

Other features:

Nasal; Lateral

I have chosen to use binary features because they efficiently describe Chukchi phonological processes. In particular, the features [+ coronal] and [- coronal] both delimit natural phonological classes for Chukchi. The feature [+ coronal] is particularly important in the Place Dissimilation Rule §2.5.4 and the Coronal Cluster Transformation §2.5.7. The feature [- coronal] defines a natural class among the approximants for the Non-coronal Cluster Transformation. These rules could not be expressed elegantly by non-systematic 'place of articulation' features because coronal segments occur in more than one place of articulation.

The following is the fully specified feature array of systematic phonemic consonants used in the phonological rules (vowels and consonants do not have any phonological effect on each other, and so features distinguishing vowels and consonants have been omitted). I have expressed phonological rules with minimal redundancy throughout. Thus, if a segment changes by rule to [+ anterior] and/or [+ coronal], there is an implication that the segment must also become [- back] (if it is not so already), as no segments exist in the

Chukchi consonant inventory with [+] for anterior or coronal and [-] for back (this example is taken from Assimilation of Place 1 §2.5.2). Within rules, the fewest number of features possible are used to distinguish segments, as this most likely reflects phonological reality:

Classification of systematic phonemic consonants

	Son.	Ant.	Cor.	High	Back	Nasal	Lateral
<b>p</b>	-	+	-	-	-	-	-
<b>t</b>	-	+	+	-	-	-	-
<b>č</b>	-	-	+	+	-	-	-
<b>k</b>	-	-	-	+	+	-	-
<b>q</b>	-	-	-	-	+	-	-
<b>ɬ</b>	-	-	+	-	-	-	+
<b>m</b>	+	+	-	-	-	+	-
<b>n</b>	+	+	+	-	-	+	-
<b>ŋ</b>	+	-	-	+	+	+	-
<b>β</b>	+	+	-	-	-	-	-
<b>ɹ</b>	+	-	+	-	-	-	-
<b>j</b>	+	-	+	+	-	-	-
<b>ɣ</b>	+	-	-	+	+	-	-

The glottal stop does not take part in any of the phonological processes and is not specified underlyingly for any of the features in the above table. The segments **β**, **ɹ**, **j** and **ɣ** belong to a natural class of approximants (§2.2.4) and so have the feature [+sonorant] (this is unexpected from the standard IPA values of these symbols). Examples are not given when a rule applies vacuously, e.g. according to §2.5.2 Assimilation of Place 3, \***qq** → **qq** (**ŋireqqlikkin** ‘forty’ < \***ŋireq-qlikkin**).

## 2.5.2 Assimilation of place

### Assimilation of place 1

Examples:

\***ŋp** → **mp** e.g. **ɣempetɨn** ‘get off [sled/boat] (STAT PF 3sgS)’ < \***ɣe-ŋpe-tɨn**  
(cf. **ŋəpe-k** INF)

\***ŋβ** → **mβ** e.g. **tambβayəɣən** ‘good life’ < \***taŋ-βayəɣən**

\***ŋt** → **nt** e.g. **ɣantotɨn** ‘go out (STAT PF 3sgS)’ < \***ɣa-ŋto-tɨn**  
(cf. **ŋ|ə|to-k** INF)

\***ŋč** → **nč** e.g. **tančotčot** ‘good pillow’ < \***taŋ-čotčot**

\***ŋɬ** → **nɬ** e.g. **ɣelɨnɨn** ‘heart (POSSESSED PREDICATE)’ < \***ɣe-tɨŋ-tɨn**

\***ɲj** → **nj** e.g. **leʔelenjʔiɣən** 'winter month' < \***leʔelen-jʔiɣən**

\***ɲɪ** → **nɪ** e.g. **telenɪemkən** 'ancient people' < \***telen-ɪemkən**

According to the following rule, a velar nasal assimilates in place to a following consonant whose place of articulation is front of velar:

$$C \begin{bmatrix} - \text{anterior} \\ - \text{coronal} \\ + \text{nasal} \end{bmatrix} \rightarrow \begin{bmatrix} \alpha \text{ anterior} \\ \beta \text{ coronal} \end{bmatrix} / \text{---} C \begin{bmatrix} \alpha \text{ anterior} \\ \beta \text{ coronal} \\ - \text{nasal} \\ - \text{back} \end{bmatrix}$$

If  $\alpha$  or  $\beta$  is [+], then it follows by implication from the consonant feature array (§2.5.1) that the initial segment in the cluster must become [- back], as there are no [+ back] [+ anterior] or [+ back] [+coronal] segments in Chukchi.

The processes \***ɲɕ** → **nɕ** and \***ɲj** → **nj** are unusual. A nasal assimilating to a palatal would be expected to be palatal. In the absence of Chukchi speakers or taped data, I propose provisional explanations: i) there may be a general rule blocking the production of non-systematic phonemes from rules, or alternatively, ii) the description by Skorik could be inaccurate.

### Assimilation of place 2

Examples:

\***ɣm** → **βm** e.g. **ɕeβmakə** 'egg shell' < \***ɕeɣ-makə**

\***ɣp** → **βp** e.g. **iʔβpipiqəɣən** 'lemming [lit. 'wolf-mouse']' < \***iʔβ-pipiqəɣən**

However, \***ɣβ** → **kβ** (not \***ɣβ** → **ββ**), by Rule §2.5.6. It is not necessary to posit obligatory ordering constraints as the output of the assimilation rule is also subject to the grave cluster transformation.

According to the following rule, a velar approximant assimilates in place to a following bilabial:

$$C \begin{bmatrix} + \text{sonorant} \\ + \text{back} \\ - \text{nasal} \end{bmatrix} \rightarrow \begin{bmatrix} - \text{back} \\ - \text{high} \\ + \text{anterior} \end{bmatrix} / \text{---} C \begin{bmatrix} + \text{anterior} \\ - \text{coronal} \end{bmatrix}$$

### Assimilation of place 3

Example:

\***kq** → **qq** e.g. **ɣənniqqej** 'animal DIMINUTIVE' < \***ɣənnik-qej**

This is a height assimilation; a back stop assimilates to a following uvular stop:

$$C \begin{bmatrix} + \text{back} \\ - \text{sonorant} \end{bmatrix} \rightarrow [- \text{high}] / \text{---} C \begin{bmatrix} + \text{back} \\ - \text{high} \end{bmatrix}$$

### 2.5.3 Assimilation of nasality

#### Assimilation of nasality 1 (Anterior stops)

Examples:

- \*pm → mm e.g. **nəʔəttemmɯi** 'conscientious (ADJ 1pl)' < \*n-ə-ʔəttep-mɯi
- \*pn → mn e.g. **jəmnen** 'put on [clothing] (N.FUT PERF 3sgA 3sgO)' < \*jəp-nen
- \*pŋ → mŋ e.g. **ʔamŋətoɓen** 'ask (N.FUT PERF 3sgA 3sgO)' < \*ʔa-pŋəto-ɓen
- \*tm → nm e.g. **nəmiʔɕienmɯi** 'work (ST IMPF 1plS)' < \*n-ə-miʔɕiet-mɯi
- \*tn → nn e.g. **ejminnin** 'take (N.FUT PERF 3sgA 3sgO)' < \*ejmit-nin
- \*tŋ → nŋ e.g. **ɛjɛŋŋət** 'come (FUT PERF 3plS)' < \*ɛ-jet-ŋət

By this rule an anterior stop assimilates to a following nasal:

$$C \left[ \begin{array}{l} + \text{ anterior} \\ - \text{ sonorant} \end{array} \right] \rightarrow [+ \text{ nasal}] / \text{ \_\_\_\_ } C [+ \text{ nasal}]$$

#### Assimilation of nasality 2 (Back stops)

Examples:

- \*kŋ → ŋŋ e.g. **teptɛŋŋək** 'sew shoes (INF)' < \*teptɛk-ŋ-ək

Skorik (1961:47) says that \*qŋ → ŋŋ also occurs but I have been unable to find an example. More likely would be \*qŋ → Nŋ (a uvular nasal), but this could not be represented by the orthography. If the latter was the case, or there was a general rule blocking the output of non-systematic phonemic forms, then this rule and the preceding one could be unified into a general rule that a stop becomes a nasal before a homorganic nasal.

Assuming that a velar or uvular stop both become a velar nasal before a velar nasal then the additional rule would have to be:

$$C \left[ \begin{array}{l} + \text{ back} \\ - \text{ sonorant} \end{array} \right] \rightarrow [+ \text{ nasal}] / \text{ \_\_\_\_ } C \left[ \begin{array}{l} + \text{ back} \\ + \text{ nasal} \end{array} \right]$$

#### Assimilation of nasality 3

Examples include:

- \*m → nm e.g. **kunnin** 'buy (N.FUT PERF 3sgA 3sgO)' < \*kuw-nin
- \*ʔŋ → ŋŋ e.g. **iŋŋinɛj** 'wolf-boy' < \*iʔŋ-ŋinɛj

but:

- \*jn → jn (no change)

According to the following rule a non-anterior approximant assimilates to a non-morganic nasal:

$$C \begin{bmatrix} \alpha \text{ coronal} \\ \beta \text{ high} \\ \gamma \text{ back} \\ - \text{nasal} \\ - \text{anterior} \\ + \text{sonorant} \end{bmatrix} \rightarrow [+ \text{nasal}] / \text{---} C \begin{bmatrix} \alpha \text{ coronal} \\ \beta \text{ high} \\ \gamma \text{ back} \\ + \text{nasal} \end{bmatrix}$$

### 2.5.4 Dissimilation of backness

Examples:

- \*jt → yt e.g. **ɲinqeɣti** 'boys PL' < \***ɲinqeɟ-ti**
- \*jč → yč e.g. **βʎeɣčummen** 'grass-edge' < \***βʎeɟ-čummen**
- \*jt → yt e.g. **qeɣʎonanyet** 'truth' < \***qeɟ-ʎonanyet**
- \*jn → yn e.g. **ɲeyno** 'mountain' < \***ɲeɟ-no**
- \*jɹ → yɹ e.g. **βʎayɹan** 'grass-building' < \***βʎaj-ɹan**

(I do not know about \*jj)

By this rule a palatal approximant becomes a velar approximant before a back consonant:

$$C \begin{bmatrix} + \text{high} \\ - \text{back} \\ + \text{sonorant} \end{bmatrix} \rightarrow [+ \text{back}] / \text{---} C \begin{bmatrix} - \text{back} \end{bmatrix}$$

### 2.5.5 Dissimilation of nasality

Examples:

- \*ɲm → ym e.g. **notajaymoɹe** 'build a house (STAT IMPF 1plS)' < \***n-ɔ-tajaj-moɹe**
- \*ɲn → yn e.g. **teɟʎiyɲin** 'stroke (N.FUT PERF 3sgA 3sgO)' < \***teɟʎiɲ-nin**
- \*ɲŋ → yŋ e.g. **ɣətiɲŋeβičqet** 'beautiful woman' < \***ɣətiɲ-ŋeβičqet**

By this rule a velar nasal becomes a velar approximant before another nasal:

$$C \begin{bmatrix} + \text{nasal} \\ + \text{back} \end{bmatrix} \rightarrow [- \text{nasal}] / \text{---} C \begin{bmatrix} + \text{nasal} \end{bmatrix}$$

### 2.5.6 Non-coronal cluster transformation

For example:

- \*ɣɣ → kβ e.g. **pəɣɹəkβepə** 'wool (ABL)' < \***pəɣɹəɣ-ɣepə**
- \*ɣβ → kβ e.g. **atɬakβetɣaβ** 'sweet speech' < \***atɬaɣ-βetɣaβ**
- \*ββ → kβ e.g. **ɲakβaŋeɣəɣəŋ** 'woman's work/sewing' < \***ɲaβ-βaŋeɣəɣəŋ**
- \*βɣ → kβ e.g. **ikβʎi** 'say (N.FUT PERF 3sgS)' < \***iβ-ɣʎi**

Adjacent non-coronal approximants become the stop-approximant cluster [kβ]:

$$C \begin{bmatrix} + \text{sonorant} \\ - \text{nasal} \\ - \text{coronal} \end{bmatrix} C \begin{bmatrix} + \text{sonorant} \\ - \text{nasal} \\ - \text{coronal} \end{bmatrix} \Rightarrow [k\beta]$$

Note that this is the only Chukchi phonological process in which C<sub>2</sub> in a C<sub>1</sub>C<sub>2</sub> cluster can be affected.

### 2.5.7 Coronal cluster transformation

The first element of certain clusters of non-nasal coronals becomes **t** (unfortunately I cannot make any further generalizations on the basis of the available data):

Examples:

\*tʃ → tʃ e.g. **ʏotʃen** 'bite/snap (STAT PERF 3sgS)' < \*ʏoʃ-en

\*tʃ → tʃ e.g. **ʏaləmʏotʃetʃen** 'tell a story (STAT PERF 3sgS)'  
< \*ʏa-ləmʏotʃetʃ-en

\*tʃ → tʃ e.g. **anʏatʃən** 'star' < \*anʏa-lʃən

\*tʃ → tt e.g. **mattotʃetʃ** 'somewhat foolishly ADV' < \*maʃ-totʃ-etʃ

\*rt → tt e.g. **pəkittək** 'arrive (N.FUT PERF 2plS)' < \*pəkʏr-tək

\*kt → kt (no change)

\*tʃ → tʃ e.g. **qapatʃən** 'wolverine (AUGMENTATIVE)' < \*qapʏa-lʃən

\*tʃ (no examples)

\*tʃ → tʃ (no change)

\*tʃ → tʃ e.g. **ʏəʏʏotʃamkən** 'great nation' < \*ʏəʏʏotʃ-lamkən

\*tʃ → tʃ e.g. **kotjo** 'bought (PASS PART)' < \*koʏr-jo

### 2.5.8 Vowel deletion and reduction

#### Vowel cluster simplification

Unstressed initial vowels of clusters (see §2.6) are deleted when two vowels become adjacent due to combination of morphemes, unless they follow a consonant cluster. For example, the initial vowel is lost in:

**ʏoʏβma** 'with a sledge' < \*ʏa-oʏβ-ma

-oʏβ- stem: 'sledge'

**ʏa-**, **-ma** comitative affixes



However, the initial vowel of the pair is not lost after a consonant cluster:

**ɣamɣaɔɪβək** 'on each sledge' < \***ɣamɣa-ɔɪβ-k**

-ɔɪβ- stem: 'sledge'

**ɣamɣa-**, **-k** distributive prefix, locative suffix

### Word-final vowel reduction

Word-final vowels that are not in themselves morphemes are reduced to schwa:

**umqə** 'polar bear' and **umqet** 'polar bears' (stem \***umqe**)

### Schwa 'dropping'

An expected schwa is sometimes reduced or deleted before **ɹ**, **ʃ** or **ʈ**. Skorik (1961:40) claims that this is free variation. Word initial consonant clusters resulting from this process are possible, although I have no evidence of word final ones. These reduced schwas are frequently not written, but the assumption that they can always be inserted in the underlying form of the word allows the phonotactics to retain simple CVC structure examples:

**miŋkəɹi** 'because' (Skorik's text 1977:368) = **miŋkɹi** (Nedjalkov's text 1993:94)

**pəʃiqet** and **pʃiqet** 'birds' (Skorik 1961:40)

**qɪaβət** 'man' (Skorik' 1977:368; but I have never seen **?qɪaβət**)

## 2.6 Stress

The stress in Chukchi is fixed on the stem morpheme of a word, but within the stem morpheme of two or more syllables it may fall on the final or penultimate syllable. In a word with a stem of two or more syllables, stress falls on the final syllable only where the stem is followed by other syllables. If the stem is followed by a non-syllabic suffix, the stress falls on the penultimate syllable.

**tá-k** 'pass through', **tá-ɹkənɛtək** 'you pass through', **məʊa-tá-ɹkən** 'we will pass through'

**tutú-ŋə** 'needle', **tútu-t** 'needles'

(stress marked by an accent over the vowel)

There has not to my knowledge been any published analysis of the acoustic correlates of Chukchi stress. Skorik claims that the primary correlate of stress is intensity, and a secondary correlate is vowel length. These results seem to be based solely upon non-native perception and seem unreliable, particularly as stress in stress-languages usually correlates with pitch or length rather than loudness.

### 2.6.1 Exclamations

Exclamatory intonation on any utterance is made through transferring stress to the last syllable. Vowel final stems take a j offglide. If the exclamation is strongly accented the final vowel turns to o and names lose their absolutive suffix (if they have one).

[cf. Bogoras 1922:696-7]

weakly accented

**kimid'in** 'worms!' (< 'kimiti-n 'worm/worms')

**qtik'ej** 'Hey man!' (stem 'qtike 'a man', but not used except as a form of address)

strongly accented

**jemkət'on** 'a guest!' (< 'jemkət-on 'a guest')

**jet'ot** 'Hey Jetylyn!' (< 'jetət-on a personal name)

## 2.7 The current Chukchi orthography

In 1931 the Council of the North, an organisation formed by the Soviet Union responsible for the culture and development of the so-called 'peoples of the North', introduced an orthography for the Chukchi language and began to publish school primers and periodicals. Along with all the other languages of the Soviet Union to receive orthographies at this time, the first Chukchi alphabet was based on the Latin script. The reason for this choice was political - the Soviet government, intent on demonstrating an international front and loud in its condemnation of Western imperialism, felt that by providing Cyrillic-based orthographies for minority languages they would show an unacceptable Russian-assimilationist intent. However, after six years the policy was changed. It was argued that the difficulties of concurrently learning two orthographies, Latin for native language literacy and Cyrillic for learning the national language (Russian) caused too much confusion, and the old orthography was scrapped in favour of one based on Cyrillic. It is true that the two orthographies have many apparent similarities which can be very misleading. Problematic for Chukchi would be:

Cyrillic character      common phonetic value

■                              [v]

cursive г (=д)              [d]

е                                [je]

cursive и (=и)                [i]

н                                [n]

cursive п (=п)                [p]

р                                [r]

с                                [s]

cursive *m* (=т) [t]  
 y [u]

However true this might be, the change to a Cyrillic orthography seems to be more politically motivated. Soviet ideology was now focused on the idea of 'communism in one country', and an open policy of Russification had begun, extending beyond even Russia herself into the Soviet Republics and the Eastern European satellites. The new Cyrillic orthography for Chukchi was unashamedly Russian (other Cyrillic orthographies, differing in various details from the Russian one, are used by the Bulgarians, Serbs, Slovenes, Macedonians, Ukrainians). It preserves peculiarly Russian spelling rules which had originally arisen due to phonological developments in Russian well after the development of literacy in the Slavic ancestor language (basically Old Church Slavonic, a liturgical language still used by the Eastern Orthodox Churches).

Palatalisation is an important feature of Russian consonants, and for most consonant types there are palatalised and unpalatalised phonemes. Although palatalisation alone can distinguish phonemes in modern Russian, in Old Church Slavonic palatalisation of consonants was a predictable effect conditioned by a following front-vowel. The phonological developments in modern Russian which have rendered palatalisation phonemic have not been mirrored exactly by orthographic developments. The result of this is that in contemporary Russian the palatalisation of a consonant is shown by the form of the following vowel. If there is no following vowel and the consonant is 'soft' (ie. palatalised) the vowel is followed by the 'soft sign' ъ. The soft sign is an orthographic relic of a front reduced vowel in Old Slavonic. The 'hard sign' ѣ, used rarely in modern Russian, is a relic of a back reduced vowel. Until the spelling reforms following the Russian revolution the hard sign was written (entirely redundantly) after every word-final, unpalatalised consonant.

The two orthographic series of Russian vowels are as follows:

phonemic	after 'hard' consonant	after 'soft' consonant
/a/	а	я
/i/		и
/u/	у	ю
/e/	э	е
/o/	о	ё
/ɨ/	ы	

If they are not following a consonant, the vowels я, ю, е and ё signify 'jotated' vowels, that is, vowels preceded by the phoneme /j/. Disparities between phonemic structure and spelling are illustrated below:

phonemic	orthographic
/ʌ/	т
/ʊ/	тъ
/a/	а
/jʏ + /a/	я
/ʌ + /a/	та
/ʊ/ + /a/	таъ
/ʌ + /jʏ + /a/	таъя
/ʊ/ + /jʏ + /a/	таъяъ

Curiously, these Russian spelling rules have been preserved in Chukchi. This was apparently intended to assist Chukchi speakers in gaining Russian literacy, although I suspect it just made it more difficult to attain native language literacy. The inadequacy of the Chukchi orthography must be viewed in the historical context of its introduction. It was devised upon a presidential directive during a Soviet Union wide campaign of Russification at a time when political purges were spreading ever wider through society. In the light of history, arguments along the line that the new orthography was 'all for their own good' seems like alternately a cynical attempt to preserve a compassionate front to the outside world or a sad attempt on the part of the scholars involved to justify the project to themselves. All people working in academic disciplines were subject to political supervision, usually by cadres not well versed in the field they were supervising. It is likely that the maximal use of Russian orthographic conventions was a result of semi- or unofficial government policy. I have not found any published sources which describe the earlier Latin-based orthography, so it is not clear what the present orthography might have inherited from it.

A minimally redundant orthography for Chukchi would require symbols for the 11 consonant phonemes, for the four vowel pairs i/neutral-ɛ, dominant-ɛ/a, u/o, dominant-ə/neutral-ə, and one further symbol showing the word level prosody of 'dominance' for the vowels. However, minimal redundancy might not be the most desirable feature for working orthography - for instance, it might be simpler to use six phonetic vowel symbols (rather than four phonological ones §2.3) and dispense with the marker for the vowel harmony prosody (however, scripts do exist which mark prosodies cf. vowel harmony in old Turkish texts written in the Arabic script, so this would have to be

decided language specifically). There are no language-internal arguments for increasing the number of orthographic symbols beyond this 19 or 20. The current Cyrillic orthography uses 27 symbols, the purposes of many of which are obscure without well developed literacy in Russian. These symbols are given below with their IPA equivalents in Chukchi:

Vowels	orthography (upper and lower case)
[a]	Яя (after 'soft' cons.), Аа (elsewhere)
[i]	Ии
[u]	Юю (after 'soft' cons.), Уу (elsewhere)
[e]	Ее (after 'soft' cons.), Ээ (elsewhere)
[o]	Ёё (after 'soft' cons.), Оо (elsewhere)
[ə]	Ыы

Consonants	orthography
[p]	Пп
[t]	Тт
[k]	Кк
[q]	Ққ
[ʔ]	ʔ (after 'soft' cons.), ʔ (after 'hard' cons.), ' (elsewhere; [ʔV] is written V')
[m]	Мм
[n]	Нн
[ŋ]	Ңң
[ʃ]	Сс (before q), Чч (elsewhere)
[ʈ]	Лл
[β]	Вв
[ɹ]	Рр
[j]	Йй or Яя[ja], Юю[ju], Ее[je], Ёё[jo]
[ɣ]	Гг

- i) For the purpose of the spelling rules, ʃ and ʈ are 'soft' consonants; all other consonants are 'hard'.
- ii) As in Russian, the characters ʔ and ʔ are also used between a consonant ('soft' or 'hard' respectively) and a j signified by Яя, Юю, Ее or Ёё or an i (Ии). This is a Russian spelling rule.
- iii) The characters Ққ and Ңң as well as upper case Ыы do not exist in Russian.

Examples of the spelling rules with sequences of Chukchi phonemes:

phonemic	orthographic
/ɣ/	г
/ʎ/	л
/a/	а
/ɣ/ + /a/	га
/ʎ/ + /a/	ла
/ɣ/ + /j/ + /a/	гъя
/ʎ/ + /j/ + /a/	лъя
/a/ + /ʎ/	а'
/ʎ/ + /a/	а'
/ɣ/ + /a/	га
/a/ + /ʎ/ + /a/	а'а
/ɣ/ + /ʎ/ + /a/	гъа
/ʎ/ + /ʎ/ + /a/	лъа

Chukchi phonotactics do not permit clusters of more than two consonants word-internally, and do not allow consonant clusters at all word-initially or -finally. Thus **лъя** need never be confused with **ʎja**. However, initial glottal stops do seem to be ambiguous due to the lack of an orthographic symbol for them. Hard and soft signs are viewed very strongly by Russians as things which must follow consonants. The interface between Russian phonology and orthography make it impossible to use them otherwise. It seems that this principle has been extended analogously to the apostrophe, making it strictly to be used after vowels.

### 3. Word Classes

The following word classes are proposed for Čhukchi:

Noun (open class)

    Numeral (closed subclass of nouns)

Verb (open class)

Verbal Base (closed class)

Adjective (open class?)

Conjunction (closed class)

Adverb (open class?)

    Grammatical Particle (closed subclass of adverbs)

Interjection (closed class)

As will be discussed below, the majority of lexical stems belong to only one word class, which defines the morphological and syntactic possibilities of the word. An exception is a formal subclass of adverbs, which is formed on the basis of adjective stems.

I define Čhukchi word classes according to the formal distinctions made in contexts where a word is being used in its prototypical discourse function (following the model of Hopper and Thomson 1980). This enables the categorization of lexical stems into word classes, which can then be followed by the enumeration of possible variations of form. This is necessary as although words in their prototypical context show maximal formal distinctions from the formal properties of other word classes, outside prototypical contexts many formal (and to some extent, functional) distinctions are neutralised and word classes tend to converge. For example, a prototypical context for a noun is where it refers to something ‘manipulable’ (Hopper and Thomson 1980) in the discourse. This means the noun must have reference to an entity with permanent identity over time, and which is relevant to the continuing discourse (‘topical’). Both the noun phrases **qlavel** ‘man’ and **ʔətʋʔet** ‘boat’ in example (3.1) qualify as prototypical instances of a noun:

- (3.1) **qlavel**-a      pələtku-nin      utt-in      **ʔətʋʔet**  
man-ERG      finish-3sgA.3sgO      wood-GEN      boat.ABS  
‘The man finished making the wooden boat.’ (J:122)

The manipulability of these nouns is demonstrated in the next sentence in the text, in which both are referred to. Zero anaphora of the noun **qlavel** ‘man’ (cross referenced by the verb) is only possible when the noun in question is easily retrievable from the context, i.e., when it is topical:

(3.2) iv-nin epeqejan-e viin ʔətvʔet q-ə-numkek-vən  
 say-3sgA.3sgO grandmother-ERG PCL boat.ABS 2sg.INT-E-put.away-3sg  
 'Grandmother said to him (the man), "Put the boat away for now"' (J:123)

note: the verb *iv-* 'say' is one of the few bivalent verbs in Chukchi. When it is transitive the O refers to the person addressed, and not the thing said (like English 'inform').

Examples (3.3-4) show categorical neutralization accompanying the use of nouns in contexts where they are 'unmanipulable':

(3.3) ɲotqen uutən nəmnəm čit ujɲe a-qlavel-kə-lʔ-en  
 DEM Uuten village PCL NEG PRIV-man-PRIV-DER-ABS  
 'This village of Uuten was without men (was 'a manless one', not talking about any particular man)' (J:203)

(3.4) ənqo ɲe-ʃɲily-inini-lin  
 then PERF-moon-appear-3sg  
 'then the moon appeared ('it moon-appeared', moon not relevant to continuing discourse)' (Skorik 1961:235)

The noun roots *qlavel* 'man' and *ʃɲily* 'moon' in examples (3.3-4) are not possible as topics of further discourse. The noun in example (3.3) refers to a generic type which is absent, and has lost the possibility of number marking or other specification, while in (3.4) the incorporated noun has lost all nominal morphology.

Similarly, the prototypical context for a verb is to denote an event:

(3.5) ɲən-in ine-ɲənritə-lʔ-ə-n qlavəl ənən ra-tomyat-ɲʔa.  
 2sgR-SG AP-guard-PART-E-ABS man.ABS PCL FUT-appear-PERF  
 'Your herdsman will soon appear' (J:86)

The form *ra-tomyat-ɲʔa* 's/he will appear' encodes tense (FUT, future), aspect (PERF, perfective) and mood (zero marker, indicative). In example (3.6) the same verb stem is used in the 'perfect' paradigm, a verb form indicating the inception of a state instead of an action. This is a less prototypical verbal function, and correspondingly, the perfect paradigm has fewer morphological possibilities than the form in example (3.5), allowing no tense or mood markers.





between stem types are neutralised. If this is taken to be the case, then the forms below (allowing for exceptions due to accidental homophony, e.g perhaps iv) would each have a single function:

i) **-lʔ-**

NOUN STEM: Derives noun from noun or adjective (§4.5.2)

VERB STEM: Active participle from a transitive or intransitive verb (§4.5.4)

ii) **a- \_\_\_ -ka**

NOUN STEM: Privative case (§4.3.7)

VERB STEM: Negative subordinate verb (§5.5.3)

iii) **ʔa- \_\_\_ -ma**

NOUN STEM: Associative case (§4.3.8)

VERB STEM: Temporal subordinate verb, subordinate clause with time reference concurrent to reference frame (§5.5.1)

iv) **ʔe- \_\_\_ -(t)e**

NOUN STEM: Comitative case (§4.3.9)

VERB STEM: Optative subordinate verb (§5.5.5)

v) **-k**

NOUN STEM: Locative case (§4.3.3)

VERB STEM: Infinitive (§5.5.4); Temporal subordinate verb, subordinate clause with time reference preceding reference frame (§5.5.1)

vi) **-(t)e**

NOUN STEM: Instrumental case (=Ergative case)(§4.3.2)

VERB STEM: Cause/manner subordinate verb(§5.5.2)

vii) **-jɔ / -ʔeɔ / -eɔ**

NOUN STEM: Ablative case (§4.3.4)

VERB STEM: Cause subordinate verb (§5.5.2)

viii) **ʔe- \_\_\_ -[person/number suffix]**

NOUN STEM: Possessed predicate form (§4.5.1)

VERB STEM: The perfect; a paradigm indicating distant past or inception of a state. Morphologically identical to the possessed predicate form of the noun in the intransitive and most forms of the transitive (§5.4.1)

ix) **n- \_\_\_ -[person/number suffix]**

ADJECTIVE STEM: all unincorporated adjectives have this form (§6.1)

VERB STEM: The imperfect; a paradigm indicating habitual or universal aspect. Morphologically identical to adjectives in the intransitive and some forms of the transitive (§5.4.2)

### 3.1 Nouns

Independent nouns have case marking indicating their grammatical and semantic role. These case markers vary according to three declensions whose membership is semantically determined and pragmatically variable: personal name/kin term, person, non-person (§4.1). Nouns which refer to speech-act participants (i.e. 1st or 2nd person) take person/number suffixes in the absolutive case. These suffixes are almost identical to pronouns (§4.2.2). Third person nouns in the non-personal declension only distinguish grammatical number in core cases. Determiners, nominal interrogatives and demonstratives are all completely noun-like in their behaviour to the extent of taking semantically complex derivational morphology (such as diminutives, augmentatives, restrictives etc).

Personal pronouns have slight morphological differences from the main class of nouns. Person pronoun stems have intrinsic number, and so do not allow plural morphology, and there is a separate oblique and allative case. Personal pronouns can take any semantically appropriate nominal derivational morphology (§4.2.2, §§4.5.5-8).

### 3.2 Numerals

Numerals are a subclass of nouns which can specify the number of referents of a noun. The traditional Chukchi number system has the range 1 to 400. In free forms numerals only appear in the absolutive case and have very limited derivational possibilities in comparison to other types of noun. Numerals which modify non-absolutive nouns are incorporated into the head (§4.7.6; §7.1.2).

### 3.3 Verbs

Verbal stems can form verbs according to the active paradigms (type I), the stative paradigms (type II) or they can form subordinate verbs. In the active paradigms verbs are categorized for tense, aspect and mood (§§5.3.1-8), while in the stative paradigms the only distinction is aspectual (§§5.4.1-2). Verb stems have inherent valency. Most verb stems are intransitive or transitive; very few are ditransitive or ambivalent. Valency of verbs in the active and stative paradigms is expressed by cross referencing of arguments. Intransitive verbs cross reference S, transitive and ditransitive verbs cross reference A and/or O. Intransitive verbs may incorporate their S to give a zero place predicate, but they still remain grammatically intransitive (with 3sg agreement) with zero subject (§5.7.3). Subordinate verbs do not cross reference arguments (§5.5; §7.4.2).

### 3.4 Verbal Base

Verbal bases are a small closed class consisting of about 50 items referring to mental states and emotions. They are invariant, and are used as the lexical heads of analytic verbal constructions (§5.6).

### 3.5 Adjectives

Adjectives are a separate class of stems which occupy a medial position on the noun-verb continuum (cf above §3). In their basic form they are morphologically identical to imperfect verbs of the stative paradigm (§6.1), but they also have many similarities to nouns. There are no equivalents to the stative paradigms in any of the languages related to Chukchi except the dialect Kerek (Skorik 1968:317-318). Korjak (Žukova 1968:277) and Aljutor (Žukova 1968:298) have cognate nominalised predicate forms (§6). Their endings (unreduced forms of personal pronouns in the first and second person) are like nominal person markings (including the nominal 'possessed predicate' form). Note also the analogous situation of how the 'possessed predicate' is identical to the perfect in the stative paradigms. Adjectives, like possessed predicates, take a limited amount of nominal derivational morphology (diminutives and augmentatives) but take no morphology typical of verbs, which also suggests that they are more nominal. The class of adjectives also has a number of derivational affixes specific to the class (mostly related to degrees of quality §6.2). The adjective class is large and seems to be open.

### 3.6 Conjunctions

Chukchi conjunctions are indeclinable parts of speech. The coordinating conjunction **ənkʔam** 'and' and **ləmevər** 'or' can join a pair of nouns, noun phrases, verbs, adjectives, participles, adverbs or clauses. All other conjunctions (coordinating and subordinating) only join clauses (§7.4.1).

Coordinating nouns:

- (3.8) **qejkəjŋəqejo**    **n-untəm-ʔev**                    **ru-ninet**  
bear.cub.ABS    ADV-peaceful-ADV    eat-3sgA.3plO  
**ləveerʔən**            **ənkʔam**            **kavkav**  
milk-ABS            CONJ                bread.ABS  
'The bear cub peacefully ate milk and bread'            (Skorik 1977:340)

- (3.9) **ləmevər meməl, ləmevər oravetlʔa-n**  
 CONJ seal.ABS CONJ person-ABS  
 ' [It is] either a seal or a person ' (Skorik 1977:343)

Coordinating clauses:

- (3.10) **ətlon qut-ʔʔi ənkʔam ejmek-vʔi ʔəm-ə-kayto**  
 3sg.ABS stand.up-3sg CONJ approach-3sg 1sg-E-ALL  
 'He stood up and approached me' (Skorik 1977:340)

### 3.7 Adverbs and Particles

Adverbs and particles are a group of non-inflecting words which modify constituents or have grammatical function. As reflected by the name of this section, this class can be roughly divided into two parts. Chukchi adverbs are defined as lexical content words which modify a verb, clause, or peripheral element (compare non-lexical content grammatical particles, below). Adverbs are frequently derived from adjectives (§6.3.1). Other adverbs are spatial (e.g. here, thither, where), or temporal (e.g. today, now, when). Skorik's grammar includes a chapter on the class of postpositions (noun dependents in the locative case), which is supposed to have only two members (**reen** 'with [a person]' and **qača** 'near'). Both of these have the same syntactic distribution as spatial adverbs modifying a noun in the locative. None of the texts include examples of any of these so-called postpositions and Skorik's data does not provide any evidence that they should be considered an independent word class, so they have been assumed to be adverbs.

- (3.11) **opopə iʔət ʔutku jaračəko re-jəlqetə,**  
 PCL today (ADV) here (ADV) house-inside.ADV FUT-sleep  
**eryatək opopə q-ekvet-ʔi**  
 tomorrow (ADV) PCL INT.2-leave . . . RF  
 'Today you will sleep here inside the house, tomorrow you must leave'

(J:11)

Grammatical particles are a closed class of invariant grammatical function words which are not derived morphologically from other parts of speech. They may be used for negation of verbs (§7.2.3) and verbless constructions (§7.3). Some may be also be used as interjections (§3.8), as in the first instance of **qəram** in example (3.12); the second instance of **qəram** is as a negative particle:

- (3.12) **ŋeekke-te iv-nin- qərəm, qərəm m-ʔeliket-ə-k**  
 woman-ERG say-3sgA.3sgO INTERJECT NEG.PCL 1sg.INT-marry-E-1sg  
 'The woman said [to him], "No, I won't marry"' (J:3)

I treat words such as **kolo** 'very', which are traditionally called adverbs, as particles since they have no lexical content.

### 3.8 Interjections

Interjections are extra-syntactic elements of discourse. They include semi-involuntary vocal reactions to surprise (**kako!** 'ooh!', by a man; **kəke!** 'ooh!', by a woman), pleasure (**ʔuk!** 'aah!'), pain (**iʔii!** 'ouch!'), confusion (**ŋav?** 'huh?') and many others. I also include here conventionalised imitations of animal sounds which are not grammaticalised as nouns or verbs (cf. seal noises in (3.13)), as well as exhortations to coordinate physical effort (**toʔok!** 'hup!') and commands to domestic animals (e.g. sled dog commands: **ʔak-ʔak!** 'forward', **taa!** 'stop', **qʔ-qʔ-qʔ!** 'to the left', **pot'-pot'!** 'to the right')

- (3.13) **qlavəl ikvʔi- anəqun, kolo rʔenut**  
 man.ABS say-3sg INTJ very something  
**ʔeŋe-rk-ə-n- ʔə-ʔə-ʔə, ʔə-ʔə-ʔə.**  
 cry.out-IMPF-E-3sg INTJ INTJ  
 'The man said, "Look! Something's crying out: ʔə-ʔə-ʔə.ʔə-ʔə-ʔə"' (J:106)

# 4 Nominal Morphology

## 4.1 Formal characteristics of nouns

The **noun** class contains a set of stems that prototypically designates relatively permanent referents. Unlike stems of any other word class, nouns (including pronouns) may be marked for case. There are some stems which can take nominal or verbal morphology, eg **kupre-n** 'a net' and **kupre-k** 'to net fish'. Determiners, interrogatives and demonstratives are all nouns, and are completely noun-like in their behaviour to the extent of taking semantically complex derivational morphology (such as the diminutive, augmentatives etc). **Pronouns** are a subclass of nouns, generally behaving in the same way as nouns but with a very few morphological and distributional differences. Most of these differences are semantically motivated, eg. restrictions against plural marking on an intrinsically singular stem. **Numerals** do not differ much from absolutive case nouns in common usage, where they are not used beyond twenty, except again where some forms are restricted on semantic grounds. Some numerals in the range 21 - 400 (the highest number possible to count to in the traditional Chukchi numeral system) consist of multiple phonological words. These analytic numerals are however treated as a single grammatical word, and so combine with morphological markings in a way peculiar to themselves. When modifying a stem in a case other than the absolutive, numerals are incorporated into their headword

Chukchi is a morphologically rich language. It uses many different morphological devices including fusional and agglutinative affixation (prefixes, suffixes and circumfixes), incorporation and reduplication. Morphological categories thus encoded can be divided into inflectional categories which must always be marked on the word, such as case, number (in certain declension types) and person, and optional derivational categories, such as augmentatives and diminutives and other lexical formatives.

## 4.2 Declension

Every noun which functions as an argument must have case and person marking, and must be specified for declension type. With some combinations of these categories the noun must also be specified for number. Pronouns differ here from ordinary nouns in that pronouns have the categories of person and number intrinsic to the stem and do not take further morphological marking for these categories. Membership of declensions is determined semantically. The fundamental division is between 'person' and 'not-person', although 'person' also includes anthropomorphised animals. Further

subdivided from the nouns denoting people is noun class including personal names (and those of named domestic animals) and the terms for close elder relatives ('mummy', 'daddy', 'grandad' etc)

Skorik (1961:155) calls the noun classes Declension I, II and III. I will follow his numbering:

- Declension I non-person, non-personified
- Declension II personal names (including certain kin terms)
- Declension III person, personified (such as a pet)

Nouns inflect for case according to declension. Declensions I and II have their own paradigms, while Declension III is formed from a mixture of elements from the other two. There are ten cases: absolute, ergative-instrumental, locative, ablative, dative-allative, orientative, privative, comitative, associative and essive. Declensions I and III inflect for all these cases; Declension II does not appear in the comitative or the associative. The pronouns basically follow Declension I except that they are partially suppletive, containing an extra suffix between the stem and the case ending in oblique cases (which does not however add any meaning), and that they have a separate form for the dative case, different to the allative. Nouns always inflect for number in the absolute case, and never inflect for number in the comitative or the essive. In the other cases the three declensions treat number differently.

### Declensions: Singular distinguished from plural

<i>Case</i>	<i>Declension II</i>	<i>Declension III</i>	<i>Declension I</i>
Absolute	yes	yes	yes
Erg/Inst	yes	opt	no
Locative	yes	opt	no
Ablative	yes	opt	no
Dative/Allative	yes	opt	no
Orientative	yes	opt	no
Privative	yes	opt	no
Associative	n/a	opt	no
Comitative	n/a	no	no
Essive	no	no	no

The three declensions of nouns can be arranged along an animacy hierarchy as follows:

Declension II > Declension III > Declension I  
 most animate least animate



(table 4.1) Summary of the relations between declension types.

A → B means that B is formed on the basis of A.

The examples are *yət* 'you (2sg)', *qoraŋə* 'reindeer', *nenenə* 'child', *ate* 'Father'

Case	Pronoun	Declension I	Declension III (singular)	Declension III (plural)	Declension II (plural)	Declension II (singular)
Absolutive	<i>yət</i>	<i>qora-ŋə</i>	<i>nenenə</i>	<i>nenene-t</i>	← <i>ate-nit</i>	<i>ate</i>
Ergative /Instrumental	<i>yan-an</i>	<i>qora-ta</i>	→ <i>nenene-te</i>	<i>nenene-rə-k</i>	← <i>ate-rə-k</i>	<i>ate-na</i>
Locative	<i>yən-ə-k</i>	← <i>qora-k</i>	→ <i>nenene-k</i>	<i>nenene-rə-k</i>	← <i>ate-rə-k</i>	<i>ate-na</i>
Ablative	<i>yən-ə-ka-jpə</i>	← <i>qora-jpə</i>	→ <i>nanana-jpə</i>	<i>nanana-r-</i> <i>yəpə</i>	← <i>ate-r-yəpə</i>	<i>ate-jpə</i>
Allative /Dative	<i>yən-ə-ka-ytə</i>	← <i>qora-ytə</i>	→ <i>nanana-ytə</i>	<i>nanana-rə-</i> <i>kə</i>	← <i>ate-rə-kə</i>	<i>ate-na</i>
(Dative)	<i>yən-ə-ktə</i>					
Orientalive	<i>yən-ə-ke-</i>	← <i>qora-yjet</i>	→ <i>nenene-yjit</i>	<i>nenene-rə-</i>	← <i>ate-rə-yjet</i>	<i>ate-yjet</i>
	<i>yjit</i>			<i>yjet</i>		
Associative	<i>ya-yən-ə-y-</i> <i>ma</i>	← <i>ya-qora-ma</i>	→ <i>ya-nanana-</i> <i>ma</i>	<i>ya-nanana-</i> <i>rə-ma</i>		
Comitative	<i>ye-yən-ə-te</i>	← <i>ya-qora-ta</i>				
Privative	<i>e-yən-ə-k-ke</i>	← <i>a-qora-ka</i>	→ <i>e-nenene-ke</i>	<i>e-nenene-rə-</i> <i>ke</i>	← <i>(a-)ate-rə-ka</i>	<i>(a-)ate-ka</i>
Essive	<i>yən-ə-k-u</i>	← <i>qora-no</i>	→ <i>nenene-nu</i>	<i>nenene-nu</i>	←	<i>ate-no</i>

The likelihood of a noun being distinguished for number is strongly correlated with its position on the animacy hierarchy. Within a declension, morphological markings may be realized differently according to the stem type. The relevant stem types are those ending in a vowel, a single consonant, or a consonant cluster (hereafter abbreviated as V-, C and CC-).

Table 4.1 (preceding page) shows the morphological relationship between the three declension types and the pronominal declension (a subclass of declension I). There are three morphological patterns:

- i) pronouns, declension I nouns, and singular declension III nouns
- ii) plural declension II and III nouns
- iii) singular declension II nouns

### 4.2.1 Declension I

Semantically, Declension I nouns denote all things other than people or personified entities. Following is a sample of the nominal paradigm for nouns of Declension I. Note that Declension I nouns do not distinguish the category of number outside the absolutive. The examples *rʎenut* 'what?', *milyer* 'gun' and *pipiq* 'mouse' have stems which are neutral for vowel harmony, while the stem of *qora* 'reindeer' is dominant. The ablative, allative and associative case endings also have the dominance prosody triggering vowel harmony throughout words which do not already have it. The interrogative *req-* 'what?' has a suppletive stem *rʎenut* in the absolutive, and shows some unpredictable alternation between expected dominant *raq-* and unexpected *rʎa-*. Case endings vary according to whether the stem ends in a single vowel (V-stem), a single consonant (C-stem) or a consonant cluster (CC-stem). The comitative and associative prefixes lose their vowels before a vowel-initial stem (i.e. they are realized as **Y-**).

## Declension I

Case (num)	'what?' (irr)	'reindeer' (V-stem)	'gun' (C-stem)	'mouse' (CC-stem)
Absolutive (sg)	<b>rʎenut</b>	<b>qora-ŋə</b>	<b>milyer</b>	<b>pipiqəly-ə-n</b>
Absolutive (pl)	<b>rʎenut-ə-t</b>	<b>qora-t</b>	<b>milyer-ti</b>	<b>pipiqəly-ə-t</b>
Ergative/Instrumental	<b>req-e</b>	<b>qora-ta</b>	<b>milyer-e</b>	<b>pipiqəly-e</b>
Locative	<b>req-ə-k</b>	<b>qora-k</b>	<b>milyer-ə-k</b>	<b>pipiqəly-ə-k</b>
Ablative	<b>raʎ-ɣəpə</b> ( <b>raq-ɣəpə</b> )	<b>qora-jpə</b>	<b>melyar-ɣəpə</b>	<b>pepeqəly-e-pə</b>
Allative	<b>raq-etə</b>	<b>qora-ɣtə</b>	<b>melyar-etə</b>	<b>pepeqəly-etə</b>
Orientalive	<b>req-ə-ɣjit</b>	<b>qora-ɣjet</b>	<b>milyer-ə-ɣjit</b>	<b>pipiqəly-ə-ɣjit</b>
Privative	<b>e-req-əke</b>	<b>a-qora-ka</b>	<b>e-milyer-əke</b>	<b>e-pipiqəly-əke</b>
Associative	<b>ya-raʎ-ma</b>	<b>ya-qora-ma</b>	<b>ya-melyar-ma</b>	<b>ya-pepeqəly-ə-ma</b>
Comitative	<b>ye-req-e</b>	<b>ya-qora-ta</b>	<b>ye-milyer-e</b>	<b>ye-pipiqəly-e</b>
Essive	<b>req-u</b>	<b>qora-no</b>	<b>milyer-u</b>	<b>pipiqəly-u</b>

Nouns of Declension I inflect regularly in all cases other than absolutive. The absolutive singular is formed in a variety of synchronically unpredictable ways. These include:

Zero derivation. The singular is identical to the bare stem

**rʎev** 'whale'

Suffixation. Occurs with a number of different suffixes

**kupre-n** 'net'

**pojɣ-ə-n** 'spear'

**qora-ŋə** 'reindeer'

**ŋɣ-nə** 'hill'

**melota-lɣən** 'hare'

the suffix **-lɣən** has dominant vowel harmony prosody; the stem here is neutral

**milute**

Partial reduplication

**nute-nut** 'land'

**tumɣ-ə-tum** 'friend'

Stem final consonant cluster simplification

**ajpən** 'dam' (from \***ajpənɣ-**)

Stem final vowel reduction (to zero or schwa)

**uqqem** 'dish' (from \*uqqeme-)

**aŋqə** 'sea' (from \*aŋqa-)

**umqə** 'polar bear' (from \*umqe-)

However, the absolutive singular of a suffixed stem is always formed with the suffix -n.

**qora-ŋə**

reindeer-ABS

'reindeer'

**qora-lʔ-ə-n**

reindeer-NOM-E-ABS

'reindeer owning'

The absolutive plural is usually formed with the suffix -t (with an epenthetic schwa where this forms an illegal cluster). However, if the stem ends in a VC sequence where the final consonant is coronal and non-high (according to the features presented in §2.5; t, n, l, r) the suffix is -ti. The vowel of -ti is neutral for vowel harmony; in a word with dominance prosody the ending is realized as -te.

**qora-t** 'reindeers'

**tumɣ-ə-t** 'friends'

**umqe-t** 'polar bears'

but

**jatjol-te** 'vixens'

**čimepət-ti** 'debris'

**milɣer-ti** 'guns'

(I have no examples of CC stems ending in an alveolar)

## 4.2.2 Pronominal Declension

Pronouns are a subclass of Declension I. They are formed like other Declension I nouns; pronouns do not have plural case forms in the oblique cases, and unlike Declension I nouns they do not have plural case forms in the absolutive. Nevertheless pronouns are always specified for number, as the category number is intrinsic to the meaning of personal pronoun stems. The other difference between personal pronouns and Declension I nouns is that personal pronouns have a morphological distinction between the dative and allative cases (§4.3.5)

### Singular Pronouns (subclass of Declension I)

Case	1st person	2nd person	3rd person
Absolutive	ḡəm	ḡət	ətlon
Ergative	ḡəm-nan	ḡən-an	ən-an
Locative	ḡəm-ə-k	ḡən-ə-k	ən-ə-k
Ablative	ḡəm-ə-ka-jpə	ḡən-ə-ka-jpə	ən-ə-ka-jpə
Allative	ḡəm-ə-ka-ḡtə	ḡən-ə-ka-ḡtə	ən-ə-ka-ḡtə
Dative	ḡəm-ə-kə	ḡən-ə-kə	ən-ə-kə
Orientalive	ḡəm-ə-ke-ḡjit	ḡən-ə-ke-ḡjit	ən-ə-ke-ḡjit
Privative	e-ḡəm-ək-ke	e-ḡən-ək-ke	ən-ək-ke
Associative	ḡa-ḡəm-ə-ḡma	ḡa-ḡən-ə-ḡma	ḡ-ən-ə-ḡma
Comitative	ḡe-ḡəm-ə-ke	ḡe-ḡən-ə-ke	ḡ-ən-ə-ke
Essive	ḡəm-ə-k-u	ḡən-ə-k-u	ən-ə-k-u

(Skorik 1961:148)

### Plural Pronouns (subclass of Declension I)

Case	1st person	2nd person	3rd person
Absolutive	mur-i	tur-i	ət-ri
Ergative	mor-ḡənan	tor-ḡənan	ər-ḡənan
Locative	mur-ə-k	tur-ə-k	ər-ə-k
Ablative	mor-ə-ka-jpə	tor-ə-ka-jpə	ər-ə-ka-jpə
Allative	mor-ə-ka-ḡtə	tor-ə-ka-ḡtə	ər-ə-ka-ḡtə
Dative	mor-ə-kə	tor-ə-kə	ər-ə-kə
Orientalive	mur-ə-ke-ḡjit	tur-ə-ke-ḡjit	ər-ə-ke-ḡjit
Privative	e-mur-ək-ke	ḡe-tur-ək-ke	ḡ-ər-ək-ke
Associative	ḡa-mor-ə-ḡma	ḡa-tor-ə-ḡma	ḡ-ər-ə-ḡma
Comitative	ḡe-mur-ə-ke	ḡe-tur-ə-ke	ḡ-ər-ə-ke
Essive	mur-ə-ku	tur-ə-ku	ər-ə-ku

(Skorik 1961:149)

## 4.2.3 Declension II

Declension II nouns include personal names, the titles of close older relatives, and the corresponding question word 'who?'. Nouns of Declension II take all cases except comitative and associative and inflect for singular and plural. The absolutive singular is formed in the same variety of unpredictable ways as for Declension I nouns. In all oblique cases except the ablative an epenthetic schwa is obligatory after any consonant-final stem (not just where this would form a cluster of three or more consonants, as is usually the situation with vowel epenthesis). The following paradigms are typical (the

interrogative **mik-** ‘what?’ has a suppletive stem **menjin** in the absolutive singular, but otherwise regular):

## Declension II

Case (num)	<i>‘daddy’ (V-stem)</i>	<i>‘who?’ (C-stem)</i>	<i>‘Rultin’ (CC-stem)</i>
Absolutive (sg)	<b>ate</b>	<b>menjin</b>	<b>rult-ə-n</b>
Absolutive (pl)	<b>ate-nte</b>	<b>mik-ə-nti</b>	<b>rult-ə-nti</b>
Ergative (sg)	<b>ate-na</b>	<b>mik-ə-ne</b>	<b>rult-ə-ne</b>
Ergative (pl)	<b>ate-rək</b>	<b>mik-ə-rək</b>	<b>rult-ə-rək</b>
Locative (sg)	<b>ate-na</b>	<b>mik-ə-ne</b>	<b>rult-ə-ne</b>
Locative (pl)	<b>ate-rək</b>	<b>mik-ə-rək</b>	<b>rult-ə-rək</b>
Ablative (sg)	<b>ate-jpə</b>	<b>mek-γəpə</b>	<b>rolt-epə</b>
		<b>(mek-ə-najnə)</b>	
Ablative (pl)	<b>ate-ryəpə</b>	<b>mek-ə-ryəpə</b>	<b>rolt-ə-ryəpə</b>
Allative (sg)	<b>ate-na</b>	<b>mek-ə-na(γtə)</b>	<b>rolt-ə-na</b>
Allative (pl)	<b>ate-rəkə</b>	<b>mek-ə-rəkə</b>	<b>rolt-ə-rəkə</b>
Orientalive (sg)	<b>ate-γjet</b>	<b>mik-ə-γjit</b>	<b>rult-ə-γjit</b>
Orientalive (pl)	<b>ate-rəγjet</b>	<b>mik-ə-rəγjit</b>	<b>rult-ə-rəγjit</b>
Privative (sg)	<b>a-ate-ka</b>	<b>e-mik-ə-ke</b>	<b>e-rult-ə-ke</b>
Privative (pl)	<b>a-ate-rəka</b>	<b>e-mik-ə-reke</b>	<b>e-rult-ə-reke</b>
Essive (sg and pl)	<b>ate-no</b>	<b>mik-ə-nu</b>	<b>rult-ə-nu</b>

(based on Skorik 1968:254)

## 4.2.4 Declension III

All nouns referring to people apart from personal names and the kin terms of close elder relatives go into Declension III. In the singular or when number is not considered important Declension III nouns take all nine cases and inflect according to the paradigm of Declension I. However, when the plurality of the noun is being emphasised the Declension III nouns inflect according to the paradigm of Declension II plurals. This cannot occur in the comitative case but can in the associative (there are no comitative or associative cases in Declension II). The Declension III associative plural is formed from the stem, a plural suffix **-rə** (a fused or semi-fused suffix deriving many of the Declension II plurals from the corresponding singulars) and the Declension I associative circumfix **γa-\_\_\_-ma**. Why this has happened for the associative case but not the comitative is not clear. The following table shows how Declension III relates to the other classes:

<i>Case (num)</i>	<i>Declension I</i> 'Rintən'	<i>Declension II</i> 'friend'	<i>Declension III</i> 'bear'
Absolutive (sg)	rint-ə-n	tumγ-ə-tum	kejŋ-ə-n
Absolutive (pl)	rint-ə-nti	tumγ-ə-t	kejŋ-ə-t
Ergative-Inst (sg)	rint-ə-ne	tumγ-e	kejŋ-e
Ergative-Inst (pl)	rint-ə-rək	tumγ-ə-rək	
Locative (sg)	rint-ə-ne	tumγ-ə-k	kejŋ-ə-k
Locative (pl)	rint-ə-rək	(tumγ-ə-rək)	
Dative-Allative (sg)	rent-epə	tomy-epə	kajŋ-epə
Dative-Allative (pl)	rent-ə-ryəpə	(tomy-ə-ryəpə)	
Ablative (sg)	rent-ə-na	tomy-etə	kajŋ-etə
Ablative (pl)	rent-ə-rəkə	(tomy-ə-rəkə)	
Orientalive (sg)	rint-ə-γjit	tumγ-ə-γjit	kejŋ-ə-γjit
Orientalive (pl)	rint-ə-rəγjit	(tumγ-ə-rəγjit)	
Privative (sg)	e-rint-ə-ke	e-tumγ-ə-ke	e-kejŋ-ə-ke
Privative (pl)	e-rint-ə-rəke	(e-tumγ-ə-rəke)	
Comit. (no num.)		γe-tumγ-e	γe-kejŋ-e
Associative (sg)		γa-tomy-ə-ma	γa-kajŋ-ə-ma
Associative (pl)		(γa-tomy-ə-rə-ma)	
Essive (no num)	rint-ə-nu	tumγ-u	kejŋ-u

## 4.3 Case and number

### 4.3.1 Absolutive Case

The absolutive case functions as the citation form of the noun. It encodes two of the core arguments of verbs: intransitive subject (S) and transitive object (O). The absolutive case is the only case in which singular and plural are distinguished for all noun classes.

- (4.1) **quput-ət**      **riŋemjet-ə-rkən**  
 petrel-ABS.PL    fly-E-IMPF.3sg  
 'The petrels fly' (Skorik 1961:156)

- (4.2) **luur**      **ʔeγ-əð-a**      **penr-ə-nen**      **qora-ŋə**  
 suddenly    wolf-AUG-ERG    attack-E-3sgA.3sgO    reindeer-ABS.SG  
 'Suddenly the big wolf attacked the reindeer' (Comrie 1981:274)

Declension II nouns can take the absolutive alongside an absolutive pronoun. This has the same meaning as the comitative (Declension II nouns do not have a comitative or associative case). Declension III nouns can also appear in this construction instead of their regular comitative case, but this is rare.

The paradigms for the case endings of Declensions I, II and III given above all assume a third person referent. If the referent of a noun is first or second person the noun takes markings cross-referencing person and number. These markings consist of a suffix of the form *-i-* after a consonant or *-j-* after a vowel (and, as *j* is a consonant it is not subject to vowel harmony), followed by a morpheme identical in form to the corresponding personal pronoun, including its case affixes.

- (4.3) **mik-iyət**      **mempepe-l7-iyəm**  
 who?-2sg      Place.name-DER-1sg  
 ‘Who are you?’ ‘(I am) a Memepe-person’ (J:46)

Like a third person noun, a noun marked for 1st or 2nd person is used predicatively or as an argument of a verb. When a noun marked for 1st or 2nd person appears in a case other than absolutive, it takes case endings from the pronominal declension, a subcategory of the first declension. As the personal pronouns/nominal person endings also encode number, 1st and 2nd person nouns in oblique cases will show number, although the first declension oblique case endings do not encode this themselves.

### 4.3.2 Ergative/Instrumental Cases

The ergative/instrumental case has two functions which are clearly distinguishable grammatically. As an ergative marker it cross-references A of a transitive verb.

- (4.4) **eməl7-əne**      **imti-nin**      **ləmpe qol**      **uttim-ət**  
 Emələn-ERG.SG      carried-3sgA3sgO      yet      another bundle-ABS.PL  
 ‘Emələn carried in yet another bundle (of firewood)’ (Skorik 1961:179)

For Declension I and III nouns the same marking could also be used as an instrumental (Declension II nouns cannot take an instrumental role).

- (4.5) **ekvet-γ7i**      **čejv-c**  
 set.off-3sgS.PERF      foot-INST  
 ‘She set off by foot’ (J:44)



- (4.6) **qaa-ta rənn-a məmp-ənən ʔinə**  
 reindeer-ERG antler-INST pierce-3sgA3sgO wolf.ABS  
 ‘The reindeer stabbed the wolf with (its) antlers’ (Skorik 1961:159)

Instrumental and ergative case functions can be distinguished syntactically. The ergative marks an argument of a transitive verb and cannot appear with an intransitive. The instrumental marks a peripheral argument and cannot be cross-referenced. It can occur with an intransitive verb (4.4) as well as in a transitive clause already containing an ergative noun (4.5). In a transitive clause, ergative and instrumental are distinguished pragmatically. Some antipassive verbs may take a peripheral argument in the instrumental corresponding to the underlying O of the transitive verb (§5.7.2)

### 4.3.3 Locative Case

In its primary function the locative case identifies the place of some state, event etc.

- (4.7) **pəʒiqe-t qaa-k n-ə-vakʔotva-qenat**  
 bird-ABS.PL reindeer-LOC IMPF-E-sit-3PL  
 ‘The birds sit on the reindeer’ (Skorik 1961:160)

Some antipassive verbs may take a peripheral argument in the locative corresponding to the underlying O of the transitive verb (§5.7.2), e.g.:

- (4.8) **mət-ine-γənrit-ə-rkən. qaa-k**  
 1pl-AP-guard-E-IMPF reindeer-LOC  
 ‘We are guarding the reindeer’ (Skorik 1961:160)

Nouns in the locative can form adverbial phrases with a following adverb of place:

- (4.9) **ʔelvəl nəmnəm-ə-k əjan n-ə-tva-qen**  
 herd.ABS settlement-E-LOC further IMPF-E-be-3sg  
 ‘The herd is beyond the settlement’ (Skorik 1961:161)
- (4.10) **rʔev-ə-k jaal pivre-γʔet ʔinəpəʒiqe-t**  
 whale-E-LOC after dived-PERF.3plS orca-ABS.PL  
 ‘The orcas (killer whales) dived after the whale’ (Skorik 1961:161)

#### 4.3.4 Ablative Case

A noun in the ablative case shows the source of an event or state. This is interpreted differently according to the semantic type of the verb. The general meaning is 'away from', such as in:

- (4.11) **qora-jpə nəkir-γʔet ʔaaček-ət**  
reindeer-ABL come-PERF.3plS young.men-Abs.PL  
'The young men came from (the herd of) reindeer' (Skorik 1961:162)

When a noun in the ablative and the transitive object of the clause are in a part-whole relationship, the noun in the ablative represents the part through or by which the action is carried out.

- (4.11) **qora-ŋə rənn-epə γe-kənʔu-lin**  
reindeer-Abs.SG antler-ABL PERF-catch-3sg  
'They caught the reindeer by the antler' (Skorik 1961:162)

With a verb of becoming the noun in the ablative is the cause:

- (4.12) **ŋevəčqet tepʔajŋaγəry-epə cɾγəpat-γʔe**  
woman.ABS singing-ABL become.famous-PERF  
'The woman became famous through her singing' (Skorik 1961:162)

With a 'making' verb, the noun in the ablative shows the materials or source:

- (4.13) **vect γa-tomyat-len vaat-qaj-γepə**  
river.ABS PERF-make-3sg river-DIM-ABL  
'The river is made up of streams' (Skorik 1961:162)

#### 4.3.5 Dative and Allative Cases

A noun in the allative case represents some kind of goal. It may be a destination or it may be a purpose. It is possible to have a clause with both:

- (4.14) **čavčəva-t ekvet-γʔet velətqora-γtə kemetʔ-ətə**  
herdsmen-PL set off-PERF.3plS shop-ALL supplies-ALL  
'The herdsmen set off to the shop for supplies' (Skorik 1961:165)

Personal pronouns have a dative case which is distinguished morphologically from the allative case. The dative case thus represents a person who is a beneficiary. With other nouns the distinction between dative and allative is not made, and beneficiaries are treated the same as goals in the allative.

Mental process and emotion verbs may take an allative argument

- (4.15) **njɨŋej vala-γtə korɣak-vʔe**  
 boy.ABS knife-ALL delighted-PERF  
 'The boy was delighted with the knife' (Skorik 1961:165)

- (4.16) **m-ə-minetɛjk-ə-rkən orv-ətə**  
 1sg-E-remember-E-IMPF trap-ALL  
 'I remember the trap' (Skorik 1968:164)

Some antipassive verbs may take a peripheral argument in the dative/allative corresponding to the underlying O of the transitive verb (§5.7.2) It is not certain whether this argument is dative or allative as there are no examples with a personal pronoun in this function.

#### 4.3.6 Orientative Case

The orientative case signifies something used as a reference. Typically this is a landmark (mountain, smoke etc) used in a clause referring to position, or something to be copied (either with 'making' verbs or modes of behaviour). An orientative noun from Declension II or III (referring to a person) is likely to be the person who directed the action of the clause.

- (4.17) **ŋelvəl n-ə-tva-qen γətɣ-ə-γʔet**  
 herd.ABS IMPF-E-be-3sg lake-E-ORI  
 'The herd is near the lake'

- (4.18) **iviniɫʔ-ət n-ə-pelqəntet-qinet aŋqə-jpə ŋej-əγjit**  
 hunter-ABS.PL IMPF-E-return-3pl sea-ABL mountain-ORI  
 'The hunters return from the sea by (help of) the mountain'

- (4.19) **ŋeekke-t n-ə-vaŋe-qenat əmmeme-rəγjit**  
 girl-ABS.PL IMPF-E-sew-3pl mother-ORI.PL  
 'The girls sew according to their mothers' example' (all from Skorik 1961:166)

My favourite example of the orientative is this period gem from Skorik : **iyər murjın remkən sovjet-vayəry-ə-yyet** (soviet-life-E-ORI) **nənəmətvaqen** ‘Our nation now lives by Soviet law’ (1961:166).

#### 4.3.7 Privative Case

The privative case denotes something that is lacking:

- (4.20) **qol qlavil ɣəto-ɣʔe a-pojɣ-ə-ka**  
 other man go.out-PERF PRIV-spear-PRIV  
 ‘The other man went out without a spear’ (Skorik 1961:287)

It forms the predicate of a negative verbless clause with the negative particle **ujje**.

- (4.21) **ɣeekkeqej ujje e-ʔluʕi-ke**  
 girl NEG PRIV-doll-PRIV  
 ‘The girl doesn’t have a doll’ (Skorik 1961:287)

- (4.22) **iyər aŋqa-k ujje a-rərka-ka**  
 today sea-LOC NEG PRIV-walrus-PRIV  
 ‘There are no walruses in the sea today’ (Skorik 1961:289)

This case does not form part of the traditional set of cases. Skorik treated it as a part of derivational morphology. Functionally and distributionally it does all the things expected of a case; it can act as a peripheral argument of a clause, cannot co-occur with case endings and has morphology strikingly similar in type to case morphology (such as the Declension II plural with **-rə-**).

#### 4.3.8 Associative Case

A noun in the associative case is something which is typically associated with the head noun (one of the core arguments of the clause). The associative is frequently used in part-whole relationships and for the young of animals with their parent/s.

- (4.23) **milyer ya-mʔamem-a n-ə-melva-qen renm-ək**  
 rifle (abs) ASS-cartridge-ASS IMPF-E-hang-3sg wall-LOC  
 ‘The rifle and its cartridges hangs on the wall’ (Skorik 1961:170)

- (4.24) **ᠠᠳᠠᠳᠤᠨ ᠶ᠋ᠠᠴᠠᠵᠤᠠᠳᠠᠳᠤᠨ**  
 dog-ABS ASS-young-dog-young-ASS  
 'A dog with (its) puppies' (Skorik 1961:170)

Only nouns of Declensions I and III can take this case. Unlike in the comitative case, Declension III nouns can go into the plural. The associative plural ending is unique to Declension III as the normal source of Declension III plural morphology, Declension II, does not take this case.

#### 4.3.9 Comitative Case

The referent of a noun which accompanies the referent of one of the core nouns of the clause takes the comitative case.

- (4.25) **ᠶ᠋ᠢᠨᠠ ᠪᠣᠯᠤ ᠶ᠋ᠢᠨᠠᠶᠢᠨᠠ ᠴᠢᠩᠭᠤᠨ ᠶ᠋ᠢᠨᠠ ᠶ᠋ᠢᠨᠠ**  
 finally wolf COM-wolverine-COM AP-catch.up-PERF.3pl reindeer-ALL  
 'Finally the wolf together with the wolverine caught up to the reindeer'  
 (Skorik 1961:168)

This case does not exist for Declension II. Instead, if we need to show this relation for a noun and a pronoun in a core role, the pronoun determines verb agreement and the noun is simply juxtaposed in the same case. Otherwise the comitative meaning is conveyed by a noun in the locative modified by the spatial adverb **reen** (§3.7).

#### 4.3.10 Essive Case

A core noun which is said to be similar to another noun takes that noun in the essive case.

- (4.26) **ᠠᠨᠠᠭᠤ ᠯᠠᠭᠤ ᠨᠣᠲᠤᠴᠢᠨ ᠠᠳᠠᠳᠤᠨ ᠠᠶᠢᠨᠠ ᠶ᠋ᠢᠨᠠ**  
 then suddenly DEM.ABS dog-ABS wolf-ESS howl-PERF  
 'Then that dog suddenly howled like a wolf' (Skorik 1961:170)

- (4.27) **ᠶ᠋ᠠᠬᠤᠪᠤᠳᠤᠨ ᠷᠢᠴᠤᠨ ᠨᠠᠶᠢᠨᠠᠶᠢᠨᠠ**  
 stone-E-ABS.PL what?-ESS IMPF-E-hang-3pl  
 'What are the stones hanging there for? (The stones hang as-a-what?)'  
 (Skorik 1961:170)

## 4.4 The genitive

Two types of genitive relations in Chukchi are expressed by derivational morphology which I shall call 'possessive' and 'source'. This genitive relation is marked on the possessor/source, and always precedes its head if it forms a constituent with it. A not marked for the possessive genitive can appear with no other apparent case marking form an argument of a noun phrase.

(4.28)	<b>rult-ə-nin</b>	<b>kupre-k</b>
	Rultyn(personal.name)-E-POSS	net-LOC
	'on Rultyn's net'	(Skorik 1961:230)

Genitive markings are an intermediate category between inflectional and derivation morphology. They exhibit the following behaviour:

(i) genitive marked stems with the head in a case marked by a circumfix (associative comitative, privative) appear within the circumfix, forming one phonological word with the head; genitive marked stems can be incorporated;

(ii) genitive marked nouns which are predicative will appear with case and person marking as well;

(iii) if the grammatical head of the genitive marked noun is unexpressed, the genitive noun will take case marking.

Thus the genitive marking can either show the grammatical relation of the noun stem to another element of the clause (a case-like function) or it can form a substantive which can take further case marking or be incorporated into a compound noun (similar function to derivational affix).

### 4.4.1 Possessive Genitive

The possessive genitive suffix typically marks the possessor in a possessor-possessed relationship.

(4.29)	<b>ɲeekkeqeɟ-in</b>	<b>qepəl</b>	<b>təmɲek-vʔe</b>
	girl-POSS	ball.ABS	lost-PERF
	'The girl's ball is lost'		(Skorik 1961:225)

but attributive relationships can also be expressed by this suffix:

(4.30)	<b>vəkv-en</b>	<b>jara-ŋə</b>	
	stone-GEN	house-ABS	
	'a house of stone'		(Skorik 1961:249)

- (4.31) **kole veem-ary-in miməl n-ə-cəq-qin**  
 water stream-PL.-GEN very ADJ-E-cold-3SG  
 'The water of streams is very cold' (Skorik 1961:227)

The markings for genitive are **-in(e)** (**e** disappears word finally) or **-nin(e)** for Declension II nouns in the singular (this suffix has an optional reduced form **-n** word finally). This is preceded by the suffix **-ary-** when the marked noun is plural. This follows the same rules as for the occurrence of plurality with case marking; it is always marked on Declension II nouns (personal names) and optionally on the Declension III nouns (human beings). Declension I nouns can only show the plural in the absolutive case.

### Genitive Markings

**nevəčqet** 'woman', **rult-ən** 'Rultyn (personal name)'

	singular head (abs)	plural head (abs)
singular dependent	<b>nevəčqet-in</b> <b>rult-ə-nin</b>	<b>nevəčqet-ine-t</b> <b>rult-ə-nine-t</b>
plural dependent	<b>nevəčqet-ary-in</b> <b>rult-ary-in</b>	<b>nevəčqet-ary-ine-t</b> <b>rult-ary-ine-t</b>

As mentioned above, genitive marked stems with the head in a case marked by a circumfix (associative, comitative, privative) appear within the circumfix, forming one phonological word with the head.

- (4.32) **ya-tato-nena-melyar-ma**  
 COM-Tato(personal\_name)-GEN-rifle-COM  
 'with Tato's rifle'

Optionally the genitive marked dependent may incorporate with head nouns in other cases.

- (4.33) **rult-ə-nine-tumy-ə-k n-ə-mva-jyəm**  
 Rultyn-E-GEN-friend-LOC IMPF-E-stay-1sg  
 'I am staying at Rultyn's friend's' (Skorik 1961:232)

The genitive marked dependent carries number and case marking if it is a predicate, or if its head noun is absent; eg.:

Genitive with number marking in the absolutive, head absent:

- (4.34) **mik-ə-nin elʔo-nte**  
who-E-GEN uncle PL.ABS  
'Whose uncles?'

**rult-ə-nine-t**  
Rultyn-E-GEN-PL.ABS  
'Rultyn's (ones)' (Skorik 1961:232)

Genitive with oblique case marking, head absent:

- (4.35) **rʔe-vinv-ə-ɣjit ɣət re-le-rkən**  
what-tracks-E-ORI 2SG(abs) FUT-follow-IMPF  
'By what tracks will you follow?'

- (4.36) **kejn-ine-ɣjit**  
bear-GEN-ORI  
'By the bear's' (Skorik 1961:226)

#### 4.4.2 Source genitive

The source genitive is shown by the suffix **-kin(e)-** (the final **e** disappears word finally as in the genitive). This may be analysed as a pair of suffixes **-k-in(e)-**, the latter being the genitive marker discussed §4.4.1. A word marked with the source genitive suffix may be incorporated or free-standing. It is usually only used with nouns from Declension I (hence no plural), combining with a limited number of semantic types: PLACE, TIME and OBJECT. A PLACE noun marked with the source genitive shows the place of origin of the head:

- (4.37) **muri roʔɣ-ə-kena-more**  
1PL opposite.shore-E-REL-1pl.ABS  
'We are from ('of') the opposite shore' (Skorik 1961:275)

With a TIME noun, the source genitive shows the time of year that the head appears or is used:

- (4.38) **tite-kine-evirʔ-ək ɣa-pat-lenat mumkəl-ti**  
when-REL-clothing-LOC PERF-sew-3pl button-PL.ABS  
'They sewed buttons onto clothing for what time(season)'



- (4.39) **lʔeleŋ-kine-k**  
 winter-REL-LOC  
 'Onto (clothing) for winter' (Skorik 1961:274)

A noun referring to a PHYSICAL OBJECT marked with the source genitive denotes something in a part-whole relationship with its head word:

- (4.40) **rʔe-kine-niŋ-e**      **ŋe-kvut-lin**      **ʔittʔ-ə-n**  
 what-REL-cord-INST    PERF-tie.up-3sg    dog-E-ABS.SG  
 'The dog is tied up with a cord from what?'

- (4.41) **ʔətv-ə-kine-te**  
 boat-E-REL-INST  
 'With (one) from a boat' (Skorik 1961:274)

## 4.5 Derivational morphology

### 4.5.1 Possessed Predicate

In conjunction with nominal person marking, the prefix **ŋə-** marks a possessed nominal predicate in a non-verbal clause. This prefix is identical to the prefix of the comitative circumfix and is apparently also related semantically. Thus the following example, 'I have a grandmother and a grandfather', could be literally translated as 'I (am) a with-grandfather-me and a with-grandmother-me'.

- (4.42) **ŋəm**    **ŋe-pe-jŋəm**      **ənkʔam**    **ŋe-peqeŋ-iŋəm**  
 1SG    POSS-grandfather-1SG    and    POSS-grandmother-1SG  
 'I have a grandmother and a grandfather' (Skorik 1968:219)

There is a special ending for the 3rd person: **-line-** (Skorik 1961:224). This is realized as **-lin** in the singular and **-line-t** in the plural. Possessed predicates are formally identical to verbs in the stative perfect paradigm (§4.5.1; §5.4.1).

### 4.5.2 Participles and **lʔ-** nominalisation

Chukchi has a nominaliser **lʔ-** which derives nouns from adjectives, verbs and other nouns. Nouns derived with **lʔ-** from an adjective or another noun stem indicate a person or thing characterised by the stem noun. In particular, the semantics of the stem determines the following types:

meaning of stem X:	meaning of nominalisation:
place (noun)	person or thing originating from a place X e.g. <b>mempʔɛpɛ-lʔ-iʔəm</b> Mempepe-NOM-1sg 'me-from-Mempepe' (J:46)
thing (noun)	person or thing possessing thing X e.g. <b>jara-lʔ-ə-n</b> house-NOM-E-ABS 'house-owner' (Skorik:348)
property (adjective)	person or thing typified by property X e.g. <b>ɛʔʔəlʔən</b> <b>qora-ŋə</b> fat-NOM-E-ABS                      reindeer-ABS 'fat-one reindeer' (J:172)

Verbs derived with **lʔ-** form part of the (slightly) larger subgroup of nouns called 'participles'. Chukchi participles are formed with the suffixes **-lʔ** and **-jo**. Classification of participles is as follows:

participles:	suffix:	stem valency:	focus:
passive (positive)	<b>-jo</b>	transitive	O
passive (negative)	<b>-lʔ</b>	transitive	O
active (pos. or neg.)	<b>-lʔ</b>	intransitive	S
antipassive	<b>-lʔ</b>	transitive + antipassive	S (<A)

'Focus' refers to the orientation of the participle with respect to the grammatical role called for by the verbal stem (Haspelmath 1994:153). Thus a noun modified by a passive participle (O focus) is understood as being in the O role of the verb, while a noun modified by an active participle is understood as being in the S role (in the antipassive subclass of active participles this S is derived from A).

Participles take nominal case and number morphology (and likewise are marked for person for referents which are speech act participants). Their distribution is different from that of nouns in that they may occur attributively as well as substantively. Attributive participles usually precede their head and agree with it in person, number and case. Like with any other attributes they may also be incorporated.

### 4.5.3 -jo participle

Čhukchi **passive participles** are formed from transitive verbs by the suffix **-jo**. They have inherent orientation towards the O of the verb. Example (4.43) shows a passive participle formed from the verb **jeŋa** ‘carry’ used substantively:

- (4.43) **qəŋver jeŋa-jo-ta lʔu-nin nəmnəm**  
 finally carry-PART-ERG see-3sgA.3sgO village.ABS  
 ‘Finally the-one-who-was-being-carried saw the village’ (Skorik 1961:382)

In the absolutive singular, passive participles do not take the usual **-n** absolutive (4.44) unless there are further derivational suffixes (4.45). Examples (4.44-45) show passive participles used attributively.

- (4.44) **amqən-kənʔo-jo pekvət ləŋen evər n-ine-tril-muri**  
 DIST-catch-PART-ABS doe.ABS PCL PCL PERF-INV-release-1pl  
 ‘We straight away released every-captured doe’ (Skorik 1961:383)

- (4.45) **rələplat-jo-čʔ-ə-n ʔətə-čʔə-n lun-čime-te it-ʔʔi**  
 wash.away-PART-AUG-E-ABS boat-AUG-ABS NEG-break-NEG be-PERF  
 ‘The big boat which was washed away didn’t break’  
 (Skorik 1961:384)

The agent of a passive participle can be expressed in the instrumental case (examples 4.46-47). Note that the instrumental is homophonous with the ergative, but the ergative functions only to mark A of transitive verbs (§4.3.2).

- (4.46) **əməʔo-rə-k rətəjat-jo-more qəŋver mət-ekven-mək**  
 all-PL-INST forget-PART-1pl.ABS finally 1pl-set.off-1pl.PERF  
 ‘We-the-forgotten-by-everyone finally set off’ (Skorik 1961:383)

- (4.47) **ʔəm-nan ʔət qəŋpə ketʔo-jo-jʔət**  
 1sg-INST 2sg.ABS always remember-PART-2sg.ABS  
 ‘I remember you all the time (‘you are always remembered by me’)  
 (Skorik 1961:383)

There is no negative participle in **-jo** (cf. §4.5.2).

#### 4.5.4 -lɪ participles

There are three different types of participle formed by the suffix **-lɪ**: active, antipassive and negative passive participles. These participles take regular nominal case marking and derivational morphology. The suffix **-lɪ** is used to form the negative of the passive participle in **-jo**. Active and antipassive participles can be positive or negative. The negative of **-lɪ** participles is indicated by the circumfix <sup>n</sup>√e-\_\_\_-kə around the stem. The usual absolutive singular ending **-ə-n** is realised in these negative participles as **-in**.  
e.g.:

**e-nreqev-kə-lɪ-in**

NEG-do.what?-NEG-PART-ABS 'not doing what?'

Chukchi **active participles** are formed from intransitive verbs by means of the suffix **-lɪ**. Example (4.48) shows an active participle as an independent attribute, (4.49) shows one as an incorporated attribute, and (4.50) as a substantive.

(4.48) **tajkavə-lɪ-əjŋ-ən aʎačək-əjŋ-ən qənvər əmə penʎivet-ɣʔi**  
fight-PART-AUG-ABS boy-AUG-ABS finally also get.tired-3sg  
'The-big-boy-who-was-fighting (the big fighting boy) finally got tired'  
(Skorik 1961:364)

(4.49) **ŋotqen nəŋəl ɣa-valom-len a-kvat-kə-lɪ-ə-ŋavəčqat-ɣəpə**  
this news PERF-find-3sg NEG-go.away-NEG-PART-E-woman-ABL  
'[They] found out this news from the not-going-away-woman'  
(Skorik 1961:354)

(4.50) **muri ɣejivə-lɪ-ə-rə-ɣjit n-ə-mičɣiren-muri**  
1pl.ABS get.experience-PART-E-PL-ORI IMPF-E-work-2pl  
'We worked like experienced [people]'  
(Skorik 1961:356)

The **antipassive participle** is a subclass of active participles. It is formed with a transitive stem and an antipassive affix (**ine-** or **-tku** cf. §5.7.2), making a form which is then treated as an intransitive root for an active participle. Thus it has S focus derived from A. Example (4.51) shows an antipassive participle with the **ine-** antipassive prefix, (4.52) shows one with the **-tku** antipassive suffix, and (4.53) shows a negative antipassive participle with **-tku**. Antipassive participles can have an oblique element which originates as the O of the transitive participle stem (4.51), cf. §5.7.2 for oblique O with the antipassive)

- (4.51) **ənpənaʒy-a ine-nəyʒivet-l7-e r7et-ək vetə n-əŋqivriv-muri**  
 old.man-ERG AP-show-PART-ERG road-LOC PCL IMPF-hurry-1pl  
 'The old man showing us the road hurried us along' (Skorik 1961:382)
- (4.52) **verəŋ-ə-tko-l7-ətə ɲotqen-at q-ə-ʒəly-ə-n-et**  
 defend-E-AP-PART-DAT this-ABS.PL 2sg.INT-E-give-E-3-PL  
 'Give this to the guard' (Skorik 1961:382)
- (4.53) **ərə-tku-kə-l7-in n-ə-tvetʒatva-qen aʒyəma**  
 shoot-AP-NEG-PART-ABS.SG IMPF-E-stand-3sg nearby  
 'The-one-who-didn't-shoot stands nearby' (Skorik 1961:354)

The **negative passive participle** is an O focus participle formed from a transitive stem with the circumfix <sup>n</sup>√e-\_\_\_-kə followed by the suffix -l7- (other negative -l7 participles are formed from intransitive or derived intransitive stems).

- (4.54) **iʒər a-jo7-kə-l7-ətə ɛnm-ətə mən-əlqen-mək**  
 PCL NEG-reach-NEG-PART-ALL hill-ALL 1pl.INT-go-1pl  
 'Let us go now to the-hill-that-we-did-not-reach [the unreached hill]'  
 (Skorik 1961:354)

#### 4.5.5 Restrictive prefix

The prefix **em-/am-** marks a stem as denoting a group composed exclusively of things all of the same sort. With personal names this means people all of the same name (I have no anthropological information about the significance of sharing a name). As this prefix denotes a group, the prefixed word will appear in the plural in declensions which allow this.

- (4.55) **ʒətʒ-ək am-ʒalya-t n-ə-tva-qenat**  
 lake-LOC REST-duck-PL.ABS IMPF-E-be-3PL  
 'On the lake there were only ducks' (Skorik 1961:293)
- (4.56) **muri am-7el7o-rə-k n-ə-tkiv-muri**  
 1PL REST-uncle-PL-LOC IMPF-E-sleep-1PL  
 'We slept over only at our uncles' (places)' (Skorik 1961:291)

There are modifiers which immediately precede the restrictive prefix, **teŋ-/taŋ-** which intensifies the meaning of the restrictive and **pəʒ-** which has emphatic meaning.

- (4.57) **ya-maŋ-am-melyar-ma**    **ətri**    **vanevan**    **n-ivi-ninet**  
 ASS-INTS-REST-gun-ASS    3plABS    NEG    IMPF-hunt-3pl  
 ‘They did not hunt with nothing at all but guns (i.e. they always hunted with something else as well)’ (Skorik 1961:295)

- (4.58) **tejučy-ə-čəku**    **pəč-em-ŋily-ət**    **n-ə-tva-qenat**  
 bag-E-inside.ABS    EMPH-REST-cord-PL.ABS    IMPF-E-be-3pl  
 ‘In the bag there are after all only cords’ (Skorik 1961:295)

#### 4.5.6 Distributive prefix

The distributive forms indicate an item treated as part of a group of similar items. The form <sup>n</sup>√**emqin-** ‘each, every’ indicates the individual items of a group that actually exists, while <sup>n</sup>√**yemye-** ‘any’ indicates a hypothetical item of a real or hypothetical group. These prefixes can occur with noun in any case, but not with plurals (distributive forms refer to items taken individually) and not with Declension II nouns (proper names).

- (4.59) **mur-ə-k**    **amqən-ŋavəčqat-ətə**    **ye-jət-lin**    **vəŋenəŋ**  
 1pl-E-LOC    DIST-woman-ALL    PERF-give-3sg    sewing.machine  
 ‘[They] gave each of our women a sewing machine’ (Skorik 1961:296)

- (4.60) **ətəyən**    **ya-yamya-melyar-ma**    **vanevan**    **n-ivinił-yʔe-n**  
 father    ASS-DIST-rifle-ASS    NEG    3sgINT-hunt-PERF-3sg  
 ‘Father won’t hunt with any rifle’ (Skorik 1961:298)

#### 4.5.7 Augmentative and diminutive affixes

Chukchi has two augmentatives and a diminutive. The diminutive **-qej** can indicate (i) smallness/youngness, or (ii) dearness. This is determined pragmatically. The augmentatives both indicate largeness/maturity, but **-jŋ-** has connotations of fondness or respect and **-čy-** has connotations of disdain.

- <sup>d</sup>√-**jŋ-**    augmentative (respectful)
- <sup>d</sup>√-**čy-**    augmentative (disdainful) [alternates with **-čəŋ-** / VC\_\_ ]
- <sup>n</sup>√-**qej**    diminutive

The suffix **-qej** can be the final affix of an absolutive noun, otherwise, all these affixes are followed by case marking (**-ə-n** for absolutive).

- (4.61) **omqa-jŋ-ə-k**                      **qača**                      **n-ə-tva-qen**                      **ruk**  
 polar.bear-AUG-E-LOC    near.ADV                      IMPF-E-be-3sgS    ??  
**e-plotku-kə-lʔ-in**                      **meməl**  
 NEG-eat-NEG-PART-ABS                      seal.ABS  
 'Near the polar bear is an unfinished seal [carcass]'                      (Skorik 1961:300)

- (4.62) **luur**                      **ŋeɣ-ə-čɣ-a**                      **penr-ə-nen**                      **qora-ŋə**  
 suddenly    wolf-E-AUG-ERG    attack-E-3sgA3sgO    reindeer-ABS  
 'Suddenly a big [had] wolf attacked the reindeer'                      (Comrie 1981:274)

- (4.63) **ŋotqena-t**                      **ɣe-ŋevʎen-e,**                      **ənnen**                      **ŋinqeɟ,**  
 this-ABS.PL                      COM-wife-COM                      one                      boy-DIM.ABS  
 ə...                      **ŋeekkeqeɟ,**                      **na-ra-mŋəlo-ŋənat**  
 one                      girl-DIM.ABS                      INV-FUT-want-3plA.3plO.PERF  
 'This [man] with [his] wife will want a little boy and a little girl' (1.78)

#### 4.5.8 Other lexical derivational formatives

Chukchi possesses an extremely large inventory of derivational morphology whose meaning cannot be derived by grammatical rule. The morphemes discussed below are intended as a representative sample of the possibilities, rather than an exhaustive listing. The lexicon in the appendices mentions all morphemes dealt with in this grammar and in the sample texts.

##### -tʔol

The suffix <sup>ɬ</sup>-tʔol joins to a stem referring to an animal to derive a noun meaning the meat of that animal. This affix does not require any additional absolutive case suffix.

- (4.64) **meməl-ə-tʔol,**                      **rərka-tʔol,**                      **qora-tʔol**  
 seal-E-MEAT                      walrus-MEAT                      reindeer-MEAT  
 'Seal meat, walrus meat, reindeer meat'                      (J:195)

##### -čq

The suffix -čq derives a noun with the meaning of the top part of the referent; e.g. **tətəčqən** 'top part of a door' (< **tətəl** 'door': Skorik 1961:321). This morpheme cannot be the terminal suffix of a word; it must always have case marking.

- (4.65) **ʎamən**                      **ŋotqen**                      **n-ə-teŋ-qin**                      **nute-čq-ə-n...**  
 PCL                      this                      ADJ-E-good-3sg                      land-TOP-E-ABS  
 'Well this is good land [soil]'                      (J:63)

## 4.6 Compounding

Chukchi nouns may incorporate other stems as modifiers to make a compound noun. Compound nouns may be formed with verb stems and with other nouns:

- kelinjivən** 'letter' < \***keli-tjiv-ə-n** (**keli-** 'paper'; **tjiv-** 'send';  
t assimilates to **ŋ**, cf. **təŋiv-ək** 'to send'; -n absolutive singular)  
**velvəjeɣət** 'skis' < \***velv-ə-jeɣ-ə-t** (**velv-** 'crow'; **jeɣ-** 'foot';  
-t absolutive plural)

The incorporated word in the compound always precedes its head (as in all other forms of Chukchi lexical incorporation).

## 4.7 Numerals

Numerals are a closed subclass of nouns with some combination rules peculiar to themselves, allowing formation of a large group of numerals from a small number of stems. The counting system is mixed base 5 and base 20. This is transparently related to human anatomy; the verb 'to count' is **rəlyək**, from the word **rəlyəlyən** 'finger/toe' (stem **rəly-**), the numerals 'five' and 'ten' come from the words 'hand' and 'hands' respectively, and the numeral 'twenty' comes from a stem meaning 'man' (i.e. the number of fingers and toes). The traditional counting system could not produce numbers greater than four hundred; any number more than this was **ɣəjivteɣən** 'the limit of knowledge' (Bogoras 1922:838). Furthermore, the majority of Chukchi did not actually know the counting system beyond 'twenty'. Skorik (1961:391) reports that a revised system of counting was being taught in Chukchi schools (as the traditional system up to 99, with unassimilated Russian loans for 'hundred', 'thousand' and higher), but that both systems, the traditional and the revised, were losing ground before the Russian counting system. Numerals can be ordinal, cardinal and distributive. None of my sources report any kind of fractions.

### 4.7.1 Grammatical Behaviour of Numerals

Numerals have intrinsic grammatical number, singular for **ənnen** 'one' and plural for higher numbers. Unlike ordinary nouns, person marking for numerals is not obligatory under certain circumstances. A numeral unmarked for person can only be used attributively, while one marked for person must be used predicatively or as an arguer in a clause.



### 4.7.2 Simple Numerals

The numerals from one to five, as well as ten, fifteen and twenty, are formed from simple, uncompounded stems.

1	<b>ənnen</b>	10	<b>mənyətken</b> (stem <b>mənyət-</b> )
2	<b>ņireq</b> (stem <b>ņire-</b> )	15	<b>kəlyənken</b> (stem <b>kəlyən-</b> )
3	<b>ņəroq</b> (stem <b>ņəro-</b> )	20	<b>qlikkin</b> (stem <b>qlik-</b> )
4	<b>ņəpaq</b> (stem <b>ņəpa-</b> )		
5	<b>mətəŋen</b> (stem <b>mətəŋ-</b> )		

### 4.7.3 Compound Numerals

The numerals six to nine are formed by compounding simple numerals 1 to 4 with the numeral five. These compound stems form a single phonological word (vowel harmony extends over the entire compound).

6	<b>ənnanmətəŋen</b> (1 + 5)
7	<b>ņeraqmətəŋen</b> (2 + 5)
8	<b>ņəroqmətəŋen</b> (3 + 5)
9	<b>ņəpaqmətəŋen</b> (4 + 5)

According to the orthography 7, 8 and 9 are transcribed as **ņeraʔmətəŋen**, **ņəroʔmətəŋen** and **ņəpaʔmətəŋen** but this is phonetic rather than phonological, as **q** → **ʔ** / \_\_C (§2.2.1).

There are irregular forms for expressing the numerals 'eight' and 'nine' which are used interchangeably with those above.

8	<b>amņərootken</b> 'just the third' (i.e. of the second hand) ( <b>am-</b> restrictive cf §4.5.5)
9	<b>qoŋʔačyənken</b> 'one behind' (i.e. one finger left over)

Round multiples of twenty are formed by compounding the numerals 2 to 10, 15 and 20 with the stem for twenty.

40	<b>ņireqqlikkin</b> (2 × 20)
60	<b>ņəroqqlekken</b> (3 × 20)
80	<b>ņəpaqqlekken</b> (4 × 20)
100	<b>mətəŋqlekken</b> (5 × 20)
120	<b>ənnamətəŋqlekken</b> (6 × 20)

- 140 **nerʔamətɬəŋqlekken** (7 × 20)
- 160 **amʔrootqlekken** (8 × 20)
- 180 **qoŋʔaɬʔəŋqlekken** (9 × 20)
- 200 **məŋʔətqlekken** (10 × 20)
- 300 **kəɬʔəŋqlekken** (15 × 20)
- 400 **qliqqlikkin** (20 × 20)

#### 4.7.4 Analytic Numerals

Analytic numerals are formed by (i) the next lower simple or compound numeral, (ii) the difference between the desired number and (i), (iii) the word **parol** 'extra'. Item (ii) can itself be a complex numeral (eg. in 'thirty one'), in which case it must be formed by the same rules (eg. 'thirty eight' is '20, 15, 3 extra' and never '\*20, 10, 8 extra').

- 11 **məŋʔətken ənnen parol** (10, 1 extra)
- 12 **məŋʔətken ɲireq parol** (10, 2 extra)
- 13 **məŋʔətken ɲəroq parol** (10, 3 extra)
- 14 **məŋʔətken ɲipaq parol** (10, 4 extra)
  
- 16 **kəɬʔənken ənnen parol** (15, 1 extra)
- 17 **kəɬʔənken ɲireq parol** (15, 2 extra)
- 18 **kəɬʔənken ɲəroq parol** (15, 3 extra)
- 19 **kəɬʔənken ɲəpaq parol** (15, 4 extra)
  
- 21 **qlikkin ənnen parol** (20, 1 extra)
- 25 **qlikkin mətɬəŋen parol** (20, 5 extra)
- 27 **qlikkin ɲeraʔmətɬəŋen** (20, 7 extra)
- 30 **qlikkin məŋʔətken parol** (20, 10 extra)
- 31 **qlikkin məŋʔətken ənnen parol** (20, 10, 1 extra)
- 35 **qlikkin kəɬʔənken parol** (20, 15 extra)
- 38 **qlikkin kəɬʔənken ɲəroq parol** (20, 15, 3 extra)

Although analytic numerals consist of multiple phonological words (as evidenced by vowel harmony), they are treated morphosyntactically like a single unit (§4.7.6; §7.1)

#### 4.7.5 Derivational Morphology

In the absolutive case plural numerals with personal referents take the suffixes:

- muri 1pl e.g. **ɲire-muri** 'we two'
- turi 2pl e.g. **ɲire-turi** 'you two'
- ɾyeri 3pl e.g. **ɲire-ɾyeri** 'they two'

(Note that this differs from other nominal person marking only for 3pl; §4.3.1).

Ordinal numerals are formed by the suffix <sup>n</sup>√qev. Ordinal numerals which modify another noun are always incorporated in cases other than the absolutive. When used substantively ordinal numerals can take case endings but the absolutive case does not require any suffix.

- (4.66) **tʃar-qav-orv-ə-k**                      **n-ə-tva-qen**  
which?-ORD-net-E-LOC IMPF-E-be-3sgS  
'Which net is it in?'

**ɲəro-qav-ə-k**  
three-ORD-E-LOC  
'On the third'                                      (Skorik 1961:400)

Distributive numerals ('N each') are formed by the circumfix <sup>n</sup>√em-\_\_\_-jut, which occurs as an independent word in the absolutive but is usually incorporated in other cases. It is not used substantively.

- (4.67) **əɾɣə-nan**    **ɣe-nkəlvət-linet**            **am-mənyət-jot**    **nely-ə-t**  
3pl-ERG        PERF-tie.up-3pl            DIST-ten-DIST        fur-E-PL.ABS  
'They bundled up the furs in tens'                                      (Skorik 1961:398)

#### 4.7.6 Numerals in non-absolutive cases

Numerals are not used independently outside the absolutive case unless they are derived substantives (§4.5.2). Numerals acting as modifiers of non-absolutive nouns are incorporated. Analytic numerals, which consist of more than one phonological word, are nonetheless treated as a single unit for incorporation and affixation, with prefixes attaching to the first element of the numeral and suffixes to the last (which is invariably **parol** 'extra'). Only the final word of incorporated analytic numerals is incorporated into the stem (discussed further §7.1).

## 5. Verbal Morphology

The Chukchi verb exists as a class of stems with particular morphological possibilities. All verb stems have the possibility (in prototypical verbal contexts cf. §5.3) of inflecting for the categories person, number, mood and tense-aspect, although there are verb forms where most of these categories are neutralised or determined by another clause (e.g. subordinate verbs §5.5).

### 5.1 Inflectional categories

Inflecting forms of the verb divide structurally and semantically into active paradigms (§5.3) and the stative paradigms (§5.4). I have no evidence that verb stems are ever restricted to just one of the classes of paradigms. Inflecting verb forms agree for person and number of one or two arguments: S (intransitive); A and/or S (transitive). Zero argument verbs (§5.7.3) have the same inflection as verbs agreeing with a third person singular S. Arguments beyond the second are not cross-referenced on the verb. Person may be first, second or third; number may be singular or plural. The morphological markings for cross reference may be transparently synthetic or fused. The interaction of tense-aspect and mood can determine 10 paradigms of inflecting verb forms. Derivational affixes which further specify aspect and modality may be added (§5.8), but only in addition to inflectional TAM. Following Bogoras (Vdovin 1954:114), Skorik (1968, 1977) calls these ten inflectional paradigms:

Past I (bounded)	Past II (resultative)
Present I (bounded)	Present II (unbounded)
Future I (bounded)	Future II (unbounded)
Jussive-Imperative I (bounded)	Jussive-Imperative II (unbounded)
Subjunctive I (bounded)	Subjunctive II (unbounded)

Skorik's terms are *predel'noe* 'bounded', *nepredel'noe* 'unbounded', *pobuditel'no-povelitel'noe* 'jussive-imperative' (Bogoras had *yveščevatel'noe* 'precative'), *soslagatel'noe* 'subjunctive'.

The English language tradition (including translations from Russian into English cf. Nedjalkov (1979,1993) calls these:

Aorist	Perfect
Present	Imperfect
Future Perfective	Future Imperfective
Imperative Perfective	Imperative Imperfective
Subjunctive (Conditional) Perfective	Subjunctive (Conditional) Imperfective

I will carry on using this system with slight modifications. 'Aorist' will be referred to as the 'Perfective Non-Future' and 'Present' as the 'Imperfective Non-Future'; this better reflects both their functions and their morphological structure. The paradigms traditionally called 'imperative', which have wide uses apart from being the TAM category for giving commands, I shall call 'intentional' (§§5.3.5-6). For clarity I further specify the perfect and imperfect as being 'stative' paradigms, in contrast with the others which are 'active'. The stative paradigms have significant structural differences to the active.

Stative paradigms have distinctive prefixes for each of two tense-aspect-mood categories:

- i) **n-** for the imperfect
- ii) **ye-** for the perfect.

Stative and active paradigms do not share any of the morphological material for cross-referencing arguments or marking tense-aspect and mood (except for **ine-** and **-tku**, which form a class of their own; see §5.2). Note that both stative paradigms are indicative and nonfuture in time reference (§5.2; §5.4.1-2).

Active paradigms may be marked by affixes (i-iv below) which constitute a tense-aspect-mood feature array which determines the eight active inflectional paradigms. Absence of the listed marking implies the bracketed value:

- i) imperfective: **-rkən** suffix ( $\emptyset$ : perfective, optional **-ye** in some positions)
- ii) future: **re-** prefix ( $\emptyset$ : non-future) [in the indicative only]
- iii) non-indicative (future + nonfuture): special set of S/A agreement morphemes ( $\emptyset$ : indicative)
- iv) conditional: **ʔ-** prefix ( $\emptyset$ : imperative) [in the non-indicative only]

	TAM features			
	$\pm$ Imperfective	$\pm$ Future	$\pm$ Non-indicative	$\pm$ Conditional
perfective nonfuture	-	-	-	
imperfective nonfuture	+	-	-	
perfective future	-	+	-	-
imperfective future	+	+	-	-
perfective intentional	-	-	+	-
imperfective intentional	+	-	+	-
perfective conditional	-	-	+	+
imperfective conditional	+		+	+

The morphological markings of the stative paradigms are clearly related diachronically to nominal markings. The endings of stative verb forms are identical to the person-number

suffixes of nouns and the perfect is homophonous with the possessed predicate for (§4.5.1). Furthermore, verbs in the imperfect are formally identical to adjectives (§6.1). The formal relations between all the inflectional verbal paradigms are shown graphically in the following figure:

	<i>Stative</i>	<i>Active</i>		<i>non indicative</i>	
		<i>indicative (-non indicative)</i>		<i>-conditional</i>	<i>+conditional</i>
		<i>-future</i>	<i>+future</i>		
<i>-imperfective</i>	perfect	perfective	perfective	perfective	perfective
		nonfuture	future	intentional	conditional
<i>+imperfective</i>	imperfect	imperfective	imperfective	imperfective	imperfective
		nonfuture	future	intentional	conditional

Relationships with other inflectional forms of other parts of speech are discussed in §3. Note that there is no single morpheme indicating (for instance) the imperfective intentional in the following form of the verb **alʔeqat** 'have a swim':

**q-alʔeqat-ə-rkəna-tək** 'have a swim!'

INT.2-have.a.swim-E-IMPF-2pl

The proper paradigm is determined as much from the absence of the prefix indicating the conditional as from the presence of the nonindicative and imperfective affixes. Likewise the following example with **čejv** 'walk' has no TAM affixes:

**čejv-ə-tək** 'you (pl) walked'

walk-E-2pl

From the TAM feature matrix of Type I verbs it can be determined that {-imperfective, -future, -nonindicative, -conditional} corresponds to the perfective nonfuture indicative.

## 5.2 Hierarchies of agentivity

### 5.2.1 Active paradigms

The affixes **ine-** and **-tku** show that the agreement suffixes (if any) of a verbal form in an inflectional paradigm cross-reference A instead of O. In the active paradigms this occurs when the relative position of the agent with respect to the patient is non-prototypical according to the hierarchy of preferred agency.

Hierarchy of preferred agency:

1st person > 2nd person > 3rd person  
 most agentive least agentive

an argument can also be made for: 3rd singular > 3rd plural  
 (see below)

This corresponds to a system of grammatical *inversion* (for definition and discussion of inverse alignment systems see, for example, Gildea 1994:187-190). The affixes **ine-** and **-tku** are discussed by Comrie (1979) and Nedjalkov (1979), but my account is, to my knowledge, the first to point out the existence of inverse based phenomena in Chukchi.

Direct (1A acts upon 2O)

(5.1) **tayam, turi tɔplɔtkutək**  
 PCL 2pl.ABS 1sgA/S E-finish-2pl  
 'Well, I've finished [making] you' (J:82)

Inverse (2A acts upon 1O)

(5.2) **vaj, ɔnrʔam ine-nreɣev-ə-rkəni-tək, tumɣ-ə-turi**  
 PCL PCL INV-what.do?-E-IMPF-2pl friend-E-2pl.ABS  
 'Oh, what are you doing to me, my friends?' (Skorik 1977:49)

The suffix **-tku** only occurs with a 1st person plural O; it would seem to be a portmanteau affix. The prefix **ine-** probably doesn't have a corresponding connection with 1st person singular O, as in the imperfective stative paradigm **ine-** is generalised to Os of all persons and numbers. Note that there are also affixes **ine-** and **-tku** which are used for the antipassive (§5.7.2). In common with the markers of grammatical inversion they change the function of the cross reference suffix so that it cross references another argument.

	x-ref of...		x-ref of...	
Antipassive	O	→	S	(verb becomes intransitive)
Inverse	O	→	A	

The prefix **ne-** occurs in some positions of the active paradigm where there is a 3rd person A:

(excerpt from §5.3.1 showing the distribution of the **ne-** prefix)

	1sgO	1plO	2sg	2plO	3sgO	3plO
3sgA	ine-lʔu-ɣʔi	ne-lʔu-mək	ne-lʔu-ɣət	ne-lʔu-tək	lʔu-nin	lʔu-nin-et
3plA	ne-lʔu-ɣəm	ne-lʔu-mək	ne-lʔu-ɣət	ne-lʔu-tək	ne-lʔu-ɣʔen	ne-lʔu-net

This seems to have been treated previously as a cross reference marker of a 3rd person A, although this treatment raises some questions:

- i) why are there no other affixes in Chukchi which cross reference an A but not an S?
- ii) why does **ne-** only occur in some positions of the paradigm?

Notably, **ne-** does not co-occur with the **ine-** inverse marker (3sgA 1sgO). This suggests that **ne-** might also indicate inverse mood (although it does not change the cross reference of suffixes).

Issues explained by the hypothesis that **ne-** is an inverse marker:

- i) absence of **ne-** in forms for 3sgA 1sgO could be explained by the presence of the other inverse marker (**ine-**).
- ii) absence of **ne-** in the forms with 3sgA and 3rd person O could be because these forms are not inverse (note that this assumes that 3sgA 3sgO is direct but 3plA 3plO is inverse).
- iii) as an inverse marker, **ne-** could not occur in intransitive verb forms.

However, **ne-** has different behaviour to the other inverse markers (**ine-** and **-tku**): it does not change the cross reference of the suffix.

Cross linguistic evidence that **ne-** is an inverse marker is supplied by related languages, such as Korjak (§1.2 genetic relationship). In the Korjak verbal paradigm **ine-** occurs in the same area of the paradigm as in Chukchi, but **-tku** does not appear anywhere. In place of the **-tku** is the prefix **ne-**, i.e. **ne-** also occurs in grammatically inverse contexts which do not have a 3rd person A. The tables below summarise the distribution of inverse markers in Korjak and Chukchi:

Korjak inverse markers

	1sgO	1duO	1plO	2sgO	2duO	2plO	3sgO	3duO	3plO
1sgA	-	-	-	<i>direct</i>	<i>direct</i>	<i>direct</i>	<i>direct</i>	<i>direct</i>	<i>direct</i>
1plA	-	-	-	<i>direct</i>	<i>direct</i>	<i>direct</i>	<i>direct</i>	<i>direct</i>	<i>direct</i>
2sgA	<b>ine-</b>	<b>ne-</b>	<b>ne-</b>	-	-	-	<i>direct</i>	<i>direct</i>	<i>direct</i>
2plA	<b>ine-</b>	<b>ne-</b>	<b>ne-</b>	-	-	-	<i>direct</i>	<i>direct</i>	<i>direct</i>
3sgA	<b>ine-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<i>direct</i>	<i>direct</i>	<i>direct</i>
3plA	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>

Chukchi inverse markers (active paradigms)

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	<i>direct</i>	<i>direct</i>	<i>direct</i>	<i>direct</i>
1plA	-	-	<i>direct</i>	<i>direct</i>	<i>direct</i>	<i>direct</i>
2sgA	<b>ine-</b>	<b>-tku</b>	-	-	<i>direct</i>	<i>direct</i>
2plA	<b>ine-</b>	<b>-tku</b>	-	-	<i>direct</i>	<i>direct</i>
3sgA	<b>ine-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<i>direct</i>	<i>direct</i>
3plA	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>	<b>ne-</b>

The **ne-** inverse in Chukchi is realized by three different forms:

- indicative paradigms      **ne-**
- intentional paradigms    **ʔən-**
- conditional paradigms    **nen-**



### 5.2.2 Stative paradigms

The affixes **ine-** and **-tku** also occur in the stative paradigms. In the stative paradigms the verbal forms have lower transitivity than the active forms. The imperfect emphasises the on-going permanent nature of the action, and perfect emphasises the state resulting from the action rather than the action itself. Thus the focus of these verbs is away from the actual transfer of energy of the action of the verb, and inversion (which is all about the direction of the transfer of energy in an action) has lower relevance. However **ine-** and **-tku** do act as inverse markers in the same areas of the paradigm as for the active paradigms. There is no equivalent to **ne-**. In areas of the stative imperfective paradigms (the areas marked 'direct' in the table above) **ine-** loses its inverse meaning and acts to show simply that A is cross referenced instead of O. In the direct mood areas of the imperfective stative paradigm A is very much more topical than O, and so receives the cross reference (stative paradigms can only ever cross reference one argument).

### 5.3 Active verbal paradigms

Active verbal forms have agreement suffixes in all positions in the paradigm and have agreement prefixes in at least some positions. Agreement prefixes always cross reference on a nominative basis, i.e. they cross reference A or S.

Nominative (A/S) cross reference prefixes:

	indicative	intentional	conditional
1sgA/S	t-	m-	m-
1plA/S	mət-	mən-	mən-
2sgA/S		q-	n-
2plA/S			
3sgA/S		n-	
3plA/S			

Agreement suffixes cross reference S or O as a default, but in transitive verbs they may cross reference A instead in the presence of an inverse marker (§5.2).

Agreement suffixes:

1sg	- <b>ʏəm</b>
1pl	- <b>mək</b>
2sg	Ø / - <b>ʏət</b>
2pl	- <b>tək</b>
3sg	Ø / - <b>n(i)</b>
3pl	- <b>net</b>

In all of the active verbal paradigms there is a portmanteau suffix -**tək** which indicates 2nd person plural A acting on a 3rd person O. This peculiarity of the paradigm seems to be a very old feature of the verbal paradigm as it also appears in cognate forms in the other Chukotko-Kamchatkan languages (e.g. Itelmen -**sx** (Volodin & Zhukov 1968:334))

Active paradigms in the perfective aspect occasionally contain the aspect marker <sup>n</sup>√-**ʏt** which is, however, nearly always possible to omit (exceptions noted below). It is unclear what omission of this suffix indicates.

### 5.3.1 Nonfuture perfective

The perfective nonfuture indicates real events occurring in the present or past. It is distinguished semantically from imperfective forms of the verb in that the perfective verbal action is viewed as a complete or bounded event rather than as a process. Nedjalkov (1993:29) states that 80-90% of all 'aorist' (my nonfuture perfective) in speech refer to events which have taken place within sight of the speaker. The perfective stative paradigm (§5.4.1) also indicates real non-future events, but describes them in terms of an inception of a state with continuing relevance to the present. In narrative texts the perfective nonfuture is used to refer to sequential events concurrent with the discourse time frame.

- (5.3) **ekvet-ʏʔi**, **əɬəʏ-in** **ʔətʏʔet** **jʔo-nen**,  
set.off-3sg father-POSS boat.ABS approach-3sgA3sgO  
**ɲilyən** **ejmin-nin**  
**rope** **take-3sgA3sgO**  
'She set off, she approached father's boat, she took a rope' (J:37)

This paradigm has the following nominative prefixes (i.e. cross-referencing A or S) in the first person:

<b>t-</b>	1sgA/S
<b>mət-</b>	1plA/S

expression except in forms with 3sgA→3O.

The suffix **-ɣʔi** comes from **-ɣʔe**, the perfective aspect marker mentioned in §5.2.1, in conjunction with the suffix **-i** (i.e. **\*-ɣʔe-i** with the regular vowel deletion  $V_1V_2 \rightarrow V_2$ ; §2.5.8). Unlike other instances of the perfective aspect marker, the **-ɣʔe** in **\*-ɣʔe-i** cannot be deleted, presumably owing to its phonological fusion with an undeletable morpheme. This **-i** suffix does not occur outside this paradigm.

The following extract from the nonfuture verbal paradigm posits underlying forms for the 3rd person agreement suffixes:

	3sgO	3plO
2sgA	lʔu-ɣʔe-n (< *lʔu-ɣʔe-ni)	lʔu-net (< *lʔu-ɣʔe-ni-et)
3sgA	lʔu-nin (< *lʔu-ni-ni)	lʔu-ninet (< *lʔu-ni-ni-et)

Evidence for the underlying forms **-n(i)** '3rd person' and **-et** 'plural' is presented in the next section (§5.3.2). This would indicate that a 2nd person singular A is cross referenced only when O is also third person; otherwise 3sgA (along with 3sgS and 2sgA/S; above) has no overt morphological expression

Perfective nonfuture active paradigm (§5.3.1)

n\lʷu 'set:TRANS'    n\ekvet 'go INTRANS'

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	t-lʷu- <b>ʔət</b>	t-lʷu- <b>tək</b>	t-lʷu- <b>ʔʷe-n</b>	t-lʷu-n- <b>et</b>
1plA	-	-	mət-lʷu- <b>ʔət</b>	mət-lʷu- <b>tək</b>	mət-lʷu- <b>ʔʷe-n</b>	mət-lʷu-n- <b>et</b>
2sgA	ine-lʷu- <b>ʔʷi</b>	lʷu- <b>tku-ʔʷi</b>	-	-	lʷu- <b>ʔʷe-n</b>	lʷu-n- <b>et</b>
2plA	ine-lʷu- <b>tək</b>	lʷu- <b>tku-tək</b>	-	-	lʷu- <b>tka</b>	lʷu- <b>tka</b>
3sgA	ine-lʷu- <b>ʔʷi</b>	ne-lʷu- <b>mək</b>	ne-lʷu- <b>ʔət</b>	ne-lʷu- <b>tək</b>	lʷu-nin	lʷu-nin- <b>et</b>
3plA	ne-lʷu- <b>ʔəm</b>	ne-lʷu- <b>mək</b>	ne-lʷu- <b>ʔət</b>	ne-lʷu- <b>tək</b>	ne-lʷu- <b>ʔʷe-n</b>	ne-lʷu-n- <b>et</b>
	1sgS	1plS	2sgS	2plS	3sgS	3plS
intransitive	t-ekvet- <b>ʔʷe-k</b>	mət-ekvet- <b>mək</b>	ekvet- <b>ʔʷi</b>	ekvet- <b>tək</b>	ekvet- <b>ʔʷi</b>	ekvet- <b>ʔʷe-t</b>

### 5.3.2 Nonfuture imperfective

The nonfuture imperfective indicates actions viewed as in progress which are concurrent with the discourse time frame. In practice this seems to equate with the actual time of speech, in as much as where the discourse time frame precedes the actual time of speech (as in a narrative), actions and events are viewed as being bounded events which can be put in a temporal sequence, and so are expressed with the nonfuture perfective. The imperfective nonfuture is not used so much for universal or habitual aspect (cf. imperfect stative §5.4.2).

- (5.4) kolo    iʔət    uuten    meʝj-**et-ə-rkən**,  
       PCL    now    Uuten    big-DER-E-IMPF.3sg  
       iʔət    jaale-ʔtə    qlavəl    mək-**et-ə-rkən**...  
       now    future-ALL    man    many-DER-E-IMPF.3sg  
       ‘Oh, now Uuten is growing, from now on the men multiply’    (J:205)

With a single exception, all forms in the imperfective verbal paradigms contain the aspectual marker **-rkən(i)** (vowel deletion word finally) which indicates imperfective or progressive aspect. The exception is the 3plS suffix in the nonfuture imperfective **-rkət**, which suggests that an earlier form of the aspectual was simply **-rk**, and that the **-n(i)** was a separate suffix. This suffix cannot be glossed as having any separate meaning to the aspectual except in forms with 3rd person O, where it could be interpreted as a cross reference marker. If this is the case then it could be treated as the same affix as the final **-n** in nonfuture perfective forms (which also cross reference a third person O §5.2.1). The nonfuture perfective forms of the verb with 3sgA→3O are **-nin** and **-ninet**, which would thus have regular underlying forms **\*ni-ni** (-3rd-3rd) and **\*-ni-ni-et** (-3rd-3rd-plural). Note that the regular plural marker for 3rd person is **-et**; evidence for this can be seen in the nonfuture imperfective form of the verb with 3plA→3plO **ne-lʔu-rkən-et**, which comes from underlying **\*ne-lʔu-rkəni-et** under influence of the prevocalic vowel deletion rule (§2.5.8). Although it is clear that etymologically the final **t** of **-rkət** is an indicator of plurality, it is not the regular plural marker for the verbal paradigms.

For transitive verbs the person and number agreement affixes are the same as in the perfective nonfuture (§5.3.1), with the proviso noted above that the **-n(i)** of **-rkən(i)** is treated as a 3rd person marker in forms cross referencing a 3rd person O (with the general exception of the 2plA→3O forms, which instead contain the portmanteau affix **-tkə** §5.3).

Imperfective nonfuture active paradigm (§5.3.2)

<sup>n</sup>lʷu 'see TRANS' d<sup>v</sup>kəyən̄mam 'run INTRANS'

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	t-ə-lʷu-rkəni-ɣət	tə-lʷu-rkəni-tək	tə-lʷu-rkən	tə-lʷu-rkən-et
1plA	-	-	mət-lʷu-rkəni-ɣət	mət-lʷu-rkəni-tək	mət-lʷu-rkən	mət-lʷu-rkən-et
2sgA	ine-lʷu-rkən	lʷu-tku-rkən	-	-	lʷu-rkən	lʷu-rkən-et
2plA	ine-lʷu-rkəni-tək	lʷu-tku-rkəni-tək	-	-	lʷu-rkəni-tək	lʷu-rkəni-tək
3sgA	ine-lʷu-rkən	ne-lʷu-rkəni-mək	ne-lʷu-rkəni-ɣət	ne-lʷu-rkəni-tək	lʷu-rkəni-n	lʷu-rkəni-net
3plA	ne-lʷu-rkəni-ɣəm	ne-lʷu-rkəni-mək	ne-lʷu-rkəni-ɣət	ne-lʷu-rkəni-tək	ne-lʷu-rkən	ne-lʷu-rkən-et
intransitive	1sgS	1plS	2sgS	2plS	3sgS	3plS
	t-ə-kəyən̄mam-ə-rkən	mət-kəyən̄mam-ə-ə-rkən	kəyən̄mam-ə-rkən	kəyən̄mam-ə-rkən-tək	kəyən̄mam-ə-rkən	kəyən̄mam-ə-rkən-t

### 5.3.3 Future perfective

The future perfective usually indicates an event which will occur with high probability irrespective of the wishes of the speaker or of the participants of the verb (contrast with the intentional §5.3.5-6). Perfective aspect indicates that the event is conceived of as a single, temporally bounded entity. There are some close functional similarities between the future and the intentional. The future is rarely used with a first person A or S; instead the intentional form is used. Sometimes the future is used with second person A or S for commands instead of the more usual intentional (according to Nedjalkov 1993:52, 12% of pragmatically imperative utterances use the future, the remaining 88% the intentional). The future can be used for future-in-the-past (e.g. 'He worried what would [=will] happen to him') and for clauses of real condition ('If you [will] do this, something bad will happen').

- (5.5)  $\text{at}\text{at}\text{v}\text{-}\text{at}\text{-n}$        $\text{ik}\text{-v}\text{ʔi}$ ,       $\text{ve}\check{\text{c}}\text{am}$        $\text{t-re-v}\text{ʔi}\text{-}\text{v}\text{ʔe}$   
 father-E-ABS      say-PERF      probably      1sgA/S-FUT-die-PERF  
 'Father said I will probably die'      (J:21)

Future tense is indicated by the prefix **re-**, which precedes the **ine-** prefix but follows **ne-** and the nominative prefixes. Forms with 3rd person O, 2nd plural A and 3rd plural S also take the suffix **-ŋ**, which immediately follows the stem and the inverse suffix **-tku**. This is treated as a thematic suffix for future perfective tense forms. It is realized differently in different parts of the paradigm according to its phonological environment, e.g.:

2plA → 3sgO     $\text{re-l}\text{ʔu}\text{-}\text{ŋ}\text{-}\text{at}\text{-}\text{tk}\text{at}$  (unchanged)

2plA → 1sgO     $\text{r-ine-l}\text{ʔu}\text{-n-t}\text{ak}$  (place assimilation  $\text{ŋ} \rightarrow \text{n}/\_\text{C}_{[\text{alveolar}]}$  §2.5.2)

3sgA → 3sgO     $\text{re-l}\text{ʔu}\text{-}\text{v}\text{-n-in}$  (dissimilation of nasality  $\text{ŋ} \rightarrow \text{v}/\_\text{C}_{[\text{nasal}]}$  §2.5.5)

The future tense affixes are related to the desiderative **re-\_\_\_-ŋ** (§5.8), although synchronically they are treated as different affixes, and can co-occur in a single word.

e.g.:

**vʔi-vʔi**

die-PERF      's/he died'

**re-vʔi-vʔe**

FUT-die-PERF      's/he will die'

**re-re-vʔi-ŋ-at-vʔe**

FUT-DESID-die-DESID-E-PERF 's/he will want to die' (Nedjalkov 1993:50)

Future perfective forms with **ŋ** are homophonous with nonfuture perfectives with the desiderative circumfix:

**ra-račveγ-ŋ-ə-tək**

FUT-runRace-PERF-E-2pl 's/he will run a race'

DESID-runRace-DESID-E-2pl 's/he wanted to run a race' (Nedjalkov 1993:50)

The affix for 3rd plural S is **-t** (following the thematic consonant **-ŋ**), which is unpredictable. Note that 3plS also has this **-t** in the imperfective nonfuture and the imperfective future, and possibly also in the perfective nonfuture (it is not clear whether the suffix **-γʎe-** comes from **\*-γʎe-t** or **\*-γʎe-et**; more data would show, assuming **-γʎe** can be deleted)



Perfective future active paradigm (§5.3.3)

*n*√lʷu 'see TRANS' *n*√čejv 'walk INTRANS'

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	<b>t-re-lʷu-γət</b>	<b>t-re-lʷu-n-tək</b>	<b>t-re-lʷu-ŋ-ə-n</b>	<b>t-re-lʷu-ŋənet</b>
1plA	-	-	<b>mət-re-lʷu-γət</b>	<b>mət-re-lʷu-n-tək</b>	<b>mət-re-lʷu-ŋ-ə-n</b>	<b>mət-re-lʷu-ŋ-ə-net</b>
2sgA	<b>r-ine-lʷu-γʲe</b>	<b>re-lʷu-tku-γʲe</b>	-	-	<b>re-lʷu-ŋ-ə-n</b>	<b>re-lʷu-ŋ-ə-net</b>
2plA	<b>r-ine-lʷu-n-tək</b>	<b>re-lʷu-tku-n-tək</b>	-	-	<b>re-lʷu-ŋ-ə-tkə</b>	<b>re-lʷu-ŋ-ə-tkə</b>
3sgA	<b>r-ine-lʷu-γʲe</b>	<b>ne-re-lʷu-mək</b>	<b>ne-re-lʷu-γət</b>	<b>ne-re-lʷu-n-tək</b>	<b>re-lʷu-γ-nin</b>	<b>re-lʷu-γ-ninet</b>
3plA	<b>ne-re-lʷu-γəm</b>	<b>ne-re-lʷu-mək</b>	<b>ne-re-lʷu-γət</b>	<b>ne-re-lʷu-n-tək</b>	<b>ne-re-lʷu-ŋ-ə-n</b>	<b>ne-re-lʷu-ŋ-ə-net</b>
intransitive	<b>1sgS</b>	<b>1plS</b>	<b>2sgS</b>	<b>2plS</b>	<b>3sgS</b>	<b>3plS</b>
	<b>t-re-čejv-(ə-γʲe)</b>	<b>mət-re-čejv-(ə-γʲe)</b>	<b>re-čejv-(ə-γʲe)</b>	<b>re-čejv-ə-n-tək</b>	<b>re-čejv-(ə-γʲe)</b>	<b>re-čejv-ə-ŋ-ə-t</b>
		<b>γʲe)</b>				

### 5.3.4 Future imperfective

The demarcation between the functions of the future perfective and the intentiona perfective mentioned in §5.3.3 is also valid for the future imperfective and the intentiona imperfective. The future imperfective describes future events which are unbounded in time or progressive.

(5.6) *evər ər-γənan ne-re-temjuŋ-ə-rkəni-γət,*  
if 3pl-ERG INV-FUT-cheat-E-IMPF-2sg

*ʔepte q-ə-temjuŋ-ə-rkən-et*

also INT.2A-E-cheat-E-IMPF-3pl

'If they will be cheating you, you should cheat them too' (Skorik 1977:59)

The future imperfective is formed morphologically exactly like the nonfuture imperfective, with the addition of the future tense prefix **re-**. The thematic suffix **-ŋ** (cf §5.3.3) only occurs with a 3rd person plural S.

### Imperfective future active paradigm (§5.3.4)

<sup>n</sup>vʷu 'se: TRANS' <sup>v</sup>katʷənnam 'run INTRANS'

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	t-re-ə-ʷu-rkəni- Yət	t-re-ə-ʷu-rkəni- tək	t-re-ə-ʷu-rkən	t-re-ə-ʷu-rkən- ət
1plA	-	-	mət-re-ʷu- rkəni-yət	mət-re-ʷu- rkəni-tək	mət-re-ʷu-rkən	mət-re-ʷu-rkən- ət
2sgA	r-ine-ʷu-rkən	re-ʷu-tku-rkən	-	-	re-ʷu-rkən	re-ʷu-rkən-ət
2plA	r-ine-ʷu-rkəni- tək	re-ʷu-tku-rkəni- tək	-	-	re-ʷu-rkəni-tək	re-ʷu-rkəni-tək
3sgA	r-ine-ʷu-ə-rkən	ne-re-ʷu-ə- rkəni-mək	ne-re-ʷu-rkəni- Yət	ne-re-ʷu-ə- rkəni-tək	re-ʷu-rkəni-n	re-ʷu-ə-rkəni- net
3plA	ne-re-ʷu-rkəni- Yəm	ne-re-ʷu-rkəni- mək	ne-re-ʷu-rkəni- Yət	ne-re-ʷu-rkəni- tək	ne-re-ʷu-rkən	ne-re-ʷu-rkən- ət
intransitive	1sgS t-ra-katʷənnam- ə-rkən	1plS mət-ra- katʷənnam-ə- rkən	2sgS ra-katʷənnam-ə- rkən	2plS ra-katʷənnam-ə- rkən-tək	3sgS ra-katʷənnam-ə- rkən	3plS ra-katʷənnam-ə- rkən-ət

### 5.3.5 Intentional perfective

The intentional mood expresses hypothetical actions or events which the subject of the verb or the speaker want to happen and (perhaps prototypically?) have in their power to initiate. The intentional can be used in all combinations of person and number to give and order, which is why it is traditionally called 'imperative'. With first person subjects it is also used to express intention to carry out the action of the verb. This is the typical situation of a speaker referring to an as yet unrealized action to be carried out by the self. With first person subjects the future tense (which does not assume that the speaker is going to act voluntarily) is used much more rarely (cf. §5.3.3).

- (5.7) **əməlʔo**    **qlavəl,**    **ŋevəçqet,**    **əməlʔo**    **n-ə-qametva-nat,**  
 all            man            woman            all            INT.3A/S-E-eat-3pl  
**čeeɣej**    **mən-qametva-mək**  
 together    INT.1plA/S-E-eat-1pl  
 'All the men, the women, let them all eat, let us eat together' (J:195)

In the intentional paradigms there are the following nominative agreement markers:

1sgA/S	<b>m-</b>	1plA/S	<b>mən-</b>
2sgA/S	<b>q-</b>	2plA/S	<b>q-</b>
3sgA/S	<b>n-</b>	3plA/S	<b>n-</b>

The inverse marker which is realized as **ne-** in all other paradigms in the intentional is realized as **ʔən-**. The suffix **-ɣ** is found marking 2nd person singular A and S. When it would be word final there is additionally the suffix **-i** (perhaps some kind of aspectual, like in **ɣʔi** < \***ɣʔe-i** cf. §5.3.1). Unlike all the other active paradigms, in the intentional perfective the form 2sgA → 1sgO does not have the same ending as 3sgA → 1sgO: the latter has the suffix **-(ɣʔe)-n**, which cross-references 3rd person singular.

Perfective intentional active paradigm (§5.3.5)

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	m-imiti- <b>Yət</b>	m-imiti- <b>tək</b>	m-imiti- <b>Yʔen</b>	m-imiti- <b>net</b>
1plA	-	-	mən-imiti- <b>Yət</b>	mən-imiti- <b>tək</b>	mən-imiti- <b>Yʔen</b>	mən-imiti- <b>net</b>
2sgA	q-in-imi- <b>Yi</b>	q-imiti- <b>ku-Yi</b>	-	-	q-imiti- <b>Yən</b>	q-imiti- <b>Yənet</b>
2plA	q-in-imi- <b>tək</b>	q-imiti- <b>ku-tək</b>	-	-	q-imiti- <b>Yətək</b>	q-imiti- <b>Yətək</b>
3sgA	n-in-imi- <b>Yʔen</b>	ʔən-imi- <b>mək</b>	ʔən-imi- <b>Yət</b>	ʔən-imi- <b>tək</b>	n-imiti- <b>din</b>	n-imiti- <b>ninet</b>
3plA	ʔən-imi- <b>Yəm</b>	ʔən-imi- <b>mək</b>	ʔən-imi- <b>Yət</b>	ʔən-imi- <b>tək</b>	ʔən-imi- <b>Yʔen</b>	ʔən-imi- <b>net</b>
intransitive	1sgS	1plS	2sgS	2plS	3sgS	3plS
	m-alʔeqat- <b>Yʔak</b>	m- <b>alʔeqat-mək</b>	q-alʔeqat- <b>Ye</b>	q-alʔeqat- <b>Yətək</b>	n-alʔeqat- <b>Yʔan</b>	n-alʔeqat- <b>ə-nat</b>
	m-ə- <b>rʔe-Yʔek</b>	mən-ə- <b>rʔe-mək</b>	q-ə- <b>rʔe-Yi</b>	q-ə- <b>rʔe-tək</b>	n-ə- <b>rʔe-Yʔen</b>	n-ə- <b>rʔe-net</b>

### 5.3.6 Intentional imperfective

The difference between the intentional imperfective and the intentional perfective is only aspectual. All the remarks in §5.3.5 about the function of the intentional also hold for the imperfective paradigm.

- (5.8) **əŋɟin q-ʔətʋə-tku-rkəni-tək,**  
thus INT.2A/S-hunt-ANTIPASS-IMPF-2pl  
**rərka ʔətʋ-e q-ə-nmə-rkəne-tkə,** čama pojɣ-a;  
walrus boat-INST INT.2A/S-E-kill-IMPF-2plA3O and spear-INST  
**čama meməl ʔinnəpʔi-te q-ə-teɣrə-rkəni-tkə**  
and seal harpoon-INST INT.2A/S-E-throw-IMPF-2plA3O  
'You hunt like this; kill the walrus with boat and spear, and throw the harpoon at  
the seal' (J:135)

The agreement suffixes of the intentional imperfective show no irregularities. The suffixes of the forms cross-referencing 3rd plural S are **-rkən-et** (compare the irregular ending of the nonfuture imperfective **-rkət**; §5.3.2).

### Imperfective intentional active paradigm (§5.3.6)

nʷnreɣev 'do what? TRANS'      dʷalʔeqat 'have a swim INTRANS'

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-		m-ə-nreɣev-ə rkani-ɣət	m-ə-nreɣev-ə rkani-tək	m-ə-nreɣev-ə rkən	m-ə-nreɣev-ə rkən-et
1plA	-		mən-ə-nreɣev-ə rkani-ɣət	mən-ə-nreɣev-ə rkani-tək	mən-ə-nreɣev-ə rkən	mən-ə-nreɣev-ə rkən-et
2sgA	q-ine-nreɣev-ə rkən	q-ə-nreɣev-ə tku-rkən			q-ə-nreɣev-ə rkən	q-ə-nreɣev-ə rkən-et
2plA	q-ine-nreɣev-ə rkani-tək	q-ə-nreɣev-ə tku-rkən			q-ə-nreɣev-ə rkani-tək	q-ə-nreɣev-ə rkani-tək
3sgA	n-in-ə-nreɣev-ə rkən	ʔən-ə-nreɣev-ə rkani-mək	ʔən-ə-nreɣev-ə rkani-ɣət	ʔən-ə-nreɣev-ə rkani-tək	n-ə-nreɣev-ə rkani-n	n-ə-nreɣev-ə rkani-net
3plA	ʔən-ine-nreɣev-ə ə-rkani-ɣəm	ʔən-ə-nreɣev-ə rkani-mək	ʔən-ə-nreɣev-ə rkani-ɣət	ʔən-ə-nreɣev-ə rkani-tək	ʔən-ə-nreɣev-ə rkən	ʔən-ə-nreɣev-ə rkən-et
intransitive	1sgS m-alʔeqat-ə-rkən	1plS mən-alʔeqat-ə-rkən	2sgS q-alʔeqat-ə-rkən	2plS q-alʔeqat-ə-rkən	3sgS n-alʔeqat-ə-rkən	3plS n-alʔeqat-ə-rkən- at

### 5.3.7 Conditional perfective

The conditional perfective is used to express hypothetical condition, hypothetical future, counterfactual meanings, as well as being used in some subordinate clauses of purpose (cf. also subordinate form of the verb, purposive §5.5.2).

- (5.9) *miŋkəri    ənəkít    t-ʔ-ə-vʔi-ɣʔe-k    ɣəm,*  
       CONJ     CONJ     1sgA/S-COND-E-die-PERF-1sg    1sgABS  
*ɣəɣət,    ətləɣ-iɣət,    ʔatqevma    n-ʔ-ə-pelqet-ə-n*  
       ʔ2sgABS    father-2sg.ABS    badly                    2/3.A/S-COND-E-get.old-E-2/3sg  
       ‘Because if I should die, you father would get old badly’        (J:181)

The conditional is marked by means of the prefix **ʔ-**, which sits between the A/S cross reference prefix and other morphological material. In the conditional, the A/S cross referencing prefixes are the following:

- |          |           |          |             |
|----------|-----------|----------|-------------|
| 1sgA/S   | <b>m-</b> | 1plA/S   | <b>mən-</b> |
| 2/3sgA/S | <b>n-</b> | 2/3plA/S | <b>n-</b>   |

The inverse affixes are the same as in the realis paradigms except for **ne-**, which is realized as **nən-**.

The conditional perfective has **-(ɣʔe)-n** in all positions where the other perfective paradigms have a suffixial cross reference to a 3rd singular O as well as where other perfective paradigms have no overt cross reference suffix.



Perfective conditional active paradigm (§5.3.7)

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	m-ʔ-anja- <b>yət</b>	m-ʔ-anja- <b>tək</b>	m-ʔ-anja- <b>yʔan</b>	m-ʔ-anja- <b>nat</b>
1plA	-	-	mən-ʔ-anja- <b>yət</b>	mən-ʔ-anja- <b>tək</b>	mən-ʔ-anja- <b>yʔan</b>	mən-ʔ-anja- <b>nat</b>
2sgA	n-ʔ-en-anja- <b>yʔan</b>	n-ʔ-anja- <b>tko- yʔan</b>	-	-	n-ʔ-anja- <b>yʔan</b>	n-ʔ-anja- <b>nat</b>
2plA	n-ʔ-en-anja- <b>tək</b>	n-ʔ-anja- <b>tko-tək</b>	-	-	n-ʔ-anja- <b>tko</b>	n-ʔ-anja- <b>tko</b>
3sgA	n-ʔ-en-anja- <b>yʔan</b>	nən-ʔ-anja- <b>mək</b>	nən-ʔ-anja- <b>yət</b>	nən-ʔ-anja- <b>tək</b>	n-ʔ-anja- <b>nən</b>	n-ʔ-anja- <b>nənət</b>
3plA	nən-ʔ-anja- <b>yəm</b>	nən-ʔ-anja- <b>mək</b>	nən-ʔ-anja- <b>yət</b>	nən-ʔ-anja- <b>tək</b>	nən-ʔ-anja- <b>yʔan</b>	nən-ʔ-anja- <b>nat</b>
intransitive	1sgS m-ʔ-alʔeqat- <b>yʔak</b>	1plS mən-ʔ-alʔeqat- <b>mək</b>	2sgS n-ʔ-alʔeqat- <b>yʔan</b>	2plS n-ʔ-alʔeqat- <b>yətək</b> (n-ʔ-ə-ʔʔe-tək)	3sgS n-ʔ-alʔeqat- <b>yʔan</b>	3plS n-ʔ-alʔeqat-ə- <b>nat</b>

### 5.3.8 Conditional imperfective

The meaning of the conditional imperfective differs from the conditional perfective (§5.3.7) only aspectually.

- (5.10) opopə    ʏənɾʌm    **n-ʔ-ə-ʏənɾit-ə-rkən-et**    qaat,  
PCL    now    2/3.A/S-COND-E-guard-E-IMPF-3pl    reindeer-ABS.P  
jʔarat    ʏəm    **t-ə-nenʔiv-et-ʏʔe-k**  
PCL    1sgABS    1sgA/S-E-tired-DER-PERF-1sg  
‘You had better guard the reindeer now, for I have got tired’ (Skorik 1977:101)

Apart from the collapse of the 2nd and 3rd person A/S agreement markers into the sing form **n-** and the presence of the conditional mood prefix **ʔ-** (§5.3.7), the conditional imperfective is identical to the intentional imperfective.

### Imperpective conditional active paradigm (§5.3.8)

'*nreqev* 'do what? TRANS'    *ɟ*<sub>v</sub>*alʔeqat* 'have a swim INTRANS'

	1sgU	1plU	2sgO	2plO	3sgO	3plO
1sgA	-	-	<i>m-ʔ-ə-nreqev-ə- rkəni-ʔət</i>	<i>m-ʔ-ə-nreqev-ə- rkəni-tək</i>	<i>m-ʔ-ə-nreqev-ə- rkən</i>	<i>m-ʔ-ə-nreqev-ə- rkənət</i>
1plA	-	-	<i>mən-ʔ-ə-nreqev- ə-rkəni-ʔət</i>	<i>mən-ʔ-ə-nreqev- ə-rkəni-tək</i>	<i>mən-ʔ-ə-nreqev- ə-rkən</i>	<i>mən-ʔ-ə-nreqev- ə-rkənət</i>
2sgA	<i>n-ʔ-ine-nreqev-ə- rkən</i>	<i>n-ʔ-ə-nreqev-ə- tku-rkən</i>	-	-	<i>n-ʔ-ə-nreqev-ə- rkən</i>	<i>n-ʔ-ə-nreqev-ə- rkənət</i>
2plA	<i>n-ʔ-ine-nreqev-ə- rkəni-tək</i>	<i>n-ʔ-ə-nreqev-ə- tku-rkən</i>	-	-	<i>n-ʔ-ə-nreqev-ə- rkəni-tək</i>	<i>n-ʔ-ə-nreqev-ə- rkəni-tək</i>
3sgA	<i>n-ʔ-in-ə-nreqev- ə-rkən</i>	<i>nən-ʔ-ə-nreqev- ə-rkəni-mək</i>	<i>nən-ʔ-ə-nreqev- ə-rkəni-ʔət</i>	<i>nən-ʔ-ə-nreqev- ə-rkəni-tək</i>	<i>n-ʔ-ə-nreqev-ə- rkəni-n</i>	<i>n-ʔ-ə-nreqev-ə- rkəni-nət</i>
3plA	<i>nən-ʔ-ine- nreqev-ə-rkəni- ʔəm</i>	<i>nən-ʔ-ə-nreqev- ə-rkəni-mək</i>	<i>nən-ʔ-ə-nreqev- ə-rkəni-ʔət</i>	<i>nən-ʔ-ə-nreqev- ə-rkəni-tək</i>	<i>nən-ʔ-ə-nreqev- ə-rkən</i>	<i>nən-ʔ-ə-nreqev- ə-rkənət</i>
intransitive:	<i>m-ʔ-alʔeqat-ə- rkən</i>	<i>1plS mən-ʔ-alʔeqat-ə- rkən</i>	<i>2sgS n-ʔ-alʔeqat-ə- rkən</i>	<i>2plS n-ʔ-alʔeqat-ə- rkənət-tək</i>	<i>3sgS n-ʔ-alʔeqat-ə- rkən</i>	<i>3plS n-ʔ-alʔeqat-ə- rkənət</i>

## 5.4 Stative verbal paradigms

The stative verbal paradigms originate from nominal and adjectival forms (§4.5.1, §6). Cognate forms in other Chukotko-Kamchatkan languages only have the nominal/adjectival functions. Agreement affixes are the same as nominal person/number agreement suffixes in the 1st and 2nd person. The suffixes are:

	Singular	Plural
1st person	-iyəm, -jyəm	-muri
2nd person	-iyət, -jyət	-turi
3rd person	-qin (impf), -lin (pf)	-qinet (impf), -linet (pf)

The 1st and 2nd person singular forms have -i after a consonant and -j after a vowel.

### 5.4.1 The stative perfect

The stative perfect can indicate past events with continuing relevance, and as such cannot be used for narrating sequential events (cf. perfective nonfuture §5.3.1). It is also used for distant past. In conjunction with clauses with the perfective nonfuture, the stative perfect can indicate the pluperfect (past in the past).

- (5.11) mempepe-lʔ-e      qlavəl-a      lʔu-nin      ŋeekək.  
 Mempepe-DER-ERG    man-ERG    see-AOR:3sgA,3sgO    girl (abs)  
 iv-nin-                    ʔamən    yət            ŋutku    **ye-nəm-lʔu-jyət!**  
 say-AOR:3sgA,3sgO    INTJ    2sg.ABS    here    PERF-home-see-2sgS  
 ‘The Mempepe man saw the girl, he said to her, “Ah, you have found a home here!”’ (J:167)

The stative perfect always has the prefix **ye-**. The meaning of the stative perfect focuses much more on affectedness than on actors, so in most parts of the paradigm the agreement suffixes cross-reference O/S. The affixes **ine-** and **-tku** (which show that the suffixial cross reference is to A instead of O, and in addition show grammatical inversion §5.2) occur in the same area of the paradigm as in the active paradigms (shaded below), and it is only in this area that the agreement suffix cross references A:

	1sgO	1plO	2sgO...
1sgA	-	-	
1plA	-	-	
2sgA	<b>γ-ine-lʷu-jγət (A)</b>	<b>γe-lʷu-tku-jγət (A)</b>	
2plA	<b>γ-ine-lʷu-turi (A)</b>	<b>γe-lʷu-tku-turi (A)</b>	
3sgA	<b>γ-ine-lʷu-ʃin (A)</b>	γe-lʷu-muri (O)	(O)...
3plA	<b>γe-lʷu-jγəm (O)</b>	γe-lʷu-muri (O)	(O)...

(extract of the stative perfect paradigm;

Argument to be cross-referenced in brackets)

Perfect stative paradigm (§5.4.1)

n/ʔu 'see TRANS' d/ekvet 'go INTRANS'

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	<b>ye-ʔʉ-j-ʔət</b>	<b>ye-ʔʉ-turi</b>	<b>ye-ʔʉ-ʔin</b>	<b>ye-ʔʉ-ʔin-et</b>
1plA	-	-	<b>ye-ʔʉ-j-ʔət</b>	<b>ye-ʔʉ-turi</b>	<b>ye-ʔʉ-ʔin</b>	<b>ye-ʔʉ-ʔin-et</b>
2sgA	<b>Y-ine-ʔʉ-j-ʔət</b>	<b>ye-ʔʉ-ʔku-j-ʔət</b>	-	-	<b>ye-ʔʉ-ʔin</b>	<b>ye-ʔʉ-ʔin-et</b>
2plA	<b>Y-ine-ʔʉ-turi</b>	<b>ye-ʔʉ-ʔku-turi</b>	-	-	<b>ye-ʔʉ-ʔin</b>	<b>ye-ʔʉ-ʔin-et</b>
3sgA	<b>Y-ine-ʔʉ-ʔin</b>	<b>ye-ʔʉ-muri</b>	<b>ye-ʔʉ-j-ʔət</b>	<b>ye-ʔʉ-turi</b>	<b>ye-ʔʉ-ʔin</b>	<b>ye-ʔʉ-ʔin-et</b>
3plA	<b>ye-ʔʉ-j-ʔəm</b>	<b>ye-ʔʉ-muri</b>	<b>ye-ʔʉ-j-ʔət</b>	<b>ye-ʔʉ-turi</b>	<b>ye-ʔʉ-ʔin</b>	<b>ye-ʔʉ-ʔin-et</b>
	1sgS	1plS	2sgS	2plS	3sgS	3plS
intransitive	<b>ye-ekvet-i-ʔəm</b>	<b>ye-ekvet-muri</b>	<b>ye-ekvet-i-ʔət</b>	<b>ye-ekvet-turi</b>	<b>ye-ekvet-ʔin</b>	<b>ye-ekvet-ʔin-et</b>

### 5.4.2 The stative imperfect

The stative-imperfect is used for events concurrent with the discourse time frame (differing here only in emphasis from the nonfuture imperfective) or else indicates habitual aspect.

- (5.12) **mempʔepe-ɬ-ə-n**                      **ŋevəɕqet n-ʔenqet-qin**                      **qliket-ə-k**  
 Mempepel-DER-E-ABS.SG      girl                      IMPF-not\_want-3sgS      marry-E-INF  
 'A Mempepel girl doesn't/didn't want to get married' (J:1)

The stative imperfect always has the prefix **n-**. In common with all the other active paradigms, the stative imperfect has **ine-** or **-tku** (and corresponding cross-reference of A instead of O by the agreement suffix) for 2A→1O and 3sgA→1sgO. Furthermore, the **ine-** prefix also occurs with all forms 1A→2O, 1A→3O, 2A→3O and 3sgA→3O. Thus, only 3plA forms and some 3sgA forms cross reference O, all the remaining cross reference A. This distribution can be accounted for by the meaning of the stative imperfect, which focuses on the actor and has very low prototypical affectedness of O. Apart from the area of the paradigm with inverse markers (see §5.4.1), the areas of the imperfective paradigm that are marked by **ine-** are grammatically **direct**. Here **ine-** acts only to show that A is cross-referenced instead of O, and is due to the low topicality of O in relation to A. This contrasts to the stative perfect, with its emphasis on resultant states rather than actors, where most verbal forms cross-reference O.

Distribution of **ine-** and **-tku** in the stative imperfect

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	<b>ine-</b> (A)	<b>ine-</b> (A)	<b>ine-</b> (A)	<b>ine-</b> (A)
1plA	-	-	<b>ine-</b> (A)	<b>ine-</b> (A)	<b>ine-</b> (A)	<b>ine-</b> (A)
2sgA	<b>ine-</b> (A)	<b>-tku</b> (A)	-	-	<b>ine-</b> (A)	<b>ine-</b> (A)
2plA	<b>ine-</b> (A)	<b>-tku</b> (A)	-	-	<b>ine-</b> (A)	<b>ine-</b> (A)
3sgA	<b>ine-</b> (A)	(O)	(O)	(O)	<b>ine-</b> (A)	<b>ine-</b> (A)
3plA	(O)	(O)	(O)	(O)	(O)	(O)

(shaded area of table has direct mood, cross reference of A instead of O)

### Imperfect stative paradigm (§5.4.2)

nʷlʷu 'see TRANS'    ɬʷekvet 'go INTRANS'

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	n-ine-lʷu-j-ɣəm	n-ine-lʷu-j-ɣəm	n-ine-lʷu-j-ɣəm	n-ine-lʷu-j-ɣəm
1plA	-	-	n-ine-lʷu-muri	n-ine-lʷu-muri	n-ine-lʷu-muri	n-ine-lʷu-muri
2sgA	n-ine-lʷu-j-ɣət	n-ə-lʷu-tku-j-ɣət	-	-	n-ine-lʷu-j-ɣət	n-ine-lʷu-j-ɣət
2plA	n-ine-lʷu-turi	n-ə-lʷu-tku-turi	-	-	n-ine-lʷu-turi	n-ine-lʷu-turi
3sgA	n-ine-lʷu-qin	n-ə-lʷu-muri	n-lʷu-j-ɣət	n-lʷu-turi	n-ine-lʷu-qin	n-ine-lʷu-qin-et
3plA	n-lʷu-j-ɣəm	n-ə-lʷu-muri	n-lʷu-j-ɣət	n-lʷu-turi	n-lʷu-qin	n-lʷu-qin-et
	1sgS	1plS	2sgS	2plS	3sgS	3plS
intransitive	n-ekvet-i-ɣəm	n-ekvet-muri	n-ekvet-i-ɣət	n-ekvet-turi	n-ekvet-qin	n-ekvet-qin-et



## 5.5 Subordinate verbs

In §5.3-4 are given the inflectional paradigms for verbs which act as the head of an independent clause. Verb stems can take a further type of inflection, subordinate inflection, which indicates that the verb is syntactically subordinated to a verb in the matrix clause. Subordinate verbs do not show morphological agreement with arguments, nor do they systematically indicate the other morphosyntactic categories that are present in the independent verbal inflectional paradigms. Many of these inflections have much in common both formally and functionally with nominal case markings. There is not sufficient evidence to argue that these forms derive from nominal case markings or *vice versa*. Synchronically however, for all their similarity, these forms have the important syntactic difference that subordinate verbs originate from verbal stems and retain the (purely verbal) ability to take nominal arguments in the absolutive and ergative cases. In the rare instances of homophonous, semantically related noun and verb stems, this distinction can still be made, e.g. with **kupre-** 'a net' and 'to net':

- (5.13) **ətreč kupre-ɣjit t-ə-čičev-ə-k, miŋkə t-ə-tva-rkən**  
only net-ORI 1sg-E-guess-E-1sg CONJ 1sg-E-be-IMPF  
'Only by the [position of] the nets I guessed where I was'

- (5.14) **n-ə-mk-ə-qin ənnət kupre-ɣjit ləɣi n-ə-tč-ə-qin**  
ADJ-E-many-E-3sg INTS net-SUB know IMPF-E-AUX-E-3sg  
**teŋ-ə-čʔ-ə-n prikata**  
good-E-NOM-E-ABS brigade  
'By the very many [fish] netted [one] knows the best brigade'

(both examples from Skorik 1977:174)

Example (5.13) is a standard instance of the orientative case form of a noun (§4.3.6). Example (5.14) contains a free form of the adjective **nəmkəqin** 'many', which can only occur in an absolutive noun phrase (§7.1.1). The verb **ləɣi nətčəqin** 'know' already has an absolutive NP argument, **teŋəčʔən prikata** 'best brigade', so **nəmkəqin** must be an argument of the subordinate verb **kupre-** 'to net'.

### 5.5.1 Dependent time reference

This group of subordinate verbs places the action of the subordinate verb in time in relation to the action of the main verb. They divide aspectually into i) forms which show concurrent time reference (imperfective) and ii) forms which show that the subordinate clause precedes the matrix clause (perfective). There are five different forms:

### Imperfective

d√-**ma**

d√**ya-\_\_ma**

d√-**ymə** / C\_\_ ~ -**emə** / V\_\_

### Perfective

n√-**k**

n√-**ineŋu**

The semantic differences are not clear. There is no requirement for coreferentiality between arguments of the matrix and subordinate verbs, but when it exists the coreferential argument in the subordinate clause can be deleted according to an A/S pivot

No coreference between arguments in the two clauses

- (5.15) **ya-nməvan-ma aʔaček-a utkučʔ-ə-t**  
 SUB-set-SUB boy-ERG trap-E-PL.ABS  
 ənpənačɣ-a n-əna-nməv-qənat təkəčʔe-t  
 old.man-ERG IMPF-INE-prepare-3pl bait-PL.ABS  
 'While the boy set the traps the old man set the bait' (Skorik 1977:288)

Matrix clause A = Subordinate clause A

- (5.16) **ete-ma epeqeɟ, qlavəl-a n-in-iv-qin, "...**  
 carry-SUB grandmother.ABS man-ERG IMPF-INE-say-3sg  
 'While carrying grandmother, the man says [to her] "... ' (J:144)

Matrix clause S = Subordinate clause S

- (5.17) **ʔamən-əm mačənan ɟaryən t-re-vʔi-ɣʔe,**  
 PCL-PCL PCL here 1sgA/S-FUT-die-PERF  
**ela-ɣtə čejv-ə-k**  
 ʔan-ALL walk-E-SUB  
 'And perhaps I shall die here, having walked towards ʔan' (J:61)

Matrix clause A = Subordinate clause S

- (5.18) **ʔo-ma ačʔəkʋə-t, ɲekkeqeɟ n-ə-qolento-qen**  
 find-SUB white.stone little.girl.ABS IMPF-E-scream-3sg  
 '[While] finding white stones, the little girl screamed' (Skorik 1977:293)

Matrix clause S= Subordinate clause A

- (5.19) **apəčγətva-ma**      joroč-ə k,      γəm-nan  
 lie.down-SUB      floor-E-LOC      1sg-ERG  
 əmə    rʲeɐut    vanevan    m-ə-volom-ə-n  
 NEG    something    NEG      1sgA/S-E-hear-E-3sg  
 'While lying on the floor I hear nothing' (Skorik 1977:293)

### 5.5.2 Cause and Purpose

Subordinate verb forms of cause produce dependent adverbial clauses by means of the following three affixes:

- $d\sqrt{-jpa} / V\_ \sim -\gammaəpə / VC\_ \sim -epə / CC\_$   
 $n\sqrt{-te} / V\_ \sim -e / C$   
 $n\sqrt{em-} \_-(t)e$  (same conditions for  $t-\emptyset$  as above)

The semantic difference between these is unclear from the data available. Treatment of coreferential deletion between clauses is the same as for time reference subordinate verb forms: coreferentiality is not required but coreferential arguments can be deleted according to an A/S pivot.

- (5.20) **am-anja-ta**      ətčaj-a      γəmnin      kəntačʔatγəγ-ə-n,  
 SUB-praise-SUB      aunt-ERG      1sg-POSS      success-E-ABS  
 ɲevmiry-e      ine-jəl-γʲi      qayčʲetlək  
 grandmother-ERG      INV-give-PERF[3sgA.1sgO]      carbine.ABS  
 'Because aunty praised my success [at the hunt], grandmother gave me a new carbine' (Skorik 1977:289)

Subordinate verbs of purpose are formed similarly to cause verbs.

- $n\sqrt{-jyut}$  (obligatory)  
 $d\sqrt{-nvə}$  (neutral)  
 $n\sqrt{emre-} \_ \_ -\eta e$  (desirable)

These also have an A/S pivot in cases of coreferential deletion. The form **emre-\_\_\_-ηe** requires coreferential arguments in the matrix and subordinate clauses, on an A/S pivot. Apparently this form derives from the desiderative form **re-\_\_\_-η** (§5.3.3) plus the subordinate verb form of cause **em-\_\_\_-(t)e** (above). In the other forms the the matrix and subordinate clauses need not have any coreferential arguments.

Skorik (1977:175) gives the following example:

(5.21) **γəm nemeqeǰ γe-lqət-iγəm navəlʔ-ets**  
 1sgABS also? PERF-go-1sg herd-ALL

i. <b>γərki-jyut</b> ii. <b>γərke-nvə</b> iii. <b>emre-γərki-ŋe</b>	<b>γakanqaa-t</b>  riding.reindeer-PL
(PURP)-catch-PURP	

- i. 'I also went to the herd because I had to catch the riding reindeer' (obligation)
- ii. 'I also went to the herd to catch the riding reindeer' (neutral)
- iii. 'I also went to the herd because I wanted to catch the riding reindeer' (desire)

### 5.5.3 Negative

The negative is formed by either of two circumfixes which differ aspectually: Imperfective <sup>n</sup>√e-\_\_\_ke (compare the privative case markings; §4.3.7) and Perfective <sup>n</sup>√luŋ-\_\_\_(t)e (-te loses its initial consonant after a stem-final consonant). These form a coordinate clause with head equal to A or S of the main clause (the head is unexpressed in the subordinate clause). A negative clause formed from a transitive may take an O (in the absolutive). These same circumfixes can form an adjectival clause which may have arguments expressed irrespective of the matrix clause.

- i) Co-ordinate clause. Subordinate A or S (deleted) if coreferential with matrix A or S (5.22)

a. **inʔ-e qlavəl a-qametva-ka meγčerəmγo-γʔe**  
 morning-INST man.ABS NEG-eat-NEG start.work-PERF.3sgS  
 'In the morning the man started work not having eaten'

b. **ŋevəčqet-e, loŋ-ə-nomav-a nenənə,**  
 woman-ERG NEG-E-warm-NEG baby.ABS  
**neme rətril-nin orvətən-ə-k**  
 again lie-3sgA.3sgO sledge-LOC  
 'Not having warmed the baby the woman lay [him] on the sledge''

(Skorik 1977:127-8)

In (a) the subordinate negative has matrix S as head while example (b) has matrix A as head. Note also how the subordinated verb in (b) has an argument (**nenənə** 'baby' abs. sg.).

ii) Adverbial Clause. Subordinate arguments independent of matrix arguments

- (5.23) **ԿՅՆԱՆ**      **ԱՎԵԿԾՐԷԼ-ԿԱ,**      **ՊԻՈՂԵՎ-Ի**  
2sg.ERG      NEG-permit-NEG      child-ABS.PL  
**ՎԵՆԼՈՎԻ**      **ՊԵՐՈՎԴԱ-Տ**      **ՊԱՐԿՅՈՆՈՎԻՏ**  
still      go.out-PERF-3plS      here-ALL  
'Without you allowing [it], the children still went outside'

iii) Independent clause

The negative can appear in a predicate of a main clause without subordination. In such instances it usually follows one of the particles **ԵՆ** 'still, yet' or **ՅՈՊԵ** 'don't!', unless there is an auxiliary verb (§5.6)

- (5.24) **ԿՅՄ**      **ԻՎՅՐ**      **ԵՆ**      **ԱՆՏՈՎ-ԿԱ**  
1sg.ABS      today      PCL      NEG-go.out-NEG  
'I haven't gone out yet today'

- (5.25) **ԻՎՅՐ**      **ՅՈՊԵ**      **ՅՈՐՅՈՒՆՉՎ-Ա**      **ԵՏԵՅԿՅ-ՅԿԵ**  
today      PCL      old.man-ERG      NEG-make-E-NEG  
**ՊԻՐԵՎ-ԵՎ**      **ՕՐՎՕՐ**  
two-ADV      net.ABS  
'Let the old man not make a second net today'

(Skorik 1977:129)

- (5.26) **ԳՅՆՎԵՐ**      **ՉՐԱ-ՊՅ**      **ՐՅԼՎՅ-ՅՎԴԻ**      **ԼԵՅՎՅ-ՅԿ**  
PCL.at.last      reindeer-ABS.SG      teeth.wear.down-E-PERF.3sgS      walk-E-INF  
**ՐԱԼԵՎՅ-ՅԿ,**      **ԳՅՆՎԵՐ**      **ԱՏՈՊՅ-ԱՔ-ԿԱ**  
grow.weak-E-SUB      atlast      NEG-antlers-put.on-NEG  
**ՆԴԵԼՎԴԻ**      **ՅՈՂԴԱՄ**      **ԱՐԿԱՏ-ԿԱ**  
become-PERF.3sgS      CONJ:and      NEG-shed.hair-NEG  
'The time came when the reindeer's teeth got worn down, he grew too weak to walk, his antlers stopped growing, and he stopped shedding hair (lit. he became not-putting-on-antlers and not-shedding-hair).'

(Nedjalkov 1993:96)

#### 5.5.4 Infinitive

The infinitive form of the verb is marked by the suffix **-k**. Because of the many other non-finite forms in Chukchi, it is unsurprising that the Chukchi infinitive does not have such a wide range of functions as it has in European languages. The infinitive and its matrix verb always have coreference between A/S of each verb, and A/S of the infinitive is never present on the surface level. When the matrix verb is transitive, it shows 3sgO agreement. The infinitive has three main functions:

i. complement of a transitive verb with phasal meaning (i.e. starting and stopping, and including verbs being used in a phasal function but which are not always phasal). The main verb indicates the change of phase (starting, stopping etc.) and the infinitive indicates the action whose phase is undergoing the change.

(5.27) **ḡiḡqey-ti moo-ʧʔa-t uvičvet-ə-k ḡarɣən**  
boy-PL.ABS begin-PERF-PL play-E-INF outside  
'The boys began to play outside' (Skorik 1977:136)

ii. complement of a transitive mental predicate (e.g. **vetɣəčemɣʔo** 'decide', **teɣʔeḡ** 'want') indicating the activity that the mental predicate considers (this might be the same as i.)

(5.28) **ɣəm t-ə-teɣʔeḡ-ə-rkən nelat-ə-k ḡarɣən**  
1sg.ABS 1sgA/S-E-want--E-IMPF remain-E-INF outside  
'I want to remain outside' (Skorik 1977:135)

iii. with a transitive or intransitive verb indicating a state that prevents the action of the infinitive from happening (tired to go, shy to look)

(5.29) **mirɣ-ə-n penjivet-ɣʔi ʔiv-čejv-ə-k**  
grandfather-E-ABS get.tired-PERF.3sgS fast-walk-E-INF  
'Grandfather is [too] tired to walk quickly' (Skorik 1977:135)

#### 5.5.5 Other subordinate forms

Other subordinate verb forms behave syntactically like the time reference and cause/purpose subordinate verbs. These are of a number of different types; e.g Possibility  ${}^d\sqrt{\text{taḡ}}\text{-}\_\_\text{-ḡ}$ ; Impossibility  ${}^d\sqrt{\text{ʔaqa}}\text{-}\_\_\text{-ḡ}$ ; Instigation/inspiration  ${}^n\sqrt{\text{-ɣjit}}$ ; Concession  ${}^d\sqrt{\text{-mačə}}$ ; 'Impersonal jussive'  ${}^n\sqrt{\text{ɣe}}\text{-}\_\_\text{-(t)e}$ .

Impossibility:

(5.30) **ɔnpɔnaʦɣ-ɔ-n**      **ɣe-penjiwet-lin,**

old.man-E-ABS      PERF-tire-3sg

**ɔnqenata**      **tejuʦɣ-ɔ-n**      **ʔaqa-netlet-ɔ-ŋ**

therefore      sack-E-ABS      SUB-lift-E-SUB

'The old man was tired, therefore he could not lift the sack' (Nedjalkov 1993:72)

## 5.6 Analytic Verbs

Analytic verbs make up a subclass of verbs (about 50 items cf. Nedjalkov 1993:98) consisting of a non-inflecting lexical head word and an inflecting auxiliary. Although an analytic verb consists of two phonological words (§2.3) it otherwise acts as a single constituent (§7.1). Analytic verbs with some exceptions (see below) refer to mental states and emotions. There are four verbs used as auxiliaries (these are also used as lexical verbs), two transitive and two intransitive, given below with their lexical meanings:

	Intransitive	Transitive
Stative	<b>va-k</b> <i>be(located)/have</i>	<b>lɔŋ-ɔ-k</b> <i>consider (as)</i>
Inchoative	<b>nʔel-ɔ-k</b> <i>become</i>	<b>rətɕ-ɔ-k</b> <i>do/make</i>

These auxiliaries can occur in all verbal forms, both inflecting and non-inflecting as well as in deverbal nouns (§§4.5.3-4). The lexical heads are either invariant particles or adverbs which may be formally identical to nouns in the essive case.

(5.31) **ɔr-ɣɔnan**      **taŋ-ɔmɔlʔ-eto**      **ɛmnuŋ-in**      **lɔɣi**      **ɣe-tɕ-ɔ-lin**

ʔpl-ERG INTNS-whole-ADV      tundra-POSS know      PERF-AUX-E-3sg

'They got to know all the tundra very well' (Nedjalkov 1993:94)

The auxiliary stem **-tɕ-** is a word medial variant of **rətɕ**. Nedjalkov states (1993:98; note 7) that it is unclear to him why the word **ɛmnuŋ-in** is in the possessive rather than the absolutive.

Combinations of auxiliary and head seem to be lexicalised, as there are restrictions both on which auxiliaries can occur with a head. Following are some examples of analytic verbs. Outside an analytic verb construction **alvanʔ** is the adverb *otherwise*; **ujŋɔ** is a negative particle. They form the following analytic verbs and deverbal nouns:

<b>alvanʔ nʔelkək</b> <i>change</i> (intr)	<b>ujŋɔ nʔelkək</b> <i>disappear</i> (intr)
<b>alvanʔ nʔelɔlʔɔn</b> <i>changed</i> (intr)	<b>ujŋɔ nʔelɔlʔɔn</b> <i>disappeared</i> (intr)
<b>alvanʔ nʔalɣɔɣɔn</b> <i>change</i>	<b>ujŋɔ nʔalɣɔɣɔn</b> <i>disappearance</i>
<b>alvanʔ vak</b> <i>be different</i> (intr)	<b>ujŋɔ vak</b> <i>be absent</i> (intr)
<b>alvanʔ valʔɔn</b> <i>different</i>	<b>ujŋɔ valʔɔn</b> <i>absent</i>

	ujṅṅə	vaɣəɾɣən	absence		
alvanj	ɾətʃək	change (tr)	ujṅṅə	ɾətʃək	destroy (tr)
alvanj	ɾətʃətkuɫʃən	changing (tr), changer	ujṅṅə	ɾətʃətkuɫʃən	destroying (tr), destroyer
alvanj	ɾətʃəjo	changed	ujṅṅə	ɾətʃəjo	destroyed
alvanj	ɾətʃətkoɣəɾɣən	a change	ujṅṅə	ɾətʃətkoɣəɾɣən	destruction (Skorik 1977:246)

(5.32) **alvanj nʃel-ə-lʃ-ə-n**                      **aʃaʃek**    **metkiit**    **mət-ɛlkəl-ə-n**  
change AUX-E-NOM-E-ABS    youth    hardly    1pl-recognise-E-3sg  
‘We hardly recognised the changed youth’

(5.33) **rultin əmə**    **iɣər**    **ujṅṅə**    **va-rkən**  
Rultyn PCL    today    NEG    AUX-IMPF  
‘Rultyn is not here anymore today’

(5.34) **venləyi t-ra-nm-ə-ŋ-ə-n**                      **ujṅṅə**  
PCL    1sg-FUT-kill-E-PERF-E-3sg    NEG  
**ɾətʃ-ə-tku-lʃ-ə-n**                      **mekičɣ-ə-k**    **ʔətʃ-ə-n**  
AUX-E-AP-NOM-E-ABS    meat-LOC    dog-E-ABS  
‘All the same I will kill the dog which destroyed the meat (the destroyer-of-meat dog)’  
(Skorik 1977:246-7)

Transitive analytic verbs referring to mental states and emotions are discussed in §5.7.4.

## 5.7 Valency changing operations

There are four types of valency-changing operations in Chukchi:

§5.7.1 derivational affixation (causitive affix, which increases the valency of an intransitive verb by one; or rarely, affixes which decrease the valency of a transitive verb by one)

§5.7.2 the antipassive (decreases the valency of a transitive verb by one, A becomes S, O is optionally expressed by a peripheral argument)

§5.7.3 incorporation (one argument of a verb is incorporated, remaining argument of a transitive verb becomes S)

§5.7.4 certain verb stems are intransitive in their inflected form but have transitive analytic forms



### 5.7.1 Valency-increasing (causative) affixes

The valency of an intransitive verb can be increased by the addition of certain affixes. All instances of affixal valency increase are accompanied by the prefix **r-**. This prefix may be accompanied by one of several suffixes; **-ev**, **-et**, **-ŋet** or  $\emptyset$  (lexically determined). These affixes are also used with transitive verbs to derive transitive verbs with other meanings.

i) Prefix only:  ${}^n\sqrt{r-}$

Examples:

Intransitive		Transitive	
<b>ejmev-ə-k</b>	'to approach'	<b>r-ejmev-ə-k</b>	'to make approach'
<b>qivriv-ə-k</b>	'to hurry'	<b>r-ə-qivriv-ə-k</b>	'to hurry'
<b>tejŋet-ə-k</b>	'to eat (dine)'	<b>r-ə-tejŋet-ə-k</b>	'to feed'

ii) With suffix  ${}^n\sqrt{-ev}$

Examples:

Intransitive		Transitive	
<b>ekvet-ə-k</b>	'to set off'	<b>r-ekvet-ev-ə-k</b>	'to send off'
<b>anŋenajp-ə-k</b>	'to get angry'	<b>r-anŋenajp-av-ə-k</b>	'to anger'
<b>punŋku-k</b>	'to go out (fire etc)'	<b>r-ə-punŋku-v-ə-k</b>	'to put out'

iii) With suffix  ${}^n\sqrt{-et}$

Examples:

Intransitive		Transitive	
<b>untəmev-ə-k</b>	'to calm oneself'	<b>r-untəmev-et-ə-k</b>	'to calm'
<b>jaly-ə-k</b>	'to move, resettle'	<b>r-ə-jaly-at-ə-k</b>	'to move, resettle'

Sometimes a single intransitive verb can produce a derived transitive with each of the preceding two suffixes, giving two transitive verbs with different meanings (also, from a transitive verb they can derive another transitive verb with similar semantic changes).

Examples:

Intransitive		Transitive	
<b>rəyel-ə-k</b>	'to enter ( $< {}^n\sqrt{ryel}$ )'	<b>r-ə-ryel-ev-ə-k</b>	'to attract'
		<b>r-ə-ryel-et-ə-k</b>	'to introduce'
<b>puurʔ-ə-k</b>	'to change'	<b>r-ə-lpuurʔ-ev-ə-k</b>	'to replace'
	( $< {}^n\sqrt{lpuurʔ}$ )	<b>r-ə-lpuurʔ-et-ə-k</b>	'to exchange'

iv) with suffix  ${}^n\sqrt{-ŋet}$  (rarer than either of the above; Skorik 1977:212)

Intransitive		Transitive	
<b>yalak</b>	'to go past'	<b>r-ə-yala-ŋat-ə-k</b>	'to carry past'

v) The suffix <sup>n</sup>√-et can also derive intransitive verbs from transitive. However, this is not the same as the antipassive. The antipassive turns an A into an S and makes possible to delete the O. This -et suffix seems rather to be a passive-like derivational formative which shifts the semantics of a word (as in iii. above) as well as its valency. The semantic role of S of this new verb is the same as that of O or a peripheral argument of the old, i.e. O or a peripheral argument → S, remaining arguments → ∅.

- |                          |                                |
|--------------------------|--------------------------------|
| a. Transitive            | Intransitive                   |
| <b>ejup-ə-k</b> 'to cut' | <b>ejup-et-ə-k</b> 'to be cut' |

Here the derived word has S equal to O of the underived word.

- |                                |  |
|--------------------------------|--|
| Transitive                     | Intransitive                           |
| b. <b>mənyəkʷ-ə-k</b> 'to pay' | <b>mənyəkʷ-at-ə-k</b> 'to receive pay' |

In this example the S of the derived verb is equal to the dative/allative complement of the underived word.

### 5.7.2 Antipassive

There are two mutually incompatible antipassive morphemes, differing slightly in meaning, although both have the primary function of turning A into S. According to Skorik (1977:117) they differ in the perspective on the demoted O. Unfortunately although Skorik gives examples of minimal pairs, he is vague about the difference in meanings between them. Unfortunately, the single word glosses here are particularly unilluminating as they are exactly the same for each word of the pair. The demoted O can be left out or can occur as a non-core argument. Antipassive verbs are otherwise inflected exactly as intransitive.

#### i) Antipassive prefix <sup>n</sup>√ine-

This prefix goes before the stem and after any other TAM prefixes. The demoted O of the active verb optionally appears in the dative/allative, the locative or the instrumental case.

- |                       |                          |                  |
|-----------------------|--------------------------|------------------|
| (5.35) <b>γəm</b>     | <b>t-ine-tejk-ə-rkən</b> | <b>(orv-etə)</b> |
| 1sg.abs               | 1sgA/S-AP-make-E-PRES    | (net-ALL)        |
| 'I am making (a net)' |                          |                  |

- |                                      |                          |                |
|--------------------------------------|--------------------------|----------------|
| (5.36) <b>aʔačəkə-t</b>              | <b>ine-γənrit-ə-rkən</b> | <b>(qaa-k)</b> |
| lad-ABS.PL                           | AP-guard-E-PRES          | (reindeer-LOC) |
| 'The lads are guarding (reindeer/s)' |                          |                |

(5.37) **muri** **mət inɛ rɛt ə-rkən** (kimitʔ e)  
 1pl.abs 1plA/S-AP-carry-E-PRES (load-INST)  
 'We are carrying (a load)'

ii) Antipassive suffix <sup>n</sup>√-tku

This suffix goes between the stem and any other TAM suffixes. As mentioned above, the difference in meanings between this suffix and the antipassive prefix **-ine** are unclear, but appear to be related to pragmatic function. Skorik (1977:120) gives the following examples, with acceptability ratings a-c: good, d: dubious:

(5.38)

a. **ɣəm t-inɛ-rɛt-ə-rkən mekiɔɣ-e toɣ-ɛtə**  
 1sgABS 1sgA/S-AP-carry-E-PRES meat-INST friend-ALL  
 'I am carrying meat to/for the friend'

b. **ɣəm t-ə-rɛt-ə-tku-rkən mekiɔɣ-e**  
 1sgABS 1sgA/S-E-carry-E-AP-PRES meat-INST  
 'I am carrying meat'

c. **ɣəm t-ə-rɛt-ə-tku-rkən toɣ-ɛtə**  
 1sgABS 1sgA/S-E-carry-E-AP-PRES friend-ALL  
 'I am carrying to/for the friend'

d. **ɣəm t-ə-rɛt-ə-tku-rkən mekiɔɣ-e toɣ-ɛtə**  
 1sgABS 1sgA/S-E-carry-E-AP-PRES meat-INST friend-ALL  
 'I am carrying meat to/for the friend'

He also states that the **tku**- antipassive usually occurs without any peripheral object at all (if it does it will be in the instrumental, allative or locative case, as with the **ine**-antipassive).

### 5.7.3 Incorporation as a valency changing device

Chukchi shows incorporation according to the absolutive pattern (incorporation of O or S but not A). When O is incorporated then A becomes S of the new intransitive verb. When S is incorporated the verb has its valency reduced to zero (no arguments). Such verbs cannot have an S NP, but takes 3sgS agreement (Muravyova 1992). Verbs may also incorporate nouns in peripheral roles, but this does not change the number of core arguments. Examples (5.39a-c, 40a-b) show a manipulation of the verbal valency which does not change the number of core arguments, but does change their roles.

i) Incorporation of S

Only non-agentive S can be incorporated to make an impersonal verb.

(5.39)

- a. **vʎeɣ-ti**                      **inini-ɣʎe-t**  
grass-ABS.PL                  appear-PERF-3plS  
'The grasses appeared'

- b. **vʎej-inini-ɣʎi**  
grass-appear-PERF.3sgS  
'[it] grass-appeared'

(Muravyova 1992:210, my glosses)

ii) Incorporation of O

The decrease in transitivity accompanying object incorporation correlates with a decrease in the specificity of the object

(5.40)

- a. **tumɣ-e**                      **na-ntəvat-ə-n**                  **kupre-n**  
friend-ERG                  3sg/plA-set-E-3sg                  net-ABS.SG  
'The friend/s set the net'

- b. **tumɣ-et**                      **kopra-ntəvat-ɣʎa-t**  
friend-ABS.PL                  net-set-PERF-3plS  
'The friends set nets (net-set)'

(Comrie 1973:243-4)

According to Muravyova (1992:211), O is frequently incorporated when it is possessed by the A (or perhaps in a part-whole relationship with A?).

(5.41)

- a. **ɣəm-nan**                      **jekery-ə-n**                      **t-ə-lvə-ɣʎa-n**  
1sg-ERG                      mouth-E-ABS.SG                  1sgA/S-E-burn-PERF-3sgO  
'I burnt [my] mouth'

- b. **ɣəm**                              **t-ə-jekery-ə-lvə-ɣʎe-k**  
1sg.ABS                      1sgA/S-E-mouth-burn-PERF-1sgS  
'I mouth-burnt'                              (Muravyova 1992:211)

According to Nedjalkov (1977 quoted by Muravyova 1992), when O of a three place verb is incorporated, the oblique argument may optionally be promoted to O.

(5.42)

- a. **γəm-nan akka-γtə qora-t t-ə-nme-γʔe-t**  
1sg-ERG son-DAT reindeer-ABS.PL 1sgA/S-E-kill-PERF-3plO  
'I killed some reindeer for the son'
- b. **γəm akka-γtə t-ə-qora-nma-γʔa-k**  
1sg.ABS son-DAT 1sgA/S-E-reindeer-kill-PERF-1sgS  
'I reindeer-killed for the son'
- c. **γəm-nan ekək t-ə-qora-nma-γʔa-n**  
1sg-ERG son.ABS 1sgA/S-E-reindeer-kill-PERF-3sgO  
'I reindeer-killed [for] the son'

(Muravyova 1992:212)

Similarly, a possessed O may be incorporated and its possessor may be promoted to O.

(5.43)

- a. **γəm-nan γənin pily-ə-n**  
1sg-ERG 1sg.POSS throat-E-ABS.SG  
**t-ə-re-čvitku-γʔe-n**  
1sgA/S-E-FUT-cut-PERF-3sgO  
'I'll cut your throat'
- b. **γəm-nan γət t-ə-re-pily-ə-čvitku-γət**  
1sg-ERG 2sg.ABS 1sgA/S-E-FUT-throat-E-cut-2sgO  
'I'll throat-cut you'

(Muravyova 1992:212)

iii) Incorporation of peripheral roles

Nouns in peripheral roles (mostly instruments or locations) can be incorporated with no change to the number of core arguments of the verb. Instruments are in the instrumental (= ergative) case and locations can be expressed by the locative, ablative or allative.

(5.44)

- a. **γəm ηalelʔ-etə t-ekvet-γʔe-k**  
1sg-ABS herd-ALL 1sgA/S-go-PERF-1sgS  
'I went to the herd'

- b. **γəm t-ə-ŋələlʔ-ekvet-γʔe-k**  
 1sg-ABS 1sgA/S-E-herd-go-PERF-1sgS  
 'I went to the herd'

(Muravyova 1992:213)

### 5.7.4 Inflecting and analytic formation

Some verb stems referring to mental states and emotions may occur in both inflecting an analytic verbal constructions. The stems include:

- təŋ-** laugh, **ʔəly-** love, **venn-** be jealous, **kory-** be joyful, **γičiv-** be entertained  
**lev-** be teased, **əjəly-** fear, **peγčīŋ-** be curious, **ləmal-** believe, **teγjeŋ-** desire,  
**γənrə-** be vigilant.

These verbs are all intransitive when they appear in their inflecting form and transitive when they appear in analytic constructions (note that they only combine with transitive auxiliaries; §5.6). The invariant form of the verbal base of analytic constructions takes the suffix <sup>n</sup>√-u (identical to the essive §4.3.10).

- (5.45) **γəm račqev-ma, jara-lʔ-ə-t n-ə-təŋ-ə-tku-qine-t**  
 1sgABS enter-GER house-DER-E-pl IMPF-E-laugh-E-AP-3-pl  
 'When I entered, the house-folk were laughing' (Skorik 1977:253)

- (5.46) **luur ənpəŋev-e təŋ-u rəʔ-ə-n-in**  
 suddenly old.woman-ERG laugh-ADV AUX-E-3sg-3sg  
**veŋe-lʔ-ə-n ŋeekkeqej**  
 sew-DER-E-ABS girl (abs)  
 'Suddenly the old woman laughed at the girl' (Skorik 1977:250)

(Note that the verb **təŋ-** *laugh* is underlyingly transitive- the intransitive inflected form are in the antipassive)

## 5.8 Derivational Morphology

Chukchi has a rich array of affixes which derive verbs from other parts of speech or modify the meanings of verbal stems. A selection of these are presented below.

### 5.8.1 Cross-categorical derivation

<sup>n</sup>√-et

derives a verb from a noun or adjective.

- (5.47) **jevjev, ənan nenenet re-mk-ən-ŋət**  
 PCL PCL child FUT-many-DER-3plS  
 'So, [your] children will multiply', < **mk** 'many ADJ' (J:137)

### **n√-tku**

forms an intransitive verb from a noun stem referring to a tool or other object with the meaning 'to do something with <object>'. This suffix is homophonous with the antipassive morpheme (§5.7.2)

**rəpe-tku-k** to hammer < **rəpe-ŋə** a hammer

**ʔətv-ə-tku-k** to hunt in a boat < **ʔətv-ə-t** boats

### **n√-lʔet**

intransitive 'to travel/go with a <means of transport>'

**ʔətv-ə-lʔet-ə-k** to go by boat < **ʔətv-ə-t** boats

### **d√-jp/-ep**

**-jp** / V\_\_ **-ep** / C\_\_

intransitive 'to put on an <item of clothing>' cf the verb **d√jəp-ə-k** 'to dress'

**kʔale-jə-ə-k** to put on a hat < **kʔeli** a hat

## **5.8.1 Deverbal derivation**

### **n√-čqiv**

'set off to...'; modifies a transitive or intransitive verb stem

**t-ə-jəʔqet-ə-čqiv-ə-rkin**

1sgA-E-sleep-DER-E-IMPF

I am going off to sleep

**t-ə-γite-ə-čqiv-ə-rkin-et**

1sgA-E-see-DER-E-IMPF-3pl

I am setting off to see them

### **n√r-\_\_\_-turev**

forms a verb with reverse meaning (from certain classes of derived stems)

**r-ə-kavra-torav-ə-k**

DER-E-crumpled-DER-E-INF

'to uncrumple, smooth out' (< adjective **kavra** 'crumple')

**r-ə-teviminŋ-ə-murev-ə-k**

DER-E-oppression-E-DER-E-INF

'to liberate' (< noun **teviminŋ** 'oppression')

## 6. Adjectives

Chukchi adjectives form a class of stems indicating properties of nouns. It is not clear from the data whether the class of adjectives is open or closed. There are about one hundred adjective stems attested in the data. They include members of all semantic classes identified by Dixon (1977:16), for example:

### DIMENSION

**-ikv-** 'tall'; **-onm-** 'deep'

### PHYSICAL PROPERTY

**-om-** 'warm'; **-itč-** 'heavy'; **-irv-** 'sharp'

### COLOUR

**-ily-** 'white'

### AGE

**-mur-** 'new'; **-ŋin-** 'young'

### VALUE

**-teŋ-** 'good'; **-ytam-** 'neat'

### SPEED

**-empa-** 'slow'; **-inʔ-** 'quick'

### HUMAN PROPENSITY

**-kənte-** 'trusting'; **-yjev-** 'experienced'; **-anŋena-** 'angry'; **-vejmen-** 'affable'

However, I have found no syntactic or morphological differences to motivate these semantic distinctions.

All Chukchi adjectives can be used both predicatively (ex. 6.1) and attributively in an absolutive noun phrase (ex. 6.2: §7.1). However, attribution is often expressed through incorporation of the attribute stem into the noun (ex. 6.3). The meaning of this distinction is not clear from my data.

Adjective **teŋ** 'good' (free form) in predicative function:

- (6.1) **ʔəm-nin**    **təlan**    **n-ə-teŋ-qin,**            **minkəri**    **melmel**  
1sg-GEN    road.ABS    ADJ-E-good-3sg.ABS    because    good.weather  
'My road is good because [there is] good weather'            (J:43)

Free form of adjective **teŋ** 'good' in an attributive relationship to a noun:

- (6.2) **ʔamən**    **ŋotqen**            **n-ə-teŋ-qin**            **nut-ečq-ə-n,**  
PCL            this            ADJ-E-good-3sg.ABS    land-surface-E.ABS.



qejve	n-ə-čʰuu-qin,	mačənan
PCL	ADJ-narrow-3sg.ABS	PCL
'This is good land, although narrow'		(J:63)

Adjective **teŋ** incorporated into a noun:

(6.3)	<b>notqen</b>	<b>taŋ-qlavəl</b>
	this.ABS	good-man.ABS
	'This is a good man' (J:76)	

Comparison with other languages in the Chukotko-Kamchatkan group suggests that adjectival morphology (as well as the possessed predicate and the stative verbal paradigms) originates from a nominal predicate form (discussion below). Synchronically however, the class of adjectives can be distinguished in Chukchi on the following grounds:

- The inventory of adjectival derivational affixes includes some members from the nominal set of derivational affixes and some members from the verbal set, but not all members of either (listed below, §6.2). Within the inventory there are occasional forms which are peculiar to adjectives.
- The syntactic behaviour of adjectives allows them to function as attributes inside noun phrases (impossible for verbs, possible only for derived nouns with -lʔ §4.5.2)
- Unnominalised adjectives may not be used as head of an NP (use deadjectival nouns instead, §6.3.3).

The shared nominal and verbal features of adjectival morphology reflect its intermediate position on the noun-verb continuum (§3 and below). Of the sister languages of Chukchi (§1.2), only the closely related language Kerek has developed the stative verbal paradigms. Korjak has a set of forms that are cognate with the Chukchi adjective and stative paradigms which indicate the properties of nouns, but which act somewhat differently morphologically and syntactically (Korjak data from Žukova 1968:276-7):

Korjak property word paradigm (Chukchi cognate forms in brackets)

	singular	dual	plural
1st person	nə-___-j-ɣəm (n-___-j-ɣəm)	nə-___-muji (n-___-muri)	nə-___-muju
2nd person	nə-___-j-ɣi (n-___-j-ɣət)	nə-___-tuji (n-___-turi)	nə-___-tuju
3rd person	nə-___-qin (n-___-qin)	nə-___-qinet (n-___-qinet)	nə-___-qinew

Note that Korjak dual number is cognate with Chukchi plural (Chukchi has no dual)

Korjak property words can be formed from stems from many different parts of speech.

Korjak property word zero derivation (all forms 3sg) :

Pure property words

<b>нə-мєјəŋ-qin</b>	'big'
<b>нə-ənnulu-qin</b>	'small'
<b>нə-кєтʏu-qin</b>	'strong'
<b>нə-ŋuj-qin</b>	'weak'

Noun stems

<b>нə-қєјəлʏə-qen</b>	'snowy' (< 'snow')
<b>нə-ŋlə-qen</b>	'smokey' (< 'smoke')

Verb stems

<b>нə-valom-qen</b>	'obedient' (< 'obey')
<b>нə-tulʏfet-qin</b>	'stolen' (< 'steal')

Adverb stems

<b>нə-juleq-qin</b>	'prolonged' (< 'for a long time')
<b>нə-manəŋ-qen</b>	'odd, broken up' (< 'separately')

It is likely that there is no separate word class of adjectives in Korjak, and that the property words listed above are members of a subclass of property nouns. The morphological form cognate with the Chukchi adjective is a nominalisation which is mostly used to predicate a property. Less often they may function substantively, and can take the locative and instrumental cases, but they are never used attributively (note there is no grammatical equivalent to this in Chukchi). The only morphological means for expressing nominal attributes in Korjak is incorporation. The loss of adjectival attribution in Chukchi has lowered the functional load of incorporational attribution, but has not eliminated it. The generalisation of the nominal predicate forms to create new verbal paradigms appears to have made the Chukchi adjective appear more like a verb form, but comparison to cognate morphological forms in the sister languages of Chukchi shows that the opposite is true diachronically, and that the verb form reflects its adjectival origin. Even without considering adjectives, Chukchi nouns and verbs have considerable formal and functional overlap in intermediate positions on the noun-verb continuum (§3). There is no compelling evidence for including Chukchi adjectives as a subclass of either nouns or verbs, and although the evidence for a separate class of adjectives on morphological grounds is not very strong, taken with the syntactic evidence it is sufficient to postulate an independent word class.

## 6.1 Person-number agreement

All adjectives have the prefix **n-** and a suffix for person and number agreement (in first and second person singular **i** after a consonant alternates with **j** after a vowel):

1sg	<b>n-ə-teŋ-j-γəm</b>	1pl	<b>n-ə-teŋ-muri</b>
2sg	<b>n-ə-teŋ-j-γət</b>	2pl	<b>n-ə-teŋ-turi</b>
3sg	<b>n-ə-teŋ-q-in</b>	3pl	<b>n-ə-teŋ-q-inet</b>

This is morphologically identical to the intransitive of the imperfective-stative verbal paradigm (§5.4.2) and has the same agreement suffixes as both the perfective-stative verbal paradigm and the possessed predicate form of the noun (with the exception that these forms have **-l** instead of **-q** in the third person; §5.4.1; §4.5.1).

## 6.2 Derivational Morphology

Adjectives have prefixal and suffixal derivational morphology. Adjectival prefixes have to do with the degree of quality that an adjective represents. The adjectival degree prefixes are:

<b>n√meč-</b> 'a little'	<b>meč-n-ikv-i-γət</b> 'tallish: 1SG'; -ikv- 'tall'
<b>n√čiy-</b> 'comparatively'	<b>čey-n-onm-ə-qen</b> 'comparatively deep: 3SG'; -onm- 'deep'
<b>√kən-</b> 'quite'	<b>kən-n-ə-γənrər-more</b> 'quite sharp-sighted: 2PL'; -γənrər- 'sharp-sighted'
<b>n√nəlyi-</b> 'very'	<b>nəlyi-n-ə-kənte-muri</b> 'very successful: 2PL'; -kənte- 'successful'

(all examples from Skorik 1961:424)

Adjectives take the same diminutive and augmentative suffixes as nouns, with primary meanings of size and secondary meanings of personal evaluation (§4.5.7). The suffix **-qine** is present in adjectives regardless of person and number of the stem when the word is further suffixed. The suffix **-qej** can be the terminal suffix of a third person singular adjective (as with nouns); otherwise person number agreement follows the nominal pattern (§4.3.1).

<b>√j-ŋj-</b>	augmentative (respectful)
<b>√-čγ-</b>	augmentative (disdainful)
<b>n√-qej</b>	diminutive

The augmentatives have additional connotations of respect or disdain. The diminutive sometimes has connotations of fondness, according to context, but sometimes seems just to have the sense of 'small'. It is impossible to determine the exact semantics of these affixes from textual data.

**n-arma-qena-ŋj-e-γəm** 'big strong: 1SG (approving)' (< **-erme-** 'strong')

- n-ekv-ə-qena-čy-e-γət 'big tall: 2SG (disapproving)' (< -ikv- 'tall')
- n-ə-rul-qine-qej 'little weak: 3SG' (< -rul- 'weak')
- n-ə-vanna-qena-čy-ə-t 'jealous: 3PL (disapproving)' (< -vanna- 'jealous')
- n-ə-γtam-qena-qaj-e-more 'neat little: 2PL (approving)' (< -γtam- 'neat')
- (all examples from Skorik 1961:424)

Adjectives can take derivational affixes of more than one type:

- nəlye-n-arma-qena-jŋ-ə-more 'really big strong: 1PL (approving)'  
 INTS-ADV-strong-ADJ-AUG-E-1pl

## 6.3 Cross-categorical derivation

There seems to be no morphological way of forming adjectives from other parts of speech but there are regular ways of forming derived adverbial, verbal and nominal stems from adjectival stems. The derived stems act like an ordinary stem of the derived class. The deadjectival derivational morphemes are briefly mentioned below (§6.3.1-3).

### 6.3.1 Deadjectival adverbs

Adverbs can be formed from adjective stems by means of one of the following affixes:

- <sup>n</sup>√n-\_\_\_-?ev  
<sup>d</sup>√-γtə /V\_\_\_ ~ -etə /C\_\_\_

Comparative adverbs are formed by the suffix <sup>d</sup>√-ŋ in place of either of the above two. A nominalisation which is functionally equivalent to an adjective is formed with a deadjectival adverb preceding a form of the verb (t)va 'be'.

- (6.4) n-ə-teŋ-?ev iγət va-ŋŋo-γ?e-t  
 ADV-E-good-ADV now be-INCH-PERF-PL  
 'Now it has become good (lit. 'well')' (J:205)

### 6.3.2 Deadjectival Verbs

Adjective stems take a variety of affixes to form derived transitive and intransitive verbal stems (§5.8). The only cross categorical derivational affix that is used for adjectives alone is the suffix -tvi. All the other verb-deriving affixes which act on adjectives can also derive verbs from nouns or other verbs. The suffix -tvi derives an intransitive verb from adjective X with the meaning 'become X'. Examples are given from adjectives of the DIMENSION, PHYSICAL PROPERTY and VALUE classes (Skorik 1977:221).

- n-ə-čivm-ə-qin 'short' čivm-ə-tvi-k 'to become short'  
 n-ə-vety-ə-qen 'straight' vety-ə-tve-k 'to become straight'  
 n-ə-teŋ-qin 'good' teŋ ə tvi k 'to become better'

Other affixes that derive verbs include the suffixes **-tva**, **-et** and **-ev** for intransitive verbs and the circumfixes **r-\_\_\_-et** or **r-\_\_\_-ev** for the corresponding (transitive) causative verbs.

### **6.3.3 Deadjectival Nouns**

Adjectives are nominalised by means of the suffix **-lʔ**. Nominalised adjectives have the meaning of someone/something characterised by the property indicated by the adjective stem. An adjective must be nominalised to be used substantively. The **-lʔ** suffix is discussed in §4.5.2

# 7. Syntax

## 7.1 Syntactic constituents and constituent order

The tendency of Chukchi morphology to use incorporation and its rich array of derivational affixes correlates with the relative simplicity of Chukchi syntax, and in particular, the paucity of levels of syntactic organisation between the word and the clause. Word order of lexical elements is entirely pragmatic, and grammatical elements have few ordering constraints. The grammatical word is usually coextensive with the phonological word (as defined by the range of the vowel-lowering prosody §2.3). The first of two exceptions is the analytic verb, which consists of an invariant lexical head and inflecting auxiliary (§5.6, ex. 7.1), and includes nominalisations with a participial form of the auxiliary (cf. text J:50). The second exception is the analytic numeral, which consists of several phonological words, and yet is treated like a single word for the purposes of circumfixation and whose phonological incorporation into nouns is only partial, affecting the final element only (§4.7.4, exs. 7.2-3).

Analytic verb (in boldface type):

- (7.1) **ŋinqe**-e **lə**ʔi **ləŋ-ə-rkəni**-net                    nənn-ə-t  
boy-ERG know AUX-E-IMPf-3sgA.3plO name-E-ABS.PL  
əməlŋə-rʔ-en ʔətʔ-in murʔ-ə-nəm-ə-k  
all-plR-GEN dog.GEN 1pl-E-village-E-LOC  
'The boy knows the names of all dogs in the village' (Skorik 1977:247)

As mentioned in §5.6, analytic verbs seem always have the order Verbal base-Auxiliary without any intervening elements.

Analytic numeral:

- (7.2) **ŋireq-qlikkin** **mənʔətken** **ŋireq** **parol**  
two-twenty ten two extra  
'fifty two'

Analytic numerals always appear with factors arranged from largest to smallest without any intervening elements. When an analytic numeral is incorporated into a noun in the associative case (associative case circumfix **ʔe-\_\_\_-mə**), the circumfixial case marking encompasses the entire grammatical word.

Incorporated analytic numeral:

- (7.3) **ʔe-ŋireq-qlikkin** **mənʔətken** **ŋireq** **parol**-meməl-ma  
ASS-two-twenty ten two extra-seal-ASS  
'with fifty two seals' (Skorik 1961:384)

There is no evidence in Chukchi for positing a verb phrase as a constituent. The only syntactic constituent larger in scope than a grammatical word is the noun phrase. The noun phrase consists of a number of nominal elements which are treated as a grammatical unit. Noun phrases with more than one word are most often found in the absolutive case, but are also attested in the ergative and other oblique cases. Non-absolutive noun phrases have fewer syntactic possibilities than absolutive.

### 7.1.1 Absolutive noun phrases

Absolutive noun phrases consist of a head noun in the absolutive case and optional attributes. Possible attributes include unincorporated attributive adjectives (7.4), nouns in the comitative and associative cases (7.5) and one or more genitive nouns (7.6-7).

- (7.4) **kolo**    **n-əmkə-qin**    **qora-ŋə**    **r-ʔejje-γʔe**  
 PCL    ADJ-many-3sg    reindeer-ABS    FUT-cry.out-PERF.3sgS  
 ‘Very many reindeer will cry out’    (J:93)

- (7.5) **teγret-γʔe-t**    **uvele-k-in**    **qlavəl**  
 go.down-PERF-3S-PL    Uelen-SOURCE-GEN    man.ABS  
**γe-ŋevʔen-e**    **arqa-čorm-etə**  
 COM-wife-COM    sea-shore-ALL  
 ‘The Uelen man went with his wife down to the seashore’    (J:159)

- (7.6) **ʔemi**    **ənpəŋev-qej**    **murγin.**    **ʔəmi**    **murγin**    **epəqej**  
 where    old.woman-DIM    1pl.GEN    where    1pl.GEN    grandmother  
 ‘Where’s our dear old woman, where’s our grandmother?’    (J:97)

- (7.7) **ŋotqen**    **ʔinnəpʔi**    **γəm-nin**    **ətəγ-in**  
 this.ABS    harpoon.ABS    1sg-GEN    father-GEN  
 ‘This harpoon is my father’s’ or ‘This is my father’s harpoon’    (J:109)

Nominal attributes are possible. Most common are demonstrative nouns and nouns derived by means of the **-lʔ** suffix (verbal participles and deadjectival/denominal nouns §4.5.2). All these forms refer to an entity characterised by the lexical stem, i.e. an entity referred to by one of its attributes. Other nominal attributes are origin and occupation names. Nominal attributes are juxtaposed:

(7.8) **nevačqet mempepe-l7-ən ye-γ7jev-lin**  
 girl mempepe-DER-ABS PERF-wake-3sgS  
 'The Mempepe-ite girl woke up' (J:98)

(7.9) **eč7ə-l7-ən qora-ŋə q-ənmə-γətə**  
 fatten-PART-ABS reindeer-ABS 2.INT-kill-2plA.3sgO  
 'Kill the fatted reindeer!' (J:98)

There are also several particles which may form part of a noun phrase:

**qol** indefinite determiner 'one' (also used as an indefinite pronoun)

**kolo** intensifier 'very' (used with adjectives; ex. 7.4)

Numerals and demonstrative nouns such as **ŋotqen** 'this' and **əməl7o** 'all' are frequently juxtaposed with other head nouns or are used on their own. There is little evidence for syntactic ordering of elements within the noun phrase constituent. A possible exception to this is the indefinite determiner **qol** which seems to always be the first element in a noun phrase:

(7.10) **neme qol tejučγən ejmin-nin....**  
 again PCL sack take-3sc ^ 3sgO  
 'Again she took out a sack...' (J:28)

Noun phrases may be discontinuous. This usually has the pragmatic function of emphasising a modifier, which is placed before the verb while the rest of the NP follows the verb.

Discontinuous NP with indefinite determiner:

(7.11) **neme qol ejmin-nin evičγə-n, n-əmejŋ-qin evičγə-n**  
 again PCL take-3sgA.3sgO knapsack-ABS ADJ-big-3sg knapsack-ABS  
 'Again she took out a knapsack, a big knapsack' (J:29)

Discontinuous NP with a genitive:

(7.13) **utt-in tejk-ə-nin 7ətvə-qej**  
 wood-GEN make-E-3sgA.3sgO boat-DIM.ABS  
 'She made the boat of wood' (J:121)

Discontinuous NP with an adjective

(7.14) **ye-tejkə-lin qora-ŋə, n-əmkə-qin ye-tejkə-lin qora-ŋə**  
 PERF-make-3sgO reindeer-ABS ADJ-many-3sg PERF-make-3sgO reindeer-ABS  
 'She made reindeer, she made many reindeer' (J:85)



## Discontinuous NP with a numeral

- (7.15) **ɲirek** rətril-ninet      **vəkva-t**;      qol ɲevʎen-u, qol ʎəvequc̣-u  
two      put-3sgA.3plO      stone-ABS.PL      PCL wife-ESS      PCL husband-ESS  
'She placed two stones; one [to be] a wife, one [to be] a husband'      (J:89)

### 7.1.2 Non-absolutive noun phrases

Non-absolutive noun phrases consist only of juxtaposed nouns, which agree in case. There are no further modifiers. If present, other attributes must be incorporated into a nominal compound. Usually however, attributes of nouns are introduced in the absolutive case. As in absolutive NPs, juxtaposed noun attributes may show origin or occupation, with other types probably possible, but not attested in the texts.

- (7.16) **mempʎepe-lʔ-e**      **qlavəl-a**      lʎu-nin      **ɲeekək**  
Mempepe-DER-ERG      man-ERG      see-3sgA.3sgO      daughter  
'The Mempepe-dweller man saw the daughter'      (J:167)

- (7.17) **čama**      **čavčava-ta**      qeɟve      **qlavəl-a**      ʎən-ʎemet-ɣəm      nota-ɣta  
CONJ      nomad-ERG      PCL      man-ERG      INT-carry-1sg      tundra-ALL  
'And so let nomad men carry me to the tundra too'      (J:199)

## 7.2 Basic verbal clauses

For the purposes of syntactic analysis of Chukchi, basic verbal clauses can be defined as syntactically independent clauses containing a single inflecting verb. The valency of verbs is lexically determined, and most verbs require from one to three arguments. An intransitive verb which incorporates its argument forms a verb with zero valency and default 3sgS agreement (§5.7.3), but such verbs are always derived and there is no such thing as an intrinsically zero place verb. Chukchi makes regular use of zero anaphora, so transitive and intransitive verbs are distinguished solely by morphological cross referencing. Verbs with three places have two arguments cross referenced on the verb (i.e. like a transitive verb) and the third is oblique, and behaves syntactically like any other noun in a peripheral case.

### 7.2.1 Transitive and Intransitive clauses

Word order in Chukchi is pragmatically determined. Intransitive clauses are attested in all logically possible orders of verb and core constituents:

			number of occurrences in a sample of 212 intransitive verbs in basic clauses (Text I).
i)	S	V <sub>INTR</sub>	63
ii)	V <sub>INTR</sub>	S	23
iii)	V <sub>INTR</sub>	(no overt arguments)	126

Transitive verbs have eleven logical possibilities for word order. Of these ten are attested at least once in Text I (due to the small size of the data the absence of the VAO type is probably accidental).

				number of occurrences in a sample of 161 transitive verbs in basic clauses (Text I).
i)	A	V <sub>TR</sub>	O	7
ii)	A	O	V <sub>TR</sub>	1
iii)	O	V <sub>TR</sub>	A	3
iv)	O	A	V <sub>TR</sub>	2
v)	V <sub>TR</sub>	A	O	-
vi)	V <sub>TR</sub>	O	A	1
vii)	A	V <sub>TR</sub>		18
viii)	V <sub>TR</sub>	A		5
ix)	O	V <sub>TR</sub>		56
x)	V <sub>TR</sub>	O		15
xi)	V <sub>TR</sub>	(no overt arguments)		53

Furthermore, there were six instances of interrupted noun phrases with transitive verbs:

xii)	O	V <sub>TR</sub>	O
------	---	-----------------	---

## 7.2.2 The position of peripheral elements in basic clauses

Particles and adverbs usually stand at the beginning of a basic verbal clause. The exceptions are intensifier particles and negative particles which may be placed closer to the element that they modify. Oblique nouns and manner adverbs are often placed clause finally (7.17, text J:173,195).

### 7.2.3 Negation

There are two structural types for negative clauses:

- (negative particle) negative subordinate verb (auxiliary verb)
- negative particle inflecting verb

For type a. the negative intensifier particle **etla** is optional. An auxiliary verb may be used where it is necessary to specify the person and number of A/S (cf. §7.4.2 for the syntactic pivot of subordinate verbs; also §5.6). Negative imperatives are made by a negative subordinate verb and the negative imperative particle **anpa**.

(7.18) **ʔamən** **kako**, **epeqej** **vʔi-rkən**, **jep** **e-teŋ-ə-ʕʔet-ke**  
 PCL INTJ grandmother die-IMPF PCL NEG-good-E-rarely-NEG  
 ‘Oh, grandmother is dying, [she is] not happy’ (J:196)

(7.19) **eʕenur** **ʔəmnin** **mutləmul** **teŋ-ənnə**  
 CONJ 1sg.GEN blood.ABS only-NEG  
**nute-ʕʔ-ə-k** **e-nəʔyelet-ke**  
 ground-AUG-E-LOC NEG.put.onto-NEG  
 ‘But just don’t let my blood fall on the ground’ (Nedjalkov 1993:95)

For type b., negation with an inflecting verb, the verb must always be in the intentional perfective paradigm (aspectual and some modal specification is neutralised) and the negative particle must be present. There are two negative particles; **qəɾəm** with future reference (7.20) and **vənevən** with nonfuture reference (7.21).

(7.20) **qəɾəm** **q-ə-ʔətʔetʔə-tək**  
 NEG 2.INT-E-starve-2pl  
 ‘You won’t starve.’ (J:207)

(7.21) **vənevən** **ŋevəʕqet** **n-ə-jəlqet-ə-n**  
 NEG girl.ABS 3.INT-E-sleep-E-3sg  
 ‘The girl doesn’t sleep’ (J:16)

#### 7.2.4 Interrogatives

Interrogatives are found of two types; yes-no questions and information questions. Yes-no questions are formed as negative clauses (ex. 7.22), the difference presumably being signalled by intonation (but I have no data on this).

(7.22) **vənevən** **mur-ʔin** **ŋeekək** **qə-lʔu-ʔən ?**  
 NEG 2pl-ERG daughter.ABS 2.INT-see-3sg.PERF  
 ‘Have you [lit: not] seen our daughter?’ (J:160)

Information questions include those formed by an interrogative pronoun and interrogative proverb (the same stem is used for both), as well as by an interrogative adverb such as **iʔam** ‘why?’ or **ʔemi** ‘where?’ (§3.7).

(7.23) *rʎenut ʎeŋe-rkənʔ epeqeʝ ikvʎi turɣin teʝŋ-etləqəl*  
 what call-IMPF grandmother say-PERF.3sgS 1sg.GEN good-food  
 "What is calling?". Grandmother says, "Your future food" (J:106-7)

(7.24) *rəreqeʝv-ə-rkəni-tkə ʎətʎet*  
 what.doing-E-IMPF-2plA boat (abs)  
 'What are you doing with the boat?' (Skorik 1977:49)

## 7.3 Copula and verbless clauses

### 7.3.1 Copula clauses

There are three copula verbs:

*it-* BE  
*tva-* BE (LOCATION)  
*nʎet-* BECOME

Copula verbs are morphologically intransitive, and in a verbal copula clause no more than one NP argument appears in the absolutive case (like with any other intransitive verb).

(7.25) *ɣət ŋinqeʝ-u q-it-ɣi*  
 2sg.ABS boy-ESS 2.INT-be-2sg  
 'You be a boy [creating a boy out of a rock]' (I.91)

(7.26) *əməŋ iɣər əŋqen nəmnəm uutən va-rkən*  
 and now DEM village.ABS Uuten be-IMPF.3sgS  
 'And now the village Uuten exists' (I.208)  
 (*va-* is the word initial form of *tva-*)

(7.27) *qəŋver qeʝəqeʝ rʎev-u ɣe-nʎet-ʎin*  
 finally (whale)calf whale-ESS PERF-become-3sgS  
 'Finally the whale calf became a whale' (Skorik 1961:172)

Example (7.26) is an existential construction. Existential constructions have a single argument. Apart from existentials, all other copula constructions have two arguments.

### 7.3.2 Verbless clauses

Verbless copula clauses may have as a complement an absolutive NP (7.28), a noun in an oblique case (7.29) or an adverb (7.30):

(7.28) *ŋotqen ɣəmnin ətləɣə-n, ətlə*

this.ABS 1sg.GEN father.ABS mother.ABS  
 'This is my father [and] mother' (J:39)

(7.29) **rʎeɒut**            **ɒŋqɑ-ʒorm-ə-k** ?  
 what?.ABS            sea-shore-E-LOC  
 'What [is] on the seashore?' (J:104)

(7.30) **iʎər**            **ŋotqen**            **mɛʒənkə,**            **ən-qenat**            **juvʎe-t**  
 today.ADV            this            enough.ADV            DEM-DER.3pl            string.game-ABS.PL  
 'Today this [is] enough, these string games' (J:25)

Overt copula verbs are usually only included where they provide salient information (e.g. aspectual, modal information). Most copula constructions in texts are verbless.

### 7.3.1 Negation

Negative copula clauses have negative subordinate verbs (7.31), nouns in the privative case (7.32-33) or negated noun phrases (7.34) as their complements, but copula verbs are usually omitted in texts. Negative noun phrases are formed with a negative determiner-noun **qəɾəmən** 'not'. This is derived from the negative particle **qəɾəm** by means of the suffix **-ən(a)**

(7.31) **qəɒver**            **a-taŋŋ-əp-ka**            **nʎel-ʎʎi**  
 at.last            NEG-horn-put.on-NEG            become-PERF.3sgS  
**ənkʎam**            **a-ryat-ka**  
 and            NEG-shed.hair-NEG  
 'Finally he ceased growing antlers and shedding hair' literally 'Finally he became not-antler-growing and not-hair-shedding' (Nedjalko 1993:94)

(7.32) **miŋkəri**            **ujɲe**            **ŋotqen**            **e-nəm-ke,**            **ujɲe**            **a-qlavəl-ka**  
 because            PCL            this            PRIV-village-PRIV PCL            PRIV-man-PRIV  
 'Because this [place] is without villages, without men' (I.77)

(7.33) **ŋiŋqej**            **ujɲe**            **e-tiʎə-ke**            **ʎ-it-ʎin**  
 boy            NEG            PRIV-skis-PRIV            PERF-be-3sgS  
 'The boy doesn't have skis' (Skorik 1961:288)

- (7.34) **qəwəm-ena-jyəm**      **šavšəva-ŋav-eyəm,**      **qəwəm-ena**      n  
 NEG-DER-1sg      nomad-woman 1sg      NEG-DER-1sg  
 'I'm not a nomad woman, I'm not'      (J:199)

## 7.4 Complex sentences

Chukchi has no relative clause construction. Functionally, the closest things in Chukchi to relative clauses are participles. However participles act syntactically as nominal attributes/substantives, and do not have clausal features such as taking arguments of their own (§4.5.2).

### 7.4.1 Conjunctive particles

A coordinate clause can be joined by a conjunctive particle to a matrix clause to form a coordinate sentence (§3.6). Chukchi coordinate clauses are grammatically independent, so if an argument in the coordinate clause is omitted when coreferential with one in the matrix clause, the identity of the omitted argument is determined pragmatically and not syntactically.

- (7.35) **ətley-e**      **talajv-ə-nen**      **ekək**      **ənkʔam**      **ekvet-γʔi**  
 father-ERG      beat-E-3sgA.3sgO      son.ABS      and      leave-PERF.3sgS  
 'The father<sub>i</sub> beat the son<sub>j</sub> and [he<sub>i/j</sub>] left'      (Comrie 1988:113)

Thus Chukchi has a syntactically neutral pivot for coordinated clauses.

### 7.4.2 Clauses with subordinate verbs

Subordinate verbs are impersonal forms of verbs which can form the predicates of grammatically dependent clauses (§5.5). Subordinate verb clauses usually precede their matrix clause, but may follow, or even interrupt it. In (7.36) the circumfixial subordinate verb marker <sup>n</sup>γe-\_\_\_-me indicates a clause with concurrent time reference to the matrix clause:

- (7.36) **γa-nməvan-ma**      **aʔaček-a**      **utkučʔ-ə-t,**  
 SUB-set-SUB      boy-ERG      trap-E-ABS.PL  
**ənpənačγ-a**      **n-ena-nmənmav-qənat**      **tekeč-ə-t**  
 old.man-ERG      IMPF-INV-prepare-3pl      bait-E.PL  
 'While the boy was setting the traps the old man prepared the bait'  
 (Skorik 1977:288)

This examples has a neutral syntactic pivot (1.1.1.1), subordinate verbs optionally allow equi-deletion of A or S in the subordinate clause where it is coreferential with A or S of the matrix clause (a nominative pivot).

Ssubordinate clause = Amatrix clause

- (7.37) **apəčətvə-ma joroč-ə-k, ɣəm-nan əmə**  
 lie-SUB floor-E-LOC 1sg-ERG NEG  
**rʎenut vanevan m-ə-valom-ə-n**  
 what NEG 1sg-E-hear-E-3sg  
 'Lying on the floor I heard nothing' (Skorik 1977:293)

Asubordinate clause = Smatrix clause

- (7.38) **lʎo-ma ačʎəkv-ə-t, ɲekke-qej n-ə-qolento-qen**  
 find-SUB white.stone girl-DIM IMPF-E-shriek-3sgS  
 'Finding white stones, the girl shrieked' (Skorik 1977:293)

- (7.39) **ilyətvə-ke ʎittʎət, aʎəček rečqikvʎi jara-čəko-ɣta**  
 untie-NEG dog.ABS boy.ABS enter.PERF.3sgS house-inside-ALL  
 'Without untying the dog, the boy entered the house' (Skorik 1977:127)

Subordinate verbs may appear in the antipassive. This does not effect coreferential deletion as antipassive makes an A into an S, which are anyway treated the same for syntactic pivot.

- (7.40) **muri ena-nla-ma qaa-ta,**  
 1plABS AP-lead-SUB reindeer-INST  
**ənpənačɣ-a n-ine-ʎjɲelʎet-qin ekək**  
 old.man-ERG IMPF-INE-scold-3sg son.ABS  
 'While we were leading reindeer, the old man scolded the son'  
 (Skorik 1977:293)

The underlying A or S of infinitive and purposive subordinate verbs is never present on the surface level of the clause, but is coreferential with A or O of the matrix clause (§5.5.4; §5.5.2). For example, the infinitive in **-k** forms infinite modifiers of certain semantic classes of predicate (cf. §5.5.4). The infinitive may be part of the predicate of a transitive, intransitive or subordinate verb clause, and may have its own O if it is itself transitive. It may also occur in the predicate of impersonal non-verbal constructions (7.41). The infinitive subordinate verb may enter the O slot of a transitive verb with cross reference as for 3sgO (7.42), or it may take a peripheral role (7.43). Whatever its

role, an infinitival clause can never have an overt A (this feature is shared with the purposive forms of the verb §5.5.2).

(7.41) **n-itčə-qin**            **ʔemətə-k**            **orɣoor**            **notačqə-jekve**  
 ADJ-heavy-E-3sg    drag-SUB            net.ABS            ground-along.ADV  
 ‘It is heavy to drag the net along the ground’            (Skorik 1977:135)

(7.42) **t-ra-nʔomav-ŋən**            **qukiʔet-ə-k**            **ənpəŋev**  
 1sgA-FUT-forbid-3sgO    shout.at-E-SUB            old.lady (abs)  
 ‘I forbid shouting at the old lady’            (Skorik 1977:135)

(7.43) **əninelʔ-e**            **ena-čəŋ-ɣʔe**            **qət-ə-k**            **ŋalvəl-ətə**  
 elder.brother-ERG    INV-invite-PERF.3sgA.1sgO    go-E-SUB            herd-ALL  
 ‘Elder brother invited [me] to go to the herd’            (Skorik 1977:135)



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# Text

This text is an excerpt taken from a text in Chukchi orthography with a sentence-by-sentence Russian translation, presented in Skorik (1977:364-371). All the glosses and English translations below are my own. I have departed from the meaning of the Russian translation where it obviously distorts the Chukchi text. The sentences/clauses are numbered following Skorik, and are transcribed as follows:

1. phonemicization of Chukchi orthography
2. underlying morphemic representation
3. morphemic gloss (see lexicon)
4. free translation

## Juveremkin (Juven Folk)

Recorded from **Uvatayən**, a 58 year old hunter and bone-carver, at Uvelen (Welen) on the 30th of August 1948.

32.

<b>kerte</b> <b>ker-te</b> women's.clothing-PL.ABS	<b>jətonenat,</b> <b>jəto-ninet</b> drag.out-3sgA.3plO	<b>plekət</b> <b>plek-ə-t</b> boot-E-PL.ABS	<b>niɣəqinet,</b> <b>n-ilɣ-ə-qinet</b> ADJ-white-E-3pl
<b>lilit</b> <b>lili-t</b> glove-PL.ABS	<b>niɣəqinet,</b> <b>n-ilɣ-ə-qinet</b> ADJ-white-E-3pl	<b>tenujɣən,</b> <b>tenujɣ-ə-n</b> seal.skin-E-ABS	<b>kʔeli.</b> <b>kʔeli</b> hat.ABS

*She dragged out some women's clothing; white boots, white gloves, a sealskin, a hat.*

33.

<b>neme</b> <b>neme</b> again	<b>qutɣʔi,</b> <b>qut-ɣʔi</b> get.up-PERF.2/3S	<b>neme</b> <b>neme</b> again	<b>qol</b> <b>qol</b> one	<b>tejuɕɣən</b> <b>tejuɕɣ-ə-n</b> sack-E-ABS	<b>jətonen,</b> <b>jəto-nin</b> drag.out-2sgA.3sgO
-------------------------------------	--	-------------------------------------	---------------------------------	--	--

*Again she got up, again she dragged out a sack, [with a] kukven raincoat.*

34.

<b>ukkenɕi</b> <b>ukkenɕi</b> rain.coat	<b>kukven.</b> <b>kukven</b> kukven.ABS	<b>ɣətoɣʔe.</b> <b>ɣəto-ɣʔi</b> exit-PERF.2/3S	<b>jəmnen</b> <b>jəm-nin</b> put.on-2sgA.3sgO	<b>kukven,</b> <b>kukven</b> kukven.ABS
---	---	--	---	---

<b>ɕəɕəɣʔe</b> <b>ɕəɕəɣ-ɣʔi</b> look.out-PERF.2/3S	<b>tətɕk.</b> <b>tətɕ-ə-k</b> door-E-LOC
--	--

*She went out. She put on the kukven, she looked out the door.*

35.

<b>յիտենին</b>	<b>դարչոնեն,</b>	<b>իկվի-</b>	<b>յզզզայլժոմ</b>	<b>դարչոնեն,</b>
<b>յիտե-նին</b>	<b>դարչոնեն</b>	<b>իվ-յլի</b>	<b>յզզզայլժոմ</b>	<b>դարչոնեն</b>
look.at-2sgA.3sgO	outside.ABS	say-PERF.2/3S	wonderful	outside.ABS

<b>մեմել,</b>	<b>նօտեղզին</b>	<b>դարչոնեն.</b>
<b>մեմել</b>	<b>ն-օ-տեղ-զին</b>	<b>դարչոնեն</b>
calm.ABS	ADJ-E-good-3sg	outside.ABS

*She looked at the outside, she said, " It's wonderful outside, there's a calm, the outside is good"*

36.

<b>յիլիլյօն</b>	<b>ինինիլի,</b>	<b>յզզզայլժոմ</b>	<b>նօկիտե,</b>	<b>նազամ</b>	<b>զօնուր</b>	<b>լձօ</b>
<b>յիլիլ-օ-ն</b>	<b>ինինի-լի</b>	<b>յզզզայլժոմ</b>	<b>նօկի-տե</b>	<b>նազամ</b>	<b>զօղուր</b>	<b>լձօ</b>
moon-E-ABS	appear-PERF.2/3S	wonderful	night-INST			

<b>նօզերչատզեն.</b>
<b>ն-օ-զերչատ-զին</b>
ADJ-E-bright-3sg

*The moon was showing, it was wonderful in the night, and it was bright like day.*

37.

<b>եկվետլի,</b>	<b>օվօլյին</b>	<b>լձօտլեթ</b>	<b>յլոնեն,</b>
<b>եկվե-լի</b>	<b>օվօլ-ին</b>	<b>լձօտլեթ</b>	<b>յլօ-նին</b>
set.off-PERF.2/3S	father-POSS	boat.ABS	approach-2sgA.3sgO

<b>դիլյօն</b>	<b>եյմիննին.</b>
<b>դիլ-օ-ն</b>	<b>եյմին-նին</b>
rope-E-ABS	take-2sgA.3sgO

*She set off, she approached [her] father's boat, she took a rope.*

38.

<b>զօլ</b>	<b>լինոթլի,</b>	<b>զօլ</b>	<b>տեւենայ,</b>	<b>իկվի-</b>	<b>մեձնոնօ</b>	<b>դոտզենատ</b>
<b>զօլ</b>	<b>լինոթլի</b>	<b>զօլ</b>	<b>տեւենայ</b>	<b>իվ-լի</b>	<b>մեձնոնօ</b>	<b>դոտզենա-տ</b>
one	javelin.ABS	one	paddle.ABS	say-PERF.2/3S	enough	this-PL.ABS

<b>տրենոդնետ.</b>
<b>տ-րե-նր-օ-դ-օ-ն-ե-տ</b>
1sgA/S-FUT-carry.away-E-FUT-E-3-PL

*A javelin, a paddle, she said, "These I shall carry away"*

39.

<b>լեզօթօ</b>	<b>լօլօթօտկուլի,</b>	<b>իկվի-</b>	<b>դոտզեն</b>	<b>յօմնին</b>
<b>լեզօթօ</b>	<b>լօլօթ-օ-տկու-լի</b>	<b>իվ-լի</b>	<b>դոտզեն</b>	<b>յօմ-նին</b>
upwards	look.at-E-AP-PERF.2/3S	say-PERF.2/3S	this.ABS	1sg-POSS

ᠠᠲᠤᠯᠠᠭᠤᠨ,	ᠠᠲᠤ.
ᠠᠲᠤᠯᠠᠭ-ᠠ-ᠨ	ᠠᠲᠤ
father-E-ABS	mother.ABS

*She looked upwards, she said, "This is my father, mother"*

40.

ᠠᠲᠤᠯᠠᠭᠤ-ᠠᠮ	ᠠᠲᠤ	ᠵᠠᠵᠢᠨᠠᠳᠤᠴᠣᠷᠭᠠᠨ.	ᠲᠡᠷᠭᠠᠲᠠᠭᠢᠯᠡ.
ᠠᠲᠤᠯᠠᠭᠤ-ᠠᠮ	ᠠᠲᠤ	ᠵᠠᠵᠢᠨᠠᠳᠤ-ᠶᠣᠳᠠᠭᠤ-ᠠ-ᠨ	ᠲᠡᠷᠭᠠᠲᠠᠭᠢᠯᠢ
only-PCL	mother.ABS	sorry-NOM-E-ABS	cry-PERF.2/3S

*"But I'm just sorry about my mother". She started to cry.*

41.

ᠵᠠᠲᠤᠭᠢ,	ᠢᠻᠢᠨᠢ.	ᠶᠠᠮᠠᠨ-ᠠᠮ,	ᠮᠠᠴᠤᠮᠠᠨᠠᠨ
ᠵᠠᠲᠤ-ᠶᠢ	ᠢᠶ-ᠶᠢ	ᠶᠠᠮᠠᠨ-ᠠᠮ	ᠮᠠᠴᠤ-ᠶᠣᠮ-ᠨᠡᠨ
get.up-PERF.2/3S	say-PERF.2/3S	PCL-PCL	somewhat-1sg-GEN?

ᠷᠠᠴᠠᠯᠴᠠᠯᠡᠭᠠᠮ,	ᠮᠢᠨᠵᠠᠷᠢ	ᠠᠲᠤᠯᠠᠭᠡ	ᠡᠨᠠᠨᠷᠠᠴᠠᠯᠴᠠᠯᠠᠵᠢᠨᠡ.
ᠷᠠᠴᠠᠯᠴᠠᠯ-ᠢᠭᠠᠮ	ᠮᠢᠨᠵᠠᠷᠢ	ᠠᠲᠤᠯᠠᠭᠡ	ᠢᠨᠡ-ᠨᠷᠠᠴᠠᠯᠴᠠᠯ-ᠡᠶ-ᠶᠢ
not.needed-1sgABS	because	father-ERG	INV-not.needed-DER-PERF.2/3

*She got up, she said, "Well I am somewhat not needed, because my father abandoned me"*

42.

ᠲᠠᠶᠠᠮ,	ᠮᠡᠻᠦᠲᠡᠭᠢᠯᠡᠻ	ᠨᠠᠠᠨᠵᠢᠨ.
ᠲᠠᠶᠠᠮ	ᠮ-ᠻᠦᠲᠡ-ᠶᠢᠯᠡ-ᠻ	ᠨᠠᠠᠨᠵᠢᠨ
so	INT.1sgA/S-set.off-V?e-1sg	there(distant)

*"So I shall go off there [far away]"*

43.

ᠶᠣᠮᠨᠢᠨ	ᠲᠠᠯᠠᠨ	ᠨᠠᠲᠡᠨᠵᠢᠨ,	ᠮᠢᠨᠵᠠᠷᠢ	ᠮᠡᠮᠡᠯ.
ᠶᠣᠮ-ᠨᠢᠨ	ᠲᠠᠯᠠ-ᠨ	ᠨ-ᠠ-ᠲᠡᠨᠵᠢᠨ	ᠮᠢᠨᠵᠠᠷᠢ	ᠮᠡᠮᠡᠯ
1sg-POSS	road-ABS	ADJ-E-good-3sg	because	calm.ABS

*"My road is good, because there is a calm"*

44.

ᠻᠦᠻᠡᠲᠢᠭᠢ	ᠵᠡᠵᠢᠶᠡ.	ᠫᠠᠵᠢᠷᠢᠭᠢ	ᠻᠡᠨᠠᠫᠡᠫ,	ᠢᠻᠢᠨᠢ.
ᠻᠦᠻᠡᠲᠢ-ᠶᠢ	ᠵᠡᠵᠢᠶᠡ-ᠡ	ᠫᠠᠵᠢᠷᠢ-ᠶᠢ	ᠻᠡᠨᠠᠫᠡ-ᠻ	ᠢᠶ-ᠶᠢ
set.off-PERF.2/3S	foot-INST	arrive-PERF.2/3S	Kenypen-LOC	say-PERF.2/3S

ᠻᠢᠲᠻᠢᠲ	ᠶᠡᠲᠻᠢ	ᠨᠣᠲᠡᠵᠠᠨ.	ᠣᠫᠣᠫᠠ	ᠷᠠᠮᠠᠶᠢᠲᠠ	ᠮᠠᠯᠡᠷᠻᠠᠨ.
ᠻᠢᠲᠻᠢᠲ	ᠶᠡᠲᠻᠢ	ᠨᠣᠲᠡ-ᠵᠠᠨ-ᠠ-ᠨ	ᠣᠫᠣᠫᠠ	ᠷᠠᠮᠠᠶᠢᠲᠠ	ᠮᠠᠯᠡ-ᠷᠻᠠᠨ
a.little	bad	this	thus	further.on-ALL	go-IMPF

*She set off on foot. She arrived in Kenypen, she said, "This land is a little poor. Thus you must go on further"*

45.

uvelek	pəkiryʔi-	ɔtrʔeɕ	ɔnnen	jaranʔ.	qəɾəmən
uvele-k	pəkir-ʔʔi	ɔtrʔeɕ	ɔnnen	jara-ʔʔ	qəɾəm-ən
Uvelen-LOC	arrive-PERF.2/3S	only	one.ABS	house-ABS	NEG-GEN

jaranʔ.	qleʔran.	qəʔʔʔi	nəkite.	reʔʔi.
jara-ʔʔ	qleʔran	qəʔ-ʔʔi	nəki-te	re-ʔʔi
house-ABS	earthen.dwelling.ABS	come-PERF.2/3S	night-INST	enter-PERF.2/3S

**kəpɕətkonen.**  
**kəpɕ-ə-tku-nin**  
 knock-E-ITER-2sgA.3sgO

*She arrived in Uvelen. There is only one house, not a house, an earthen dwelling. Night fell. She entered and knocked.*

46.

ənpəneʔ	ʔurekvʔi-	meqinʔ	ʔəm.	mik-i-ʔəʔʔ
ənpəneʔ	ʔurev-ʔʔi	meqin	ʔəm	mik-i-ʔəʔ
old.woman.ABS	look.outside-PERF.2/3S	who?.ABS	1sgABS	who?-2sgABS

**mempʔepelʔiʔəm.**  
**mempʔepe-lʔ-iʔəm**  
 Mempepe-NOM-1sgABS

*An old woman looked out. "Who [is there]?" - "Me" - "Who are you?" - "I am a Mempepe-dweller"*

47.

eej.	evi ʔəʔəʔ.	evi	avalomkəlʔeʔəʔ	ɔtləʔe
eej	evi ʔə-ʔəʔ	evi	e-valom-kə-lʔ-iʔəʔ	ɔtləʔ-e
INTJ	PCL ʔʔ-2sgABS	PCL	NEG-listen-NEG-PART-2sgABS	father-ERG

rəvətʔavatək-	ʔetkijʔəʔ	neʔəɕqetiʔəʔ.
rəvətʔavat-ə-k	ʔetki-iʔəʔ	neʔəɕqet-iʔəʔ
command-E-SUB	bad-2sgABS	girl-2sgABS

*"Ah, it's you, the disobedient one when [her] father commands. You are a bad girl!"*

48.

ənpəneʔ	əjəŋkoʔʔe.
ənpəneʔ	əjəŋko-ʔʔi
old.woman.ABS	went.inside-PERF.2/3S

*The old woman went inside.*

49.

u7veqəð	rilunin-	r7enut?	nevəðqet	jetɣʔi,
u7veqəð	rilu-nin	r7enut	nevəðqet	jet-ɣʔi
man.ABS	shake.awake-2sgA.3sgO	what?.ABS	girl.ABS	come-PERF.2/3S

memp7epelʔən.	nə77eqinʔ
memp7epe-l7-ə-n	n-ə-r7e-qin
Mempepe-NOM-E-ABS	IMPF-E-what-3sgS

*She shook the man awake. "What?" - "A girl has come, the Mempepe-one" - "What's she doing?"*

50.

ne77ene	ivnin-	evi	ɣənən	ɣemo	valʔən
ne77e-ne	iv-nin	evi	ɣən-an	ɣemo	va-l7-ə-n
wife-ERG	say-2sgA.3sgO	PCL	2sg-ERG	not.know	be-PART-E-ABS

ətlaye	rəvetɣaatək	aalomkəlʔenʔ
ətlay-e	rəvetɣavat-ə-k	e-valom-kə-l7-in
father-ERG	command-E-SUB	NEG-listen-NEG-PART-ABS

*The wife says to him, "Really you don't know the one who is disobedient when her father commands her?"*

51.

qlavəl	ikvʔi	tayam!
qlavəl	iv-ɣʔi	tayam
man.ABS	say-PERF.2/3S	so

*The man said. "So!"*

52.

ənko	ne77en	ikvʔi-	opopo	tekəðɣən	qəjəlɣən.
ənko	ne77e-n	iv-ɣʔi	opopo	tekəðɣ-ə-n	q-ə-jəl-ɣən
then	wife-ABS	say-PERF.2/3S	thus	meat-E-ABS	INT.2sgA/S-E-give-2sg

*Then the wife says, "So, you ought to give her meat"*

53.

qlavəl	ikvʔi-	nəqametvayʔən.
qlavəl	iv-ɣʔi	n-ə-qametva-ɣ7e-n
man.ABS	say-PERF.2/3S	INT.3sgA/S-E-eat-PERF-3sg

*The man said, "Let her eat"*

54.

qametvay7e	kitkit.
qametva-ɣʔi	kitkit
eat-PERF.2/3S	a.little.ABS

*She ate a little.*



# Lexicon

Includes all morphemes of the examples and in the sample text. Vowel harmony prosody is only indicated (by  $^n\sqrt{\quad}$  or  $^d\sqrt{\quad}$ ) when it is not possible to determine it from the surface form of the morpheme (i.e. morphemes with *i* or *u* are always neutral, morphemes with *a* or *o* are always dominant; §2.3). This lexicon is presented as a preliminary reference only and needs to be substantially checked in consultation with native speakers of Chukchi.

## a č e ʏ i j k l m n ŋ o p q r t u v ə ?

### - a -

**ačʏama** ADV 'nearby'  
**ačʏakv** nI 'white stone' (abs. ?)  
**ajəŋko** v intr. 'go outside'  
**alvaj** I. ADV 'otherwise'  
2. verbal base 'change'  
**anja** v tr. 'praise'  
**anəqun**  $^?d\sqrt{\quad}$  INTJ 'look!' (violates vowel harmony?)  
**aŋqa** nI 'sea' (abs. aŋqə)  
**ap**  $^d\sqrt{\quad}$  v tr. 'put on'  
**apəčəvta**  $^d\sqrt{\quad}$  v intr. 'lie (down)'  
**aʔačək** nIII 'boy' [or ʔaačək...]

**-čq**  $^n\sqrt{\quad}$  nominal derivational suffix:  
'surface'

**-čurm** nominal derivational suffix 'side, edge'

**čvitku** v tr. 'cut'

**čəčəp**  $^d\sqrt{\quad}$  v tr. 'look out'

**-čəku** nominal derivational suffix with the meaning 'inside' (Ø-marked for absolutive)

**čəŋ**  $^d\sqrt{\quad}$  v tr. 'invite'

**čəq**  $^n\sqrt{\quad}$  ADJ 'cold'

**čʏet**  $^n\sqrt{\quad}$  derivational affix

**čʏuu** ADJ 'narrow'

### - č -

**čama** CONJ 'and'  
**čavčəva** nIII 'reindeer herder' (abs. čavčəv)  
**čeeʏej** ADV 'together'  
**čejv**  $^n\sqrt{\quad}$  1. nI 'foot'  
2. v intr. 'walk'  
**-čʏ-**  $^d\sqrt{\quad}$  augmentative suffix (condemnatory) §4.5.7  
**čičev** v intr. 'guess'  
**čit** ADV 'before, sometime, in the beginning'

### - e -

**-e**  $^n\sqrt{\quad}$  nominal suffix

1. ergative case §4.3.2

2. instrumental case §4.3.2

**ečənur** CONJ 'but'

**ečʏ**  $^?d\sqrt{\quad}$  v tr. 'fatten'

**eəj** INTJ (surprise)

**ejmin** v tr. 'take'

**ejməʏ** v intr. 'approach' (?? or this might be **ejməv**)

**e- \_\_\_-ke**  $^n\sqrt{\quad}$  1. negative verbal marker §5.5.3

2. privative case marker §4.3.7

**ekke** <sup>n√</sup> nIII 'son' (abs.**ekək**)

**ekvet** v intr. 'leave'

**e-\_\_\_-kə-** <sup>n√</sup> circumfix:

negative/privative used with I7-participle and nominalisation

**ekək** see **ekk**

**elkəl** <sup>?√</sup> v tr. 'recognise'

**elʔo** nIII 'uncle' (abs. ?)

**em-** <sup>n√</sup> restrictive prefix

**em-\_\_\_-(t)e** <sup>n√</sup> subordinate verbal marking: cause §5.5.2

**emnuŋ** nI 'tundra' (abs. ?)

**emqin-** distributive prefix

**emrə-** <sup>n√</sup> **-rə** <sup>d√</sup> purposive subordinate verb §5.5.2

**eninelʔ** nIII 'elder brother'

(abs.**eninelʔ-ə-n**)

**enm** <sup>n√</sup> nI 'hill' (abs. ?)

**-enŋə** derivational suffix: adverb (negative?)

**epəqej** <sup>n√</sup> nII 'grandmother' (abs.

**epəqej-ə-n** and **epəqej** are both attested)

**-epə** <sup>n√</sup> ablative case /CC\_\_ (see **-jəpə**, **-jəpə**)

**eryatək** ADV 'tomorrow'

**eryəpat** v intr. 'become famous' (?<

**eryəp-et**)

**-et** <sup>n√</sup> inflectional suffix: 3rd person plural agreement (active and stative)

**-et** <sup>n√</sup> verbal derivational suffix: causatives

**etləqəl** <sup>n√</sup> nI 'food'

**-etə** <sup>n√</sup> allative case suffix /C\_\_ (see **-jətə**)

**evi** PCL (surprise, recognition?)

**evičy** nI 'knapsack' (abs. **evičy-ə-n**)

**evirʔ** nI 'clothing'

**evər** <sup>?√</sup> CONJ 'if'

## -Y-

**yalya** nI 'duck'

**ya-\_\_\_-ma** 1. associative case §4.3.8

2. subordinate verb, concurrent time reference §5.5.1

**ye-** <sup>n√</sup> 1. verbal inflection: stative perfect §5.4.1

2. possessed predicate nominal §4.5.1

3. comitative case prefix §4.3.9

**ye-\_\_\_-(t)e** <sup>n√</sup> comitative case §4.3.9

**ye-\_\_\_-e** <sup>n√</sup> comitative case

**yejiv** v intr. 'get experience'

**-yi** verb inflectional suffix, nonfuture perfective §5.3.1

**yite** v tr. 'look at'

**yjev** <sup>n√</sup> v intr. 'wake up'

**yjit** orientative case ending

**-yətə** <sup>n√</sup> allative case /V\_\_ (see **-etə**)

**yəyət** ?? (apparently an emphatic form of **yət**)

**yəm-** <sup>n√</sup> personal pronoun stem: 1st person singular (absolute **yəm**)

**yəmo** verbal base tr. 'not know'

**yən-** <sup>n√</sup> 2sg personal pronoun (non-absolute stem; see **yət**)

**-yən** <sup>n√</sup> verbal inflection: intentional perfective 3sgO §5.3.5

**yənrit** v tr. 'guard'

**yənʔam** ADV 'now'

**-yəpə** <sup>n√</sup> ablative case /VC\_\_ (see **-jəpə**, **-epə**)

**-yəry** <sup>n√</sup> nominalizing suffix

**yərki** v tr. 'catch'

**yət** <sup>n√</sup> 2sg personal pronoun (absolute case; see **yən-**)

**γῶτγ** <sup>n√</sup> nI 'lake'

**γῶtjetγ** <sup>√</sup> v intr. 'starve'

**-γῶtke** <sup>n√</sup> active intentional verbal agreement marker: 2plA.3sgO (see also **-tke**)

**-γῶe** <sup>n√</sup> perfective aspect §5.3

**-γῶi** verb inflectional suffix, nonfuture perfective §5.3.1

## - i -

**iyəm** 1sg marker (jγῶt / V\_\_)

1. nouns §4.3.1
2. possessed predicate §4.5.1
3. stative verbal paradigms §5.4

**-iyəm** 1st person singular agreement affix:

1. stative paradigms §5.4
2. adjectives §6.1
3. possessed predicate §4.5.1
4. nominal person agreement (**-jγəm** /V\_\_)

**iyər** ADV 'now'

**iyət** 2sg marker (jγῶt / V\_\_)

1. nouns §4.3.1
2. possessed predicate §4.5.1
3. stative verbal paradigms §5.4

**iyət** ADV 'today'

**ile** nI place name(abs. **ile-n**)

**ily** ADJ 'white'

**ilyətvo** v tr. 'untie'

**imti** v tr. 'carry'

**-in** <sup>n√</sup> absolutive case with **e-\_\_\_-kə-** l7-

**-in(e)** genitive case ending for Declensions I and III (see **-nin(e)**)

**ine-** verbal prefix

1. antipassive prefix §5.7.2
2. inverse prefix §§5.3-4

**inini-** v intr. 'appear'

**in7** nI 'morning'

**it** copula/auxiliary verb 'be'

**itč** ADJ 'heavy'

**iv** v intr. & tr. 'say,tell' (O is addressee)

**ivini7** nIII 'hunter'

## - j -

**jaal** ADV 'after, following'

**jaale** nI 'future'

**jajvač** ?v tr. 'be sorrowful about'

**jara** nI 'house' (abs. **jara-ηə**)

**jara-** nI 'house' (abs. **jara-ηə**)

**jekeryγ** <sup>n√</sup> nI 'mouth' (abs. **jekery-ə-n**)

**-jekve** derivational suffix 'along'

**jelqet** ?<sup>v</sup> v intr. 'sleep'

**jep** PCL 'yet'

**jet** <sup>n√</sup> v intr. 'come'

**jevjev** PCL 'so'

**-jγut** <sup>n√</sup> purposive subordinate verb §5.5.2

**-jγəm** see **-iyəm**

**jmetva** v intr. 'hang'

**-jη** <sup>d√</sup> augmentative suffix (respectful)

**-jo** passive participle §4.5.3

**joroč** nI 'floor' (abs. ?)

**-jpə** <sup>n√</sup> ablative case /V\_\_ (see **-γəpə**, **-epə**)

**juv7e** nI 'string game'

**Juv7e-n** nI place name 'Juven'

**jəl** v trans. 'give' (O is beneficiary)

**jəm** <sup>d√</sup> v tr. 'put on (clothing)'

**jəqqa7əm** ADV 'wonderful'

**jəto** v tr. 'drag out'

**j7ily-** nI 'moon' (abs. **j7ily-ə-n**)

**j7o** v tr. 'approach'

## - k -

- k <sup>n√</sup> 1. verbal inflectional suffix,  
perfective active paradigms: 1st person  
singular S  
2. subordinate verb marker: concurrent  
time reference of matrix and subordinate  
clauses §5.5.1  
3. locative case §4.3.3  
**kayčʔetlək** nI 'carbine'  
-**kaytə** personal pronoun form of -**ytə**  
**kako** INTJ  
**kavkav** nI 'bread'  
**kejŋ-** <sup>n√</sup> nI 'bear' (abs. **kejŋ-ə-n**)  
**kemetʔ** <sup>n√</sup> nI 'supplies' (abs. ?)  
**Kenəpe** <sup>?√</sup> nI place name  
**ker-te** <sup>n√</sup> nI item of women's clothing  
+ abs. pl.  
**ketʔo** v tr. 'remember'  
**kimitʔ** nI 'load' (abs. ?)  
-**kin** <sup>n√</sup> case ending: source genitive  
-**kine** source genitive (word finally:  
-**kin**)  
**kitkit** ADV 'a little, somewhat'  
**kole** nI 'water'  
**kolo** 1. PCL intensifier 'very'  
2. INTJ  
**korɣak** ADJ 'delighted'  
**kukven** nI (item of clothing?)  
**kupre** nI 'net' (abs. **kupre-n**)  
**kvet** <sup>n√</sup> v intr. 'go away'  
-**kə-** see **e-\_\_\_-kə-**  
**kəntəčʔat-ɣorɣ** nI 'success'  
**kənʔu** v tr. 'catch'  
**kərc** v tr. 'knock (on)'  
**kʔeli** nI 'hat'

## - l -

- lavcerʔ-** nI 'milk' (abs. **lavcerʔ-ə-n**)  
**le** <sup>n√</sup> v intr. 'follow'  
**leɣi** verbal base 'know' §3.4, §5.6  
**leɣj** <sup>n√</sup> v intr. 'walk'  
**lili-t** nI 'glove' + ABS.PL  
-**lin** 3rd person singular for:  
1. stative perfect verbal inflection  
§5.4.1  
2. possessed predicate nominal §4.5.1  
**lqen** <sup>?√</sup> v intr. 'go'  
**lqet** <sup>n√</sup> v intr. 'go'  
**luŋ-\_\_\_-e** negative perfective  
subordinate verb  
**luur** ADV 'suddenly'  
**lv** <sup>n√</sup> v tr. 'burn'  
**ləɣen** PCL concessive  
**ləɣi** verbal base 'know'  
**lələp** <sup>n√</sup> v intr. 'look at'  
**ləmevər** <sup>?√</sup> CONJ 'either ... or ...'  
**ləmɣe** PCL intensifier 'yet' (**ləmɣe**  
**qol** 'yet another')  
**ləŋ** <sup>n√</sup> 1. auxiliari verb stem;  
transitive, stative  
2. v tr. 'apprehend, take for, interpret  
as'  
-**lʔ** <sup>n√</sup> nominaliser/participle §4.5.2,  
§4.5.4  
**lʔeleŋ** nI 'winter'  
**lʔu** v tr. 'see, find'

## - m -

- m-** <sup>n√</sup> verbal inflectional prefix: 1st  
person singular A or S (active irrealis  
forms)  
-**ma** subordinate verb, concurrent time  
reference §5.5.1

**mač-** intensifier prefix 'somewhat'  
**mačənan** PCL modal? (only occurs in quoted speech)  
**mečənkə** ADV 'enough'  
**mejčerəmyo** v intr. 'start work'  
**mejɟ** <sup>n√</sup> ADJ 'big'  
**mejɟ-et** <sup>n√</sup> v intr. 'grow big'  
**melmel** <sup>?</sup>√ nI? 'calm, good weather'  
**melva** v tr. (?or *milve*) 'hang'  
**Mempepʔe** <sup>n√</sup> nI place name  
**meməl** <sup>?</sup>√ nI 'seal'  
**meɟ-** <sup>n√</sup> intensifier prefix  
**meqin** nIII interrogative 'who?' + abs (see *mik*)  
**metkiit** ADV 'hardly'  
**mičyiren** v intr. 'work'  
**mik** nIII interrogative 'who' (abs.)  
**meqin**)  
**miɣer** nI 'rifle' abs.  
**miməl** PCL intensifier 'very'  
**miŋkə** CONJ 'where'  
**miŋkəri** CONJ 'because'  
**miry** nIII 'grandfather' (abs. *miry-ə-n*)  
**mk** <sup>n√</sup> ADJ 'many'  
**mɟəlo** <sup>d√</sup> v tr. 'want'  
**moo** v intr. 'begin'  
**mumkəl** nI 'button'  
**mur** pronoun stem: 1pl (abs. *muri*)  
**mury** possessive stem of 1pl pronoun (see *mur*)  
**muri** 1pl personal pronoun  
**-muri** 1st person plural  
 1. nominal and adjectival person marker  
 2. agreement marker in the stative paradigms  
**mutl** nI 'blood' (reduplicated for abs. *mutləmut*)

**mva** v intr. 'stay'  
**mək** see *mk*  
**-mək** 1st person plural verbal inflection  
**mək-et** <sup>n√</sup> v intr. 'become many, multiply'  
**məkičy** nI 'meat' (abs. *məkičy-ə-n*)  
**məle** <sup>?</sup>√ v intr. 'go'  
**mən-** 1st person plural A/S verbal inflection, non-indicative paradigms  
**mənyətken** numeral 'ten'  
**mət-** <sup>n√</sup> verbal inflection 1plA/S (future and nonfuture) §§5.3.1-4  
**mʔamem** nI 'cartridge' (abs. ?)

## - n -

**n-** <sup>n√</sup> adjective prefix §6.1  
**-n** <sup>n√</sup> active verbal inflection: 3rd person (singular)  
**naqam** CONJ 'but'  
**-ne** <sup>n√</sup> ergative/instrumental case suffix (declension II)  
**nej** <sup>n√</sup> 'mountain'  
**nelat** v intr. 'remain'  
**neme** CONJ 'again'  
**nemeqej** ADV 'also' (apparently *neme-qej*)  
**nenene** <sup>n√</sup> nIII 'baby' (abs. *nenenə*)  
**neŋʔiv** ADJ 'tired'  
**neŋʔiv-et** v intr. 'get tired'  
**-net** <sup>n√</sup> inflectional suffix (active): 3sgA.3plO  
**netlet** <sup>?</sup>√ v tr. 'lift'  
**-nin** <sup>n√</sup> inflectional suffix (active): perfective aspect 3sgA 3sgO  
**-nine** genitive case ending for Declension II (word finally **-nin**; see **-in(e)**)

-**ninet** <sup>n</sup>√ inflectional suffix (active):

perfective aspect 3sgA 3plO

**nm** <sup>?</sup>√ v tr. 'kill'

**nmənmaɪv** <sup>?</sup>d√ v tr. 'prepare'

**nməvan** d<sup>?</sup>√ v tr. 'set (traps)'

**nomav** v tr. 'warm (something)'

**nota** nl 'tundra' (abs. ?) (or maybe form **nute**)

**nqivriv** v tr. 'hurry (somebody)'

**nr** v tr. 'carry away'

**nraqəlqəl** v tr. 'to not want, discard something' (see **raqəlqəl**)

**nreɣev** <sup>n</sup>√ v tr. interrogative proverb 'do what?'

**ntəvat** v tr. 'set'

**numkev** v tr. 'put away'

**nute** nl 'land' (abs. **nutenut**)

-**nva** d√ purposive subordinate verb

### §5.5.2

**nəɣjivet** v tr. 'show'

**nəki-** nl 'night'

**nəkir** v intr. 'come'

**nəm-** <sup>?</sup>√ nl 'village, settlement' (abs.

**nəmənəm** )

**nənn** <sup>?</sup>√ nl 'name' (absolute?)

**nənəl** <sup>?</sup>√ 'news' (abs. ?)

**nəryelet** <sup>n</sup>√ v tr. 'put' (patient: ABS, goal:LOC)

**nʔel** <sup>n</sup>√ v intr. 1. 'become'

2. verbal auxiliary

**nʔet** copula/auxiliary verb 'become'

**n-\_\_\_-ʔev** <sup>n</sup>√ manner adverb derived from an adjective stem

**nʔomav** v tr. 'forbid'

## -ŋ-

-**ŋ** <sup>n</sup>√ 1. see **re-\_\_\_-ŋ**

2. aspectual suffix (in some forms within active paradigms)

**ŋaanqen** ADV 'there (distant)

**ŋalvəl** nl 'herd' (abs. ?)

**ŋaryənən** ADV? 'outside'

**ŋaryəno** ADV 'here' (unsuffixed

**ŋaryən**)

**ŋeekke** <sup>n</sup>√ nIII 'girl' (abs. **ŋeekək**)

**ŋelvəl** <sup>?</sup>√ nl 'herd' (abs.)

**ŋev** <sup>n</sup>√ nominal derivational suffix 'woman'

**ŋevmirɣ** nIII 'grandmother'

**ŋevəʔqet** <sup>n</sup>√ nIII 'girl'

**ŋevʔe** <sup>n</sup>√ nIII 'wife' (abs. **ŋevʔe-n**)

**ŋily** nl 'rope' (abs. **ŋily-ə-n**)

**ŋinqej** nIII 'boy'

**ŋireq** numeral 'two'

-**ŋŋo** inchoative aspectual suffix

**ŋotqena** nl demonstrative

'this'(unsuffixed: **ŋotqen**)

**ŋto** v intr. 'go out'

**ŋutku** ADV 'here'

**ŋto** unprefixated form of **ŋto**

## -o-

**opopə** PCL modal, used when giving permission

**oravetʔa-** nIII 'person' (abs.

**oravetʔa-n** )

**oryoor** nl 'net ABS' (oblique stem

**ory**)

**orv** nl 'net' (abs. **oryoor**)

**orvatkən** nl 'sledge'

## -p-

**parol** ADV 'extra' (used in analytic numerals §4.7.4)

**pe** <sup>n√</sup> nII 'grandfather'  
**peč-** <sup>n√</sup> nominal emphatic prefix  
**pekv** <sup>n√</sup> nI 'doe reindeer' (abs. ?)  
**pelqet** <sup>n√</sup> v intr. 'get old' (?< **pelq-et**)  
**pelqəntet** <sup>n√</sup> v intr. 'return'  
**penjivet** v intr. 'get tired' (?< **penjiv-et**)  
**penr** <sup>d√</sup> v tr. 'attack'  
**pily** nI 'throat' (abs. **pily-ə-n**)  
**plek-ə-t** <sup>?√</sup> nI 'boot' + E + ABS.PL  
**plətku** v tr. 'finish (doing/making)'  
 (also **pələtku**)  
**plətku** v tr. 'eat'  
**pojy** nI 'spear' (abs. **pojy-ə-n**)  
**prikata** <sup>?√</sup> nI 'brigade' (< Russ. *brigada*, violates vowel harmony laws)  
**pəčiqe** nI 'bird' (abs. ?)  
**pəkir** v intr. 'arrive'  
**pələtku** v tr. 'finish' (also **plətku**)

## - q -

**q-** <sup>n√</sup> verbal inflection: intentional, 2nd person A §5.3.5-6  
**qaa** optional oblique stem of **qora**  
**qača** ADV 'near'  
**qametva** v intr. 'eat'  
**qej-** <sup>ns/</sup> derivational affix: the young of a creature (anything except a human or a domestic reindeer)  
**-qej** <sup>n√</sup> diminutive suffix  
**qejve** PCL discourse particle (quoted speech only) calling for agreement from addressee?  
**qejəqej** <sup>?√</sup> nI 'whale calf'  
**qenver** ADV 'finally'  
**qeper** <sup>n√</sup> nI 'wolverine'  
**qepəl** <sup>?√</sup> nI 'ball ABS' (oblique stem?)  
**qeryat** ADJ 'bright'

**qlavəl** nIII 'man'  
**qleyran** nI 'old fashioned earthen dwelling' (stem **qleyra**?)  
**qliket** v intr. 'marry (a man)'  
**qlikkin** numeral 'twenty'  
**qol** PCL 'one'  
**qolento** v intr. 'shriek'  
**qonpə** ADV 'always'  
**qora** nI 'reindeer' (abs. **qora-ŋə**)  
**qukilʔet** v tr. 'shout at'  
**quput** nI 'petrel'  
**qut** v intr. 'stand up'  
**qənur** ??  
**qənver**  
 adv 'at last, finally'  
**qənver** ADV 'finally'  
**qərəm** PCL 1. interjection 'No!'  
 2. negative particle used with nonfuture reference §7.2.1 (see **vanevan**)  
 3. negative particle used with nouns  
**qət** v intr. 'come'  
**qʔola** v intr. 'howl'

## - r -

**račqev** v tr. 'enter'  
**raqəlqəl** nI 'something unwanted, discarded' (see **nraqəlqəl**)  
**re** v intr. 'enter'  
**re-** <sup>n√</sup> verbal prefix  
 1. future tense §§5.3.3-4  
 2. desiderative (see **re-\_\_\_-ŋ**) §4.5.8  
**rečqiv** v tr. enter (or perhaps **rečqiŋ**)  
**remk** <sup>n√</sup> nIII 'folk, people'  
**renm** <sup>?√</sup> nI 'wall' (abs. ?)  
**req** nI interrogative 'what?'  
**ret** <sup>n√</sup> v tr. 'carry'

-**ry** signifies plurality of possessor  
(occurs with the possessive genitive:

-**ry-in**)

**ryat** v intr. 'shed hair'

**rilu** v tr. 'to shake somebody awake'

**rijemjet** v intr. 'fly'

-**rk** active verbal inflectional suffix:

progressive aspect

-**rkən(i)** imperfective aspectual suffix in

the active verbal paradigms (i is deleted

word finally) §5.3

**rōčy** <sup>d</sup>√ nI 'opposite shore'

**ru-** v tr. 'eat'

**rōlq** <sup>n</sup>√ v intr. 'wear out teeth'

**rōlōplet** <sup>n</sup>√ v tr. 'wash away'

**rōmaytētō** ADV 'further on' (or noun  
+ ALL **rōmayt-ētō**)

**rōnn** <sup>d</sup>√ nI 'antler, tusk'

**rōreqev** <sup>n</sup>√ v tr. interrogative 'do what  
with?' (perhaps **r-ō-req-ev**)

**rōrka** nI 'walrus' (abs. **rōrkō**)

**rōtč** <sup>n</sup>√ v tr. 1. verbal auxiliary

2. 'do, make'

**rōtril** v tr. 'put (something)'

**rōtōjat** v intr. 'forget'

**rōvetyavat** v tr.? 'command'

**rōe** <sup>n</sup>√ 1. nI interrogative 'what?'

2. v tr. interrogative 'do what?'

**rōenut** nI 'something' or 'what?'

(abs.); see **rōe**

**rōev** <sup>n</sup>√ nI 'whale' (abs. ?)

## - t -

**t-** <sup>n</sup>√ verbal inflection: indicative active

1sg/A/S

-**t** <sup>n</sup>√ absolutive plural

**tayam** PCL 'so'

**tajkav** <sup>?</sup>√ v intr. 'fight'

**talajv** v tr. 'beat'

**tč** see **rōtč**

-**te** see -**e**

**teyret** <sup>n</sup>√ v intr. 'go down'

**teytenj** <sup>?</sup>√ v tr. 'want'

**tejk** <sup>n</sup>√ v tr. 'make'

**tejučy** nI 'sack' (abs. **tejučy-ō-n**)

**tekeč** <sup>?</sup>√ nI 'bait' (abs. sg ?)

**tekočy** <sup>?</sup>√ nI 'meat' (abs. **tekočy-ō-**  
**n**)

**temjunj** v tr. 'cheat'

**tenj** <sup>n</sup>√ v intr. 'laugh'

**tenujy** <sup>n</sup>√ nI 'sealskin' (abs. **tenujy-**  
**ō-n**)

**tenj** <sup>n</sup>√ ADJ 'good'

**tenj** <sup>n</sup>√ ADJ 'good'

**tepp?ajna** v intr. 'sing'

**teryat** v intr. 'cry'

**tevenaj** nI 'paddle'

**tičy** nI 'ski' (abs. ?)

**tite** nI 'time'

**tkiv** v intr. 'sleep'

-**tku** verbal suffix

1. antipassive §5.7.2

2. inverse §§5.3-4

3. iterative §5.8

**tomyat** <sup>d</sup>√ v intr. 'arise'

**tril** v tr. 'release'

**tumy** nIII 'friend' (abs. **tumyōtum**)

**tur** pronoun stem 2pl (abs. **turi**)

**tury** possessive stem of 2pl pronoun

(see **turi**)

**turi** 2nd person plural personal pronoun

-**turi** 2nd person plural

1. nominal and adjectival person marker

2. agreement marker in the stative  
paradigms



**tva** 1. v 'be (located)'  
 2. AUX  
**tvetčatva** ?√ v intr.  
**tala** nI 'road' (abs. **tala-n**)  
**tampek** n√ v intr. 'get lost'  
**tonj** ?√ nI 'horn'  
**tal** ?√ nI 'door' (abs. ?)  
**-tol** d√ suffix deriving the word for a kind of meat from a stem referring to the source animal

## - U -

-u essive case marker §4.3.10  
**ujpe** PCL negative intensifier used with negative subordinate verbs  
**ukkenči** nI 'raincoat'  
**umqe** nI 'polar bear' (abs. **umqə**)  
**-untəm-** adj. 'peaceful'  
**utkuč?** nI 'trap' (abs. sg ?)  
**utt** nI 'wood' (abs. ?)  
**utt-** n√ nI 'wood'  
**Uute** nI place name (abs. **Uute-n**)  
**uutim** nI 'bundle' (abs. ?)  
**Uvele** nI place name (abs. **Uvele-n**)  
**uvičvet** v intr. 'play'

## - V -

**va** word initial form of **tva**  
**vaj** PCL deictic?  
**vakʔotva** v intr. 'sit'  
**vala** nI 'knife'  
**valom** v tr. 'listen'  
**vanevan** negative particle used with future reference § 7.2.4 (see **qəɾəm**)  
**vaje** n tr. 'sew'  
**vajenaj** nI 'sewing machine ABS'  
**večem** ADV 'probably'

**veem** n√ nI 'stream' (abs. ?)  
**veet** ?√ nI 'river' (abs.)  
**velotkora** nI 'shop'  
**venləyi** PCL 'still, all the same'  
**veŋe** v intr. ? 'sew'  
**verej** d√ v tr. 'defend'  
**vetʔorel** d√ v tr. 'permit'  
**vetə** ?√ PCL ? ?  
**viin** PCL 'temporarily, for now'  
**vinv** nI 'track'  
**volom** v tr. 'hear'  
**vəkv** n√ nI 'stone' (abs. ?)  
**vʔeγ-ti** n√ nI 'grasses ABS' (oblique stem **vʔej**)  
**vʔi** v intr. 'die'

## - Ə -

-ə- n√ epenthetic vowel §2.4.2  
**əjan** ADV 'further'  
**-əm** PCL 'but'  
**əmmeme** n√ nII 'mother' (abs. ?)  
**əmə** PCL 'also'  
**əməlʔo** nI 'all'  
**əməŋ** CONJ 'and'  
**ənan** ADV 'soon'  
**ənkə** ADV 'then'  
**ənkʔam** conj. 'and'  
**ənnen** n√ numeral 'one'  
**ənnət** PCL intensifier  
**ənje** PCL concessive?  
**ənpənačγ** nIII 'old man'  
**ənpəŋev** n√ nIII 'old woman'  
**əŋqena** nI demonstrative 'this' (abs.  
**əŋqen)**  
**əŋqnata** CONJ 'therefore'  
**əŋqo** adv. 'then'  
**əŋʔam** PCL interrogative?  
**əŋəkit** CONJ 'if'

**ə** 3rd person plural oblique stem  
**ə** n√ v tr. 'shoot'  
**ətčaj** nIII 'aunt'  
**ətla** nII 'mother'  
**ətlon** 3rd person singular personal pronoun (animate and inanimate)  
**ətləy** n√ nII 'father' (abs. **ətləy-ə-n**)  
**ətri** 3rd person absolutive pronoun (see **ə** )  
**ətrəč** ADV 'only'  
**ətrləč** ADV 'only, it is all'

## -?-

**ʔamə**  
**ʔamən** PCL 'perhaps'  
**ʔaqa-\_\_\_-ŋ** subordinate verb form: impossibility of carrying out the action of the verb  
**ʔatkevma** ADV 'bad' (?from **ʔetki-iv-ma**)  
**ʔejje** n√ v intr. 'cry out'  
**ʔeliket (\*qlik-et ??)** v intr. 'marry [a man]'  
**ʔelʔo** ?√ nII? 'uncle'  
**ʔemet** ?√ v tr. 'carry'  
**ʔemi** ADV 'where'  
**ʔenqet** n√ v tr. 'not want'  
**ʔeje** v intr. 'cry out'  
**ʔepte** ?√ CONJ 'also'  
**ʔeqopə** ADV 'upwards'  
**ʔetki** nI 'bad'  
**-ʔev** see **n-\_\_\_-ʔev**  
**ʔiy** n√ nI 'wolf'  
**ʔinnəpʔi** nI 'harpoon'  
**ʔino** nI 'wolf' (abs.)  
**ʔittʔət** nI 'dog' (= abs)  
**ʔluči** nI 'doll' (abs. ?)  
**ʔurev** v intr. 'look outside'

**ʔuveqəč** nIII 'man' (= abs.)  
**ʔəlo** PCL ??  
**ʔən-** n√ verbal inflection (intentional): inverse §§5.3.5-6  
**ʔəttʔ** n√ nI 'dog'  
**ʔətv** n√ I. nI 'boat' (abs. **ʔətvʔət**)  
 2. v intr. 'hunt in a boat'  
**ʔəvequč** nIII 'husband'



