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A Grammar of Chukchi

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A thesis submitted for the degree of
Doctor of Philosophy

of

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Except where otherwise acknowledged in the text,
this thesis is entirely my own work.

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke at the end.

Michael Dunn

Т.В.ВИВИ

Вэлынкык'ун к'ытэв микынэ гагтойгыт

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Abstract

The aim of this work is to produce the first fieldwork-based, typologically informed reference grammar of Chukchi, an indigenous language of the north-eastern corner of the Russian Federation. The theoretical approach is low-key and eclectic; linguistic phenomena are described in a manner which is, in so far as it is possible, theory-neutral, although where a branch of linguistic theory provides tools which allow clear and simple description it is used without hesitation. Linguistic description is, however, primary throughout.

The first five chapters of the thesis provide background information. Chapter 1 sketches the sociolinguistic situation of Chukchi, discusses the sources of data used for analysis, and surveys relevant linguistic publications. Chapter 2 discusses linguistic variation within Chukchi. The Chukchi men's and women's dialects are discussed within a framework of a comparison of Chukchi and the neighbouring dialects and languages of the Koryako-Chukotian group. The phonological system of Chukchi is described in chapter 3. Chapters 4 and 5 survey word classes and sentence types respectively.

The following four chapters are concerned with nominals. Nominal inflection is described in chapter 6, and the different types of free pronouns are discussed in chapter 7. In chapter 8 there is a description of nominal morphology, which pays particular attention to deverbal noun subtypes, such as participles and action nouns. Chapter 9 is concerned with complex nouns, including complex noun phrases (which can only occur in the absolutive case) and nouns with incorporation.

A discussion of verbs takes up the next five chapters. Chapter 10 contains a description of verbal inflection, a complex and theoretically interesting area of Chukchi. An account of inflectional morphology is proposed based on the notion of 'inverse alignment' and grammaticalisation of prototypical agency relationships. Chapter 11 describes valency, surveying transitivity types and describing the valency changing and rearranging derivations available in the language, including antipassive, causative and applicative. Incorporation and compounding by verbs is discussed in chapter 12. Chapter 13 contains a discussion of non-finite deverbal forms, including converbs (a deverbal adverb which forms the head of an adverbial subordinate clause), verb bases (the lexical heads of auxiliary verbs, and the

infinitive. Chapter 14 surveys non-valency-changing verbal derivations, which have aspectual, quantifier and modal meanings, among others.

The remaining chapters address a range of topics. Chapter 15 has a discussion of the various ways of expressing spatial relationships. In chapter 16 there is a description of the adjective and the numeral word classes. Non-verbal predication and a description of the behaviour of copulas and auxiliaries is found in Chapter 17. Chapter 18 addresses the complex area of negation, including a description of the various types of negative clauses and the ways of negating various constituent types. Finally, in chapter 19 there is an account of the pragmatic principles determining constituent order based on a discussion of topic and focus.

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Abbreviations

-VH	Recessive vowel harmony (i.e. vowel harmony prosodic phoneme not present)	COM	Comitative
+VH	Dominant vowel harmony (i.e. vowel harmony prosodic phoneme present)	COMPAR	Comparative
1	First person	COMPL	Completive
2	Second person	COND	Conditional
3	Third person	CONSEQ	Consequential converb
A	Transitive subject syntactic role	CONSUME	Consume
ABIL	Abilitive	CS	Causative
ABL	Ablative	DEICT	Deictic particle
ABS	Absolutive case	DEM	Demonstrative
ADJ	Adjective	DESID	Desiderative
ADV	Adverb	DIM	Diminutive
ADVERS	Adversative	DIST	Distributive
Al	Alutor (language)	DUR	Durative
ALL	Allative	E	Epenthetic schwa
AN	(High) Animate	EDGE	Edge of ...
AP	Antipassive	EMPH	Emphatic
APPL	Applicative	EQU	Equative
APPR	Approximative	EQUIV	Equivalent
ASS	Associative	ERG	Ergative case
AUG	Augmentative	EXCL	Exclamation
AUTH	Authentic	EXI	Existential
AUX	Auxiliary	FUT	Future
ChM	Men's Chukchi	HAB	Habitual
ChW	Women's Chukchi	HORT	Hortative
COLL	Collective	ID	Identity
		IMPOSS	Impossibilitive
		INCH	Inchoative
		INDEF	Indefinite
		INESS	Inessive
		INF	Infinitive
		INST	Instrumental
		INT	Intentional

INTER	Interrogative	REDUP	Reduplicated
INTJ	Interjection	REL	Relational
INTS	Intensifier	REST	Restrictive
INV	Inverse	RESULT	Resultative
ITER	Iterative	REVERS	Reversative
Ke	Kerek (language)	S	Intransitive subject
KoCh	Chavchuven Koryak (language)		syntactic role
KoPi	Palana Koryak (language)	SAP	Speech act participant
LOC	Locative	SEQ	Sequential aspect converb
MAKE	Make	sg	Singular
MOD	Modal particle	SIDE	Side of ...
MULT	Multiplicative	SIM	Simultaneous aspect
n.	Noun		converb
NEG	Negative	SING	Singulative
NFUT	Non-future	SUBLAT	Sublative
NMZR	Nominaliser	SUPER	Superlative
NUM	Numeral	SURF	Surface
O	Object syntactic role	TAM	Tense, aspect and mood
ORD	Ordinal	TH	Thematic suffix
ORI	Oriental	TOOL	Use as a tool
PASS	Passive	TOP	Top of ...
PCPL	Participle	TR	Transitivity marker
PERL	Perlocative case	UTIL	Utilitive
PF	Perfect	VB	Verb derivational suffix
pl	Plural	Vbase	Verb base
PLACE	Derivational suffix for place names	VH	Vowel harmony
POSS	Possessive	vi-	Zero intransitive
PP	Postposition	vi	Intransitive verb
PRIV	Privative	vi+	Extended intransitive
PROG	Progressive	vlab	Labile (ambitransitive)
PUNCT	Punctual		verb
PURP	Purposive	VOC	Vocative (prosody)
RECIP	Reciprocal	vt	Transitive verb
		vt+	Extended transitive

Transcription Conventions

- Morpheme break
- Separator for glosses of fused meanings
- \$ Marker of stem position (in verb paradigms, §10)
- : Emphatic lengthening/laryngeal constriction of preceding vowel
- * Underlying form (except in §2, where it represents a reconstructed form)

/	Pause—doesn't interrupt intonation contour
//	Pause—end of intonational contour
@	Laughter
[#]	Unclear word (transcription inside brackets represents false start or guessed form)
[...]	Part of sentence omitted from printed text
SMALL CAPS	Unassimilated or spontaneous loanwords from Russian are written in small capitals

1

Introduction

This work presents a grammar of the Telqep variety of the Chukchi language. The speakers of Telqep Chukchi are descendants of Chukchis who migrated south from above the Arctic Circle some time after the seventeenth century, as well as assimilated descendants of the Koryak, Kerek and possibly Eskimo populations who lived in the area prior to that. The area inhabited by the Telqeps is one of the linguistically most interesting areas of Chukotka, with intensive intercultural contact across its borders, hints of linguistic substrate influence from assimilated populations, and a fascinating oral history and folklore tradition which, although endangered, persists to this day.

Dialect differentiation within the Chukchi language is small, and previously minor varieties have been ignored by linguists in favour of the 'standard literary language'. This 'standard language' is an artificial language based on conservative northern Chukchi, and which underwent various forms of language engineering during the Soviet period. The Telqep variety of Chukchi is interesting for a number of reasons. It is one of the colloquial forms of Chukchi, and it has never been the subject of separate study. Description of a colloquial variety should add valuable perspective to matters of morphological productivity and actual language use which hitherto have been lacking from published materials. Furthermore, this is the first attempt at a comprehensive grammar of Chukchi which is typologically informed and based on unelicited spoken language produced by near monolinguals.

The first section of this chapter provides a sketch of Chukchi culture, both traditional and contemporary (§1.1). This account is of course extremely selective, and focuses on those aspects of Chukchi culture which most strongly influence language use. For a more rounded ethnographic analysis the interested reader cannot do better than Bogoras (1904-1909) (see also §1.5).

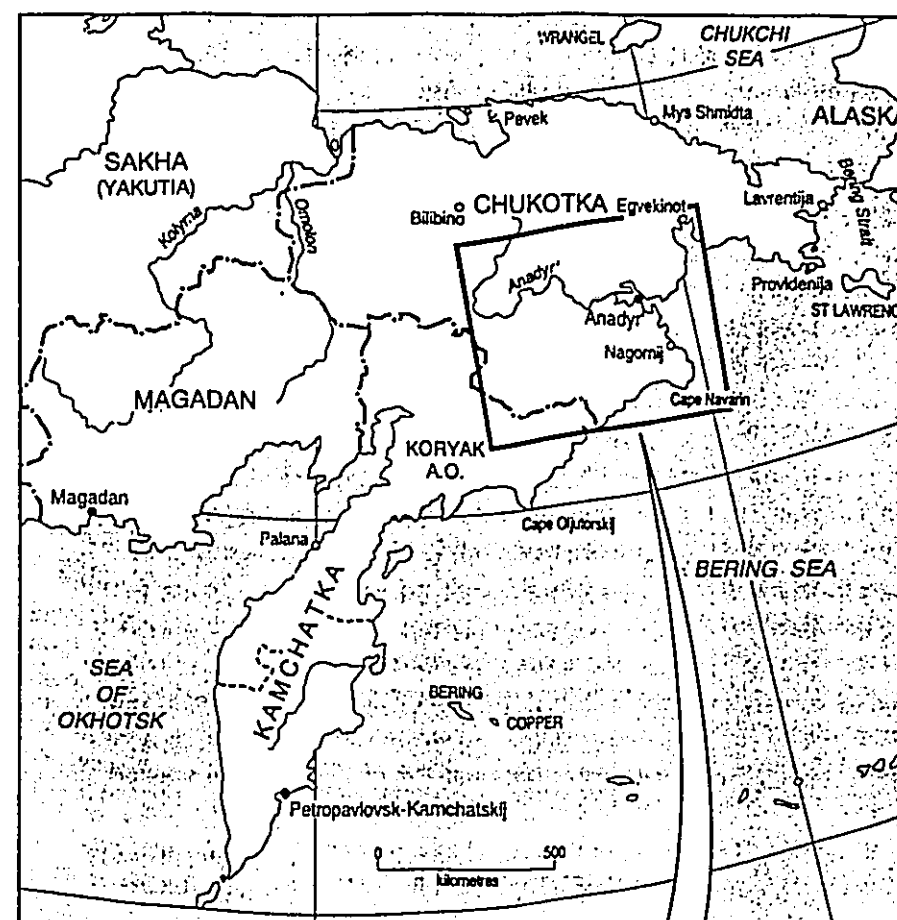
The second section of this chapter discusses the linguistic history of Chukchi: its origins and genetic classification, language contact, and language maintenance (§1.2). Following this is discussion of the research conditions that shaped this study, and a general description of the data that this study was based upon (§1.3-4). Finally, there is a survey of previous publications about the Chukchi language (§1.5).

1.1 Chukchi culture

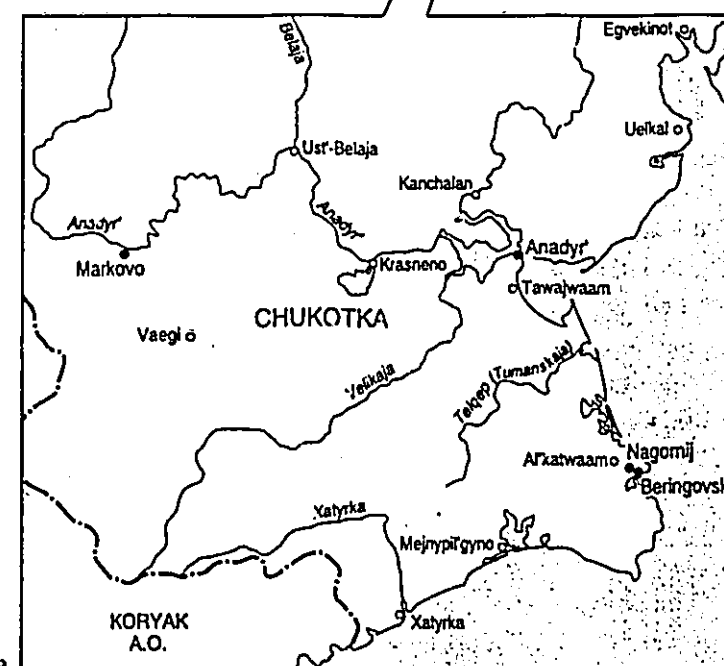
The Chukchis are a major indigenous group of the extreme north-east of the Russian Federation. The administrative unit they inhabit is named after them; officially it is called the Chukchi Autonomous Okrug (ChAO), although it is more commonly referred to as Chukotka. It spreads from the tip of Cape Dezhnev, a mere 100 kilometres across Bering Strait from Alaska, westwards to the Kolyma River (where it borders Yakutia) and southwards to the top of the Kamchatkan Peninsula (where it borders the Koryak Autonomous Okrug) (see Map 1.). The ChAO was formed by the Soviet Union in 1930 as a part of Magadan Province and, following the dissolution of the Soviet Union, it became an independent province (name unchanged) of the Russian Federation. The capital of Chukotka is Anadyr', an administrative settlement with a population currently around 9000 (from a peak of about 14000 during perestroika). The population of Chukotka is falling, and at the moment is less than 100000, of whom more than 10% are ethnic Chukchis.

Until the middle of the twentieth century the traditional lifestyle of the Chukchis was little affected by contact with the western colonial powers. In fact, within their region they were something of a colonial power themselves. The earliest Chukchis herded reindeer throughout the year, supplementing this by hunting and fishing as conditions allowed, and by gathering roots and berries during the short but fruitful summer. The Chukchis not only survived in their harsh arctic climate, but also prospered. A century or two prior to first contact with Imperial Russia population pressure had led some Chukchis to start settling on the coasts and make their living from the sea. At least some of these settlements had mixed Chukchi and Eskimo populations, and it seems there was a tendency for Eskimo groups to become acculturated Chukchis. To the south the need for new pastures for expanding herds resulted in a long series of conflicts with the reindeer-herding Koryaks. Koryak nomads were either pushed south or were absorbed into Chukchi populations. These processes were still visible until the 1950s, when they were interrupted by the dramatic changes in way of life for all indigenous inhabitants of the region caused by economic incorporation into Soviet Russia.

Since the nomadic Chukchis began to settle on the coasts the division between maritime Chukchis and reindeer-herding Chukchis of the tundra has been an important, although not impermeable, social division in Chukchi society. Chukchi communities maintained strong social and ceremonial bonds, and there were many important raw materials obtainable only through trade with the other groups. There was frequent intermarriage (with the wife usually going to live with the family of the husband), and there is evidence of individuals and groups occasionally exchanging one means of subsistence for the other. Reliance upon herds rather than hunting success made the tundra Chukchi much less susceptible to famine, especially towards the end of winter when hunting was impossible and coastal communities had to survive on food stocks put away the season before. The



MAP 1. Chukotka and Kamchatka



MAP 2.
Southern Chukotka

Chukchi of the region around the present-day town of Anadyr' were herders, but their pastures were spread out along the coast of the sea and the Anadyr' estuary. This gave them access to the best of both worlds, the security of herding plus the possibility of supplementary fishing and hunting of sea mammals.

In the Chukchi language the maritime Chukchis are called *Aṅqalʔət* (sg. *Aṅqalʔən*), which simply means 'those from the sea'. There was no such conventionalised term for the reindeer Chukchis. Some *Aṅqalʔət* use the term *Cawcəwat* (sg. *Cawcəw*), meaning 'reindeer herders', but to the reindeer Chukchis this means specifically 'rich reindeer herders'. Another term, more generally acceptable than *Cawcəwat*, is *Emnuṅəlʔət* (sg. *Emnuṅəlʔən*), 'those from the tundra'. When Chukchis speak of themselves, as opposed to any other ethnic group, they use the word *Ləyʔorawetlʔat* (sg. *Ləyʔorawetlʔən*), which means 'the proper people'. This is an awkward ethnonym for the linguist, as very similar cognate words are used by speakers of related languages to refer to themselves as well. It does have the advantage that it is the native ethnonym, and is used for self-reference by all members of the group. It was used an official ethnonym, particularly in scholarly circles, in the 1930s (see Bogoras 1937), but didn't catch on. The word 'Chukchi' (usually spelled 'Chukchee' in the Americanist tradition) is borrowed from Russian (pl. *Chukchi*; m. sg. *Chukcha*; f. sg. *Chukchanka*). For a long time this word was also used for the indigenous peoples of Alaska as well (remember that Alaska was a Russian possession before it was American). The word was coined by the earliest Russian explorers who heard it while travelling towards Chukotka through the lands of the Chukchi's Tungusic-speaking neighbours to the west. Ultimately we have come the full circle, for the Tungusic word *čävča* is a phonological adaptation of the Chukchi word *cawcəw* mentioned above, 'a rich reindeer herder'.

Chukchis do not have a particularly structured kinship system, and the strongest social ties were traditionally to those of the camp, a group usually but not always consisting of a single family. There was no systematic way of holding authority beyond one's own camp. These camps were usually a single family, often the descendants of the oldest male or the families of several siblings holding their herds in common. The maritime Chukchis had a similar arrangement based around the boat crew. Adoption among Chukchis was easy, both of Chukchis and of outsiders. Modern Chukchis involved in reindeer herding are organised into 'farms', which are based around brigades of the old Soviet state farms. Although administratively these farms are commercial enterprises, my observations suggest strong continuity with the traditional camps. In 1995 I made several visits to one brigade which was situated close to the city of Anadyr'. The brigade had a base camp, which hadn't moved for six years (a time long enough to cause comment), and temporary camps, maintained for a few weeks at a time and situated closer to the herd. The herders were Chukchis, with the exception of one Russian who has been working with the brigade for over twenty years. At the physical and social

centre of the base camp was a single large reindeer-hide tent which was surrounded by a large cluster of metal-clad huts built onto steel sled runners. The women in the camp spoke to each other in Chukchi, but only the two grandmothers were monolingual. The men spoke in Russian while at work, and only a few were able to speak Chukchi. This is the closest camp to the largest centre of Russian/Russified population in Chukotka, and other settlements do seem to have better language retention.

Many of the Chukchis are still associated with their traditional industries, but nowadays most live in permanent settlements. Some of the Telqep Chukchis of the Tawajwaam tundra live in camps near their herds but many more live in villages or in Anadyr'. On the outskirts of Anadyr' there is the old housing of the state farm (which has been known variously as the 'Red Star Farm', the 'I.V. Stalin State Farm', the 'State Farm of the XXIIInd Congress of the Central Committee of the Communist Party of the Soviet Union', and lately, 'Tawajwaam'), where the major Chukchi population of the region is concentrated. Chukchis in Tawajwaam live in similar conditions to the Russian norm, in centrally heated concrete apartment blocks. There is no Chukchi school, and minimal official support for the few dedicated Chukchi teachers who try to teach Chukchi children about their language and culture.

1.1.1 Gender roles

Gender roles in traditional Chukchi society are quite distinct. Men are the hunters and the primary herders. They build the sleds, train draft animals (reindeer for the *Emnuṅəlʔət*, dogs for the *Aṅqalʔət*). Women gather nuts and berries during the summer, and work processing hides, sewing, cooking and child-rearing year around. During certain times of the season everybody pitches in to help herd the reindeer. Children had their own duties. The most picturesque of these is as follows: upon waking a child would be bundled outdoors to run a lap (naked) around the *jarəṅə* ('house', traditionally a large circular skin tent). On their return they would be required to report all their observations. Chukchis say that this trains endurance and observational ability. It also trained responsibility, for on the basis of these reports the day's activities would be planned.

Of particular linguistic significance, men and women traditionally pronounced Chukchi in quite different ways. Differences were both in the phonetic inventory and in the phonological system. The women's pronunciation of Chukchi has been reported by Soviet commentators to be either dying out or already extinct. Certainly Soviet language engineers have succeeded in suppressing women's Chukchi in all official contexts, although why they should have done so has never to my knowledge been explicitly stated. It may be part of the Soviet aesthetic of standardisation (cf. also the suppression of dialects, both in Chukchi and all other languages of the Soviet Union including Russian), or it may be that women's Chukchi was somehow politically inappropriate to the vision of the new Soviet Far

North. Whatever the reason, the primary linguistic literature on women's Chukchi amounts to a paragraph before the revolution and two paragraphs afterwards (see §2.3). Considering its invisibility in the literature, I was most surprised to discover that women's Chukchi is not only universal among female speakers of Chukchi, but that due to better rates of language retention among women it comprises the most widely known and used form of the language. I have been unable to observe children acquiring Chukchi (all children spoke Russian in the areas I was able to visit), but Chukchi women tell me that when children acquire Chukchi they acquire their appropriate gender dialect immediately (see also §2.3.1).

1.1.2 *Language and magic.*

Shamanism and traditional religious beliefs were suppressed in the Soviet Union, but a certain number of them survived. Traditional funerals are still held in the outlying settlements, and there are probably active shamans still living in the hinterland. I met no shamans myself during my expeditions, although I did meet a retired shaman and a number of children of deceased shamans. Of particular linguistic interest are the 'professional' shamans, who adopt to a greater or lesser extent the clothing, speech, and other characteristics of the opposite sex (reputedly including complete physical changes, although this is unverifiable; traditional shamanism is discussed in detail by Bogoras 1922:413-468). The speech characteristics of the opposite sex are particularly marked in Chukchi owing to the existence of the distinctive men's and women's dialects (§2.3).

The retired shaman who I met had, for reasons darkly hinted at but never explained, given up the practice of shamanistic powers some years earlier. He had cut his braids, and dressed as a man. Of his earlier career he retained the characteristic facial tattooing of a woman, and, more interestingly from the linguistic point of view, also retained the women's dialect.

1.1.3 *Chukchi oral literature and history*

Chukchi oral literature seems to have two main genres, folktales and history tales. Folktales are frequently populated by talking animals and have many other magical elements. These stories, whether as education or entertainment, are recognised to be simply stories, and there is no claim that such things ever actually occurred. The folktale is a well recognised genre in Chukchi (named *ləmɣəl* sg. / *ləmɣəlte* pl.), with conventionalised behaviour patterns expected of both storyteller and audience. Similarly to many other folk traditions, *ləmɣəlte* contain fantastic elements and stock characters and situations. There is still an energetic storytelling tradition current among the remaining Chukchi speakers.

Folklorists have also described a Chukchi oral history tradition, apparently distinct from the folktale tradition. None of the people I worked with told me any such oral histories in Chukchi. Interestingly, I did hear a few oral histories retold in Russian by younger people who could not speak Chukchi, and who did not retell folktales.

My impression was that the history stories of warfare against the Cossack armies of Imperial Russia had more immediate relevance to young Chukchis of today than the fantastic stories of magical animals and travel to the spirit world. History tales relate actual events from Chukchi history. Particularly typical are accounts of skirmishes in the Chukchi-Koryak wars and battles with the Cossack armies of the Russian colonists. Such tales may also have magical elements, but such magic is usually more mundane than in folk tales, more in line with the abilities of known shamans. Early anthropologists recorded creation myths and cosmologies (e.g. Bogoras 1904-1909:1930), but these do not seem to form part of the repertoire of contemporary Chukchi story-tellers.

1.1.4 *Naming*

Chukchi traditionally had a single name which was given at birth and did not usually contain any kinship information (although, according to Raxtilin [pers. com.] elements of names do recur within families over generations). These names are usually descriptive, often relating to the idea of return from the spirit world or the circumstances of birth. Examples of such names are *Jetəlʔən* 'the one who has come', *Jatɣərɣən* 'arrival', *Remkəlʔən* 'the guest', *Yəryolɣawət* 'woman from above' (see also Bogoras 1904-1909:514-516).

The element *-wji/-wje* is a common terminal element in names, particularly among Telqep Chukchis. Bogoras says that the origin of this naming element is unknown (1904-1909:515). Some Chukchis speculate that this is related to the verb *wji-k* 'to breathe', but then cannot explain the meanings of names including this element. *Qorawje* 'reindeer breath' and, *Timɣewje* 'lost breath' would make a certain sense, but what of other names like *Rintuwji* 'thrown breath'? A more likely proposal than the 'breath' folk etymology is that it is cognate with a form of the Koryak plural marker *-wwi ~ -wwe* (e.g. Žukova 1980:57), although plurality does not seem to be consistent with other Chukchi naming practices. It may turn out that this name element is an untraceable fossil or unanalysable borrowing.

Sometimes a name would be changed in response to some crisis in life, particularly if so advised by a shaman. I am aware of several instances of children being renamed something unappealing during life-threatening illnesses to turn away the attention of the spirits. *ʔElʔel* 'shit' is such a name. Chukchi naming practices have changed as the Soviet bureaucracy demanded that all its citizens had a given name, patronymic, and family name according to Russian usage. In the past people took their Chukchi name as a family name and then took (or were given) an arbitrary Russian name and patronymic. Today Chukchis are completely assimilated to Russian naming practices to the extent that the absolute ending *-ən* in surnames is frequently reanalysed as the Russian *-in* (a masculine suffix for surnames), which is then given a feminine form *-ina*.

1.1.5 Recent history

Soviet nationalities policy as it applied to the Chukchi was a strange mix of the enlightened and the sinister. According to overt Soviet policy Chukotka should be a paradise for indigenous languages and their speakers, with official support for native language in education, health, and public affairs. In practice official behaviour towards minority groups and languages was inconsistent at best and at times one can only infer a covert assimilationist policy prejudiced against any attempt at linguistic or cultural preservation. While the Lenin Library in Moscow contains Chukchi language health manuals from the 1930s, nothing like this has been seen in Chukotka for a long time. Several of my Chukchi acquaintances reported that during their childhoods there were many books published in Chukchi but that at one point they suddenly all disappeared from the schools. Most Chukchi children were taken away from their parents and brought up in boarding schools (Russian *internat*). The rationale was that the children needed to go to school and that parents could not look after their children while out working with the herds. Several people told me that they had to walk past their parents' house to get to school from the children's home, so this was clearly not always the true justification. In the boarding schools all social interaction was in Russian, and many people mentioned being punished for speaking in Chukchi. If children brought traditional Chukchi food into the homes it was confiscated and destroyed. There are many stories of children running away from these homes, and the response from the authorities seems invariably to have been sending the child to another home further away from their parents. Good discussions of recent history and indigenous affairs in Chukotka are found in Forsyth (1992) and Vakhtin (1992, 1993).

Prior to the policy of institutionalisation of Chukchi children there was a more enlightened practice which left children with their parents and sent roving schools out to the encampments to meet them. It is unclear how general this was; none of the Telqep Chukchi remember hearing about it happening in their region, but perhaps it only occurred in the north. Many Chukchi did finish their schooling and were encouraged to study further, mostly in a special faculty in Leningrad, *The Faculty of the Peoples of the North* (FPN). This faculty was created as affirmative action for Chukchis and other educationally disadvantaged indigenous groups in the 1930s. The downside of this programme was that if a Chukchi student wanted to study anywhere else than the FPN they forfeited special state assistance for indigenous peoples. Consequently, a striking number of Chukchis with higher education are trained as folk dancers, folk artists, or indigenous education schoolteachers. Perversely, after the suppression of the Chukchi language in schools students in the FPN had to pass formal exams in indigenous languages. These examinations were composed according to Skorik's weighty reference grammar (Skorik 1961, 1977; see literature review §1.5) which was officially recognised as authoritative. Even the Chukchi students who did still speak their

native languages frequently failed these exams, with their focus on the formal aspects of obscure Indo-European based grammatical classification. One native speaker of my acquaintance failed a simple vocabulary test in his native language because most of these basic vocabulary items were either different in the dialect that the official grammar was based upon, or the orthography could not represent his regional pronunciation.

There are many problems for Chukchis today to overcome. Their traditional culture still exists in pockets but is very much in a state of crisis. Alcoholism is widespread, and most deaths among Chukchis have alcohol as a contributing factor. Although the Soviet Union is doubtlessly responsible for many terrible things with respect to its indigenous populations, the fall of the Soviet Union has also caused great difficulties. The economic stress suffered by the new Russian Federation is hitting the poorest citizens hardest, and for every 'new Russian' businessman or administrator driving down the main street of Anadyr' in his luxury American four-wheel-drive there are hundreds in poverty. I know no Chukchi whose economic situation has improved over the last few years and there is understandable nostalgia for the 'good old days' of the decades preceding perestroika when imported food was plentiful and cheap. The herders are glad to own their herds again, but difficulties with transportation and marketing gives little hope that these will be turned into profitable enterprises in the foreseeable future. A large class of urban Chukchis has arisen in the towns and villages of Chukotka, many living far from the lands where they have traditional ties. A majority of these work in government sector, and so are very vulnerable to the frequent government cutbacks to services.

1.1.6 Literacy

Chukchi language literacy has a limited role in Chukchi culture. With the exception of the elderly, most Chukchis are either bilingual in Russian and Chukchi or monolingual Russian speakers. Literacy levels in Russian are high, and many Chukchis are avid readers. Literacy levels in Chukchi are harder to evaluate, as there is not a great role for Chukchi literacy in society; fluent Chukchi speakers tend to live a more traditional lifestyle, and do not have much need for writing. The few occasions that people left each other notes these were written in Russian, which is after all the language of their schooling. With respect to reading, most Chukchi language publications are translations from Russian, and the Russian originals are more easily available. Until 1995 there was a Chukchi language newspaper published in Anadyr', but this was closed when the provincial government withdrew its subsidy.

The history of Chukchi literacy goes back about a century. Bogoras made the first major attempts at writing Chukchi during his various travels and expeditions between the 1890s and the Russian Revolution. He used the Latin alphabet plus a few diacritics to give what we would now call a phonetic (as opposed to

phonological) representation of Chukchi (§3.7.2). Although he does lose some phonological detail in his script modern native speakers of Chukchi who know the Latin alphabet are able to work out most of what he has written. After the revolution Bogoras was involved in the development of literacy for Chukchis and a more accurate latinate orthography was developed which depicted phonemes instead (with supplementary letters from Cyrillic, e.g. schwa was represented by the Russian 'soft sign': *ь*).¹ This orthography was used in the first Chukchi-Russian dictionary and schoolbooks. A few years later almost all the languages in the Soviet Union were changed over to a Cyrillic orthography (the exceptions were all languages of entire republics with ancient traditions of literacy). This Cyrillic orthography is still used today in a very limited way (§3.7.1). The orthography departs far further from a phonological representation than is warranted on linguistic grounds. It has a great deal of redundancy and is burdened with Russian spelling rules, which do not and cannot apply to Chukchi. Sadly, the result of this writing system is that without a fairly abstract understanding of the principles underlying the Russian orthographic system it is impossible to spell Chukchi in the officially approved manner. This goes along with the general representation in education of Russian as a 'proper' language and Chukchi as a kind of aberration. Skorik (1964:317-318) contains criticism of the Chukchi orthography, which shows that he was aware of the difficulty it causes in learning for non-Russian speakers.

1.2 Linguistic situation

The Chukchi language has very few genetic relatives. Alutor, Koryak and Kerek are all closely related to Chukchi, and are spoken either within Chukchi land or in territories contiguous with it. This group is called 'Chukotian' or 'Koryako-Chukotian'. The Chukotko-Kamchatkan family consists of these languages and the language Itelmen (previously known as Kamchadal). Although Itelmen has many surface similarities to Chukotian languages, the identity of this family is controversial; Comrie presents evidence to support the hypothesis of genetic relationship between Chukotian and Itelmen at a distant stage of linguistic prehistory, but indicates that detailed reconstruction of proto-Chukotko-Kamchatkan is almost certainly impossible (Comrie 1980b:120). The best evidence

¹ At about the same time a hitherto illiterate Chukchi called Təgewil devised an ideographic writing system for the Chukchi language. He taught some of his system to his children, but it never spread any further than that. He left a huge written corpus, and about 2000 texts are preserved in the Russian Museum of Ethnography (Mindalevich 1934a, 1934b). Most of this writing is untranslated, and presumably untranslatable. I have seen a reproduction of one sentence with a Russian translation, and so far as I can tell from this example the orthography encodes only lexical content words and there is no sign of symbols encoding the case and person/number agreement markings of spoken Chukchi. Another, untranslated, text seems to be an annotated (and/or decorated) diagram of the Chukchi cosmology. See also Dikov 1989 (plate between 96-97).

is the similarities of the personal pronouns and some of the case morphology, however the lack of systematic regularities outside these grammatical subsystems suggests that the relationship may be one of distant language mixing, areal diffusion, or creolisation². In contrast, it is clear from high levels of cognacy that the various Chukotian languages are very closely related. Comrie (1981:240) suggests that on purely linguistic grounds these languages could be considered dialects of a single language³. However issues of cultural difference and self-identification of members of these groups would require them to be considered as separate outside academic contexts. Some of the awareness of ethnicity by members of these language groups can be dated to quite recently. Bogoras (1904-1909:16) describes people on the Chukchi-Koryak border who did not consider themselves exclusively members of one group or the other, an ambivalence reportedly reflected in their language. The first stirrings of racial identity are attributed to social polarisation during what are now called the Chukchi-Koryak wars of the 18th century (Gurevič 1982:206), when the northerners (proto-Chukchis) began a series of depredations against the southerners (proto-Koryaks). The current notion of 'race' or 'ethnicity' (Rus. национальность) was reified for Chukchis and Koryaks when they first received internal passports after the revolution. The ethnicity recorded in these documents (reflecting the state of ethnography of the time) became an administrative determinant of many aspects of life, including housing, health care and education.

1.2.1 Language contact

In the seventeenth century the main body of Chukchi population was concentrated in the inland regions in the extreme north east of Chukotka. A smaller population located along the coast to the west of the Kolyma river looks like a remnant population of an earlier period when the Chukchis covered a greater territory. Eskimos inhabited almost the entire eastern coastline of the peninsula. The rapid Chukchi territorial expansion of the succeeding few centuries gained (or regained) all the land held by speakers of Yukaghir and Altaic languages between the two populations and established a major settled presence along the coastline. The spread southwards took over much land previously inhabited by speakers of Koryak dialects and left only an isolated pocket of the Even language around the river Velikaja (there are also pockets of Even down the Kamchatkan peninsula).

² See Bogoras 1922:641 for a discussion of well-established Koryak-Itelmen language mixing by Itelmen speakers, and Golovko 1994, 1996 for a description not dissimilar situation of Russian-Aleut language mixing on Copper (Mednij) Island, off the eastern coast of Kamchatka.

³ There were no Koryak speakers in the regions I visited, but Chukchi speakers were of the opinion that Koryak and Chukchi were mutually unintelligible. I have however been able to see transcripts of Koryak texts in a number of different dialects (Žukova 1988), and as a linguist find them strikingly similar to Chukchi.

Alutor and Kerek were the languages of much smaller groups and speakers of these languages gradually became assimilated to Chukchi language and culture. There are few if any remaining speakers of these languages today. Some Tawajwaam people recall recent ancestors who were Kereks, and they say that the southern coast of the Anadyr' estuary from the city of Anadyr' south to Xatyrka on the border of the Koryak National Region was inhabited by Kereks.

The two Altaic languages bordering Chukchi land are Yakut (Turkic) and Even (Tungusic). If Altaic is controversial as a linguistic phylum, nevertheless the speakers of the two languages are united in Chukchi by one name, *Qoraramkən* 'the people of the reindeer'. Chukchi say about *Qoraramkən* that they ride astride their reindeer. This is notable because Chukchi reindeer are never ridden; as a mode of transport they are only used to pull sleds.

In Chukchi one of the most common ethnonyms meaning 'Eskimo' is *Ajwan* or *Ajwanalʔən*. Chukchi and Eskimo have influenced each other, although much more has gone in the direction Chukchi → Eskimo than the reverse. Eskimo influence on Chukchi is mostly limited to lexicon, although Fortescue (1997) argues in detail for some significant grammatical influences too. Lexical influence is strongest in semantic fields to do with the sea, particularly boats, sea creatures and sea hunting. For example, the Chukchi word *puwreq* means 'beluga whale', and is identical to Eskimo. A Tawajwaam Chukchi (who does not have any contact with Eskimo-speaking Eskimos) told me that the word was onomatopoeic: *puwreq* is the noise of a beluga whale sounding. All other examples of Eskimo words in Chukchi I only know from written sources and are only recognised by Chukchis coming from the north, not by Tawajwaam Chukchis. The Eskimo from both sides of Bering Strait has been deeply influenced by Chukchi, both lexically and grammatically. This is discussed in de Reuse 1994b. The Eskimo word for European *laluramka* has a transparently Chukchi etymology *leluremkən* 'bearded folk' (indigenous Chukchis have little facial hair). This word has fallen out of use in Chukchi in favour of *melyətanəʔ* 'fire strangers'⁴, but a similar word *lelulʔət* 'bearded ones' is a regional form used by old people in Tawajwaam. Gurvič reports Chukchified Eskimo toponyms along the Chukchi coast stretching between 60° and 70° north, suggesting earlier Eskimo inhabitation and probable cohabitation or assimilation with Chukchis (Gurvič 1982:197).

Kereks and Koryaks are both simply known as *tanəʔət* 'strangers' in Chukchi. Since Chukchi habitation of the Tawajwaam tundra is quite recent, and before them the land belonged to *tanəʔət*, it is tempting to look for substrate influence from these languages. One peculiarity of Telqep Chukchi is that the word 'yes' is different for

⁴ Fire has sacred significance in the traditional Chukchi belief system, and new fires were never made without considerable ceremonial (usually only once per year in the festival of *killwej*). Chukchis were apparently quite struck by the Europeans' promiscuity in starting and extinguishing fires.

men and women: men say *ej*, women say *ii*. This is the same as in some varieties of Koryak (e.g. Palana Koryak), whereas in other forms of Chukchi there is only one word *ii* (§2.3.4). Telqep Chukchi have no contact with Alutors and I could not discover a Chukchi word for them.

Chukchi contact with the Russians dates from the seventeenth century, but was not intensive until nineteenth. North Americans were also active in Chukotka throughout the nineteenth century, and Chukchi has a number of well-established loanwords from both English and Russian. There is also evidence that the sailors' jargon of the American whalers was known to Chukchis: the word *kawkaw* 'bread, biscuit' (originally from Austronesian) is used in northern Chukotka, and Bogoras (1904-1909:730) cites a note which he received from a boy in Provideniya (or 'Providence', as it was then known) written in 'broken English' which shows grammatical features unlike Chukchi or English, but most reminiscent of South Seas Pijin English⁵. Telqep Chukchi has mostly borrowed from Russian, and speakers do not know most of the English loanwords that occur in the north. Some borrowings are deeply assimilated. The word *korpaləyən/korpat* 'buckwheat' sg./pl. originates from Russian [*kru'pa*]. The unstressed vowel is changed so as not to violate vowel harmony (§3.4.1) and there is a metathesis of vowel and consonant to avoid a phonotactically impossible initial consonant cluster (§3.2.2).

At the end of the nineteenth century there also existed a kind of 'trade Chukchi' used for intercultural contact with (at least) Russians along the Kolyma River. In 1895 Bogoras learnt to speak this language, incorrectly believing it at the time to be Chukchi proper (Vdovin 1954:107-109). I have questioned elderly Chukchis about intercultural communication in their days of their youth in the tundra, but have been unable to establish whether any such pidgin was used in their time. Members of other indigenous groups (e.g. Evens) were reported to have spoken Chukchi in their dealing with Chukchis—in this context this could mean anything: fluent Chukchi, broken Chukchi, or a conventionalised pidgin. See also Comrie 1996, Hancock 1996.

⁵ I reproduce the letter here in full from Bogoras (1904-1909:730-731).

Text of Celqar's letter:

I WLTL YUO ALASNEIT ME CAM POORESSEB ME NO KERDT NETD. MERAKN MAN. NOO.
GOOD. MAI POOI. CERAI AYN PEIEB E LIKM ROOSEN MAN GOOD MAN SOOBOS E
KVTM MAI POOI PEIEB MEI VEL GOOD.

Bogoras' translation:

I will tell you. Last night me cam board o' ship. Me no got nothing. American man no good. My boy cried (to have a) pipe. He like him. Russian man good man. Suppose he gave it him my boy pipe, my feel good.

Note in particular SOOBOS *suppose* used as a subordinator, and the final -M of LIKM *like* and KVTM *give* which look like standard South Seas Pijin transitivity markers. English loanwords in Chukchi are discussed in de Reuse (1994a).

1.2.2 Language retention and codeswitching

In the 1990s all indigenous languages in Chukotka are very much at risk. Chukchis are congregating more and more in urban areas, and in urban areas children do not learn their native language. Even children who have recently come in to town from the tundra and can speak Chukchi nevertheless will not speak it in town, even with their parents and grandparents. In Tawajwaam, the Chukchi suburb on the outskirts of Anadyr', Chukchi is rarely heard. There are many fewer male Chukchi speakers than female. The remaining Chukchi speakers use it only in restricted social contexts, such as conversing with elderly monolinguals, and in opening speeches at ethnic festivals. There are regular, although brief, broadcasts in Chukchi on the local radio and television, but as state funded, non-revenue raising enterprises these are subject to continuous cuts. The only attempts to teach Chukchi to the children come from a few dedicated cultural practitioners who struggle in the face of disheartening conditions to preserve something of their language. To date the results of their efforts are small; the teachers have little or no training in language teaching and the children have no motivation to learn. The most likely precursor to revival of the Chukchi language would be an awakening of political awareness and pride in being Chukchi. While there are stirrings of this, there are also powerful groups whose interests are deeply opposed to Chukchi cultural revival.

In the villages surrounding Anadyr' (one or two days travel) language retention is higher. Some children are either brought up at the herds, or spend considerable time living there with their parents. There are greater numbers of elderly people who are monolingual in Chukchi, and the pressures to conform to general Russian society are less. While in the town 30 year olds are more frequently not full speakers of Chukchi, in the villages they usually are. However even in the villages I did not hear children speaking anything other than Russian, and their command of Chukchi is at best passive. It is interesting that the higher rates of language retention among women are occurring despite a reduction of women's role in the industries closest to traditional cultural activities. Women and children now generally live in permanent settlements distant from the reindeer herds where the men work; the traditional encampment closer to the herd is a rarity. Women's work such as hide processing, clothes making and food gathering has been rendered less important as imported clothing, tents and food have become common.

Chukchi is thus a highly endangered language. While at the time of writing there remain lots of native speakers, transmission of the language to the young has been disrupted, and political and economic support for language maintenance is very low.

All contemporary speakers of Chukchi know at least a few words of Russian. Full speakers generally keep the two languages apart, but in certain circumstances speakers switch between Chukchi and Russian within a single sentence. This is sometimes for sociolinguistic affect (see §19.1.1, footnote 1), but within my data it

is more often is an attempt at adaptation towards the perceived communicative needs of younger listeners; speakers with a very sketchy knowledge of Russian repeat keywords which they happen to know in both Chukchi and Russian. Codeswitching is not edited out in the texts reproduced in this work, any decrease in the 'elegance' of the data is, I hope, compensated for by the increase in transparency and fidelity of the data source.

1.3 Research conditions

Chukotka is a far from easy place to carry out social science research. The administration of the province has very little outside support, and the passing of the glory days of the Soviet industrial expansion into Siberia is much regretted. During the period of the Soviet Union the whole of Chukotka was a closed zone, to which even relatives of inhabitants could travel only with special permission. The current legal situation of people wishing to travel within Chukotka is difficult to determine, although the basic principle is that the laws of the closest authority are the ones which are enforced.

Administrative difficulties aside, transportation within Chukotka is very difficult to manage. Ground transportation is by means of the *vezdexod* ('All Terrain Vehicle'). These are a civilian version of a tracked army personnel carrier. They are slow, dirty, noisy, heavy, ecologically destructive, and horrendously fuel-inefficient. Chukchi 'bush mechanics' seem to be able to keep them going indefinitely. In warmer weather the tundra is soft and muddy and *vezdexods* make their way only with difficulty. Other times of the year they struggle with soft or powdery snow, or crash through thin ice into mud or water underneath. Freeing a stuck *vezdexod* which has broken through 10cm of ice into a metre of icy mud is a heroic achievement. River transportation is only possible during the summer—even in spring the rivers are either frozen over or full of broken ice. Neither ground nor river transport run passenger services, nor do they follow schedules. To get transport requires contact with a network of acquaintanceship, not to mention patience and persistence as days of delayed departures turn into weeks. Air transportation is astonishingly expensive; it is cheaper to fly from Moscow to Sydney than to fly within Chukotka. The aircraft are ageing and ill-maintained—three planes crashed in the province during the periods I was there.

I made two trips to Chukotka, each lasting six months. During the first, in 1995, I lived in the village of Tawajwaam on the outskirts of Anadyr'. During the second I also worked in Tawajwaam, and travelled to the villages Kanchalan and Alkatwaam. In the villages I participated in community activities, such as festivals and building projects, and had a programme of visiting the old people to record folktales and reminiscences, as well as just to chat. Hearing problems (environmentally caused) are endemic among Chukchis of all ages, and conversation was difficult. However, the situation of an elderly person telling stories to a younger audience is well established as a genre, and many people were

happy to do this for hours on end. Analysis of these texts was harder. I was unable to accurately translate folktales myself, so needed the assistance of a bilingual speaker. I am extremely grateful to Təwiwi (Russian name Valentina Ivanovna Rintuw'i), a teacher of Chukchi handicrafts and committed amateur anthropologist, who transcribed and translated the majority of my texts. This work could not exist without her efforts.

In Tawajwaam the language of day-to-day communication is Russian. People of about 30 years and older speak Chukchi, and the elderly are monolingual. The bilinguals use a certain amount of code-switching, and even younger non-speakers use a few Chukchi interjections (ii/eej 'yes', qoo 'I dunno') and discourse particles (naqam). The conventional greetings jety'i and jettək are literally 'you (sg) have come!' and 'you (pl) have come!', and the conventional reply is simply ii/eej 'yes'. These greetings have been reanalysed by non-speakers, who treat them as identical to Russian *zdravstvuj!* 'hello (sg)' and *zdravstvujte!* 'hello (pl)', using jety'i/jettək as both greeting and response, and using the plural form as a respectful form of address to individuals (i.e. the general European *tulvovs* distinction, which is not otherwise used in Chukchi).

My linguistic consultants can be divided into two groups, elderly (near-)monolinguals, and younger (30+) bilinguals. As already mentioned, I was able to obtain excellent narrative data from the monolinguals, however I was unable to achieve much with them in the way of 'traditional elicitation', in the sense of grammaticality judgements, guided discourse and description tasks, and so on (see Bogoras 1904-1909:52 for similar experiences). The bilinguals tended to be uncomfortable producing novel sentences outside real conversation with other full speakers, and in artificial contexts generally produced very Russian-like syntactic constructions. Schoolteachers, who had all attended the same teachers' college in St Petersburg, had received heavy exposure to Skorik's Chukchi grammar, and accepted it as the prestige standard, although admitting privately that nobody they knew spoke like that. Attitudes to the Russian language within Russia tend to be extremely normative (speakers of covert prestige alternatives such as thieves' jargon and the obscene-poetic slang excepted, of course), and this attitude has been instilled in Chukchi educators. People are quite happy to conclude that all Chukchi speakers use their native language incorrectly if popular usage does not agree with Skorik's grammar. While methodologically suspect, the greatest tragedy of this is that it frequently renders language teaching to non- and partial speakers completely ineffective—the language they are taught does not correspond to that used in the community.

1.4 Data

This work focuses on a subset of speech genres, chosen pragmatically (in the non-linguistic sense) as those which were easily recognisable and practical to collect. The three broad types of language sample collected were (i) conversation, (ii)

elicited monologues, and (iii) folktales⁶. The examples of conversation were limited to incidental conversation and semi-interview situations with one (younger, usually less fluent) native speaker talking with a knowledgeable older speaker about a topic selected by me and the interviewer. From some speakers the latter produced long monologues, without guidance or turn taking. This usually occurred when balanced conversation was impossible, either because of low fluency on the part of the interviewer (especially if the interviewer was me) or when the interviewee was hard of hearing (all the elderly Chukchi speakers I knew had hearing problems; hearing loss seemed very common throughout the Chukchi community). These monologues were usually historical narratives, or descriptive or procedural texts (see also §1.1.3). The main database consists of about fifteen hours of transcribed tapes. This work does not attempt anything like a complete study of language genres. The difficulties of working with a language with a speech community almost entirely of elderly people are such that any generalisations about the distribution of different speech patterns in daily life can only be skewed.

1.5 Survey of published sources

Publication on the Chukchi language to date includes grammars and a number of dictionaries. There are also quite a number of articles, more or less accessible, some of which have a primarily descriptive intent, but many of which are more concerned with Chukchi evidence in favour of various theoretical positions. In what follows I will give a detailed account of the published grammars and dictionaries, and a survey of what I consider the more significant papers.

Some of the major works about Chukchi are only available in Russian, others are either originally in English, or, in rare occasions, there are English translations.

The first grammar of Chukchi is the work of Waldemar Bogoras (in Russian *Vladimir Bogoraz*; citations of English language works traditionally use the s-spelling while those of Russian language works use the z-spelling) who studied the languages and cultures of a number of the indigenous groups of what is now Russian North Asia. He arrived in Chukotka in 1896 at the age of 24, under a ten-year sentence of exile for political activities with the illegal political party National Will (*Narodnaja Volja*). Although without any relevant training, Bogoras turned out to be a talented fieldworker, and at the turn of the century published an ethnographic and linguistic sketch (Bogoras 1900) which led to the St Petersburg Academy of Sciences petitioning the Tsar for a reprieve. This was granted. Bogoras returned to Chukotka for five years to carry out more intensive research on Chukchi language and culture for the Jesup North Pacific Expedition, under the auspices of the Smithsonian Institution.

⁶ I have tried as much as possible to avoid elicited sentences in this description, as data so gained seems to be qualitatively different from spontaneous speech in narrative. Examples coded [na...] and [nb...] are from my notebooks; all other codes refer to non-elicited texts.

Bogoras' major ethnographic publication is *The Chukchee* (Bogoras 1904-1909). This contains a wealth of beautifully written ethnographic description in the Boasian tradition (Boas edited both Bogoras' English-language works). This ethnography is greatly respected by contemporary Chukchis, who have access to a Russian translation produced under Bogoras' guidance (Bogoras 1939a, 1939b)⁷. The details generally concur with the personal experience of Chukchis who grew up in the tundra prior to the 1970s. From Bogoras' writings it is clear that he was able to participate in Chukchi daily life and had a command of spoken Chukchi adequate to freely converse on any topic.

Following the Jesup North Pacific Expedition Bogoras also published a collection of texts, *Chukchee Mythology* (Bogoras 1910).

Bogoras' grammatical sketch of Chukchi was published in 1922 in Boas' *Handbook of American Indian Languages*. Although entitled *Chukchee*, this work is actually a comparative grammar of Chukchi, Koryak and Itelmen (then known as Kamchadal). It contains a phonological and morphological description, but does not discuss syntax. The publication of this grammar was very much delayed. Hyatt (1990:80) quotes three letters from *The Franz Boas Papers, 1858-1942* (1906; May 25, June 2 and June 8) in which Boas pleads with Bogoras to send manuscripts. Work hardly progressed, apparently due to lack of commitment to linguistic issues on Bogoras' part (Hyatt 1990:73), and in 1914 with war and revolution all work ceased. Bogoras was more interested in social-ethnographic issues, and language was always subordinated to ethnographic research. While Bogoras' data is superb, the final form of the published grammar owes much to Boas. To quote the editor's preface,

Since the principal object of the series of sketches presented in this Handbook is the elucidation of the grammatical categories found in the present condition of each language treated, I thought it best to rearrange the material on the basis of an analytical study. I am therefore responsible for the essential form of arrangement and presentation here given. [...]
(Boas 1922:637)

Boas goes on to point out that this was done in consultation with the author. At the end of the preface there he points out that,

The war has delayed the publication of this work beyond expectation, and the final revision had to be made by the editor. (Boas 1922:637)

⁷ Volume II of Bogoras 1939, which describes Chukchi religious practices, is prefaced by the then-obligatory political essay, in which Bogoras apologises for the lack of Marxist-Leninist content in the work. Although this essay has the typical tone (both strident and abject) of Stalinist self-criticism, it is interesting to note that Bogoras was able to publish his translation without adaptation.

According to Bogoras' later colleague Vdovin (Vdovin 1954:114), Bogoras later expressed discontent with Boas' 'meddling' (Russian 'vmešatel'stvo'; it is unclear whether this is Bogoras' word or Vdovin's) with his manuscript. However, the original manuscript is not found in the 'Bogoras archive' in Russia, nor in Boas' papers archived at the Smithsonian. The lack of syntactic description in the grammar is typical of grammars of the time, particularly those produced by Boas and his students (Murray 1994). Volodin (1954:111) claims that this is simply because of Bogoras' focus on ethnographic research he had neither time nor interest to investigate syntax in depth.

After the turmoil of the Russian Revolution, Bogoras pursued an scholarly career in Soviet academia. His final major publication on Chukchi (published posthumously) was a dictionary, *Luoravetlansko-russkij slovar' [Chukchi-Russian Dictionary]* (Bogoras 1937). This fine dictionary is a bibliographic rarity. There are copies in a few Russian libraries in Moscow and St Petersburg (none in Chukotka), and in the private collections of a few Russian scholars. The Chukchi part of this dictionary is written in the latinate orthography suppressed by Stalin in 1939 (see §3.7), which may explain why so few copies exist. This dictionary is linguistically interesting because it is the only published dictionary that has entries for individual morphemes; all other Chukchi dictionaries are organised as bilingual wordlists of translation equivalents.

The most important of Bogoras' successors in the study of Chukchi was P.Ja. Skorik. Skorik produced a series of publications on Chukchi linguistics from the 1940s to the 1980s (see Bibliography). His major work is the two volume reference grammar *Čukotskij jazyk [The Chukchi language]* (Skorik 1961-1977). This grammar seems to be intended more for pedagogical purposes than scientific. It is used in the pedagogical colleges (in particular, the Faculty of the Peoples of the North, see §1.1.5) as the definitive authority on the Chukchi language. Skorik bases his work on his personal experience living in a then largely Chukchi-speaking community as a schoolteacher in 1928-1930 and 1932-1944, as well as four expeditions in the years 1948-1956, and four more in the years 1971-1974 (Skorik 1961:13). The primarily pedagogical ends of the grammar are reflected in the way it is based around European grammatical categories⁸. Although the grammar includes copious numbers of example sentences, their naturalness as examples of Chukchi is questionable. Commonly occurring but difficult to translate grammatical particles (e.g. *layen*, =?m) are virtually absent. Multiple examples of a particular phenomenon generally have identical word order and no extraneous material, suggesting strongly that they are either all translations of Russian, or worse, that they are simply made up. To speculate about the latter possibility

⁸ The danger of writing a non-IE grammar in terms of IE grammatical categories is a pitfall Skorik was aware of (Skorik 1961:10), but which he nevertheless does not entirely succeed in avoiding.

would seem uncharitable, if it were not for the fact that some of Skorik's amply exemplified description differs in major structural ways from natural data found in my collections of Chukchi narratives. Text-based analysis of valency changing devices (§§11.5-6) casts doubt upon Skorik's antipassive data in several ways; he describes the antipassive as productive, which is not the case, at least in Telqep Chukchi, and he does not notice that the morpheme which makes the antipassive with some stems makes an applicative with others. Unless evidence is forthcoming that Skorik's data represents a true, spoken variety Chukchi it would be wise to approach his materials with scepticism.

Skorik's doctoral dissertation was also published, entitled *Očerki po sintaksisu čukotskogo jazyka. Inkorporacija* [Outline of Chukchi syntax: incorporation] (Skorik 1948). This work was written under the supervision of Meščaninov, a follower of Marr's discredited social-linguistic theories, and it contains a certain amount of material which seems bizarre to the modern reader. For instance, this work originates the patently untrue assertion that incorporation was dying out among younger Chukchis. In fact, this conclusion was a necessary corollary of the Marrist paradigm, in which a notion of level of cultural achievement was considered to have a negative correlation with the 'primitive' grammatical phenomenon of incorporation. Thus, the Chukchis who had given up nomadism and lived closer to the general European-Russian norm were classified as culturally 'higher', and thus would be expected to use less grammatical incorporation. When Stalin, in his own notorious foray into linguistics (Stalin 1956), turned against Marr, Skorik published a humiliating (although objectively justified) retraction of this 'data' (Skorik 1952). It is difficult for a scholar coming from an outside tradition to evaluate research coming from the 'middle period' of Soviet linguistics. It is a testament to these people that they managed to produce anything at all. Bogoras had credentials of pre-revolutionary political activity which allowed him to act with a certain amount of independence even during the early stages of Stalin's ascent⁹. His followers did not. As an academic, Skorik had the misfortune to live through the whole of the personality cult, and was forced to many compromising and humiliating public statements at a time when international scientific communication was at an all-time low.

Other published pedagogical Chukchi-Russian dictionaries are *Russko-čukotskij slovar' dlja čukotskoj školy* [Russian-Chukchi dictionary for Chukchi schools] (Skorik 1941), *Čukotsko-russkij slovar'* [Chukchi-Russian dictionary] (Moll & Inenlikej 1957), and *Russko-čukotskij čukotsko-russkij slovar'* [Russian-Chukchi Chukchi-Russian dictionary] (Inenlikej 1976; revised edition 1987). Moll and Inenlikej 1957 contains a bare minimum of grammatical information (missing altogether in the other dictionaries) including vowel harmony and non-word-initial

⁹ Bogoras died in 1936, the year of the 'Stalin' constitution.

forms, but lacks information on transitivity. Word class is sometimes apparent through the choice of citation form.

Belikov 1961 *Lay'orawel'en ləmpalte* is a collection of Chukchi folktales; Russian translation *Čukotskie skazki* also published. This collection was edited for brevity (not a usual characteristic of Chukchi folktales) and to eradicate mention of body parts and biological functions which are taboo in Russian (e.g. anything scatological or sexual; Raxtilin *pers. comm.*). Apparently it was also subject to grammatical standardisation, as regional features and difficult-to-translate grammatical particles are absent or rare. The book was not intended as an academic source, although it has been used as such.

The scholar Inenlikej (a native speaker of Chukchi) has published a number of works, particularly in the areas of adverbs and the lexicon (e.g. Inenlikej 1965a-b, 1966a-d, 1969, 1974a-b, 1976, 1978; Inenlikej & Nedjalkov 1966, 1967, 1972, 1981). These works are all in Russian, and many of them are difficult to find outside specialist Russian libraries. Inenlikej was also co-author of a variety of works (Moll & Inenlikej 1957; Nedjalkov & Inenlikej 1983; Nedjalkov, Inenlikej & Raxtilin 1988).

A number of non-Chukchi scholars also collaborated with native speakers working or studying in Leningrad/St Petersburg to produce theoretical papers which nevertheless also present some new descriptive materials (e.g. Comrie 1979, 1981; Nedjalkov 1977, 1979, 1994). Two theoretically-updated grammatical sketches of Chukchi have recently appeared, one in English (Muravyova 1998), and one in Russian (Volodin & Skorik 1996); both take Skorik's grammar (Skorik 1961, 1977) as their main source of data. Other descriptive work on aspects of Chukchi (based on published data sources) includes Spencer (1995), Koptjevskaja-Tamm (1995), Muravyova (1989). Areal/typological and comparative studies have been published by Comrie (Comrie 1980a, 1980b), de Reuse (1994b), Fortescue (Fortescue 1998) and Muravyova (1976, 1986).

2

Dialectal variation

2.1 Introduction

The Telqep variety of Chukchi is distinguishable from other varieties of Chukchi on the basis of a number of formal characteristics discussed in §2.4. The term Telqep is used by Chukchis to refer to people originating from an area extending from somewhat north of the Anadyr' estuary, to an area several hundred kilometres south (just north of Xatyrka) and inland to the lands surrounding the river Velikaja (see Map 2.). The name comes from the Telqep river, which meets the sea in the middle of the territory. Geographical variation within Chukchi is slight, with differences between varieties mostly found in the lexicon. There are also a few morphological differences in the verbal agreement system and in other areas of the grammar. To put this into perspective, even the other 'languages' of the group that Chukchi belongs to (Koryak, Kerek, Alutor; sometimes called 'Chukotian' or 'Koryako-Chukotian') show a fairly small degree of variation, to the extent that they might be considered dialects of a single language if cultural and historical differences did not intervene (§1.2; Comrie 1981:240). One variety of Chukchi does stand distinct from all others and is profitably considered a different dialect; the 'Standard Chukchi' (or 'Literary Chukchi', as it is usually called in Russian) described and codified by Skorik (1961-1977) differs considerably in its details from spoken varieties of Chukchi; there is more discussion of this in §2.5.

This chapter begins with a comparison of the various Chukotian languages (§2.2) to show where Chukchi is situated within its family (Itelmen is not considered, see §1.2). In §2.3 there is a discussion and description of the differences between the variety of Chukchi spoken by men and that spoken by women. This is an area of Chukchi which is very interesting from a sociolinguistic and also diachronic point of view, but to date there has not even been an adequate description of the phenomenon. Section §2.4 is a description of the particular variety of Chukchi which is the object of this work, with material showing how this variety differs from other varieties of Chukchi, particularly those which have already been the object of study. Finally, in what is something of a warning to the linguist, §2.5 contains a discussion of the variety of Chukchi dealt with by Skorik (1961-1977). This variety is an artificial literary dialect which, due to the availability of the

published grammar, is commonly used as a data source for theoretical linguistic research. Some of my research on spoken Chukchi suggests that caution should be exercised if conclusions about natural language are to be made on the basis of this data.

2.2 Linguistic comparison

The linguistic literature mentions a large number of Chukchi dialects, although very little work has been done on the linguistic characteristics of these varieties. Some of them seem likely to be no more than a combination of characteristic pronunciation ('accent') and a few regional lexical differences. In a series of notes Moll and Inenlikej (1957) describe some differences in verb inflectional paradigms between the Chukchi of Xatyrka (in the south-east of Chukotka, bordering the Koryak Autonomous Okrug) and other more northerly varieties. I have observed these same differences in the dialect of Chukchi speakers from the south-west, around the town of Markovo (Korav'e pers. comm.).

Linguistic comparison shows the separation of the languages/dialects of the Chukotian group is relatively recent. The languages and dialects can be subgrouped differently according to which linguistic parameter is used, and different selection of parameters can yield different results (e.g. cognate counts in basic vocabulary vs. phonological comparison). Matters are confused by the (non-native) names given to the dialects; 'Koryak' is used interchangeably for the standardised variety of Koryak (also called 'Chavchuv Koryak'), and along with geographical terms as part of the names of a 'residual category' of Chukotian languages/varieties which don't have their own name (e.g. Apuka Koryak, Itkan Koryak, Kamenskij Koryak, Parenskij Koryak, Karaginskij Koryak and Palana Koryak¹).

Good wordlists are available for a number of the dialects/languages of the Chukotian group. Much of the published data is due to the efforts of Alevtina Nikolaeva Žukova, whose research on Koryak and Alutor dialects spans many years. The following sample (selected for geographical coverage and adequacy of data) is representative for the purposes of the comparison in §2.3.2:

- Al Alutor
- KoPl Palana Koryak (also considered a dialect of Alutor; Skorik 1968)
- ChW Women's Chukchi
- ChM Men's Chukchi
- KoCh Chavchuv Koryak
- Ke Kerek

The key sources are Žukova 1980 [KoPl, KoCh], Žukova 1967 [KoCh], Stebnickij 1994 [KoCh, Al], Skorik 1968 [Ke], Žukova 1968 [KoCh, Al], Muravyova 1979 [Al].

¹ Skorik (1968) groups Karaginskij Koryak and Palana Koryak with Alutor; see the evidence for shared phonological changes between Al and KoPl in fig. 2.5.

Some of these sources also contain ChM materials, but none contain ChW. Since the precise origins of the Chukchi materials are generally not stated, and since they occasionally vary somewhat from my own, I only use Telqep Chukchi data from my own fieldnotes for comparison.

2.3 Gender dialects

The existence of a women's Chukchi somehow different from men's Chukchi is well-known in the literature. What is perhaps surprising is that there has never been an adequate description of women's Chukchi. In the acknowledgments to the two volumes of Skorik's grammar (1961:14 and 1977:7) there are twelve Chukchis thanked by name; all are male. Bogoras published two small samples of women's Chukchi in his *Chukchee Mythology* (1910:144,145), and another five in his (sadly inaccessible) *Materialy po izučeniju čukotskogo jazyka... [Materials for the study of Chukchi]* (1900:121-126). In his grammar Bogoras has a section entitled 'Pronunciation of Men and Women' (Bogoras 1922:665-666). In this section he states:

The pronunciation of the women differs from that of the men. Women generally substitute *š* for *č* and *r*, particularly after weak vowels. They also substitute *ss* for *rk* and *čh*. The sounds *č* and *r* are quite frequent; so that the speech of women, with its ever-recurring *š*, sounds quite peculiar, and is not easily understood by an inexperienced ear. Women are quite able to pronounce *č* and *r*, and when quoting the words of a man,—as, for instance, in tales,—use these sounds. In ordinary conversation, however, the pronunciation of men is considered as unbecoming a woman. (Bogoras 1922:665)

He gives four single word examples showing these correspondences (the examples are selected not to include examples of words without the alternation; see §2.3.2), and then has another paragraph about the differential use of intervocalic consonant dropping by men and women. He states that this is most common in the Kolyma district, but with one exception, I did not observe any definite examples of differential use of consonant dropping in the Anadyr' Region (further discussed §2.3.3).

Skorik's statements about women's Chukchi are no more extensive and no more accurate. In a paragraph at the end of his extended discussion of (male speakers') phonology he mentions that

Apart from the consonants listed, there is also in Chukchi an affricate, similar to Russian *c* but somewhat softened [i.e. palatalised], which is used in the women's pronunciation only. This affricate usually corresponds to the consonant *r* and *ç* of male pronunciation, moreover it assimilates a following consonant *k*, for example the male

pronunciations— [reqərkən?] 'what is s/he doing?', [rərkə] 'walrus';
female pronunciation—[ceqəccən?], [cəccə].

[Skorik 1961:33; my translation and transliteration]

In §§2.3.2-3.3 it will be shown that women's Chukchi differs from men's Chukchi in a much more complex manner than has previously been recognised. The two main phonological differences between men's and women's Chukchi are the *r-c* alternation (§2.3.2) and intervocalic consonant elision (§2.3.3). Earlier characterisations have generally either claimed that the difference is merely substitution of one pronunciation for another, or if it is recognised that this 'substitution' does not always occur, then the variation is treated as irregular. In fact, the correspondences between women's and men's Chukchi are synchronically unpredictable, but can be accounted for in the context of greater Koryako-Chukotian dialectology. There is no evidence that the women's and men's dialect distinction occurs differently in different regions of Chukotka, although this hasn't been systematically examined.

Because the phonological correspondences between women's and men's Chukchi are synchronically unpredictable, it makes sense to talk of these varieties as *gender dialects*. Gender dialects are a rare but geographically dispersed phenomenon, attested in diverse languages such as Gros Ventre (Flannery 1946, Taylor 1982), Island Carib (Hoff 1994), Koasati (Haas 1944; this is debated, see also Kimball 1987, 1990 and Saville-Troike 1988), Pirahã (Everett 1986:317), Yana (Sapir 1963 [1929]) and Yanyuwa (Bradley 1988).

Women's Chukchi has never been considered within the framework of general Chukotian dialectology. The superficial accounts of women's language hitherto published make it difficult to see that there is anything of interest to discover. In fact, women's Chukchi and men's Chukchi can be shown to be related to different geographical dialects, with women's Chukchi showing surprising similarities to Alutor and the Palana Koryak dialect. Note that no other language or dialect in the family has this distinction between men's and women's language (a tiny lexical exception exists in Palana Koryak; see §2.4); it seems to be an innovation of the period after Chukchi separated from all its sister languages (possibly only a few hundred years).

2.3.1 Sociolinguistic status

Choice of which gender dialect of Chukchi to use is determined by the sex of the speaker. There is no absolute prohibition against using the other dialect. Quoted speech can be given in the gender dialect appropriate to the quoted person, and people can give examples to correct the speech of someone of the opposite sex if the wrong gender dialect is accidentally used. As will be shown below, although similar, the exact form of each gender dialect is not predictable from knowledge of the other. Thus, speakers must simply remember the alternate forms for all the words which are different between the two dialects. In traditional society

shamanistic power was often linked with partial or complete change of sex/gender. As a highly salient social indicator of gender, adoption of the opposite gender dialect was frequent among shamans and their patients (§1.1.2). Women and men are aware of the differences in their language, and will freely pronounce words like a person of the other sex in explanation or corrections (to a language learner) or for dramatic or humorous effect in quoted dialogue. In stories gender dialect is treated as one of many distinctive features of an individual's pronunciation which can be imitated or ignored according to the storyteller's preference. A storyteller will not generally adopt the gender dialect of a quoted character of the opposite sex unless other features of their speech are imitated too—thus, the speech a female dog is quoted (in a fairytale) using both woman's dialect and high-pitch singsong intonation like the yelping of a dog.

When the Soviet process of 'modernisation' came to Chukotka, shamanism was violently suppressed and the use of women's dialect discouraged. Language standardisation was based entirely on men's dialect. In the 1990s educated women seem to feel obscurely guilty for using women's dialect, but they usually use it all the same. Chukchi language radio and television broadcasting is all carried out in men's dialect. Female announcers use men's dialect on air, but women's dialect in private. Only in public speech in front of strangers do women use men's dialect. Although men are also bidialectal, they are very rarely called upon to produce women's dialect, and for men the traditional usage patterns of gender dialect have not changed.

2.3.2 The *r-c* alternation

In a number of synchronically unpredictable contexts an *r* in the men's dialect corresponds to *c* in the women's dialect (see §3.7.3 for transcription). Some typical example of the alternation are shown in fig. 2.1.

FIGURE 2.1. Chukchi words: Different pronunciation?

	<i>mosquito</i>	<i>polar fox</i>	<i>leg hide</i>
female speaker	mcen	ceqokalyən	pancat
male speaker	mren	reqokalyən	panrat

However, there are other contexts where there is no contrast; women's *c* corresponds to men's *c*, and women's *r* corresponds to men's *r*:

² All the data in this section comes from Telqep Chukchi; non-local Chukchi speaking women in Anadyr' all used the women's dialect. Their women's dialect did not seem to differ in any way from that of the local Teqep speaking women, although as non-local women were generally in Anadyr' for work purposes, and as such were more educated, they would switch between women's and men's dialect in a non-traditional manner (§2.3.1).

FIGURE 2.2. Chukchi words: Same pronunciation.

	<i>teapot</i>	<i>trap</i>	<i>she went home</i>	<i>reindeer</i>
W speaker	cajkok	utkucʔən	raytəʔe	qorəŋə
M speaker	cajkok	utkucʔən	raytəʔe	qorəŋə

These two correspondence sets (words with the c-r alternation and those without) are found throughout the native lexicon, but the c-r alternation is never found in loanwords.

Figure 2.2.3 has some selected cognate sets to show that a set of proto-Koryako-Chukotian coronals can clearly be reconstructed³. Chukchi words with the c-r alternation are not included in this set. Chukchi words with the c-r alternation pattern differently, as shown in figure 2.2.4.

FIGURE 2.3. The proto-Koryako-Chukotian coronals *t, *r, *c, *j

	*j <i>tongue</i>	*r <i>house</i> ⁴	<i>partridge</i>	1pl/du pron.
Al	jiljil	ra-	ray-	mur-
KoPl	jələ-ljən	ra-	rew-, rewəm-	mur-
ChW	jələjəl	ra-	rewəm-	mur-
ChM	jələjəl	ra	rewəm-	mur-
KoCh	jiljil	ja-	jewjew	muj
Ke ⁵			jawjaw	məj-

	*t <i>stranger</i>	<i>wild sheep</i>	*c <i>sister</i>	<i>kidney</i>
Al	tangətan	kɬipa-	sakəyit	ksimma
KoPl	tangətan	kɬeppa	cakəyet	kcimme
ChW	tangətan	kəɬipe-	cakəyet	kəcime-
ChM	tangətan	kəɬipe-	sakəyet	kəsime-
KoCh	tangətan	kəɬep	cakəyet	kəcim
Ke		kəcipa-ŋa		

³ The reconstructions presented below are my own; they support the (much more detailed) analysis of the Chukotko-Kamchatkan proto-coronals in Muravyova's unpublished dissertation (Muravyova 1979). Muravyova did not, however, look at the women's variety of Chukchi. The cognate sets given are representative, and are by no means exhaustive, as many more similar examples can be found.

⁴ The form given here is the minimal stem used in incorporation and compounding. As an independent noun these stems are reduplicated (see §6.2.1). In Chukchi there has been an additional process of dissimilation, by which reduplicated *ra-ra- has the form jara-.

⁵ My access to Kerek sources has been very limited; absence of a form in the correspondence sets should not be taken to indicate the a cognate does or doesn't exist.

Apart from these correspondences there is yet another set, shown below in figure 2.2.4. Although none of the phonemes in the various contemporary reflexes of the Koryako-Chukotian languages are different from the reflexes of the proto-Koryako-Chukotian coronals shown above, their distribution shows that proto-Koryako-Chukotian includes another consonant.

FIGURE 2.4. Alternations: ChW c corresponds to ChM r

	<i>future</i>	<i>what?</i>	<i>walrus</i>	<i>polar fox</i>
Al	te-	teq-	tətka	tiquk
KoPl	te-	teq-	tətka	tiquk
ChW	ce-	ceq-	cəccə	ceqoka-ljən
ChM	re-	req-	rərka	reqoka-ljən
KoCh	je-	jeq-	jəjka	jijuk
Ke	ja-	jaq-	ika-ŋa	

	<i>mosquito</i>	<i>leg hide</i>	<i>forehead</i>	3pl pron. ⁶
Al	mtan	panta-	kəttil	ətti
KoPl	mtenne	panta-	(kərrel) ⁷	ʔəttu
ChW	mcen	panca-	kəccel	əcci
ChM	mren	panra-	kərel	ətri
KoCh	məjen	paŋŋa-	kəccel	əcci
Ke			kəttil	icci

Muravyova (1979) demonstrates the existence of this proto-phoneme (which she calls *d, a convention I will follow) for the Koryako-Chukotian family, but did not do any comparison of women's Chukchi. The summary of these cognate sets in figure 2.2.5 shows that there is an isogloss in the Koryako-Chukotian languages between those where *d has the modern reflexes r (ChM) or j (from the phonological collapse of *d and *r; KoCh, Ke?) and those where it has the modern reflex t (Al, KoPl).

FIGURE 2.5. Summary of cognate sets

	*t	*r	*d	*c	*j
Al	t	r	t	s	j
KoPl	t	r	t	c	j
ChW	t	r	c	c	j
ChM	t	r	r	s	j
KoCh	t	j	j	c	j
Ke ⁸		j			

⁶ Note the assimilations: ChW *rk → cc, ChM *rr → tr. There also seems to be palatalisation/assimilation in KoCh *tj → cc (in this figure) and *nc → ŋŋ (see fig. 2.4), but for the purposes of this thesis I have not closely examined the phonology of Chukchi's sister languages/dialects.

⁷ This form is unexpected.

Women's Chukchi has an anomalous position in this schema, as it looks more similar to the Al-KoPI cluster than the ChM-KoCh cluster. This opens the way to a hypothesis that Chukchi gender dialect distinctions have come about as a result of influences on the language of members of one gender by a geographical dialect (or dialects) similar to Alutor and Palana Koryak. Such a situation is not implausible (discussed below).

HYPOTHESIS: Chukchi split into two gender dialects as a result of substrate influence on the language of either men or women by another Koryako-Chukotian language/dialect.

The hypothesis can be developed in two ways;

- i) Men's Chukchi diverged from proto-Chukchi, perhaps through substrate influence from dialects from the KoCh-Ke cluster
- ii) Women's Chukchi diverged from proto-Chukchi, perhaps through substrate influence from dialects from the Al-KoPI cluster

Of these, the latter scenario is more likely from an ethnographical and (pre-)historical viewpoint. In Chukchi society women travel to live at the encampments of their husbands; women travelling across an isogloss boundary for marriage could bring a set of characteristic mispronunciations through interference from their native dialect. The mispronunciations expected would be in exactly those words which contain reflexes of *d, since there is little variability in the reflexes of other consonants. In Chukchi society, where male and female social roles are very separate, it is possible to imagine a situation where the characteristic mispronunciations of some women becomes reinforced as a social marker of femininity.

This scenario is sociolinguistically plausible, but the proposed path of historical linguistic development is problematic. If dialects of the KoPI-Al cluster were the source of this feature of Chukchi women's dialect it would be expected that the phonological collapse of *d in women's Chukchi would be to modern t, not modern c (see fig. 2.2.5). Although *d has collapsed with some other phoneme in all contemporary languages, there is no language in the sample set apart from women's Chukchi which has the collapse *d → c (they are all either *d → r or *d → t).

It is possible that women's Chukchi could have been produced by substrate influence from yet another, unattested, Koryako-Chukotian language, which either preserved the three-way split *r/*d/*c longer than the other members of the family, or which collapsed *d and *c. Although the invention of extinct, unattested languages as motivating factors for linguistic change may often be no more than methodological sleight of hand, in this case there are outside factors which could

* I have too little data to form good hypotheses about Kerek.

support it. Archaeological evidence ascribes the beginning of reindeer herding in the region to Chukchi innovation in the fifteenth century. Prior to this the ancestors of the Koryako-Chukotian speaking peoples lived as hunter-gatherers along the rivers and coasts. Since the beginning of reindeer herding the population density has dramatically increased, and the Chukchis have expanded their range a long way to the west and south. It is quite likely that they absorbed speakers of other Koryako-Chukotian languages during this expansion.

2.3.3 Intervocalic consonant elision

In his brief discussion of the differences between women's and men's pronunciation Bogoras mentions that 'the men, particularly of the Kolyma district, drop intervocalic consonants, principally *n* and *t*' (Bogoras 1922:665). This elision is reported to work in the same manner as the general Chukchi phonological rule which allows sporadic dropping of intervocalic approximants (accompanied by vowel assimilation, i.e. $V_1GV_2 \rightarrow V_2V_2$; see §3.2.4). Bogoras further adds that men of the maritime Chukchi use both the shorter forms (unclear from context whether he means just the forms with dropped *n* and *t*, or all forms with dropped intervocalic consonants) and the longer ones (no dropping), whereas women only use the longer.

Telqep Chukchis do not correspond to either of these groups, and I have not observed any difference in the use of dropped intervocalic glides; both men and women do it sporadically, more often with some words than others. It is not surprising, if it is really mostly a feature of Kolyma Chukchi, that the dropping of intervocalic *n* and *t* was hardly observed. In my data only one very elderly male speaker dropped intervocalic *n* at all, and he only did it sporadically, and apparently only in verbal suffixes of the form *ine*-^{VH}:

ənqaat < ənqenat [he091]
 nəpelatəŋŋoqaat < nəpelatəŋŋoqenat [he094]
 nʔəwalomərkaat < nʔəwalomərkanat [he106]
 yetcəleet < yetcəlinet [he115]

There were no examples, in his speech or others', of the dropping of intervocalic *t*. From the limited amount of data it is unclear whether these observations are significant.

2.3.4 Lexical variation

Telqep Chukchi has a gender distinction in the words for 'yes': *ii* for women, and *eej* for men. This lexical distinction only exists in southern Chukchi, although interestingly exactly the same distinction does occur in some of the Koryako-Chukotian dialects further to the south (see §2.4).

There is also a lexical consonant alternation between *r* and *t* at the end of certain adverbs and particles. This alternation shows strong statistical tendencies distinguishing men's and women's dialect, with women more frequently using the

t-final form, and men more frequently using the r-final form, but with men and women usually using both forms at least some of the time.

FIGURE 2.6. Adverbs and particles with final r-t alternation.

		Women	Men		Women	Men
<i>like, um..</i>	qənur	1 (8%)	51 (80%)	qənut	12 (92%)	13 (20%)
<i>and so</i>	ewər	1 (2%)	21 (84%)	ewət	43 (98%)	4 (16%)
<i>finally</i>	qənwer	13 (48%)	11 (69%)	qənwet	14 (52%)	5 (31%)
<i>now</i>	iyər	0 (0%)	6 (100%)	iyət	18 (100%)	0 (0%)
<i>suddenly</i>	luur	6 (32%)	0 (n/a)	luut	13 (68%)	0 (n/a)
<i>first</i>	janor	0 (0%)	4 (67%)	janot	12 (100%)	2 (33%)
<i>maybe</i>	weler	0 (0%)	2 (50%)	welet	2 (100%)	2 (50%)
	TOTAL r	21 (16%)	95 (79%)	TOTAL t	114 (84%)	26 (21%)

The source of this alternation is unclear, although a coherent historical account can be made that links it to the r-c alternation of men's and women's dialect. Note that t is the word final allophone of /c/ as well as /t/, so in word-final position the r-c alternation is actually a r#-t# alternation (§3.3.2).

It cannot however be claimed that the final t of these adverbs is synchronically an example of this alternation, as if it were the t-final variant would not be expected to occur in men's dialect at all. Also, it can be shown that synchronically the final t in these forms is phonemically /t/ not /c/. There are morphologically complex forms of these adverbs with suffixes which retain the t word-internally (e.g. the relational form *iyət-kin ones from now, contemporary ones*); the consonant t is the word-internal reflex of the phoneme /t/, but the word internal reflex of /c/ is c.

When Chukchi native speakers talk about language⁹, the linguistic feature which distinguishes women's dialect from men's is not the relative frequent occurrence of the phoneme /c/, but rather it is the relatively frequent occurrence of the *sound c*. Thus, despite the statistical preferences for women to use the t-final forms and men use the r-final forms, it is possible that the t-final forms of these adverbs may not be considered a characteristic women's pronunciation.

2.4 Geographical variation within Chukchi

My main interest is to try to produce a synchronically reliable description of a single variety of Chukchi, and so I have worked mostly with people born and raised in the Anadyr' district. I can't make definitive statements about geographical variation outside of the areas visited, and my observations of different speech practices by natives of outside areas occurred as the opportunity arose rather than systematically.

⁹ Literate Chukchi speakers are aware of instances of allomorphy because of spelling rules in the Russian-based orthography (see §3.7.1).

The phonological variation within Chukchi is not enough to obscure communication for the most part, although characteristic rapid speech of northerners can be problematic to southerners like Telqeps. There are a few systematic differences. The main difference is in the realisation of the men's c phoneme, which seems to vary between alveolar fricative and alveo-palatal affricate. There is evidence that there is regional variation in the realisation of other phonemes. For instance, speakers from the Kolyma district in the north-west pronounce the personal name forming suffix -wji as -wyi. Likewise, Standard Chukchi inchoative suffix -ygo is in Telqep Chukchi more often pronounced -myo. In this case Standard Chukchi seems to be innovative, as the cognate verb stem *to begin* has the form *moo-*, which can be derived from *məyo-* through intervocalic approximant deletion/vowel assimilation process (§3.2.4). Telqep Chukchi has both *məyo-* and *moo-*.

A lot of the geographical variation within Chukchi is lexical. Standard Chukchi reflects the lexicon of the far north east of Chukotka. Many lexical differences are found in the area of material culture. For instance, the standard Chukchi word *kupre-n net* is not used in Telqep Chukchi; Telqeps use the word *yige.nyig* (stem *nyige* is reduplicated to form the absolutive). Another such example is the word *ware-t* (singular *ware-ryən*), which is used around the Markovo region to mean the main support tripod of a *jarəgə* (traditional skin tent). In Telqep Chukchi the main supports of a *jarəgə* are called *tewri-t*, while the word *ware-t* refers to the subsidiary tripods erected around the edge.

Another significant difference is found in different patterns of lexicalisation. For example, the Standard Chukchi verb stem *re-* *enter* is equivalent to *recqiw-* in Telqep Chukchi. The Telqep form seems to be clearly segmentable as *re-cqiw-*, as *-cqiw* is a purposive derivational suffix common in both varieties (§14.6.2). However, there is no evidence that *-cqiw* is segmented by Telqep speakers, who never use the stem *re-* without it. While the segmentation of the Telqep form into two morphemes seems to be diachronically valid, in the contemporary language it must be considered a lexicalised form.

The *ii/eej* distinction found in Telqep Chukchi between women's and men's word for 'yes' exists in Telqep Chukchi, but not in the Chukchi of the north, where *ii* is used by all. This could perhaps be evidence that gender dialect differences do indeed originate from southern Chukchi. It is suggestive that the *ii/eej* distinction is also found in Palana Koryak (Alec King *pers. comm.*).

A distinctive feature of the Telqep variety of Chukchi is a difference in the first and second person singular free absolutive personal pronouns.

Telqep	Standard
yəmo	yəm
yəto	yət

The Telqep forms are similar to the pronouns from a number of Koryak dialects (for example, Zhukova transcribes the 1st person absolutive pronoun in Chavchuv Koryak variously as *yammo*, *yamo* and *ymo*; Zhukova 1988:9).

Moll and Inenlikej (1957:176-185) reports that the Chukchi of Xatyrka (on the southern extreme of the Chukotka coast) has slightly different patterns of verbal inflection than other varieties. The difference relates to the choice of inverse alignment marker in certain verbal paradigms. Where most varieties of Chukchi have a fused suffix indicating inverse alignment and that the object is second person plural, Xatyrka Chukchi uses an unfused inverse alignment prefix (inverse alignment markers are discussed in §10.2.2). The following figure shows the verb 'you left us' in Telqep Chukchi and Xatyrka Chukchi:

The inflected verb form *you left us*

Telqep Chukchi: *pela-ko-yʔe*
leave-INV.1pl-TH

Xatyrka Chukchi: *na-pela-mək*
INV-leave-1pl

While Telqep Chukchi does not share this difference with Xatyrka Chukchi, Chukchis from further inland (e.g. around Vaegi, T. Korav'e *pers. comm.*) also have this non-standard alignment pattern. The Xatyrka/Markovo alignment pattern is identical to Koryak, which, along with what is known about ethnic history, makes this seem likely to be substrate influence.

2.5 Standard Chukchi

The language policies of the Soviet Union demanded that each recognised language have a standard form used for education and publishing. This led to the failure of native language education in areas with large dialect differentiation, as local children were unable to operate in the language that was being used for teaching (Stebnickij describes this for Koryak; 1994). Chukchi has less dialect differentiation, and the creating of a normalised 'standard' was more realistic. Standard Chukchi (in Russian *Literaturnij čukotskij jazyk*, 'The Chukchi Literary Language') was based on the variety spoken by the sedentary Chukchi-Eskimo population of the north-eastern coastal village of Uelen. The standard language was exhaustively defined by Skorik in his two volume grammar (Skorik 1961, 1977). The variety is passively understood, but not actively produced except by the highly educated in formal contexts, such as radio broadcasts, political speeches, and (to an ever decreasing amount) education. People who have an active command of standard Chukchi are mostly language professionals, such as teachers and indigenous media workers, and Soviet educated indigenous administrators.

Standard Chukchi differs from colloquial varieties in a number of ways. Most obviously, the Chukchi women's dialect has been abolished by fiat. Most people now feel that there is something improper about using women's Chukchi in formal

contexts. Skorik does not acknowledge different degrees of morphological productivity beyond non-productive derivational morphology and fully productive inflectional morphology. This has a negative influence on colloquial Chukchi data gathering since tertiary educated speakers treat low productivity morphology, such as the antipassive, as if it were fully productive. The worst offenders in this respect were unfortunately schoolteachers of Chukchi, who had been taught the standard linguistic analysis in teachers' college. Chukchi schoolteachers were unusual in that they were able to segment morphemes. This sometimes had bizarre effects when the standard analysis did not match what they recognised as the meaning. For example, the standard grammar does not include applicatives, which are formed by a morpheme which additionally makes antipassives, inverse alignment with first person singular object, and a number of other transitivity changing functions¹⁰. When asked for a word-by-word translation speakers would frequently try to revise their free translation to one which included some kind of first person participant. Of course, the knowledge that these speakers have of spoken Chukchi is not in any way defective, and the confusion is merely a result of intuitive native speaker knowledge of spoken Chukchi competing with formal education in Standard Chukchi. If in elicitation sessions I presented examples from Skorik's grammar as my own hypothetical constructs, my consultants, who understood that I was interested in spoken Chukchi, would often reject them. Some speakers became very uncomfortable to discover that the source of data that they rejected as ungrammatical was Skorik's grammar, and rapidly revised their judgement. Such grammaticality judgements are obviously not very revealing for descriptive purposes.

My description of the functions of morphosyntactic elements such as reciprocals and the antipassive differs in many respects from those in the literature. It is difficult to determine whether this truly is the result of linguistic variation within Chukchi. It is not clear that other descriptive materials dealing with these issues are methodologically comparable, in that they seem to be based on elicited or non-native speaker data rather than spontaneous text. For further discussion see the relevant sections of this grammar, especially reciprocal (§11.7.1), antipassive (§11.6.2), Incorporation (§12).

¹⁰ It is conceivable that applicatives do not exist in the northern Chukchi dialects that Standard Chukchi is based on; however native speakers of a more Standard-like dialect do understand applicatives in Telqep Chukchi without difficulty.

3

Phonology & Morphophonology

3.1 Introduction

This sketch of the phonology and the morphophonology of the Telqep variety of Chukchi describes the phonological and morphological alternations found in the data, and makes clear the principles of transcription, some of which follow traditions specific to the study of Chukchi more than general linguistic practice. More theoretical accounts of Chukchi morphology and phonology are found in Krause 1979, Kenstowicz 1986, Spencer 1995. While phonological description cannot be theory neutral, the theoretical basis of this sketch is intended to be as uncontroversial as possible, using aspects of well-known phonological theories chosen for both their ready adaptability to the descriptive needs of Chukchi, and for their transparency and ease of translatability into other theoretical frameworks. These notions include the classical phoneme, elements phonological feature theory, and the prosodic phoneme/autosegment as described within autosegmental phonology (e.g. Goldsmith 1990).

This chapter starts with a description of the general structure of a word (§3.2) in order to define the domains of the prosodic phonemes (§3.4.1-2) and to give the conditions for the allomorphic realisations of the segmental phonemes (§3.0). Chukchi has 13 segmental consonant phonemes: /p t k q m n ŋ ʃ s w r j ɣ/. The phonological system includes two prosodic phonemes; a word prosody of VOWEL HARMONY (§3.4.1), and a syllable prosody of GLOTTALISATION (sometimes counted as a 14th consonant; §3.4.2). There are three underlying vowels /*i *e *u/ which, with vowel harmony, are realised as five surface vowels: /i e a o u/. A recent phonological change (not attested in the sister languages) has produced a distinction between long and short vowels, although this has a relatively low functional load.

There are many phonological processes in which segments assimilate or dissimilate on morpheme or word boundaries. As discussed in §3.3.5, phonological systems used by men and women are somewhat different (see also §2.3).

After the sketch of the phonological system there is a discussion of three orthographies for Chukchi.

- i) the official Cyrillic orthography used in education and the media, as well as by Soviet scholars (§3.7.1)
- ii) the non-phonemic latinate orthography used by Bogoras in his seminal English language publications (§3.7.2)
- iii) the modified IPA orthography devised for use in this work—this differs in only minor details from the various IPA transcriptions of Chukchi used in contemporary linguistic publications (§3.7.3)

3.2 Word formation

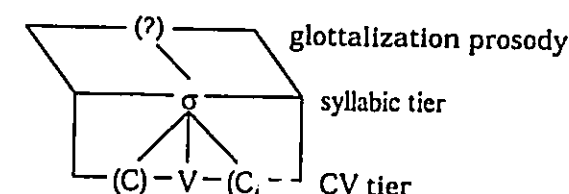
Vowel harmony provides a powerful diagnostic for determining the phonological boundaries of the word in Chukchi (see §3.4.1). Instances in which the grammatical word does not correspond to the phonological word are limited; Chukchi has one clitic¹ (§4.8.9), and there are a couple of analytic structures which have several phonological words acting syntactically like a single grammatical word (see §4.1). The phonetic forms of Chukchi words can be generated by application of rules to the underlying forms of sequences of morphemes. Apart from segmental phonemes, underlying forms may have specification for prosodies (§3.4) and syllabification. In this chapter I will use the conventions of autosegmental phonology to denote phonological form and phonological rules (Goldsmith 1990; for another descriptive grammar using a broadly autosegmental approach to phonological description see Foley 1991:37). In the grammatical description proper (next chapter onwards) autosegmental notation will generally be too unwieldy for a working orthography, so I will use the mixed phonemic and phonetic notation described in §3.7.3.

3.2.1 CV skeleton

Chukchi words have strictly circumscribed phonotactics. The surface form of a word consists of any number of syllables of the type $\sigma = (C)V(C)$. Each of these syllables may or may not have the glottalisation prosody (§3.4.2). It is possible for the underlying V not to be specified in the underlying form, in which case it is filled in by an epenthetic schwa.

SYLLABLE

¹ The only indisputable clitic found in Chukchi is the emphatic particle $=m$. Phonologically this consists of the segmental phoneme /m/ and the prosodic phoneme of glottalisation (§ 4.2); the latter is a syllable prosody, which can be shown to combine with the preceding word (examples of how this works are given in §4.8.9). Postpositions might marginally be analysed as clitics as well (§4.9).



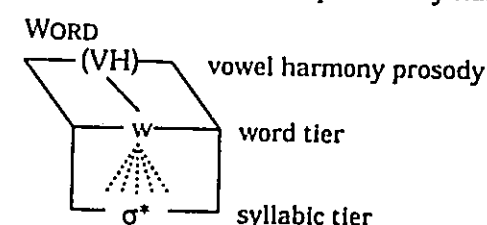
where σ = syllable

C = /p t k q m n ŋ l c w r j ʎ/ (see §3.0.1-4)

V = underlying /i u e/ (§3.4.1) or unspecified (schwa epenthesis §3.2.2)

? = glottalisation prosody (§3.4.2)

This syllable pattern can be repeated any number of times to form a word.



where w = word

σ^* = any number of syllables

VH = vowel harmony prosody (see §3.4.1)

It is important to note that the underlying forms of words may be phonologically unrealisable, and there is no claim that they have *psychological* reality.

3.2.2 Syllabification and epenthesis

An underlying sequence of consonants and vowels needs to be divided into syllables to determine the positions of epenthetic vowels and produce a well-formed word. Syllabification proceeds according to the association principle:

ASSOCIATION PRINCIPLE

Syllable templates are associated with the underlying CV skeleton from right to left. Each syllable (maximally CVC) associates with as many skeletal elements as possible. Onsets of syllables (C_1 of C_1VC_2) are always filled unless the word has an initial vowel.

The association principle can leave some skeletal elements unassociated with phonetic segments or syllables (for an example of the latter see §3.2.3).

e.g. /ŋewcqæt/ 'woman'

underlying form:

```

      C-V-C-C-C-V-C
      | | | | |
      ŋ e w c q e t
  
```

first association of a syllable
second...
third...

syllabified form:

```

      σ      σ      σ
    /  \    /  \    /  \
   C-V-C C-V-C C-V-C
   | | | | |
   ŋ e w c q e t
  
```

Once the syllables are associated with the underlying form, unspecified consonants in the skeleton are deleted and unspecified vowels are linked to a schwa (EPENTHESIS).

e.g.

```

      σ      σ      σ
    /  \    /  \    /  \
   C-V-C C-V-C C-V-C
   | | | | |
   ŋ e w ə c q e t
  
```

Most schwas in Chukchi can be accounted for in this way (i.e. not present underlyingly, but inserted by rule). Some, however, are unpredictable, and so have to be made part of the underlying form: e.g., the minimal pair -tək and -tkə (both are person-number suffixes in the verb paradigm; see §10.2). There are several formal possibilities for dealing with this:

- i) the schwa could be made part of the underlying form as an unspecified vowel present in the underlying CV skeleton.
- ii) syllabification of the underlying form could be specified

Of these the latter may be preferable, as it allows all instances of schwa to be the product of the same insertion rule rather than having a small minority that have to be treated as systematic phonemes (which, unlike the other phonemic underlying vowels /i, e, u/, would have no vowel harmony variant).

Following this approach, the suffixes -tək and -tkə in the examples above could be specified as being an underlying monosyllable and an underlying disyllable respectively:

-tək -tkə

```

      σ      σ      σ
    /  \    /  \    /  \
   C-C    C-C    C-C
   | |    | |    | |
   t k    t k    t k
  
```

The syllabification process generates and fills other slots in the CV skeleton

```

      σ      σ      σ
    /  \    /  \    /  \
   C-V-C C-V-C C-V-C
   | | | | |
   t ə k  t k ə
  
```

Other examples have unpredictable syllabification/epenthesis at the beginning of the word, e.g. /təlan/ *path* and /ətlan/ *3sg personal pronoun*. Both these forms have the underlying CV structure *CCVC. The predicted structure is CəCVC, since consonantal onsets are preferred (see §3.5 for examples of regular word-initial/word-internal allomorphy with the alternation #CəC- ~ -CC-). It is difficult to see how allowing specification of underlying syllabification could account for the differences, unless the notion of 'specification of underlying syllabification' is taken to include the possibility of specifying a zero-onset—however, the simplicity of the syllabification hypothesis was its most attractive feature, it may be better to leave the manner unresolved.

When a word underlyingly begins C₁C₂V.. and C₂ is one of the phonemes /c t ʃ/ then the process of schwa epenthesis is optional, for example:

/pəcaqəɬəŋ/ ~ /pcaqəɬəŋ/ *bird*
 /məren/ ~ /mren/ *mosquito*
 /pələkət/ ~ /pəkət/ *shoes*

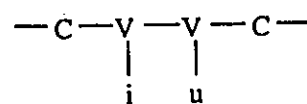
Literate Chukchis only intermittently write schwa in these positions.

3.2.3 Underlying sequences of vowels

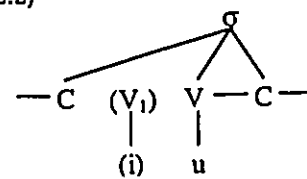
The first vowel of a pair of concurrent underlying vowels is regularly deleted:
 -V₁-V₂- → -V₂-

Note that V₂ cannot be a schwa, since schwas are not present in the underlying structure except as an unspecified V' slot. If a vowel-final prefix is added to a schwa initial stem, the schwa is deleted.

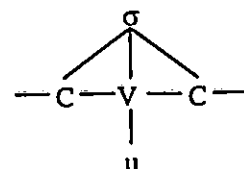
examples: underlying series -CluC-:



right to left syllabification
according to association
rules (see §3.2.2)



deletion of unassociated
units



Note that Chukchi does not have any diphthongs.

3.2.4 Vowel-approximant assimilation (long vowels)

There exist a number of homonym pairs of the type /ʔoracek/ ~ /ʔaacek/ 'youth, lad'. The general form of this alternation is:

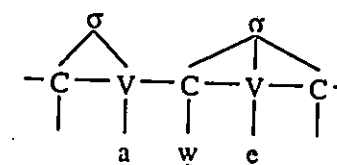
-V₁CV₂- → -V₂V₂-

where C represents any approximant (/w r j ɣ/).

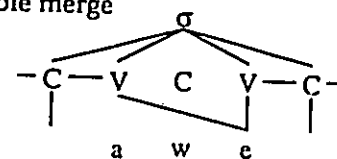
In the late 19th and early 20th centuries this was reportedly a phonological change (-V₁CV₂- → -V₂V₂-) which had progressed different amounts with different speakers. Apparently it was a feature of men's dialect to use the innovated form more often, but to what extent depended on the area. In present day Telqep Chukchi this change seems to be arrested. Most words are used solely in one form or the other, although the source is generally recognised. Only a few words appear in both. The relics of the change are important because they provide a minor syllable type with a double vowel. Chukchi's sister languages do not have any similar process. According to Bogoras, a similar process of intervocalic deletion + vowel lengthening occurred in men's speech with the consonants /n/ and /t/. In the Telqep data, no examples of the elision of /t/ were observed, and elision of /n/ was only observed by one elderly speaker. This is discussed in more detail in §2.3.3.

In autosegmental terms:

initial syllabification:

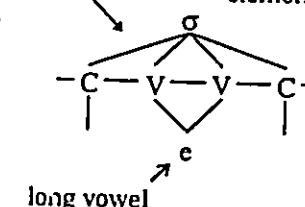


deassociation of
approximant and
syllable merge



intervocalic approximant

with unassociated
elements deleted...



long vowel

Examples of these word with variation between long vowel and vowel-approximant-vowel include /qora/-/qaa/ *reindeer*, /ɣiwik/-/ɣiik/ *year*, /qejuju/-/qejuu/ *calf*, /ləyen/-/leen/ *really*. Other words only occur with the long vowel, e.g. /weem/ *river* (compare Palana Koryak /wejem/), /ɣeekək/ *daughter* (compare /*ɣew-ekək/ *female-son*) and /əplaan/ *flour* (from English 'flour' with an absolutive singular suffix /-n/).

3.3 Consonant Phonemes

Chukchi consonants (with the exception of the glottal stop; §3.4.2) can be adequately described using Classical Phonemic Analysis. These phonemes are shown in figure 3.1.

FIGURE 3.1. Chukchi consonant phonemes.

	bilabial	alveolar	palatal	velar	uvular
stops	p	t		k	q
nasals	m	n		ŋ	
approximants	w	r	j	ɣ	
fricatives		s/c			
		ʃ			

The phonemes /r/, /s/ and /c/ have different distributions in the speech of men and of women, as has been discussed in §2.3. The other phonemes, both classical and prosodic, do not differ in this way.

There are a number of phonological processes which cause phonological alternations at morpheme boundaries. Different ways of describing these processes capture different regularities. As the purpose of this phonological description is ancillary to the morphosyntactic description of the Chukchi language, I have

chosen to present these processes as simple rules for the realisation of individual phonemes, rather than complex generalisations applying to an entire class. Thus, while both /p/ and /t/ assimilate in place to a following nasal, the rules are expressed as /p/ → [m] / $_\text{C}_{\text{nasal}}$ and as /t/ → [n] / $_\text{C}_{\text{nasal}}$, rather than a general rule of the form: $\text{C}_{\text{coronal, anterior}} \rightarrow \alpha \text{ place} / _\text{C}_{\text{nasal, } \alpha \text{ place}}$.

Phonological rules are expressed in terms of the following distinctive features:

FIGURE 3.2. Consonant distinctive features.

	p	t	k	q	s/c	ʃ	m	n	ɳ	w	ɾ	j	ɣ
sonorant	-	-	-	-	-	-	+	+	+	+	+	+	+
anterior	+	+	-	-	+	-	+	+	-	+	-	-	-
coronal	-	+	-	-	+	+	-	+	-	-	+	+	-
high	-	-	+	-	-	+	-	-	+	-	-	+	+
back	-	-	+	+	-	-	-	-	+	-	-	-	+
nasal	-	-	-	-	-	-	+	+	+	-	-	-	-
fricative	-	-	-	-	+	+	-	-	-	-	-	-	-

Although there are processes which apply to the approximants as a class, there is no requirement for a feature 'approximant' as it is redundantly +sonorant, -nasal.

3.3.1 Stop phonemes

The stop phonemes are unvoiced and unaspirated. Anterior stops assimilate nasality with a following nasal:

$$\begin{aligned} /p/ &\rightarrow \begin{cases} [m] / _\text{C}_{\text{nasal}} \\ [p] \text{ elsewhere} \end{cases} \\ /t/ &\rightarrow \begin{cases} [n] / _\text{C}_{\text{nasal}} \\ [t] \text{ elsewhere} \end{cases} \end{aligned}$$

The velar stop /k/ has an approximant allophone before other consonants (lenition), and assimilates in place with a following uvular:

$$/k/ \rightarrow \begin{cases} [q] / _\text{q} & \text{(assimilation of height)} \\ [\gamma] / _\text{C}_{\text{back}} \\ [k] \text{ elsewhere} \end{cases}$$

Where an underlying uvular stop /q/ precedes any consonants except another /q/ it is deleted, and the syllable acquires the glottalisation prosody (§3.4.2).

$$/q/ \rightarrow \begin{cases} [\text{GLOTTALISATION}] / _\text{C} & \text{(where } C \neq q) \\ [q] \text{ elsewhere} \end{cases}$$

Many instances of the glottalisation prosody transparently originate from the uvular stop according to this rule. In §3.4.2 there is a discussion of the glottalisation prosody, which shows how the glottal stop in Chukchi is phonologically in some ways like a consonant segment, and in some ways not.

Non-coronal stops (i.e. /p k q/) can undergo the NON-CORONAL CLUSTER TRANSFORMATION when neighbouring a non-coronal approximant; see §3.3.4.

3.3.2 Fricative and affricate phonemes

The consonant /s/ only occurs in the men's dialect. In Telqep Chukchi it is realised by [s] or [tʃ] in free variation; there is apparently no allophonic variation.

$$/s/ \rightarrow [s] \sim [tʃ]$$

In other dialects this is apparently not the case. Skorik's description and the standard orthography call this phoneme 'ʃ' (in Russian [tʃ]), with an 'allograph' 'C' (Russian [s]) written before /q/. This reflects a similar allophony to that found in Women's Telqep Chukchi (see below).

The consonant /c/² only occurs in the women's dialect. Phonetically it is an apico-alveolar affricate with a fricative allophone before /q/. Word finally it merges with /t/.

$$/c/ \rightarrow \begin{cases} [t] / _\# \\ [s] / _\text{q} \\ [c] \text{ elsewhere} \end{cases}$$

This particular set of allophonic realisations of the phoneme illustrates an interesting point about psychological reality. Literate Chukchi speakers can graphically distinguish allophones of phonemes when the allophone is the same as (an allophone of) a different phoneme, e.g. [t] is an allophone of both /c/ and /t/. In these cases literate speakers prefer to use orthographic symbols for the *allophones* rather than the *phonemes*; a speaker will always write 't' where [t] is pronounced. However, the allophonic variation between the realisations [s] - [c] is not noticed by speakers, even though these are written by different letters in Russian. One speaker corrected my phonemic transcription of /c/, pointing out that 'the sound [c] is written as [s] before [q]' (Təwɪwi *pers. comm.*). This indicates she was aware that the phonetic sequence [sq] was phonologically /cq/.

Women's /c/ and men's /s/ occur only in their respective gender dialects and thus are never in contrast. They are treated the same in terms of distinctive features.

The lateral fricative forms a natural class with /c/ and /s/, acting as environments for the rule /ɳ/ → [ɣ] / $\text{C}_{\text{fricative}} _\$ (see §3.3.3).

$$/ɳ/ \rightarrow \begin{cases} [ɳ] \sim [t] / _\text{ɳ} \\ [ɳ] \text{ elsewhere} \end{cases}$$

² Standard IPA for the apico-alveolar affricate is /ts/ not /c/; the latter is however commonly used in some branches of linguistics and has the advantage of having one symbol for one phoneme.

3.3.3 Nasal phonemes

The anterior nasals /m n/ do not undergo any phonological processes. In contrast, the velar nasal freely assimilates in place, and is subject to a lenition process (/ŋ/ → [ɣ]) in certain contexts.

/m/ → [m]

/n/ → [n]

/ŋ/ → $\begin{cases} \alpha \text{ place} / _ C_{\text{-nasal}, \alpha \text{ place}} \\ [\gamma] / _ C_{\text{+nasal}, \text{+anterior}} \\ [n] / \gamma _ \\ [\eta] \text{ elsewhere} \end{cases}$

The output of [α place] in the rule for the realisation of /ŋ/ is limited to nasals which already exist in the phonemic inventory, i.e. bilabial, alveolar or velar. Thus, where the conditioning environment is a palatal consonant the realisation of /ŋ/ is alveolar [n], and if the conditioning environment is uvular the realisation of /ŋ/ is velar [ŋ].

The progressive dissimilation of /ŋ/ → [n] / [ɣ] _ may be the only progressive rule in the language. There is however another alternation which is only observed occurring within morpheme boundaries: /ŋ/ → [ɣ] / C_{fricative}_. This alternation is a Chukchi innovation, not shared by any of the sister languages. The two commonly occurring examples of the alternation are the singulative /*tj^{vh}/, which is realised as /təŋ/ ~ /tɣ/, as in /apaɣə-təŋ-ə-n/ 'a (single) spider', /təla-tɣ-ə-n/ 'an eye', and the augmentative /*tj^{vh}/, which is realised as /cəŋ/ ~ /cɣ/, as in /rakwət-cəŋ-ə-n/ 'big doe', /ŋaɪwət-t-cɣ-ə-t/ 'big herd'. It is unclear whether or not this alternation is productive.

3.3.4 Approximants

The glide and tap phonemes form a natural class (in terms of features: [-nasal, +sonorant])³.

/w/ → [w]

/ɾ/ → $\begin{cases} [t] / _ C_{\text{+coronal}} \\ [r] \text{ elsewhere} \end{cases}$

/j/ → $\begin{cases} [\gamma] / _ C_{\text{+coronal}} \\ [j] \text{ elsewhere} \end{cases}$

/ɣ/ → [ɣ]

³ Note that in accordance with the traditional practice in Chukchi linguistics the velar approximant phoneme is written by the symbol /ɣ/ (usually a velar fricative) instead of the technically correct symbol for a velar approximant /uɫ/.

Approximants are also subject to the deletion/assimilation process in which -V₁C_{approx}V₂ → -V₂V₂- (see §3.2.4).

The semi-vowel approximants /j/ and /w/ trigger assimilation of place of a neighbouring schwa (irrespective of relative order) such that ə → i / j and ə → u / w.

The non-coronal approximants (i.e. /w ɣ/) undergo the NON-CORONAL CLUSTER TRANSFORMATION when neighbouring another non-coronal consonant. The non-coronal cluster transformation is a process whereby any cluster of two non-nasal, non-coronal consonants in which at least one of the consonants is a sonorant is realised as /kw/.

$\begin{matrix} C_{\text{-coronal}} & C_{\text{-coronal}} \\ \text{-nasal} & \text{-nasal} \\ \alpha \text{ sonorant} & \beta \text{ sonorant} \end{matrix} \rightarrow /kw/$ where at least one of α and β is [+]

Note that the features [-nasal, +sonorant] specify the natural class of approximants. In careful speech speakers sometimes avoid this transformation, and it is not usual to apply it with /q/.

Standard Chukchi also has a transformation *ym → ɣɣ, but this is rarely applied in Telqep Chukchi, and the instances of it that do occur are probably dialect mixing.

3.3.5 Men's and women's /ɾ/ and /c/-/s/

As described in §2.3, Chukchi men and women speak their languages with slightly different phonological systems. The three types of correspondence are summarised in fig. 3.3. These correspondences are explicable diachronically, but unpredictable synchronically (§2.3.2).

FIGURE 3.3. Correspondences between phonological systems of the gender dialects.

	Men's phonemic system	Women's phonemic system	
qoraŋə	/ɾ/	/ɾ/	qoraŋə
panrat			pancat
sajok	/s/	/c/	cajok

(/qoraŋə/ 'reindeer'; /panrat/-/pancat/ 'leg hide'; /sajok/-/cajok/ 'to drink tea')

There are also a few lexical differences between the men's and the women's variants of the language, discussed in §2.3.4.

3.4 Prosodic Phonemes

Chukchi also has prosodic phonemes, phonological units which are associated with units larger than the segment. Three underlying vowels are subject to a vowel harmony prosody which extends over the prosodic domain of the word (§3.4.1). The glottal stop is also best described as a prosody with the domain of the syllable, although it also behaves in some contexts like a segment (§3.4.2). Chukchi does not have phonemic stress.

3.4.1 Vowels and vowel harmony

Chukchi has six phonetic vowel segments, the segments [i], [e], [a], [o], [u] and the epenthetic vowel [ə]. The full vowels are related in harmonic pairs to three underlying vowels /i/, /e/ and /u/. Depending on the presence of the vowel harmony prosody (VH), these are realised as below:

FIGURE 3.4. Vowel harmony pairs.

- vowel harmony	[i]	[e]	[u]
+ vowel harmony	[e]	[a]	[o]

Note that the vowel [e] can be the realisation of two phonologically different underlying vowels; either the +VH variant of the pair [i,e] or the -VH variant of the pair [e,a]. There is no phonetic difference between these two vowels. The prosodic domain of the vowel harmony prosody is the entire word. Thus, if the vowel harmony prosody is present in any one morpheme of a word then all vowels of the word are affected by it. The vowel harmony prosody itself is an independent phonological unit, and is not attached to any particular segment. For example, there are two absolutive singular suffixes with form /-n/. One of these is +VH, and derives place nouns from action verbs (§8.4). The other has the value -VH, and is the default absolutive suffix, carrying no further semantic specification (§6.3.1). Thus the +VH word /təla-n^{+VH}/ 'path' is derived from the -VH verb root /təle^{-VH}/ 'go, walk'; the addition of the +VH suffix has changed the /e/ of the stem to /a/. In contrast, the noun stem /kemliu^{-VH}/ 'kamlejka' (a cloth tunic worn over fur) forms absolutive case with the suffix /-n^{-VH}/, which doesn't cause any alternation of the vowels, i.e. /kemliu-n^{-VH}/

Note that the vowel [ə] is inserted epenthetically in the process of syllabification. It does not participate in the vowel harmony prosody (§3.2.2).

3.4.2 Glottalisation

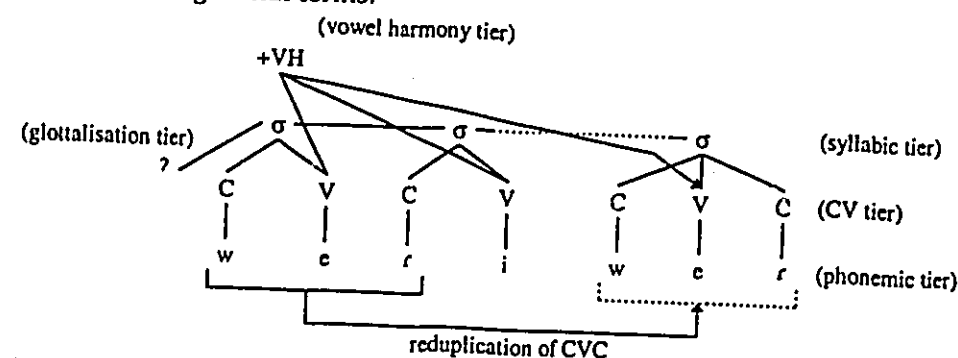
Glottal stops can only occur in prevocalic position in a word. They are best not treated as segmental phonemes for several reasons.

i) They are not distributed like other consonants. A maximal syllable is C[?]VC (§3.2.2). Thus a glottal stop is the only possible second consonant in an initial cluster or third consonant in an intervocalic cluster.

ii) Reduplication (one of the possible markers of absolutive singular; §6.3.1) copies consonants and vowels, but is blind to the presence of the glottal stop:

e.g. /w[?]are-war/ 'fork'

In autosegmental terms:



i.e. the first CVC of underlying /*w[?]are-/ (excluding the glottalisation of the first syllable) is copied to the end of the stem to produce /w[?]are-war/.

These two points make it clear that the glottal stop is not a regular Chukchi consonant. However, it does in very rare contexts act like a consonant segment. Chukchi shows a preference for syllables with full onsets (see syllabification §3.2.2). When a syllable has no underlying initial consonant but the glottalisation prosody is present, then the glottal stop acts as a consonant in the CV skeleton. Consonantal behaviour in these instances is clearest under reduplication. The glottal stop is picked up by the -CVC reduplication template when there is no other initial C (this does not normally occur, as shown above with /w[?]are-war/). There are only a few examples of this: /ʔituʔit/ 'goose' is the reduplicated absolutive singular form of the stem /*ʔitu/ (e.g. absolutive plural /ʔitu-t/). There are also a handful of words in which a glottal stop unexpectedly separates two vowels—when two underlying vowels are adjacent on the CV skeleton (irrespective of the presence of glottalisation), the first vowel is deleted by the regular phonological process described in §3.2.3. However, a number of interjections (for example, /ʔoʔoj/ 'oh nol', /eʔej/ 'ohl'), the particle /iʔam/ 'why?', and the noun /apaʔake/ 'congenitally deformed calf') have a glottal stop acting like a consonant to separate two vowels. The interjections can be dismissed as extra-phonological (it is not uncommon for interjections to violate the phonotactic norms of a language; e.g. English interjections featuring the glottal stop, e.g. [ʔaʔaʔ] 'no, don't'), and the particle may be better transcribed /əʔam/ (identical pronunciation; note that as traditionally transcribed it violates vowel harmony). The noun /apaʔake/ cannot be accounted for according to regular phonological principles.

3.5 Phonological and morphophonological alternations

There are a number of phonological rules which transform underlying consonant clusters. This interpretation is justified by the existence of such pairs as /təm-nen/ 'he killed it (NFUT)' and /ya-nm-ə-ien/ 'he killed it (PF)', where the underlined segments are allomorphs of the morpheme 'kill'. This allomorphy is easily accounted for if you allow an abstract underlying form /*tm/, which is realised as

/təm-/ word initially due to the schwa insertion rule (§3.2.2) and /-nm-/ word internally due to the regular assimilation of the stop by the nasal (§3.3.1). Schwa epenthesis to avoid word initial CC with underlying morpheme initial stems is common, and means that that underlying forms which never appear unmodified on the surface are easy to diagnose.

These alternations are not all equally productive; while these morphophonological rules are applied without exception to lexical stems (word initial/word internal contrasts), in consonant clusters produced at morpheme boundaries they are more variable. The reason for this could be that the morphophonological alternations are lexicalised to varying degrees, meaning that some do not apply at morpheme boundaries while others do. Another possibility (not incompatible with the former) is that in careful speech people attempt to preserve the phonological form of individual morphemes. On morpheme boundaries morphophonological alternations serve to make otherwise unattested forms of morphemes and obscure the common phonological form of the morpheme. In contrast, morphophonological alternations within stems are unavoidable without violating higher principles of syllable construction and producing otherwise unattested forms of morphemes.

These rules account for all the observed phonological alternations at morpheme boundaries, and for the larger part of the observed stem alternations. For example, the stem for 'news', 'relate news' occurs in three forms, /pənɪ/, /mɔɪ/ and /pɔɪ/. The form /pənɪ/ usually occurs word initially, and the form /mɔɪ/ always occurs word internally. The form /pɔɪ/ is the absolutive nominal form with no affixation. The distribution of these forms can be accounted for by hypothesising an underlying form /*pɔɪ/. This underlying form is expanded during syllabification (§3.2.2) with schwa epenthesis in either of the two possible positions, producing the syllabified underlying forms /*pɔɪ/ word initially or /*pɔɪ/ word internally. After syllabification the underlying forms are then subject to regular phonological rules, giving either /*ɪ/ → /nɪ/ or /*pɔɪ/ → /mɔɪ/. There are other stem alternations which cannot be accounted for by phonological rule, described below. These morphological stem alternations are non-productive (i.e. are never observed across morpheme boundaries), and presumably reflect phonological processes of an earlier stage of the language. Interestingly, although they are not productive, some of these alternations are exceptionless within their context (i.e. within stems). This suggests that not a lot of verbs have entered the language since these processes were productive, which in turn suggests that the period in which the processes ceased to be productive was not so long ago.

Many stems have different forms when they occur initially in a word to when they are preceded by other morphological material. This phenomenon is most common for verb stems and quite rare for other stem types. The verb stem alternations are mostly regular, and can be accounted for by postulating underlying, possibly unrealisable, forms. All other alternations occur according to one of the following three patterns:

i) /#r-/ ~ /-n-/ alternation (/r/ ~ /n/ alternation)

ii) /#C₁-/ ~ /-C₂C₁-/ alternation (internal consonant ~ zero alternation)

iii) /#C₁əC₂-/ ~ /-C₂-/ alternation (initial consonant ~ zero alternation)

Other regular stem alternations between word initial and internal forms of verbs are the result of phonological rules acting on underlying consonants in forms where they occur sequentially, as discussed above.

e.g. /təŋ-ə-k/ /n-ə-ɪ-ə-qin/

The morphological alternations in (ii) and (iii) are features of verb stem morphemes, although the alternation is preserved when a stem of another class is derived from the verb. Regular phonological alternations occur with any word class.

3.5.1 /r-/ ~ /-n-/ alternation

The initial consonant of many verb stems has a morphophonemic alternation between word initial /r/ and word internal /n/. These alternating consonants can usually be shown to be allomorphs of a derivational morpheme (most often involved in transitivity raising or rearranging; causative §11.5.1, applicative §11.6.1), but there are examples where the alternating consonant is inseparable from the stem. As a morpheme it is very productive, and these apparent exceptions are probably instances of lexicalisation, where the initial alternating consonant has its diachronic roots in a prefix.

Notably, there are only four verb stems which begin with an /n/ in their word initial form (verbs beginning with non-alternating /r/ are common). One of the four, /nom/ 'to be washed up on the shore', has a series of related nominals which can be built either on the stem /nom/ or on the stem /rom/, suggesting either earlier alternation, now partially lost, or a later regularisation.

3.5.2 Internal consonant ~ zero alternation

Lexically determined verb stem alternations in which the word internal cluster /-C₁C₂-/ alternates with just the second consonant when word initial /#C₂-/ are much less common than stems with the /#r-/ ~ /-n-/ alternation, numbering perhaps two dozen forms in all (in some cases the same alternation is found with different stems). The alternations attested in the corpus are:

FIGURE 3.5. Internal consonant ~ zero alternations

ALTERNATION:	EXAMPLES:
#p ~ tp	#puur? ~ -tpuur? <i>exchange</i>
#q ~ tq	#qeɣnew ~ -tqeɣnew <i>shoot</i> #qut ~ -tqut <i>stand up</i> #qət ~ -tqət <i>set off</i>
#k ~ rk	#kəle ~ -rkəle <i>follow</i> #kəpɪ ~ -rkəpɪ <i>hit</i>
#w ~ tw	#wa ~ -twa <i>be</i> #wetɬa ~ -twetɬa <i>stand up</i>
#g ~ tg	#ɣinr ~ -tɣinr <i>draw out</i>
#t ~ tt	#t? ~ -tt? <i>pour</i>
#k ~ tk	#kiw ~ -tkiw <i>spend night</i>
#w ~ kw	#wut ~ -kwut <i>harness</i>

There are a couple of forms which show that these alternations are not phonologically determined. These forms have the same clusters word internally as the set of stems above, but which form the word initial form by schwa epenthesis. For example:

FIGURE 3.6. No internal consonant ~ zero alternation.

#təw ~ tw	#təw ~ tw <i>speaking about</i>	(compare #w ~ tw)
#təɣ ~ tɣ	#təɣ ~ tɣ <i>make fish shavings</i>	(compare #ɣ ~ tɣ)

Such clear evidence is quite rare, although there are many other word internal clusters which don't show any such alternations, including /#ləw/ ~ /lw/, /#ləɣ/ ~ /lɣ/, /#rəl/ ~ /rl/, /#rəɣ/ ~ /rɣ/, /#rəl/ ~ /rl/. The forms with the consonant deletion alternation do not form a phonologically or semantically predictable class.

3.5.3 External consonant ~ zero alternation

There are perhaps a dozen verb stems which have an alternation with a three segment word initial form alternating with a two segment word internal form. The alternation is /#C₁C₂/ ~ /-C₂/ (the third segment of these stems occurs after C₂, and is usually a consonant, but there are a couple of forms with a vowel).

FIGURE 3.7. External consonant ~ zero alternations.

/#C ₁ C ₂ C ₃ / ~ /-C ₂ C ₃ /	#rənr ~ -nr <i>hold</i> #rətc ~ -tc <i>AUX</i>
/#C ₁ C ₂ V-/ ~ /-C ₂ V-/	#təle ~ -le <i>walk</i>

These stems do not form a phonologically or semantically predictable class.

3.5.4 Vowel reduction

Word final vowels are reduced or elided. This process is almost obligatory with word final lexical stems. When the final vowel is /e ~ a/ (i.e. the underlying vowel /^{*}e-_{VH}/), it is reduced to schwa:

$$/^{*}e\text{-}_{VH}/ \rightarrow \text{ə} / _ \#$$

When the final vowel is underlying /^{*}i-_{VH}/ or /^{*}u-_{VH}/ the vowel is usually elided when word final, but this is rather less regular than the reduction rule:

$$/^{*}i\text{-}_{VH}, ^{*}u\text{-}_{VH}/ \rightarrow \emptyset / _ \#$$

By far the most common lexical stems occurring word finally are zero-derived nominals (see §6.3.1). These processes are very uncommon with grammatical suffixes (§6.3.2).

3.6 Intonation

Speakers produce Chukchi with characteristic patterns of intonation. For declarative sentences this has a clear rise-fall contour. This intonation contour, which I call the prosodic phrase, corresponds well to semantic and pragmatic units of speech and is used in this work as the main unit of syntactic analysis. In Chukchi word order rather than intonation is the main indicator of pragmatic relationships (see §19.2), and there does not seem to be much variety in intonation patterns⁴.

The spontaneous narrative-type data that this study is based on does not provide many examples of true imperatives and interrogative phrases (the examples which do occur are within quoted speech, which in other areas of the language is pragmatically and grammatically distinct from non-quoted speech; §5.6.4, §19.4).

Most transcriptions used presented in this work are single prosodic phrases. Where there is more than one the end of the prosodic phrase is marked with the symbol '/'. A pause within the prosodic phrase which does not have characteristic end-of-phrase pitch drop is marked ' '. These pauses are often hesitations or corrections. Where less than an entire prosodic phrase is presented (for example, when the morphological form of a single word is being illustrated and context is unimportant), the ellipsis is marked by the symbol '[...]'.⁵

Chukchi words do not have phonologically distinctive stress. Word stress can be very difficult to hear, and is mostly perceptible when the word is at the prosodic

⁴ King's intonational study of Dyirbal, a pragmatic word order language from Australia, found that where pragmatic functions were indicated by word order the intonational correlates of these functions were not highly elaborated; for example, where English has seven accent types, Dyirbal has only one (King 1994, Dixon 1972). We can hypothesise that a language which does not have an elaborated set of functions carried out by intonation could be expected not to have an elaborated set of forms of intonation.

peak of the phrase. Primary stress occurs on the first syllable of the word with a consonant onset and a full vowel. Secondary stress occurs on every second syllable before and after that.

Examples (acute shows primary stress, grave shows secondary stress):

First syllable: CONSONANT + FULL VOWEL

/nú.tec.qà.cə.kù.kin/ *smth. from the surface of the ground*

First syllable/s: REDUCED VOWEL/S

/qə.jét.γʔi/ *camel*

/kàt.γə.ré.cʔa.kìn/ *smth. made of dry stumps*

First syllable: VOWEL INITIAL

/a.tók.tor.kà/ *without a doctor*

/a.mó.ɬe.qàj/ *bark (DIM)*

Exaggerated emphasis of a word changes the stress patterns so that there is even stress on each syllable, or for a less exaggerated effect, on each non-schwa syllable (see also §3.6.1).

3.6.1 Votive prosody

There are a number of distinctive prosodic changes which words undergo when they are being called out or very strongly emphasised. These vocative prosodic features are not a morpheme; they are applied indiscriminately to words of any class in any possible grammatical form and the precise form of the prosodic changes vary.

The basic features of the vocative prosody apply to the final syllable of the word. The prosodic features are selected from the following (not all possible prosodic changes need be applied):

(i) Epenthetic [ə] in final syllable → [o]

(ii) Non-epenthetic [ə] (the result of vowel reduction) in final syllable → full vowel

(iii) Lengthening of vowel in final syllable

(iv) Word final vowel → vowel + [j]

If further emphasis is required, there can additionally be:

(v) Laryngeal constriction

(vi) Lengthening of non-final vowels (so that there is even stress on each syllable); this can be applied to all the vowels in the word, or can be limited to the full (non-schwa) vowels.

Example 001 shows the vocative form of Təlelʔən⁵, a personal name. The schwa in the final syllable is epenthetic, thus it becomes [o] and is lengthened; see (i) and (iii) above.

001 ɔnkʔam n-in-iw-lyəm Təlelʔ-ɔ::n / [...]
 and HAB-TR-say-1sg personal.name-E.VOC-3sgABS

And I said to him: "Təlelʔən!" ...

[kr024]

The following example shows the identical phenomenon on a progressive verb suffix -rkən:

002 anə kəkəl ətlon iʔam req-ə-lʔet-ə-rko::nʔ
 so INTJ INTER INTER do.what?-E-DUR-E-PROG.VOC

Oh my! Why, what on earth are you doing?!

[ot124]

The word əmmemə *mummy* has the underlying form *əmmeme. In example 003 the final vowel of the stem is not reduced, and there is a [j] added after it; see (ii) and (iv).

003 "əmmemejl ʔemi ɣely-ə-nʔ"
 Mummy.3sgABS.VOC where hide-E-3sgABS

"Mummy, where's the hide?"

[ot042]

In example 004 the form elejwətukulʔetke *don't wander off all the time* has a lengthened final vowel; see (iii).

004 anə e-lejw-ə-tku-lʔet-ke:e
 so NEG-roam-E-ITER-DUR-NEG.VOC

Don't wander off all the time!

[ot023]

Example 005 shows very strong emphasis by lengthening all the vowels of qəlyiteŋətciŋkujwəyənət *chop [it] up really well*:

005 q-ə::lyi::teŋ-ə::tci::tku::jw-ə::γ-ə::ne:t tejŋet-ti [...]
 2sg.INT-INTS-EMPH-E-cut-ITER-COLL-E-TH-E-3pl food-3plABS

Chop up the food really well! ...

[cy400]

The word was also pronounced with very marked laryngeal constriction; see (v) and (vi).

3.7 Orthographies

There have been a number of different writing systems used for Chukchi. In his English language publications Bogoras uses a non-phonemic latinate writing system. Later this was developed (by Bogoras and others) into a mostly phonemic system for use as the official orthography. For political reasons latinate writing systems fell out of favour very soon afterwards, and Chukchi (along with all the other newly written languages of the USSR) received an official Cyrillic orthography. Books in the previous official latinate orthography were mostly destroyed, and it is unlikely that many will be found in public collections. However,

⁵ Texts examples are given in the modified IPA working orthography outlined in §3.7.3.

a knowledge of the official Cyrillic orthography (§3.7.1) and the earlier latinate orthography of Bogoras (§3.7.2) is needed to read the major published sources on Chukchi language.

Neither of these orthographies serve the purposes of the linguist very well. Section §3.7.3 contains a description of the modified IPA orthography used in the remainder of this work.

3.7.1 Official Cyrillic orthography

The official Cyrillic orthography was created at a time when the Soviet Union was turning away from Internationalism to a policy of building Socialism in One Country. Russian language and culture became 'first among equals'. The importance of the status of Russian is reflected in the new orthography for Chukchi, which includes many specifically Russian spelling rules. These spelling rules sit uncomfortably with Chukchi phonology, and make Russian literacy a precursor to Chukchi literacy (§1.2.1).

The following Chukchi consonants have a one-to-one correspondence with graphemes; upper and lower case letters exist, but (as in Cyrillic) differ only in size. Russian phonemes are also given for comparison.

Chukchi Phoneme	Grapheme	(Russian Phoneme)
/p/	П	/p/
/t/	Т	/t/
/k/	К	/k/
/q/	К'	no equivalent
/m/	М	/m/
/n/	Н	/n/
/ŋ/	Н'	no equivalent
/ʃ/	Л	/l/
/w/	В	/v/
/r/	Р	/r/
/ɣ/	Г	/g/

NOTE: К' (uvular stop) and Н' (eng) can also be written with the special characters К̣ and Н̣, but this poses typographical problems. In 1996 the symbol for /ʃ/ was changed from Л to Л̣ (this convention used in, for example, Emel'janova & Nutekeu 1996); this was a wholesale replacement, and no other aspect of the spelling system was changed.

The standard dialect allomorphs of the phoneme /c/ are written separately:

Chukchi	Grapheme	(Russian)
/c/	С (before К')	/s/
	Ч (elsewhere)	/tʃ/

Apart from the epenthetic schwa, Chukchi has five vowel phones [i, e, a, o, u], derived from the three underlying vowel phonemes /i, e, u/ combined with the vowel harmony prosody. Thus, [u] is /*u^{-vH}/, [o] is /*u^{-vH}/, [i] is /*i^{-vH}/, [a] is /*e^{-vH}/, and [e] comes from either of two sources: /*i^{-vH}/ or /*e^{-vH}/; see §3.4.1). Like all other Chukchi orthographies, the vowel graphemes in the Cyrillic orthography represent phones, not phonemes (for an attempt at writing the vowel harmony prosody separately see §3.7.2). However, due to the requirement that the orthography as closely as possible follows Russian spelling conventions, these five phones are represented by a number of symbols. Only schwa and /i/ have a one-to-one relationship between phonemes and graphemes:

Chukchi	Grapheme	(Russian)
ə	Ы	/i/
i	И	/i/

The other four vowels are represented by two graphemes each. Modern Russian has a series of palatal consonants which are written using the symbol for the corresponding non-palatal. The difference between palatal and non-palatal consonants is indicated by the choice of the following vowel: /t/ + /a/ is written 'ТА', whereas /t/ + /a/ is written 'ТЯ' (word finally palatalisation is indicated by a 'silent letter' Ъ, which is called the 'soft sign'). Chukchi does not have a contrasting series of palatal and non-palatal consonants. Nevertheless this same convention is used. The consonant Л is considered palatal, and all the others are non-palatal. Thus, there is a redundant doubling of vowel symbols:

Chukchi	Grapheme	(Russian)
[a]	Я (after Л)	/a/
	А (elsewhere)	
[e]	Е (after Л)	/e/
	Э (elsewhere)	
[u]	Ю (after Л)	/u/
	У (elsewhere)	
[o]	Ё (after Л)	/o/
	О (elsewhere)	

The vowel symbols which in Russian follow palatal consonants are known as the 'jotated' vowels, as their second function is to represent /j/ + vowel sequences. This occurs word initially, or following a 'soft sign' Ъ or 'hard sign' Ё (the latter is another 'silent' letter, used in this context when the consonant is not palatal—the 'soft sign' is used with palatal consonants). This spelling rule has also been imported into the Chukchi orthography. As /i/ and /a/ don't have corresponding jotated symbols, when a /j/ precedes these it is written using the Cyrillic character Ъ.

Phoneme sequence Orthography

# /j/ + /a/	Я
/t/ + /a/	ТА
/t/ + /j/ + /a/	ТЪЯ
/t/ + /a/	ЛЯ
/t/ + /j/ + /a/	ЛЪЯ
# /j/ + /i/	ЙИ
/t/ + /j/ + /i/	ТЙИ
/t/ + /j/ + /i/	ЛЙИ

Lastly, the glottal stop is written in a number of different ways. Word-initially it is written by an apostrophe following the vowel. After a consonant it is written using the 'soft sign' or 'hard sign' (for the so-called 'soft' and 'hard' consonants respectively) followed by the non-jotated vowel.

Chukchi	Orthography
# /ʔ/ + /a/	А'
/t/ + /ʔ/ + /a/	ТЪА
/t/ + /ʔ/ + /a/	ЛЪА

Thus, the soft sign and hard sign each have two functions; preceding the jotated series of vowels they indicate jotation, and preceding the unjotated series they indicate glottalisation.

These complex and illogical spelling rules do not seem to be understood by many Chukchis apart from the small group of 'language professionals', such as schoolteachers and media workers, who are all tertiary educated and highly literate in Russian as well.

3.7.2 Early latinate orthography

In the ethnography *The Chukchee* (Bogoras 1904-1909) and the grammatical sketch *Chukchee* (Bogoras 1922) the author uses a system of transcription which is quite unusual by modern standards. Since these works are still important sources an understanding of this early Chukchi writing system is useful. The following description is adequate to reduce the Bogoras transcription of Chukchi to a fairly accurate phonemic one.

The consonants /p, t, q, m, n/ are written with their IPA symbols. The other consonants are written as follows:

Chukchi Phoneme	Bogoras (1922) transcription
/ŋ/	ñ
/t/	l
/c/	č (men), š (women)
/w/	w, v, u
/r/	r, ʔ
/j/	y, ĭ
/ʏ/	g, h

The following sequence of phonemes is indicated by one letter:

/t/ L

The glottal stop is written as a superscript ʔ following the vowel in the syllable where it occurs, e.g. /rʔew/ 'whale' is transcribed *reʔw*. Bogoras didn't write the glottal stop in the nominaliser endings /-tʔ/ and /-cʔ-/.

The vowels are transcribed using the following symbols.

Chukchi vowels	Bogoras (1922) transcription
[i]	ɪ, j
[e]	e, ê, ä
[a]	a
[o]	o, ø
[u]	u
[ə]	ɪ, ü, (u)

Full vowels usually include a diacritic which indicates the underlying vowel harmony of the morpheme; ː for 'weak' morphemes (i.e. -VH) and ˙ for 'strong' ones (+VH). Schwa is written without a diacritic. The letter *u* written without diacritics represents either schwa neighbouring /w/ or /w/ before a consonant. These conventions are illustrated in the following examples:

Transcription:	Morphemic structure:	Surface form:	
<i>luwəqurkən</i>	*lɪwaw˙VH-rkən-VH	/lɔwawərkan/	'he can't do it'
<i>qəlvəqulən</i>	*ɣe˙VH-lɪwaw˙VH-lɪn-VH	/ɣal˙wawlen/	'he couldn't do it'

Stress is marked by an apostrophe following the stressed vowel.

3.7.3 Modified IPA orthography

In this thesis I use a modified IPA orthography. Chukchi poses a number of problems for orthography design. Alphabets work best at providing a segmental phonemic transcription, and don't deal very well with prosodic phonemes. I have in some areas compromised phonological elegance or precision in favour of simplicity and continuity with the general principles of the 'consensus system' of transcription used by English-medium linguists such as Comrie (e.g. 1981). The orthography works as follows:

CONSONANTS are generally written with an IPA symbol representing the phoneme. Following tradition in the field the output of phonological processes is written rather than the underlying form. This can make interpretation of transcriptions rather complicated, since morphemes frequently have multiple phonological forms. The approximant phonemes /r/ and /ɹ/ (which I have already been transcribing as /ɣ/; see footnote 3) have never been written with these symbols in published materials on Chukchi; instead the symbols 'r' and 'y' are used. Following the usual Latin transliteration of Cyrillic, the phoneme /w/ has often been transcribed as 'v', but I use 'w'. The men's phoneme /s/ (§3.3.5) and the women's phoneme /ts/

(which I have been transcribing as /c/; see footnote 2) are both transcribed 'c'. The symbol ċ has been used by many writers (e.g. Comrie 1981), and 'č' has been used (it is the standard transliteration of the Russian value of the Cyrillic character used in the standard Cyrillic orthography) but I have judged it desirable to avoid redundant diacritics in a working orthography. The lateral fricative /ɬ/ is written 'l' for the sake of clarity (to avoid confusion with 't'). The consonant graphemes used in this thesis are summarised in fig. 3.8 (compare fig. 3.1).

FIGURE 3.8. Consonant graphemes used in this thesis.

	bilabial	alveolar	palatal	velar	uvular
stops	p	t		k	q
nasals	m	n		ŋ	
approximants	w	r	j	ɣ	
fricative/affricate		c			
lateral fricative		ɬ			

VOWELS are written using symbols representing the phones, not the phonemes.

FIGURE 3.9. Vowel graphemes used in this thesis.

e.g. Underlying vowel	Vowel harmony prosody	
	-VH	+VH
/*i/	'i'	'e'
/*e/	'e'	'a'
/*u/	'u'	'o'

My personal preference would be to write only the three underlying vowels and to mark the vowel harmony prosody separately, but this would go against all tradition in the field and make my data difficult to compare to any other. The EPENTHETIC SCHWA is written where it is inserted.

Since the VOWEL HARMONY PROSODY is already redundantly marked by many of the vowel graphemes, it is not generally indicated in text examples. Where the value of the prosody is significant and/or not retrievable it is marked with a superscript, e.g. [e^{-VH}] or [e^{+VH}].

The GLOTTALISATION PROSODY is always realised as a prevocalic glottal stop, which is also the simplest way to indicate it in the orthography, e.g. 'rʔew' *whale*.

4

Word classes

4.1 Introduction

This chapter contains a morphosyntactic classification of the different kinds of words and stems found in Chukchi. The properties of each class will be discussed in more detail in the following chapters.

The Chukchi phenomenon of vowel harmony provides a simple diagnostic for wordhood (§3.4.1), as the phonological domain of the vowel harmony prosody is almost always coextensive with the grammatical unit 'word'. A word typically consists of a stem and the characteristic inflection of a word of that class. There are also words which are uninflected stems; many of these are function words rather than lexical content words, but this group does include some monomorphemic lexical stems as well (e.g. underived verb base §4.6).

Chukchi offers few reasons to distinguish the syntactically defined grammatical word from the phonological word. Almost always the Chukchi grammatical word can be defined by the domain of the vowel harmony prosody, i.e. the same as the phonological word. The only exceptions to this are analytic verbs (§4.5.1) and, marginally, analytic numerals (see §4.4, §16.10); these are both structures which semantically and syntactically function like a single word, but which phonologically consist of two or more words.

The stem of an inflected word may be a single morpheme, or may be morphologically complex. Morphologically complex stems are often the result of syntactic derivation, for example, the monomorphemic stem *wəlpə-* forms the nouns *wəlpə/wəlpə-t shovel/shovels*, whereas to form a verb *to shovel (something)* requires a morphologically complex stem *wəlpə-tko-*, derived by means of the suffix *-tku^{-VH}* use [noun] as a tool. Other morphologically complex stems result from incorporation and compounding. The stem class of a monomorphemic stem is considered the same as the word class which is formed from it. Sometimes a stem may belong to more than one class, and thus can form words of more than one class. It is much rarer for a word to have more than one class. While in many instances the same inflectional morphology forms two different classes (e.g. certain oblique cases and converbs are formed the same way), for this to produce a word

which could be interpreted as belonging to two word classes this would have to coincide with the use of one of the multi-classed stems. A rare example is the word *ya-rʔa-ma* with *something* OR *while doing something*. The stem *rʔe-vh* can be interpreted either as the nominal stem *something*, or the verb stem *do something* (vi). Depending on the stem class, the inflectional circumfix *ya-__-ma* is interpreted as the associative case marker (with a nominal stem), or as a converb (with a verbal stem).

There are two major inflecting word classes; nominals and verbs. Each of these is divided into subclasses, which may be closed, as listed below.

Nominals, numerals and adjectives inflect for referent properties to varying degrees. These all participate in absolutive case noun phrases.

Nominals (§4.2), including:

- Common nouns (open) —§6, §8
- High animate nouns (open) —§6.3.1, §6.3.4
- Personal pronouns (closed) —§7.2
- Interrogative/interrogative pronouns (closed) —§7.3
- Deictic and demonstrative pronouns (closed) —§7.4
- Quantifier pronouns (closed) —§7.5
- Participles (no corresponding stem type) —§8.2

Adjectives (closed?) —§16.2

Numerals (closed) —§16.7

Words with argument-taking properties

Inflecting verbs (§4.3), including:

- Intransitive verbs (open) —§11.2
- Transitive verbs (open) —§11.3
- Interrogative pro-verbs (closed) —§5.6.2
- Copula/auxiliary verbs (closed) —§17

Verb bases (§4.6), including

- Underived (closed) —§17.3
- Derived (deverbal, deäjectival, and negative, open) —§§13.5-6, §16.5-6, §18.2

Converbs (open) —§13.4

Analytic verbs are syntactic verbs which consist of two phonological words, a verb base (from the uninflecting class of verbal bases, which may be underived or derived from adjective or verb stems) and an auxiliary verb. The base always precedes the auxiliary, but other adverbs or particles may appear between them. The selection of the auxiliary verb is the only overt marker of transitivity; however, transitivity is a grammatical category determined by the verb base. The auxiliary function of copula/auxiliary verbs is discussed in §17.3. Morphological derivations on an analytic verb (e.g. intensifiers, antipassive, etc.) always apply to

the auxiliary, never to the base. Converbs and derived verb bases can also function syntactically as adverbs.

There are also a variety of non-inflecting word classes:

Adverbs, including

- Deäjectival (closed?) —§4.8.1
- Deictics (closed) —§4.8.2, §15.4
- Underived time and manner (closed?) —§4.8.3
- NP modifier (closed) —§4.8.4

Grammatical Particles, including:

- Negative Particles (closed) —§4.8.5, §18.8
- Proclausal Particles (closed) —§4.8.6
- Conjunctives (closed) —§4.8.7, §5.5.2, §9.5
- Modal Particles (closed) —§4.8.8
- Discourse Particles (closed) —§4.8.9
- Evaluative Particles (closed) —§4.8.10
- Postpositions (closed) —§4.9, §15.5
- Interjections (open?) —§4.10

Most word classes also have minor subclasses with just one or two members. Examples of single-member (sub)classes include the inflecting negative 'particle' *qərəmena/qəcəmena* (§4.8.5; classified with particles due to its similarity in form and meaning to the particle *qərəm/qəcəm*) and the argument-taking particle/interjection *qoro* (§4.8.6).

4.2 Nominals

Chukchi has a large class of nominals. These are characterised semantically by the feature that they represent relatively time stable phenomena (Givón 1984:55-56). The diagnostic morphosyntactic feature of nominals is that they show the grammatical category of case. Core nominals fill argument slots cross-referenced by the verb, and are case marked to show the syntactic roles A (transitive subject), O (transitive object) and S (intransitive subject), as well as copula complement (arguably also a core syntactic role in Chukchi). Nominals in oblique roles are case-marked for a large range of mostly spatial relations. Nominal morphology is quite regular for all subclasses of nominal stem. Of the subclasses, nouns (formed from noun stems) and participles (formed from verb stems) are open, and the various sorts of pronouns are closed. Nominals may also encode the grammatical categories of number and person; these grammatical markings may be inflectional (e.g. nouns) or intrinsic (e.g. personal pronouns).

The Chukchi number markings have two basic values, plural and non-plural (this plural is cognate with the dual of most of the other Koryako-Chukotian languages). The non-plural number commonly corresponds to 'singular', i.e. individual entities, but can refer to multiple entities as well. In general it is the grammatically

unmarked number category, so things that typically occur in pairs or multiples are most commonly referred to with non-plural nominals (plurality is always an option; there are no singularia or pluralia tantum nouns). Strict singularity, particularly for entities which typically occur in pairs or multiples, can be indicated by the singulative suffix which occurs along with the absolutive case non-plural marker. Take for example the stem *mane-* *money* (a loanword from English), which has the following absolutive forms:

- plural: *mane-t* (money-3PL) *money—several coins or banknotes*
- singular/non-plural: *mane-man* (money-REDUP.3SG) *money—one or more coins or banknotes, money in general*
- singulative: *mane-ly-a-n* (money-SING-E-3SG) *money—a single coin or banknote*

For common nouns, all these number categories are neutralised outside the absolutive case (although plural vs. non-plural can still be marked by verbal cross-reference). Pronouns and high animate nouns don't use the singulative; for high animates there are inflections marking the other number categories in all cases except the equative. Personal pronouns have intrinsic singular or plural, that is, number is part of the meaning of the stem rather than an inflectional category.

Personal pronouns also have intrinsic person (first, second or third). Other nominals can be marked for person in the absolutive only.

4.2.1 Nouns

The noun is the major subclass of nominals. Morphological marking of nouns is very regular, and always includes case marking. A subgroup of highly animate nouns (including personal names and certain kin-terms and folktale personages) may take some different case and number marking strategies. This subgroup will be referred to as the *high animate nouns* (see below); the remaining nouns will be referred to as *common nouns*. Common nouns mark the number and person of their referent when in the absolutive case, but not elsewhere; high animates mark number in all cases except the equative.

Most loanwords in Chukchi are nouns, and these loanwords are easily naturalised so as to occur with all the expected morphology of a native noun. Many loanwords refer to foreign cultural items for which there is no appropriate Chukchi word. Most loanwords come from Russian, although there is an earlier set of loanwords from English (de Reuse 1994b). Contemporary speakers also use many spontaneous loans even where there is a perfectly acceptable Chukchi equivalent. This may be language mixing due to the largely Russian language medium environment that most contemporary Chukchis live in, or it may be experimenter effect, where non- or partial speakers of Russian attempt to put the Russian words that they know into Chukchi speech in an attempt to help non-native speakers.

Apart from nouns formed from noun stems there are also nouns derived from other word classes, particularly adjective and verb stems (see §8.2, §§8.4-5).

The 'high animate' subclass of nouns includes personal names (including named animals), kin terms used as terms of address, and demonstratives used with high animate reference. High animates are distinguished morphologically from other nouns by the following features:

- i) plural marking in all cases except for the equative (common nouns only mark plural in the absolutive; §6.2)
- ii) distinctive singular marker *-ne^{-VH}* which collapses the ergative/instrumental, locative and (sometimes) dative/allative cases, and which occurs along with some other case suffixes (see §6.2)

The membership of the high animate class of noun is somewhat fluid; personal names are the only nouns which always pattern with high animates, whereas kin terms and demonstratives show variation, sometime patterning with high animates, sometimes with common nouns.

4.2.2 Pronouns

Chukchi has four pronoun subclasses:

- Personal pronouns
- Indefinite/Interrogative pronouns
- Quantifier pronouns
- Deictic pronouns

Pronouns all mark case and person, and mostly also number.

Personal pronouns have intrinsic person and number, and so do not use any of the person/number marking strategies that nouns and the other pronouns use. Personal pronouns may be first, second or third person, singular or plural. Personal pronouns occasionally take nominal derivational morphology (such as diminutives or augmentatives) and also have a few derivational morphemes not shared by any other subclass. The personal pronoun stems are (free absolutive form and non-absolutive stem):

	singular	plural
1st person	<i>ɣəmo ~ ɣəm-</i>	<i>muri ~ mury-</i>
2nd person	<i>ɣəto ~ ɣət-</i>	<i>turi ~ tury-</i>
3rd person	<i>ətlon ~ ən-</i>	<i>ətri ~ əry- (men's)</i> <i>acci ~ acc- (women's)</i>

Interrogative/indefinite pronouns can fill any nominal slot. Like other nominal subclasses, they appear in singular and plural, and occasionally take other nominal derivational morphemes such as diminutive and augmentative.

ABS ~ non-ABS stem

animate	məjin(e-) ~ mik-	'who'
inanimate	rʔenut(e-) ~ req-	'what'

There are two quantifier pronouns; əməlʔə *all* and various forms of the stem *qut-*, including absolutive singular *qol one/the other*, absolutive plural *qutti some/the others*. The form *qol* can appear in a noun phrase as an appositional modifier meaning *one*, in which context it is interchangeable with the numeral *ənnen one*. These are however clearly members of different word classes—the forms of *qut-* can take cases and act as arguments, whereas numerals cannot (for morphosyntactic behaviour of numerals see §4.4, §§16.7-12).

Deictic pronouns refer to an entity according to its spatial distance or discourse status. If the referent is animate, deictic pronouns may decline like high animates (§7.4). This is common in the plural, but rare in the singular, where deictic pronouns tend to decline like common nouns. Deictic pronouns can be incorporated into compounds, but rarely incorporate themselves.

4.2.3 Participles

Participles are a word class (nominal subtype) but not a separate stem class. In their morphological structure they are nominals derived from verb stems. Their main distinction from other nominals is that they may occasionally take arguments. This is however highly unusual, and I have no examples of speakers spontaneously doing so. There is a strong preference for participles to be formed from intransitive verb stems; transitive stems are often antipassivised before being made into participles. Participles do not differ significantly from nouns with respect to their combinatory possibilities with other nominal morphology (§8.2).

4.3 Adjectives

It is necessary to distinguish the word class of adjectives from the stem class of adjectives. Adjective stems are the lexical head of adjective words ('free adjectives'), but also have other functions. The word class of adjectives is constrained to a few functions only (universal/habitual aspect predicates or attributes in absolutive case role); adjective stems are otherwise incorporated (§9.2.4, §16.2).

Free adjectives cross-reference person and number in a manner identical to verbs in the habitual inflection (§10.3.2). When other tenses are required, adjective stems are formed into adverb heads of analytic verbs (§4.5.1, §4.8.1, §16.5). Adjective stems functioning attributively are frequently incorporated into their headword in the absolutive case, and always in non-absolutive cases (§9.2.4).

The following example shows a predicative adjective with stem *ciit* *be warm*:

001	mecicʔu	<u>n-a-ciit-qin</u>	uwi-kuk	/	n-ena-yto-qen
	sometimes	ADJ-E-warm-3sg	cook-pot.3sgABS		HAB-TR-pull.out-3sg

Sometimes the pot was still warm [when] he got it out.

[jo021]

While free adjectives are formally identical to habitual aspect intransitive verbs (for example, in the third person singular they are both marked *n-___-qin*), there are clear formal criteria to show that adjectives are not intransitive verbs. These are as follows:

- (i) Free adjectives cannot be marked with any of the other tense-aspect-mood affixes that intransitive verbs can have (the perfect or any of the active inflections);
- (ii) Derivational affixes are added to the outside of the adjective forming circumfix *n-___-qin(e-)* (e.g. diminutive *n-___-qine-qej*), but equivalent derivational affixes with intransitive verbs are attached directly to the verb stem, inside the markers of habitual aspect (e.g. diminutive *n-___-qeet-qin*). The derivational affixes used with adjectives and verbs generally have slightly different forms.

The criteria distinguishing adjectives and intransitive verbs are further discussed in §16.2.

4.4 Numerals

Numerals are a closed class formed around a base twenty system which allows well-formed numbers up to 419 (20 times 20, plus 19). The numerical system is not well understood by speakers today, who tend to use Russian numerals even when speaking Chukchi. There is a suggestion from some native speakers that counting above twenty may have always been arcane knowledge, beyond the mathematico-linguistic competence of most speakers.

Numerals have three morphological subtypes, simple numerals, compound numerals and analytic numerals.

SIMPLE NUMERALS

single numeral stems for 1 to 5, 10, 15 and 20. e.g. *kəlyən-ken* *fifteen*.

COMPOUND NUMERALS

compounded numeral stems giving 6 to 9, 11 to 14, 16 to 19, and for multiples of twenty up to 400 (twenty twenties). e.g. *kəlyən-qlek-ken* *three hundred (i.e. fifteen twenties)*

ANALYTIC NUMERALS

formed from the next lowest multiple of twenty, the remainder (a simple or compound numeral 1 to 19) and the word *pacol/pacol* *extra*. e.g. *qlik-kin* *kəlyən-ken* *pacol* *thirty five (i.e. twenty [and] fifteen extra)*

The word *tʔer/tʔec* *how many/so many* is also a member of the numeral class according to morphological criteria.

Numerals do not mark case, although they can act as an S/O argument of a verb (i.e. as if they were absolutive nominals). Most numerals have a transparently

nominal origin—some are formed with the *-ken(a-)* relational suffix. Numerals can take modifier roles. They can be part of an absolutive case NP, and are frequently incorporated (sometimes with absolutive heads, always with oblique case nominals). In this behaviour numerals are very similar to adjectives (see §§16.7-10).

Numerals have a small but distinctive set of word-class changing derivational affixes which only they can combine with. These form series of numerals including ordinal (*-qew*), multiplicative (*-ce*), human collective (*-ryire*), non-human collective (*-jono*), and distributive (*-jut*) (§16.11).

In Skorik's description of Chukchi, when an analytic numeral functions as a non-absolutive argument there are instances of morphological marking which apply over the entire analytic numeral as if it were a single word. A good example is circumfixation; when phonological and grammatical words are coextensive no question arises, but when the grammatical word is an analytic numeral consisting of several phonological words the circumfix is resolved into a prefix for the first word and a suffix for the last word. Both structures are not attested in the spontaneous data used for this description as Russian numerals have taken over all but the simple numerals.

4.5 Inflecting verbs

Verbs inflect to show the person and number of their core participants, which may or may not be expressed with nominals as well. Apart from person, number and grammatical role of core participants, verbs inflect to show tense, aspect and mood. Verbs are formally transitive, intransitive or both (*labile*).

Transitivity is marked by agreement patterns of the verb, although there are forms wherein transitive and intransitive are identical. The number of required or retrievable nominal arguments may differ from the number cross-referenced by the verb. Broadly speaking, there are six different argument structure types according to the root:

INTRANSITIVE

Zero-place (<i>vi-</i>)	mostly intransitives with incorporated S, some meteorological phenomena
One-place (<i>vi</i>)	canonical intransitive
Two-place (<i>vi+</i>) (or 'extended')	intransitives with an obligatory oblique adjunct (present or retrievable from context)

TRANSITIVE

Two-place (<i>vt</i>)	canonical transitive
Three-place (<i>vt+</i>) (or 'extended')	transitive verbs with an obligatory adjunct, several subtypes discussed §11.3.1.

LABILE (*vlab*)

verbs which may be either transitive or intransitive, and are marked accordingly; this could be considered zero

derivation *vi* → *vt* or vice versa.

There are only two different transitivity values marked by verbal cross-referencing; transitive and intransitive. Incorporation of a core argument reduces transitivity by one place; incorporation of a non-core argument does not affect transitivity value.

Copula verbs are one-place or two-place intransitives. The oblique argument of a two-place copula is a nominal in the equative case. There are also grounds for positing a three place (extended transitive) copula (§17.1.2).

4.5.1 Analytic verbs

Analytic verbs are verbs consisting of two phonological words formed from an auxiliary (§4.5.2) and an uninflecting lexical head. The lexical head is usually a verb base, an adverbial form derived from the verb or adjective classes (§4.8.1-2). There is also a very small class of uninflecting, underived verb bases which function only as the heads of analytic verbs, for example *ləyi* *know*.

002 [...] winwə-t qonpə ləyi n-ine-ly-ə-qin
track-3plABS always know.Vbase HAB-TR-AUX-E-3sg

... he always knows their scent.

[an015]

4.5.2 Auxiliary verbs and copulas

Auxiliary verbs mark the tense, aspect, mood and transitivity in analytic verb constructions (§17.3). They share many forms with the copula verbs. The copulas are:

wa-/twa- to exist, to be (located)

it- to be

n'el- to become

The forms *it-* and *n'el-* also act as intransitive auxiliaries. The transitive auxiliaries are:

ləj-/ly- AUX

rətc-/tc- AUX, treat as, make into

rət-/nt- AUX, have as

These forms are distinguished semantically and distributionally; the *rətc-/tc-* auxiliary combines with the transitive mental act forms (derived and underived) to give a resultative meaning, whereas the *ləj-/ly-* form combines with the same forms to indicate non-resultative, stative meaning, e.g. *gemo ləjək not know smth* and *gemo rətcək forget smth*. The *rət-/nt-* auxiliary combines with verb bases in *-(t)e* and negative verb bases.

The verb *ləj-/ly-* also has a transitive copula-like function which is discussed in §17.1.2. The verbs *rətc-/tc-* and *rət-/nt-* also act as main verbs.

4.6 Verb bases

The primary function of verb bases is to act as the lexical heads of analytic verbs (see §4.5.1). Verb bases can also act as adverbs. Derived verb bases may have positive polarity, indicated by means of the affixes -ytə, n-___-?ew, -u and -(t)e, or negative polarity, indicated by e-___-ke or luŋ-___-(t)e.

The affixes -ytə and n-___-?ew respectively form an intransitive verb base from a verb denoting a property, and from an adjective stem (see deadjectival adverbs, §4.8.1).

The suffix -u derives transitive verb bases denoting various mental acts. These include yem-o *not know* (vt), cimy?-u *think about* (vt), emkum?-u *care about* (vt). Unlike other verb base forms, verb bases derived by -u cannot occur as adverbial modifiers.

Positive polarity verb bases of other semantic types than those sketched above (i.e. neither property verbs or mental acts) are marked by the suffix -(t)e, often accompanied by various derivational prefixes which further specify the meaning of the verb base.

The negative verb bases are derived by the circumfixes e-___-ke and luŋ-___-(t)e, which differ aspectually (§§18.2).

Most of the underived verb bases are identical in syntactic behaviour to verb bases formed with -u, and likewise denote transitive mental acts. The form layi *know* (vt) in 002 is an example. There are only a very small number of other such forms; Moll (1957:138) gives tenŋə *laugh at* (vt), although in Telqep Chukchi only an intransitive iterative (and possibly antipassivised) form tenŋə.tku- *laugh* is used.

Sporadically other adverbs and particles can act as underived verb bases, notably ujge the negative existential particle, and miŋkəri the interrogative manner adverb *how?*.

4.7 Converbs

Converbs are defined morphologically as a deverbal word class defined by specific suffixation (-ma, -k, or -ineŋu), and syntactically by having the ability to function as adverbial subordinate clauses (§13.4).

Converbs can have nominal dependents in S, A and/or O syntactic roles, although this dependency is not marked on the converb itself in any way. Each converb affix determines the particular aspect and/or mood relations. The aspect and mood distinctions indicated by converbs can be lexically quite complex, and are not systematically (i.e. paradigmatically) structured.

Unlike other word class labels such as noun, verb, and adjective, which can be adopted in a linguistic description as appropriate without risk of controversy, the term 'converb' is perhaps not generally known within linguistics, and its use needs

be justified. Notwithstanding Haspelmath's (1995) claim that converb is a valid cross-linguistic category, it still must be considered provisional. However the term has achieved currency in English descriptions of Chukchi, (e.g. V. Nedjalkov 1995, I. Nedjalkov 1998), and on language internal grounds Chukchi certainly does have a formally distinguished word class for which 'converb' is an appropriate term.

Apart from their distinctive syntactic functions (see §13.4) converbs can carry out general sentence modification. For example, eryatək is usually glossed as *tomorrow* (although it also means *the next day* relative to the discourse frame) and is treated as a temporal adverb (Skorik 1977:319). Its meaning is fully predictable from a morphological analysis of the form as a converb with the stem eryat- *to dawn* and the converb suffix -k--kə:

003 eryatək ɲaw-ə-n-ra-ɣt-at-ɣ'e
dawn-E-SEQ woman-CS-house-go.to-CS-TH
The next day he brought the bride home.

[ke225]

4.8 Adverbs and particles

What follows is a rabble of mostly unrelated closed classes which have the common features of being uninflected for any of the nominal or verbal categories of person, number, case, tense, aspect, or mood. They mostly function as syntactically unbound modifiers. Adverbs are (arbitrarily) defined as the subset of these classes which are derived from stems of another word class, whereas particles are free morphemes with grammatical meaning. There are occasional instances of morphological derivation of particles, usually with intensifier, restrictive or diminutive affixes, e.g. teŋ-ujge *absolutely without* (ujge negative existential, teŋ-intensifier), em-cinit *entirely oneself* (cinit *oneself*, em- restrictive), neməqej *also* (neme *also*, -qej diminutive).

4.8.1 Deadjectival adverbs

Deadjectival manner adverbs are formed from adjective stems by means of the circumfix n-___-?ew (§16.5), for example:

004 ɔnk?am ɔnqena-jpə=?m qənur n-arujw-?aw
and DEM-ABL-EMPH like ADV-strong-ADV
n-ə-le-qin remk-ə-n miyciret-ə-k
HAB-E-go-3sg folk-E-3sgABS work-E-INF

And from that it's like people went strongly in their work.

[he029]

These deadjectival adverbs can form the lexical constituent of an analytic verb, i.e. they are also intransitive verb bases (§4.5.1). The lexical head of a comparative construction is formed by means of an adjective stem with the adverb-deriving suffix -ŋ (§16.6).

4.8.2 Deictic adverbs

Spatial adverbs are derived from deictic and demonstrative stems by means of a series of different affixes. The stems are the same as those which form the deictic pronouns. While there are many clear regularities in the formation of the deictic adverbs, there are also gaps in the paradigms and unpredictable elements which show that these forms are quite lexicalised. The deictic adverbs show many of the same locational and movement categories as the oblique spatial cases, but for the most part they do so with morphological elements unrelated to the ones occurring with nominals (§15.4).

4.8.3 Underived time and manner adverbs

There are a set of underived adverb stems with lexical rather than grammatical meaning. They can be formally distinguished from derived time and manner adverbs, since the derived forms all function as verb bases or converbs as well. The majority of such forms have temporal meaning, e.g. *lʔelegit during the winter*. The form *ʔalo* is an underived adverb meaning *during the day*; it has an irregularly related form *ʔaloget* which functions both as a noun *day* and as a verb *spend the day*. Other underived temporal adverbs include *ajwe yesterday*; *ʔənməjep a while ago*; *telenjep long ago*; *wiin meanwhile*; *qonpə always*.

005 ʔənməjep ʔ-ajwecy-ə-rʔo-len
while.ago PF-evening-E-INCH-3sg
Evening had fallen a while ago.

[jo080]

006 ʔənon-qora-k qonpə n-ə-twa-qen
middle-reindeer-LOC always HAB-E-be-3sg
He was always in the middle of the herd

[ke169]

There is one temporal adverb *tite when?*, *sometime* indicating both interrogative and indefinite functions (interrogative and indefinite are formally identical for all adverbs and pronouns). The indefinite and interrogative functions of this adverb are illustrated in examples 007 and 008 respectively:

007 ənkʔam q-ə-gawtəy-ʔe tite
and INT-E-wed-TH sometime
Then get married sometime.

[cy167]

008 tite ʔan ʔotqen n-ə-qit-ə-qin?
when? DEICT DEM.3sgABS HAB-E-freeze-E-3sg
When does it freeze there?

[an109]

There are also temporal adverbs derived from verbs, adjectives, and nouns. Deverbal adverbs are actually converbs in adverb function (discussed §13.4), e.g. *eryatək the next day* (<eryat- to dawn>), *wulqətwik in the evening* (<wulq- dark and -twi DEADJECTIVAL INCHOATIVE>):

009 ənqo iw-nin / ʔew-ʔattʔ-ə-qej-e etənw-o it-ə-lʔ-e /
then say-3sgA.3sgO woman-dog-E-DIM-ERG mistress-EQU be-E-PCPL-ERG
ʔewʔen-ləqəl-e cit=ʔm ra-tw-ə-rk-ə-nen wulq-ə-twi-k
wife-NMZR-ERG first=EMPH FUT-tell.about-E-PROG-E-3sgA.3sgO dark-E-INCH-SEQ
*Then she said, the she-dog that is, the future mistress of the house, the bride,
first she'll tell about it in the evening [lit. after it became dark].* [ke222]

Some temporal adverbs are stems with the ending -ʔit, which forms words which function as adverbs, nouns and verbs, e.g. *eleʔit in summer* (adv.), *summer* (n.), *to spend summer* (vi.); *lʔelegit in winter* (adv.), *winter* (n.), *to spend winter* (vi.); *ʔaloget during the day* (adv.), *day* (n.), *spend the day* (vi.):

The following example shows the adverb *lʔelegit in winter*:

010 lʔelegit ənʔin / əm-lʔalaʔet [...]
winter.ADV thus REST-winter

Thus [in the] winter, all winter, ...

[ka06]

Examples 011 and 012 show *lʔelegit spend winter* and *ʔaloget spend day* acting as verb stems:

011 [...] janra n-ə-lʔelegit-qin ʔəlqet-ə-k [...]
first HAB-E-spend.winter-3sg sleep-E-INF

... first they spend the winter sleeping ...

[aa2.30]

012 neme ənʔin ʔaloget-ʔe ʔara-k [...]
again thus spend.day-TH house-LOC

Again he spent such a day at home...

[ot061]

The same stems can act as underived nouns, for example *ʔalonet day* in the following:

013 tʔer ʔaloget ʔaa-ʔa-n?
how.much day.3sgABS use-TH-3sgO

How many days did it take (lit. "use")?

[na081:9]

Most manner adverbs are derived (see §4.8.1), but the corresponding interrogative manner adverb *lʔam why* is underived:

014 ik-wʔl "q-ə-wiri-ʔil lʔam təm-ə-tko-nat /
say-TH INT-E-descend-TH why? kill-E-ITER-3plO
tumy-ə-t lʔam UMIR-ə-lʔat-ʔa-tʔ"
friend-E-3plABS why? die-E-DUR-TH-3pl

He said, "Come down! Why did they kill your friends? Why did they die?"

[ke050]

Other underived manner adverbs include a number which express comitative-type relationships, for example *kənmal together* and *ceekej together*:

015 qejwe kənmal mənʔ-ə-lejw-ə-rkən mənʔ-ekwet qejwe
truly together 1pl.COND-E-roam-E-PROG 1pl.COND-set.off truly
ceekej janor
together first

If we were going out hunting together, we went together first.

[an019]

4.8.4 NP modifier adverbs

There is a small class of adverbs which can function to modify a noun phrase. Since noun phrases are invariably in the absolutive case, these adverbs seem to act in sentences like absolutive case nominals, and indeed, are sometimes interchangeable with them. The NP modifier adverbs include a quantifier form *cəmqək* *the others*, a reflexive cinit *self*, and a series of restrictive forms (e.g. *aməmnan* *myself*, *by myself*, *amənən* *yourself*, *by yourself*, etc.). These forms are discussed in §§7.6.1-3.

4.8.5 Negative particles

Negative particles fulfil a number of syntactic functions. The particles *qərəm/qəcəm* and *wanewan* forms negative predicates with verbs in the intentional. The particle *əŋge* forms imperatives of prohibition with negative converbs, and *ujge* generally goes with nominals in the privative case (homophonous with negative converbs). These particles are treated in greater detail in §§18.2.1-2, §18.4, §18.8.

The negative identity particle *qərəmena-/qəcəmena-* comprises a word (sub-) class of its own. Its syntactic distribution is discussed in §18.3. This form marks the grammatical categories of person and number (in agreement with person/number of the predicate). It can not mark case, and does not form a noun phrase with the elements it agrees with.

4.8.6 Proclausal particles

There are a number of particles which encode an entire proposition. These include *ətrʔec-əccʔet* *that's all*, *wələnkaqun* *thank you*, and *jewjew* *wait a minute!*

016 *eej!* *jewjew!* *eqəlpe* *m-ə-yt-ə-nat*
yes wait! quickly 1sg.INT-E-get-E-3plO

Yes! Wait a minute! I'll get them quickly [cy307]

Negative particles (see §4.8.4) can also be proclauses, in which function they act as answers to polar questions, e.g. *qəcəm-qərəm* 'no', 'it won't'; *wanewan* 'no', 'it didn't'; *ujge* 'no', 'there isn't any'. The positive answer to polar questions is *ii/eej* 'yes'.

The non-inflecting word *qoro* *gimme* is a 'transitive proclausal particle'. It can optionally take an absolutive case syntactic dependent representing the 'thing given' and a first person singular beneficiary assumed. For example,

017 *qoro* *titi-ŋə*
gimme *needle-ABS*

Gimme a/the needle.

It functions as a variant of the inflecting verb *qinejləyʔi* *give me (smth)*, which is a form of the verb *jəl-/jl-* *give* (see §11.3.1). The initial *q* of *qoro* looks like the general imperative/intentional verb prefix, but this is probably coincidental (of

course, even if the historical origin of the *q* is not related to the imperative verb inflection, the similarity in form and meaning to an imperative would support the grammaticalisation of the particle). Stebnickij (1994) shows that this word is probably cognate with a stem **qor* *hither* which is also the origin of the ablative case suffix in some Koryak dialects.

Proclausal particles form a cline with interjections (§4.10), with proclausal particles being slightly more grammatically integrated.

4.8.7 Conjunctive particles

Conjunctive particles can join two predicates/clauses (§5.5.2), or join two nominals/noun phrases (§9.5.2). Conjunctive particles which join predicates/clauses can also introduce an entire sentence. Conjunctive particles may specify relationships such as causality (*qeluq=ʔm* *because*) or temporal sequence (*qəmel* *then*).

The conjunctive particles are underlined in the following example:

018 *qəmel* *əŋqorə=ʔm* / *remk-ə-n* *ləyen=ʔm* / *a-ŋʔo-ka*
then after.that=EMPH folk-E-ABS really=EMPH NEG-hunger-NEG
ye-nʔel-lin *tajgat-ʔəpə=ʔm* *ənkʔam* *remk-ə-n=ʔm* *qəmel*
PF-become-3sgS food-ABL=EMPH and folk-E-ABS=EMPH then
loŋ-ə-cye-qaanmat-a *n-it-qin=ʔm* *qeluq=ʔm* *əŋqen*
NEG-E-INTS-slaughter.reindeer-NEG HAB-be-3sg=EMPH because=EMPH DEM.3sgABS
tejget *n-ə-twa-qen=ʔm*
food.3sgABS HAB-E-be-3sgS=EMPH

And then the people came to live without need from the food, and the people hardly slaughtered reindeer, because there was that food. [he065]

Note that *əŋqorə* *after that* is also a regularly formed spatial deictic adverb *from there* (§15.6).

There are also conjunctive particles which are specialised as clause/sentence openers, e.g. *ənraq* *at this/that time*.

019 *ana* *ənraq* *ŋenrilə* *cejw-e* *əŋqen*
so then thither walk-ADV DEM.3sgABS
ott-ə-poŋy-ə-qaj *rən-ə-nin*
wood-E-spear-E-DIM.3sgABS take-E-3sgA.3sgO

So then he took the wooden spear [while] walking there. [ot064]

These do not seem to be any syntactic grounds for distinguishing subordinating and coordinating conjunctions.

4.8.8 Modal particles

There are a group of modal particles which are constrained to occur with a verb either in the future tense or (more rarely) the intentional or conditional mood.

These particles include *camʔam*, expressing inability and *mecənkə*, which expresses sufficiency or ability:

- 020 *camʔam mət-ra-jalyət-ʔa*
unable.MOD 1pl-FUT-move.camp-TH
We can't move camp [nb080.2a]

- 021 *mecənkə mət-ra-jalyət-ʔa*
able.MOD 1pl-FUT-move.camp-TH
We can move camp [nb080.2b]

These modal particles can also be used without a verbal complement:

- 022 *anə n-ə-rkəceciw-ə-qin n-ə-rkəceciw-qin ujge ləyen camʔam*
well HAB-E-chase-E-3sg HAB-E-chase-3sg NEG.EXI really unable.MOD
Well he chased and chased, but they simply couldn't manage [to catch him]. [ot055]

4.8.9 Discourse particles

Chukchi is rich in discourse particles which give speaker evaluation of the truth value (evidentiality) of the clause, emotional influence of the action of the clause upon the speaker or clause participants, and/or intensity of the action. This type of particle is notoriously difficult to describe—they are rarely if ever syntactically obligatory, and they encode meanings difficult to unambiguously translate, lacking one-to-one lexical correspondences in the contact languages.

The emphatic discourse particle *=ʔm* is a clitic. Phonologically it consists of glottalisation followed by a bilabial nasal. If it is joined to a word with a final vowel, the vowel is glottalised. For example *cewaro=ʔm grey reindeer (EMPH)* is pronounced *cewarʔom*. If it is joined to a consonant final word a syllable is formed with an epenthetic schwa. For example, the pronunciation of *remkəlʔən=ʔm guest (EMPH)* is *remkəlʔənʔəm*. The emphatic particle/clitic is very common, and seems to join to words of any word class; example 018 above is by no means exceptional, with seven instances of *=ʔm*, including two on nouns (*tajgatʔəpə=ʔm food ABL*, *remkən=ʔm folk*) three on particles (*ləyen=ʔm really*, *ənqorə=ʔm then*, *qeluq=ʔm because*), and two on verbs (*nitqin=ʔm AUX*, *nətwagen=ʔm be/exist*).

4.8.10 Evaluative particles

The 'evaluative' subclass of particles has two members: *iee* *good, excellent* and *ʔetki(ŋ)* *bad, terrible*. These particles function as clause/predicate modifiers in the same way as adverbs, but can also function as (unassimilated) attributes of nominals and as predicates in their own right. This makes them quite unlike any other class of words or stems.

These different functions are illustrated in the following examples. Example 023 shows the particle *iee* *excellently* acting as a sentence adverb, while in 024 it is a predicate.

- 023 *iee ləyen tay-nəmətwa-ʔa-t*
excellently really INTS-live-TH-3pl
They all lived excellently. [ot147]

- 024 *kol:ə ləyen / Cəkwəŋaqaj na-n-awerʔ-ep-at-ʔa-n*
INTS really personal.name.3sgABS INV-CS-clothing-dress-CS-TH-3sg
n-ilyətew-jəw-ʔe-n / iee ləyen Cəkwəŋaqaj
HAB-wash-COLL-TH-3sg excellent really personal.name.3sgABS
And so they dressed Cəkwəŋaqaj up, they washed him, Cəkwəŋaqaj was excellent. [cy243]

Example 025 shows the evaluative particle *ʔetki(ŋ)* acting as an attribute in an NP.

- 025 *eqəlpe ra-yt-ə-ʔe ənqen ʔetkiŋ ənjiw*
quickly house-go.to-E-TH DEM.3sgABS bad uncle.3sgABS
That bad uncle quickly went home [cy326]

4.9 Postpositions

Chukchi has two postpositions, *qaca* *near* and *reen* *together with*. They occur with a noun in the locative case, generally directly after it, but with rare exceptions (e.g. 028). Postpositions could be analysed as enclitics, since they intermittently trigger the consonant alternation *k→y/ʔ*, which is otherwise a word-internal process (§3.3.1). Example 026 shows this alternation with the locative case form of the word *mother* (normally *ətlʔak*):

- 026 *ətlʔa-y reen n-ə-twa-qen ənneŋ yik*
mother-LOC with.PP HAB-E-be-3sg one year.3sgABS
It stays with its mother for one year. [aa2.27]

The postpositions do not interact with vowel harmony (and thus there is no test to show whether *reen* is +VH or -VH).

4.9.1 Associative postposition *reen*

The word *reen* is a particle indicating association of human or human-like entities. The entities associated with are marked in the locative case.

Example 027 shows *reen* with a locative case nominal in the high animate plural form (high animate plurals are a rarity in spoken language; this example is from some prepared concluding remarks to a radio broadcast):

- 027 *lʔə-wəly-ə-ma UČENI-rək reen ənʔam əmə*
see-RECIP-E-SIM scholar-LOC.PL with.PP and also
kale-wetyaw-ma ar-y-ine-t eŋinm-ə-t /
write-speak-SIM 3pl-POSS-3plABS word-E-3plABS
... meeting with scholars and reading their words ... [aa9.01]

However, in spontaneous texts *reen* is not invariably adjacent to the locative case nominal. Example 028 is a rare instance of *reen* with a non-adjacent locative case nominal:

028	ənqen	n-iw-qinet	ənqot	/	ənka	yat	/
	DEM.3sgABS	HAB-say-3pl	thus		there	2sgABS	
	<u>kelʔe-k</u>	q-a-twa-rkən	<u>reen</u>				
	spirit-LOC	INT-E-be-PP/OG	with.PP				

They spoke thus, "You there, go live with the spirits!"

[ke068]

However, *reen* does not seem to occur in sentences without a semantically linked locative case marked element somewhere in it, which suggests that examples like 028 are syntactic phrases, even if they are non-contiguous.

4.9.2 Locative postposition qaca

The locative postposition *qaca* differs somewhat in its morphosyntactic behaviour from *reen*, as the former also exists in a number of derived forms (such as relational *qacaken*; for examples see §15.5). There is also a formally similar derivational suffix *-ɣqac(a)* which seems to share many of the same functions (§15.3.2).

4.10 Interjections

Interjections are words which are grammatically not integrated into the language. They generally express emotional content, such as surprise (*okkoj*, *kako*), distress (*ʔəʔoj*), or pain (*iik*, *iikaka*). The interjection *mej hey!* is used for calling out to people, and is also combined with certain other interjections to emphasise the emotion expressed (*kako mej! hey wow!*).

5

Sentence types

5.1 Introduction

This chapter is intended as a brief introduction to the different types of clause and sentence found in Chukchi texts. Chukchi is a morphologically rich, non-configurational language, and at first glance Chukchi syntax offers a barren prospect to the linguist. Scholars of Chukchi have typically neglected it in favour of the fertile fields of morphology. Syntactic investigations have been situated more with respect to function equivalence to syntactic operations in other languages, which in the case of Chukchi inevitably brings in a large amount of morphology as well. Skorik's monograph, *Aspects of Chukchi syntax* (Skorik 1948), deals almost exclusively with the mixed morphological and syntactic phenomenon of incorporation. However, Chukchi is of course subject to levels of organisation larger than the word. While constituent order is relatively unconstrained, it is still not the case that any constituent order is possible—some constraints do exist and these constraints are amenable to structural description. There has hitherto been little published on the Chukchi syntax-pragmatics interface (§19).

The first part of this chapter discusses clauses. Clauses are a syntactic construct consisting of a highly grammatically integrated nucleus and a loosely grammatically integrated periphery. The prototypical clause is the BASIC VERBAL CLAUSE (§5.2). Clauses may differ from this prototype in a number of parameters. Sections §§5.3-5 deal with the other structural types of clauses observed in the Chukchi texts. Section §5.6 summarises how these structural types correspond to discourse functions; imparting information (indicative modality), seeking information (interrogative), eliciting an action or behaviour (imperative), or speaking as a pretended other (quoted speech).

The main syntactic unit used in this description is the SENTENCE. For the purposes of this grammatical description, the sentence is defined as coextensive with the PROSODIC PHRASE, a characteristic intonation contour encompassing a certain amount of syntactically and pragmatically related linguistic material including one or more clauses. As a level of analysis it has the advantage that it is explicitly marked in the phonological form of the utterance, and so avoids the risk of

circularity/arbitrariness that can arise from analysing syntax on the basis of sentences, which are themselves the product of (more-or-less covert) theorising about syntax. The Chukchi prosodic phrase has many syntactic features which are structured over the domain of the prosodic phrase. These include:

- (i) Tense and aspectual marking (§5.5.1)
- (ii) Argument sharing within the prosodic phrase (see below)
- (iii) Peripheral elements (for example, there are particles which only occur at the start of an prosodic phrase) (§5.5.2, §19.2.4)

Note that all these syntactic features are pragmatically motivated, and the separation of levels is not always so easy to achieve, since perception of intonation is influenced by the listener's syntactic competence.

The number of nominal arguments in a sentence, irrespective of the number of clauses, is limited. This limitation is imposed pragmatically; sentences generally have a focus (the newsworthy information that the sentence is communicating) and a topic (shared information which can be retrieved from verbal cross-reference without using overt nominals; see §19). The focus may be any constituent, but the topic is basically limited to referents (i.e. that which can be represented by a nominal).

5.2 Basic verbal clause

For the purposes of this work I define a basic verbal clause as an independent (i.e. inflecting) declarative verb, its syntactic arguments and associated peripheral elements. As a theoretical construct the basic verbal clause is useful as a point of departure in description—'non-basic' clauses are described in terms of how they differ from a prototype represented by this structure. It must be stressed that this type of structure, although common in context-free elicited language, is quite atypical in spontaneous speech. Example 001 shows a sentence from the corpus which is a basic verbal clause:

	—PERIPHERY—	—VERB—		—CORE ARG. (S)—
001	eryatak	neme rayta-yʔe	ənqen	qora-nta-lʔ-a-n
	next.day	again go.home-TH	DEM.3sgABS	deer-herd-PCPL-E-3sgABS
	<i>The next day that herder again went home.</i> [cy014]			

The constituent order of clauses is not fixed and core arguments are frequently referred to by verbal cross-reference (bound pronominals) alone rather than by overt, free nominals. For intransitive clauses all combinations of core S nominal and verb are attested; SV, VS and V. Discontinuous NPs are also attested, with the S interrupted by either the verb or by peripheral elements (§19.3.2). The verb is rarely discontinuous for the simple reason that phrasal verbs are uncommon in texts. Peripheral elements of various sorts, e.g. adverbs of manner, location, or time, speaker evaluation, and so forth, are common, but the periphery of a clause is

always—by definition—syntactically optional (certain non-basic clauses have obligatory peripheral elements of various sorts, see §5.3)

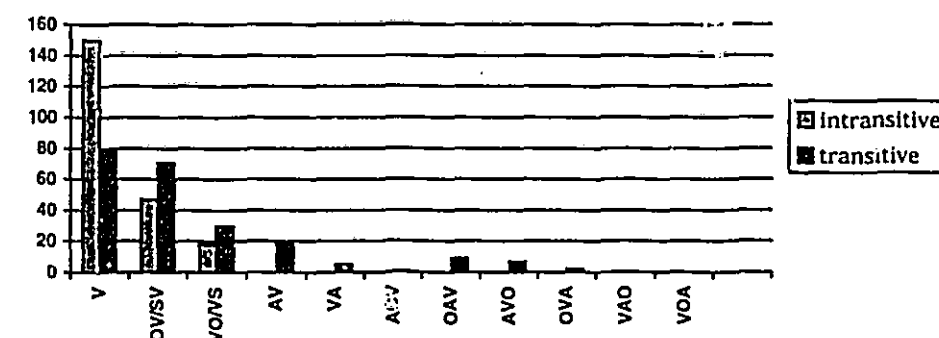
Basic verbal clauses built around a transitive verb have two argument slots, transitive subject/agent (A) and object (O).

	—PERIPHERY—	—CORE ARG. (O)—	—CORE ARG. (A)—	—VERB—
002	qanwer	jara-ly-a-jy-a-n	new-ʔattʔ-a-qe-e	tejk-a-nin
	finally	house-SING-E-AUG-E-3sg.ABS	woman-dog-E-DIM-ERG	make-E-3sgA.3sgO
	<i>[Then they moved camp], finally the bitch made a big house.</i> [ke149]			

In spontaneous texts it is highly unusual for both A and O to have overt nominal specification, and it is quite usual for neither to be present. All constituent orders are attested: V, AV, VA, OV, VO, AOV, OAV, AVO, OVA, VAO, VOA (the latter two are very rare, and are not attested in the data used for figure 5.1 below). Discontinuities only involve O, which is the nominal in the absolutive case and which can be specified by a noun phrase rather than by a single word.

Figure 5.1 shows the relative frequencies of the different constituent order/anaphora combinations for 223 transitive and 217 intransitive verbal clauses from narrative corpus. Note that the verb without any overt nominal arguments is most common, and that next most common is the verb preceded by O or S, then the verb followed by O or S. Combinations involving an overt nominal A are much less common.

FIGURE 5.1. Constituent order for transitive and intransitive clauses.



Comparison of the relative constituent orders of the core nominals of transitive and intransitive clauses suggests that Chukchi constituent order is not sensitive to the syntactic role of 'subject' (defined as a clustering of S and A); in fact, if there is any syntactic unit unifying the constituent order of core arguments it is a cluster of S and O. Overt A nominals are a statistically minor phenomenon. It should be noted that S and O are both marked by the absolutive case, and that absolutive case nominals seem to have the same discourse functions irrespective of their syntactic role (§6.3.1, §9).

The statistics in figure 5.1 include examples of quoted speech, which is atypical in that there is a much stronger tendency to overtly specify all arguments (the

pragmatic motivation for this is discussed in §5.6.4 and §19.4). If quoted speech was removed from the database, the preference for zero or one overtly specified nominal argument would be even stronger.

5.3 Other independent verbal clauses

There is a group of verb stems which form non-basic clauses by virtue of requiring some kind of additional complement. For instance, the verb *pkir- *arrive* has an obligatory (although not necessarily overt) locative complement representing the place arrived at which may be locational case nominal argument, or may be a locational adverb. Another verb stem iw- *say* has an obligatory complement consisting a section of quoted speech; e.g.:

	-ARG. (S)-	-VERB-	-----COMPLEMENT-----	
003	ənjiw-qej uncle-DIM	n-iw-qin HAB-say-3sg	atcaj-qaj-a-na aunt-DIM-E-LOC	q-a-tkik-wi INT-E-stay.night-TH
	[...]			
	<i>Uncle said "Stay the night at your auntie's"</i>			
	[cy027]			

The major group of verbs which take an obligatory non-core complement are the copula verbs. The main function of a copula clause is to express a nominal predicate (the copula complement), but in the majority of instances the nominal predicate is accompanied by a copula verb which encodes verbal categories, such as tense, aspect and mood, and subject agreement.

	-ARG. (S)-	-COP. COMPL.-	---COP. VERB---	
004	[...] ənqen DEM	mejə-a-wil-u big-E-price-EQU	n-it-qin=?m HAB-COP-3sg=EMPH	
	<i>That was a lot of money.</i>			
	[he047]			

The syntactic structure of copula clauses is described in §17.2.

There are also three types of verbless clause observed in the data, the zero-copula (§5.3.1), and the predicate adjective and possessed predicate forms (§5.3.2).

5.3.1 Zero-copula

The zero-copula clause is a minor structural type which occurs in alternation with clauses formed with copula verbs. Generally they are formed simply by omission of TAM-unmarked copula in locational and identity clauses, with all case-markings unchanged. However, zero-copula identity clauses also occur with the copula complement in the absolutive case instead of the equative. These forms are discussed in §17.2.4.

005	Telqep-a-lʔ-a-n Telqep-E-NMZR-E-3sg.ABS	caj DEICT	iyat now	ənkə here	mal-ənkə APPR-here
	ɣəɣolqaw-a-qaj personal.name-E-DIM	etʔəm you.know	ɣan DEICT	Telqep-a-lʔ-a-n Telqep-E-NMZR-E-3sg.ABS	
	neməqeɟ also	/ Ukəl personal.name	Caca-n-te personal.name-TH-3pl.ABS		

And Telqeps... well now ɣəɣolqaw is a Telqep, also Sasha [Uky] [kr069]

In zero-copula clauses a fully inflected copula verb is always insertable, suggesting that these clauses are the result of ellipsis. My impression is that they occur much less commonly in careful speech (this would have to be confirmed by a more in-depth study of speech genres than has been possible for this work).

5.3.2 Predicative adjectives and possessed predicates

Predicative adjectives in TAM-unmarked contexts have a special form, agreeing in person and number with their subject. This form is similar (but not identical; §16.3) to a habitual aspect intransitive verb. Likewise, TAM-unmarked possessed predicates can occur in a special form formally similar to the perfect form of the intransitive verb. The predicative adjective form occurs quite commonly, but the possessed predicate form is rare.

PREDICATIVE ADJECTIVE

006	ʔal-a-yatya-jə-a-n cross-E-adze-AUG-E-3sg.ABS	tey-n-a-mejə-qin INTS-ADJ-E-big-3sg.ADJ
	<i>The axe was very big.</i>	
	[cy202]	

POSSESSED PREDICATE

007	ya-pənl-a-more POSS.PRED-news-E-1pl
	<i>We have news.</i>
	[na104:9]

Adjectives are discussed in §§16.2-4, possessed predicates in §17.4.

5.4 Dependent clauses

Converbs (§13.4) form the heads of dependent clauses. Participles may be analysed as forming the heads of relative clauses, although there is little evidence to show that these should be considered a special clause type (§8.2). Clauses joined by conjunctive particles cannot be shown to be syntactically dependent (§5.5.2).

•CONVERB CLAUSES. Converbs form the heads of adverbial subordinate clauses. There are three converb suffixes, as shown in the figure below. A gloss of the relationship of the adverbial clause (AC) to the main clause (MC) is given in *italics*.

CONVERB SUFFIX	TYPE OF ADVERBIAL CLAUSE
-ma	simultaneous (<i>while AC, MC</i>)
-k	sequential (<i>after AC, MC</i>)
-(i)neju	consequential (<i>as a consequence of AC, MC</i>)

The verbal arguments in the converb subordinate clause do not have obligatory coreference with any arguments in the main clause. If there is coreference it is determined pragmatically. In example 008 the adverbial clause *genku ajwe wama* *while there yesterday* could be interpreted as referring to the speaker, the person she is talking about, or even the addressee.

- 008 *ənkʔam* *n-in-iw-iyəm* *Tələʔ-o:o-n* /
and HAB-TR-say-1sg personal.name-E.VOC-ABS
genku *ajwe* *wa-ma*
there yesterday be-SIM
And I said to him, "Tələʔəni", while [I/he/you] was there yesterday. [kr024]

Example 009 shows an adverbial clause with matrix clause O coreferent with dependent clause S:

- 009 *ləyen* *q-a-yite-jw-a-rkən* *ənqen* *pəcwetyaw-ma*
really INTS-E-look.at-COLL-E-PROG DEM.3sgABS converse-SIM
You just keep your eyes on her while she's talking [ka41]

The term 'converb' is historically used in descriptions of languages of the Soviet Union—converbs are not substantially different from 'adverbial subordinators' described in other linguistic traditions (e.g. the 'dative subordinator' *yunda* in Yidiny; Dixon 1977). Converbs are discussed in §13.4.

•PARTICIPLE CLAUSES. Chukchi participles are deverbal nouns. They sometimes show signs of retaining verbal valency, but this is extremely rare in the spoken language. Evidence of participles having arguments is discussed in §8.2. Participles generally act as arguments and (absolute case) attributes (§9.2.2).

5.5 Multiclausal sentences

Clauses can be joined by conjunctive particles. A distinction into coordinating and subordinating conjunctions is not very illuminating, and it is difficult to establish formal criteria to distinguish them. A conjunction like *qeluq* *because* (which cross-linguistically might typically be a subordinating conjunction) strongly implies some other proposition in a highly specific semantic relationship, whereas a conjunction like *ənkʔam* *and* (a typical coordinator) merely implies sequence in time. However, this cline in semantic dependency is not reflected by differences in syntactic structure. Whether coordinated or subordinated, a conjoined clause is marked by a conjunction which occurs either before (010, 012) or, more rarely, after it (011), and the conjoined clause itself occurs either before (011) or after the clause it is conjoined to (010). A clause with a conjunction can also occur as a sentence by itself (012).

- 010 *nenenə* *newʔen-e* *iw-ninet* *cot-tayn-a-k*
baby.3sgABS wife-ERG say-3sgA.3plO cushion-EDGE-E-LOC
m-a-n-ləw-at-γʔa-n *ənqer* *om-rʔo-lʔaa-rkən*
1sg.INT-E-CS-breast-TH-TH-3sg DEM.3sgABS hot-INCH-DUR-PROG
ne-yənto-γʔa-n *ənkʔam* *n-a-ləqet-γʔe-n*
3sg.INT-breathe-TH-3sg and 3sg.INT-E-sleep-TH-3sg
"The baby", the wife said to them, "I'll feed him in the outer chamber, else he'll sweat. Let him breathe some fresh air and fall asleep" [cy405]
- 011 *neme* *muu-lqət-γʔe-t* *ləyen* //
again caravan-set.off-TH-3pl really
otcoj *ye-myū-tale-linet* *qeluq=ʔm* *ya-pker-a-γgo-lenat* /
far PF-caravan-go-3pl because=EMPH PF-arrive-E-INCH-3pl
jara-k
house-LOC
Again they set off in a caravan. Because once they had travelled in their caravan for a long time, they started approaching the house. [cy298-299]
- 012 *ənkʔam* *ənqen* *taiw-eyət-tayn-etə* *NOŽIK* *qonpa*
and DEM.3sgABS EMPH-now-LIMIT-ALL knife always
əngin *qora-nm-at-a-k*
thus reindeer-kill-TH-E-INF
And now to the present day the knife is always thus [held] to slaughter a reindeer. [ke115]

5.5.1 Sequence of tenses

With the usual proviso that this description is primarily dealing with narrative data, the general tendency can be established that verbs have the same TAM values as the predicates of adjacent clauses, and over a sentence there can be only one change in TAM.

The typical event frames in a narrative are realis:

Event frame	Tense sequence
<i>(change of) state → event</i>	<i>perfect/habitual → aorist</i>
<i>event → (change of) state</i>	<i>aorist → perfect/habitual</i>
<i>event_i → event_j</i>	<i>aorist → aorist</i>
<i>(change of) state → (change of) state</i>	<i>perfect/habitual → perfect/habitual</i>

Less realis contexts can involve:

<i>state → future event/state</i>	<i>habitual → future</i>
<i>future event/state → future event/state</i>	<i>future → future</i>

5.5.2 Intersentential and intrasentential conjunction

Clauses and sentences can be coordinated using a range of conjunctive particles (see also §4.8.7). The most common conjunctive particles for joining clauses and predicates are *ənkʔam* *and* and *cama* *and* (*ənkʔam* is freely used in nominal conjunction, but nominal conjunction with *cama* occurs very rarely; §9.5.2).

- 013 *ənqen* *gaw-a-n-ra-ɣt-at-a-ɣgo-ɣʔe* / *iw-nin* /
DEM.3sgABS woman-E-CS-house-go.to-TH-E-INCH-TH say-3sgA.3sgO
ee gutkete qunece q-a-tkik-wi=ʔm
oh along.here once INT-E.spend.night-TH=EMPH
ənkʔam *q-a-gaw-a-n-ra-ɣt-at-cəqek-we*
and INT-E.woman-E-CS-house-go.to-TH-PURP-TH
So he started to take his bride home, she said to him, "Well, you'll stay one night along here and then take your bride home" [ke211]

- 014 *ənqen=ʔm* *ʔəttʔ-a-qej* *q-a-nu-rkən=ʔm* *ənkʔam* *cama*
DEM.3sgABS=EMPH dog-E-DIM.3sgABS INT-E.eat-PROG=EMPH and and
ratce-t re-melew-ɣ-a-t cama re-melek-wʔe əməʔ-eta
lung-3plABS FUT-become.well-TH-E-3pl and FUT-become.well-TH all.ADV
"So, you eat that dog, and your lungs will clear up, and you'll get completely better" [kr165]

Other conjunctive particles are semantically subordinating (although there is not syntactic distinction between conjunctive subordination and coordination).

qeluq *because*

- 015 *"ko:lo enmec ɣe-ɣjew-iyət?" "li / qeluq=ʔm waj*
INTJ already PF-awaken-2sg yes because=EMPH DEICT
ənjiw-qej t-a-ra-jʔo-ɣ-a-n"
uncle-DIM.3sgABS 1sg-E-FUT-go.to-TH-E-3sg
My goodness, you're up already? Yes, because I'm going to (relieve) uncle. [cy038]

watku *only when*

- 016 *ənkə n-a-jəlq-a-lʔet-qinet=ʔm ewat watku n-a-ɣjew-qinet*
there HAB-E.sleep-E-DUR-3pl=EMPH so only.when HAB-E.wake-3pl
n-a-natw-a-qenat relko-ɣtə / om-eta ləyen ləy-om-eta
HAB-E.carry-E-3pl indoors-ALL warm-ALL really INTS-warm-ALL
They always sleep there and only when they wake up, they are carried inside into the warm into the really warm. [ch15]

ecyi *no sooner*

- 017 *ecyi n-a-qetəkwat-a-ɣgo-qen n-a-lqut-qin*
no.sooner HAB-E.freeze-E-INCH-3sg HAB-E.stand.up-3sg
neme n-a-cajw-a-ɣgo-qen
again HAB-E.walk-E-INCH-3sg
No sooner than she began to freeze she stood up, again started going on foot. [cy279]

ewat/ewar *likewise* (the *ewat-ewar* alternation is discussed in §2.3.4)

- 018 *waj ɣəmo / cake-qaj [#] / cake-qaj*
DEICT 1sgABS sister-DIM.3sgABS sister-DIM.3sgABS
Jare t-a-piri-ʔe-n ewat uwequci-lqəl ən-in
personal.name.3sgABS 1sg-E.take-TH-3sg likewise husband-EQUIV 3sg-POSS.3sgABS
neməqej / ɣelwəl əmə t-a-piri-ʔe-n
also herd.3sgABS too 1sg-E.take-TH-3sg
It's me. Sister.. I've taken [my] sister Jare and a fiance for her too; I've also taken a herd. [ot143]

When used as clause introducers several conjunctions can cooccur in one clause.

5.6 Modality types

Verbal inflections mark the grammatical categories of tense, aspect, and mood to form basic verbal clauses with realis (DECLARATIVE FUTURE and DECLARATIVE NON-FUTURE, HABITUAL/UNIVERSAL and PERFECT; §§10.2.4-5, PROGRESSIVE; §10.2.1) and irrealis (IMPERATIVE/ INTENTIONAL and CONDITIONAL; §§10.2.6-7) meanings. These clauses are formed by means of a verb or auxiliary, nominal arguments, and peripheral elements.

There are other grammatical modalities which are marked syntactically: NEGATIVE POLARITY is marked by a combination of grammatical particles and special verb forms (§5.6.1, §18.2). The INTERROGATIVE can apparently be marked by a special intonation contour alone (although this hasn't been adequately explored; §3.6), but may also have syntactic markers, such as interrogative pronouns, interrogative verbs or interrogative adverbs (§5.6.2). The IMPERATIVE is marked by use of the intentional mood or hortative negative particles, usually also by intonational characteristics of the emphatic/vocative prosody (§3.6.1, §5.6.3).

Chukchi discourse makes a lot of use of (direct) QUOTED SPEECH. The pragmatics a speaking as a hypothetical other leads to a number of grammatical differences between quoted and non-quoted speech (§5.6.4).

5.6.1 Polarity

Clauses can have positive or negative polarity. Negative polarity clauses differ syntactically from positive clauses in a number of ways, discussed in §18. In brief, negative clauses mark fewer grammatical categories on the verb and have different ways of marking negated nominal arguments. A negative verb may be marked by a negative particle and a negative verb base, such as in the following:

- 019 speaker 1: *ənkʔam n-ine-nu-qin?* //
and HAB-TR.eat-3sg
speaker 2: *wanewan luy-nu-te* //
NEG.NFUT NEG-eat-NEG
"And did it eat it?"
"No, it didn't eat it"

[aa4.21-22]

In negative clauses tense-aspect-mood categories, if marked at all, are marked by a verbal auxiliary (§17.3). Negative clauses can also be formed by a negative particle and an inflecting verb in the intentional mood; this structure neutralises mood distinctions and expresses tense by the choice of negative particle (§§18.2.1-2):

020 [...] qarəm kela n-a-jet-a-nl
NEG.FUT spirit.3sgABS 3sg.INT-E-come-3sg

No spirit came!

[ke057]

5.6.2 Interrogative

Questions (interrogative sentences) can be classified according to the type of response they require. Polar questions are sentences which require a response giving the hearer's opinion of the truth value of the proposition contained in the question. The minimal response to a polar question is an affirmative or negative particle (see 021), but can also include repetition of part of the predicate (see 022):

021 speaker 1: cama n-ena-lye-n-wetya-at-jaw-qen //
CONJ HAB-TR-INTS-CS-speak TH-INTS-3sg

speaker 2: jinqe-j-ej? //
boy-DIM.3sgABS

speaker ti //
yes

"She also spoke to him for a long time"

"With the little boy?"

"Yes"

[jo015-017]

022 speaker 1: nely-a-n=ʔm etana n-a-yt-a-qen ʔaqa-njetʔaw-a-ŋ
hide-E-3sgABS=EMPH probably ADJ-E-hard-E-3sg IMPOSS-process-E-ADV

lamewat wenlayi n-a-njitʔew-qin? //
or nevertheless HAB-E-process-3sg

speaker 2: wanewan n-a-njitʔew-a-n tag-wanewan //
NEG.NFUT INT-E-process-E-3sg EMPH-NEG.NFUT

"The hide is probably hard, impossible to process, or did they nevertheless process it?"

"They didn't process it, they never did"

[ab4.13-4.14]

Negative questions are formed the same way as positive ones. Negative polar questions require a negative response when the respondent agrees with the truth value of the negative proposition.

023 speaker 1: naqam umqa gutku lun-lejw-e tite? //
but polar.bear.3sgABS here NEG-walk-NEG sometime

speaker 2: wanewan //
NEG.NFUT

"But polar bears haven't ever been seen here?"

"No [they haven't]"

[an099-100]

However, an affirmative particle would be a confusing response to a negative question unless it was accompanied by an alternative proposition.

Information sentences require a response introducing new information, rather than affirming or denying the truth value of a prior proposition. Information questions generally have an interrogative pronoun or adverb (e.g. *miŋkəri* *how?* below):

024 Cutpelʔ-a-n=ʔm / Cutpelʔ-a-n tag-ʔaqa-tw-a-ŋ
ethnonym-E-3sgABS=EMPH ethnonym-E-3sgABS INTS-IMPOSS-say-E-ADV

miŋkəri taw-ka?
how? say-INF

[The name] Cutpelʔan.. Cutpelʔan is impossible to say [translate]... how [would one] say it?

[kr057]

Information questions which expect verbal answers, i.e. *what are you doing?*, are formed by means of interrogative pronouns. The indefinite/interrogative stem *req-* (§4.2.2) also functions as an intransitive verb stem meaning *do what?* or *do something*. The transitive form (*rareqew-* ~ *-nreqew-*) is derived from the intransitive by the causative affixes. The same roots are used as indefinite proverbs, meaning *do something (intransitive)* and *do something (transitive)*. Proverbs agree in transitivity; a transitive interrogative pro-verb may not be answered by an intransitive verb, or vice versa.

Examples 025 and 026 show the intransitive proverb *req-* in interrogative and indefinite functions:

025 ik-wʔi n-a-reg-iyat? / wanewan
say-TH HAB-E-do.what-TH-TH NEG.NFUT

He said, "What are you doing?"—"Nothing"

[ke165]

026 ye-rʔe-lin y-uget-lin anqen cakəyet
PF-do.something-3sg PF-collect.firewood-3sg DEM.3sg girl.3sgABS

ənpənacə-qaj-a-ry-en / mik-a-n-ti atlon?
old.man-DIM-E-PL-POSS.3sg who?-E-TH-3plABS INTER

The sister was doing something, going for firewood; the old people's (girl).

[aside] What were they called?

[ot004]

Note the regular allomorphy *req-* ~ *rʔe-* from the phonological rule $Vq \rightarrow ʔV / _C$; §5.3.1.

Examples 027 and 028 show the interrogative and indefinite functions of the causativised (i.e. transitive) proverb:

027 ine-n-reg-ek-wʔi?
INE-CS-do.what-TH-TH

What are you doing to me?

[nb052]

028 ləyen ewat n-ena-n-raq-aw-a-myō-qen pojy-ott-a [...]
really so HAB-TR-CS-do.something-TH-E-INCH-3sg spear-wood-INST

But whenever he started to do anything to him with the spear

[ot109]

5.6.3 Imperative

The morphosyntactic category of *intentional mood* has imperative/hortative meanings as one of its major functions (§10.2.6). The following example shows two imperative clauses with intentional mood verbs (*qiwərəkən* say *it*):

- 029 *laj-ʔorawetlʔa-mel q-iw-ə-rkən mʔeml-ɪʔ-ə-n=ʔm əkʔam*
 AUTH-person-ADV 2.INT-say-E-PROG bullet-NMZ-E-3sgABS=EMPH and
tanq-ə-mel q-iw-ə-rkən əkqen rʔenut /
 stranger-E-ADV 2sg.INT-say-E-PROG DEM.3sgABS something.3sgABS
əkʔam qut-ti
 and other-3p/ABS

In Chukchi say "Bullet folk" and in Russian say what it is. Then [say] the others. [kr037]

The intentional has a full paradigm of person number markings, and only the second person intentional is primarily imperative. Third person intentionals can have a hortative sense:

- 030 *wecʔəm ʔən-ə-n-jalyət-an-məʔ*
 maybe INT-E-CS-nomadise-TH-1pl
Maybe they'll give us a lift [With luck let them give us a lift]. [nb043.A]

However the intentional is not only an imperative marker; for example, in the first person it is the most frequent way of expressing future/desiderative meaning, e.g.:

- 031 *ənraq / "ii ratanqawqen waj / ʔetki waj /*
 then yes enough DEICT bad DEICT
mən-ra-yt-ə-mək muri
 1pl.INT-home-go.to-E-1pl 1plABS
Then [they said] "Enough of this! It's no good! Let's go home!" [cy387]

The intentional is also syntactically required when forming negative indicative sentences using negative particles (§§18.2.1-2).

Negative information questions (formed by an interrogative particle, interrogative/hortative intonation, and a negative clause) can have the force of a weak (and therefore polite) imperative, as in the following:

- 032 *iʔam kante-mk-ə-n cəmqək e-nr-ə-ke*
 why lolly-COLL-E-ABS others NEG-take-E-NEG
Why don't you take some of the lollies? [kr238]

With different intonation/contextual clues example 032 could mean *Why didn't you take some of the lollies*, and without the question particle *iʔam* it would mean *You didn't take any of the lollies* or *Didn't you take any of the lollies?* (depending on whether the clause had declarative or interrogative intonation).

5.6.4 Direct and quoted speech

Most of the data in this work comes from monologues, either traditional stories (folktales and historical narratives) or improvised narratives such as explanations

about nature or reflections on recent events. A major structural feature of the folktale is extensive use of quoted speech. Other genres make use of quoted speech as well, but to a much lesser extent. Chukchi does not have any mechanism for marking indirect speech; all quoted speech is direct, but quoted direct speech has grammatical differences from direct speech which is not quoted. Speech by an imagined other is marked as quoted in various ways: narrators use intonation, imitation of different voice qualities and, where appropriate, the use of different gender dialects. Sometimes discourse context or pseudo-turn-taking makes it clear who are the participants of some quoted speech. Alternately, the speaker and (sometimes) addressee can be cross-referenced on the matrix verb *iw-* 'say' with overt arguments, as in example 033:

- 033 *qənwet ra-yt-ə-ɣgo-ɣʔe əkʔulpəre-te iw-nin /*
 finally house-go.to-E-INC-H-TH brother.in.law-ERG say-3sgA.3sgO
eryat-ə-k ɣən-in ɣelwəl q-ə-ret-ɣ-ə-n
 dawn-E-SEQ 2sg-POSS.3sgABS herd.3sgABS INT-E-brng-TH-E-3sg
Finally he got ready to go home; his brother-in-law said to him "Bring your herd tomorrow". [ut082]

Sometimes the roles of the pseudo-speaker and pseudo-addressee are identified by something in the content of the quote, such as the use of a proper name. In example 034 the verb *niwən* *they said to him* is ambiguous as to whether it's the boy *Cəkwaqaj* being spoken to or his uncle (both have high topicality, so we know that those two must be amongst the participants; no other participants have hitherto been mentioned, but real world knowledge of the logistics of reindeer herding strongly suggests that there will be other people around as well). Disambiguation comes within the quote itself, which contains a reference to 'your aunt', meaning that the only sensible interpretation is that the uncle is speaking to the nephew.

- 034 *qonpə ləyen am-ənan Cəkwaqaj ɣalwəlʔ-əta //*
 always really REST-3sgINST personal.name.3sgABS herd-ALL
qənwet əkqen teq-ənɣiw raju-lqət-ɣʔi=ʔm //
 finally DEM.3sgABS good-uncle stand.watch-set.off-TH=EMPH
n-iw-ə-n wəne əkqen ətcaj-qaj-ə-na opopə
 INV-say-E-3sgO INTJ DEM.3sgABS aunt-DIM-E-ALL must
kiw-tumy-u q-it-yi //
 stay.night-friend-EQU INT.2sg-be-TH
It was always Cəkwaqaj by himself to the herd.
Finally the good uncle came to stand watch.
They said to him, "Well, you'd better go sleep at your auntie's" [cy021-023].

Usually however, a combination of these factors are present.

The database for this description also contains a smaller amount of conversation between native speakers, mostly in an interview frame where the younger person is seeking information from a knowledgeable older person. Within the limits of the data obtained, it seems that conversation is structured quite differently to quoted

speech occurring in folktales. There are some clear motivations for this; in a conversation the speech act participants are physically present and obvious to all, and the real participants in the discourse have a greater contextual involvement, whereas in quoted speech the hypothetical speech act participants need to be identified. A distinctive structural feature of quoted speech is the use of overt personal pronouns to identify hypothetical speakers and hypothetical addressees (see §7.2). In non-quoted speech, overt personal pronouns are used in contrastive function and in certain set syntactic constructions, but not for pure identification of participants, which is carried out by verbal cross-referencing. Conversational data also gives the impression that tense-aspect-mood marking is used in a much less elaborated way than available morphology would suggest. In conversation there seems to be a tendency to use non-inflecting verb bases (without auxiliaries) rather than inflecting verb forms¹.

Conversation and even quoted conversation makes use of direct quotes, although not to quite the same extent as the folktale. Example 035 shows a direct quote used in conversational Chukchi:

- 035 *yənmał inʔe ya-cajo-jyəm ɣenku=ʔm ənqo*
 recently morning PF-tea-CONSUME-1sg there=EMPH then
ʔOmrəwəkwəɣaw ɣ-iw-lin ii-ii t-ə-lwaw-ə-rkən ʔare-k
 personal.name.3sgABS PF-say-3sg ouch!-ouch! 1sg-E-be.unable-E-PROG hold.on-INF
opopə m-amalajo-cqew-ə-k / ii
 must 1sg.INT-shit-PURP-E-1sg yes
This morning I drank tea there, and ʔOmrəwəkwəɣaw said "Ow-ow, I can't
hold on, I must go for a shit!"— "Yes" [kr223]

Examples 036-037 show nested quotes, i.e. direct quotes with direct quotes within them:

- 036 *qənwer teryat-ɣʔe "iʔam naqam in-iw-ə-rkən*
 finally cry-TH why but INV-say-E-PROG
'q-ənə-jau-ɣʔe? / qənwer r-ine-n-tʔəl-ek-wʔe"
 INT-INV-use-TH finally FUT-INV-CS-feel.pain-TH-TH
Finally he burst into tears: "Why did you say to me: 'Use me!'? You'll end up
hurting me" [cy095]

¹ The point that Chukchi quoted speech is structurally different from conversation is not made by Nedjalkov (1994), who contrasts the frequency of use of various TAM forms in narrative and 'dialog' (quoted direct speech).

- 037 *n-iw-qin "t-ə-ra-caj-o-ɣʔa ənqo t-ə-r-ekwet-ɣʔe*
 HAB-say-3sg 1sg-E-FUT-tea-CONSUME-TH then 1sg-E-FUT-set.off-TH
cama t-ə-re-nju-ɣʔe ənjiw-qej re-pkir-ɣʔe /
 and 1sg-E-FUT-be.on.watch-TH uncle-DIM.3sgABS FUT-arrive-TH
q-ik-w-ə-n 'macənan Cəkwəɣaqaj ɣenku
 2sg.INT-say-TH-E-3sg enough personal.name.3sgABS there
ənan re-nju-ɣʔe"
 FUT FUT-be.on.watch-TH

He said, "I'll have tea, then I'll go; I'll be on night watch. [When] uncle will come, you say to him 'Cəkwəɣaqaj's alright there, he'll do the night watch'"

[cy158]

6

Nominal inflection

Nominals are words which can act as arguments and which are grammatically specified for the grammatical categories of case, number and person. The nominal word classes are nouns, personal pronouns, indefinite pronouns, demonstrative pronouns, quantifier pronouns, and participles. Orthogonally to this syntactic word classification there are other classifying principles. Nominals are divided semantically into the animacy classes *common* versus *high animate*; animacy classes are reflected in different selection of inflectional morphology. Nominals can also be put into morphological classes according to how they form the absolute singular. In this work *common nouns* are considered the prototypical nominal; they are the most numerous class and the most productive, and have the richest morphological possibilities. The significant and distinctive features of other nominals are usually clearest when described in terms of how they differ from common nouns.

6.1 Subclassification of nominals

Nominals can be subclassified according to their morphological combinatorial possibilities and syntactic restrictions, outlined below:

- **NOUNS.** This is the major subclass of the nominals. Nouns have all the prototypical features of nominals, and, unless specifically indicated, all nominal features discussed below are relevant to nouns. They can inflect for case, number, and person, and have by far the richest array of derivational possibilities, including semantic derivations, and word class changing.

The remainder of this chapter describes nominal morphology focussing on nouns (§§6.2-5). The other nominal subclasses are described in §§7.2-5 (pronouns) and §8.2 (participles).

- **PERSONAL PRONOUNS (§7.2).** Personal pronouns have person and number as an intrinsic part of the stem, and thus do not take any of the usual person or number suffixes available to nouns. Although they rarely show the richness of derivation that nouns have, they do have many of the same derivational possibilities. Personal pronouns can incorporate possessors and be marked by derivational affixes for diminutive and augmentative.

• **INDEFINITE PRONOUNS (§7.3).** There are two indefinite/interrogative pronoun stems. These stems have an intrinsic animacy distinction; *req-* *what?/something* can only be declined like a common noun, and *mik-* *who?/someone* can only be declined like a high animate. In interrogative function these pronouns are used to form information questions answerable by a nominal.

• **DEMONSTRATIVE PRONOUNS (§7.4).** These are the nominal shifters whose reference is determined by discourse context or spatial configuration rather than the semantics of the nominal expression itself. The spatial/demonstrative pronouns differ from nouns in that they may decline like high animates or like ordinary nouns depending on the animacy of their referent. The deictic pronouns are graded for distance, with *got.qen(a)-* *this (here)* (cf. *gut-* *here*) referring to the nearest entities, *nan.qen(a)-* *that* (cf. *gen-^{vi}* *there/that*) referring to comparatively distant entities, and a number of others derived from the various stems indicating entities very far away, e.g. *naan.qen(a)-*, *poon.qen(a)-*. The stems indicating 'very far' are not graded for distance with respect to each other.

The demonstrative *an.qen(a)-* has the same stem *an-* as the 3sg personal pronoun. Unlike the other demonstratives, it is not graded for distance. This form is specialised for anaphoric reference, and accounts for approximately nine in ten of the demonstratives occurring in spontaneous texts.

• **QUANTIFIER PRONOUNS (§7.5).** There are two stems, *aməl'o* *all* and *qut-* *one, other* (irregular absolutive singular *qol*). They both decline like high animates (§6.2); *aməl'o* is intrinsically plural, and may get plural agreement, but does not itself mark plural by affixation.

• **PARTICIPLES (§8.2).** Participles are nouns derived from verb stems. They differ from other derived nouns syntactically in that they have the possibility of governing arguments in the same way that a verb root would. There are four structural types:

Intransitive stems	Intransitive Active (S-focus) e.g. <i>tələ-lʔ-a-n</i> <i>the one going</i> (< <i>tələ-</i> <i>go</i>)
	Passive (O-focus) e.g. <i>təm-jo</i> <i>the one killed</i> (< <i>təm-l-nm-</i> <i>kill</i>)
Transitive stems	Negative Passive (negated O-focus) e.g. <i>e-nm-a-kə-lʔ-a-n</i> <i>the one not killed</i>
	Transitive Active (antipassivised A-focus) e.g. <i>ine-nm-a-lʔ-a-n</i> <i>the one who kills</i>

6.2 Inflectional categories: case, number and person

Nominal heads (i.e. nominals which are not incorporated or compounded) can be inflected for case, number and person, although number and person are not usually marked outside the absolutive.

The term *case* is used here in the widest sense, to refer to *grammatical case* as well as *semantic case*. The Chukchi grammatical cases mark a range of syntactic functions closely integrated with the verb and with clause structure in general, in contrast to the semantic cases which are nominal inflections indicating spatial relations or relationships of accompaniment.

The Chukchi grammatical cases are as follows:

CASE	GRAMMATICAL FUNCTION
<i>absolutive</i>	S, O
<i>ergative</i>	A
<i>equative</i>	copula complement

The ergative case form actually has two functions; *ergative*, the grammatical case marker of the A argument of a verb, and *instrumental*, the semantic case marker of the semantic role 'instrument' as well as marking certain oblique grammatical roles (§6.3.5). The *equative* is the obligatory grammatical case marker of the complement of a two-place copula verb, but may also have a non-core equative function 'as a...'.

The *locative* case occurs commonly as a minimally specific marker of spatial relationship ('at'). The locative suffix *-k* is homophonous with the infinitive and the converb marker of sequentiality.

Amongst the grammatical cases the *dative* is conspicuous by its absence. Although a dative/benefactive semantic role is distinguishable with certain verbs, there is little syntactic evidence that the dative case should be distinguished from the *allative*, and there is reasonable morphosyntactic evidence that it shouldn't. This issue is discussed in §15.2.2.

The analysis of Chukchi nominal morphology is further complicated by the existence of derivational affixes of similar function which co-occur with the aforementioned inflections, or which have a mixture of inflectional and derivational features. Within the functional domain of spatial relationships some relationships are expressed by morphosyntactic case markers (e.g. *-jɨŋkə* *sublative*, i.e. 'under'), others are marked by derivational suffixes which require an appropriate case suffix as well (e.g. to indicate *on top of* the derivational suffix *-tkən-^{vi}* *TOP* must be case marked with the locative). A further group is marked by the spatial postposition *qaca* *beside, near* (§15.5)

Non-core case markers can look like derivational affixes or adverb markers. There are two basic criteria for affixes to be considered case markers; the morphological criterion that a case marker must be an affix of a nominal stem (i.e. a case marker

is in complementary distribution with the core cases absolutive and ergative), and the syntactic criterion that a case marker must be able to mark an independent nominal within a clause which can act as an argument or adjunct (not necessarily a core argument) of a verb.

The following shows these criteria applied to three spatial relationship affixes; (i) sublative, (ii) perlative, and (iii) inessive.

- (i) The *sublative* marker can be shown to be in complementary distribution with core cases and with the other, non-controversial, case markers, e.g.

meniy-jɪŋkə *under the cloth* (sublative)

meniy-e *with the cloth* (ergative/instrumental)

meniy-ə-t *cloths* (absolutive plural)

Furthermore, other spatial cases cannot combine with the sublative; *meniyjɪŋkə* means *located under the cloth* and *to a position under the cloth* (i.e. it doesn't combine with locative or allative cases). The sublative is thus shown to be a case marker (§15.2.7).

- (ii) The *perlative* is more problematic. It occurs in complementary distribution with case markers, e.g.

aŋqə-jekwe *along the sea* (perlative)

aŋqə-k *at the sea* (locative case)

The same marker is also found combined with cases, as in the following:

moorʔet-jekwe-k *on caravan tracks* (perlative + locative)

However, these two morphological functions can be shown to be formally separate when combined with a -VH stems and affixes such as *weem*^{VH} *river* and *-k*^{VH} *LOC*:

waam-jekwe *along the river*

weem-jikwi-k *on the length of the river*

Thus, there are actually two affixes, *-jekwe*^{VH} which is a perlative case marker, and *-jikwi*^{VH}, which is a perlative derivational affix. Although these forms are clearly related, they are synchronically distinct (the diachronic source of the distinction between the case marker and the derivational affix is discussed in §15.2.4 and §15.3.4)

- (iii) The *Inessive* shows similar behaviour to the perlative; in some contexts it acts as a case marker and in some contexts it acts as a derivational suffix. The suffix *-cəku* can occur word finally for a locational meaning without the locative case:

retem-cəku *inside the roof* (inessive)

qora-cəko *inside the reindeer*

It can also be combined with case suffixes:

retem-cəku-n *the inside of the roof* (inessive + absolutive)

qora-cəko-jpə *from inside the reindeer* (inessive + ablative)

Unlike the perlative, the two functions of the inessive are not formally distinguished; *-cəku*^{VH} is both a case suffix and a derivational suffix. This is treated as polysemy (§15.2.6, §15.3.5).

Other spatial affixes do not fulfil any of the criteria for casehood. The suffix *-corm* *edge* cannot mark an independent nominal without some other case marker to indicate its syntactic role. The notion of 'location on the edge of' must be marked by the locative case, e.g. *aŋqə-corm-ə-k* *on the edge of the sea*.

Additional morphological evidence that a form is a case marker is also occasionally available; with semantically appropriate stems these markers take the regular forms to indicate high animate plural, i.e. they can mark the nominal categories of number and animacy, which can never be marked by adverbs.

According to these criteria the following cases can be added to the inventory:

SPATIAL

locative

allative

ablative

orientative

*inessive**

*perlative**

*sublative**

ACCOMPANIMENT

comitative

associative

*privative**

* the cases marked with an asterisk were not part of Skorik's case inventory (1961:155-215).

The grammatical category of number can be marked only in the absolutive case of common nouns. High animate nouns mark number in all cases except the equative. Personal pronouns have number inherent in the stem, and do not use any further number marking. All other nominals can be marked singular or plural in the absolutive. There is also a singulative marker which can be applied to some nouns, giving a three-way distinction; *singulative*, *unspecified (singular)* and *plural*.

Apart from personal pronouns, nominals with non-third person reference occur in the absolutive only. The markings are the same as the pronominal suffixes used by adjectives and verbs. They are observed rarely, mostly with complex possessive roots.

The Chukchi case inventory is summarised below:

FIGURE 6.1. Chukchi case inventory.

GRAMMATICAL CASES	SPATIAL CASES	ACCOMPANIMENT CASES
absolutive	locative (at)	comitative (with)
ergative/instrumental	allative (towards)	associative (with, part/whole)
equative	ablative (from)	privative (without)
	orientative (according to)	
	inessive (inside)	
	perlative (along)	
	sublative (under)	

The grammatical cases are described in §6.3, the spatial cases in §6.4 and, more thoroughly, §15.2, and the cases showing accompaniment relations in §6.5.

Chukchi case morphology is very regular. All nominals take the case marking affixes listed in the table below. Three subclasses of nominals have additional thematic consonants or irregular endings. These subclasses are:

• **COMMON NOUNS:** Common nouns take the case suffixes in the leftmost column of the table below.

• **HIGH ANIMATE SINGULAR:** This semantically based subclass of nouns includes personal names (unique personal names are given to people, pets, some spirits and mythological figures) and kin terms used as terms of address. Demonstrative and quantitative pronouns can also be marked with high animate inflections when their semantic scope is the same as a high animate noun. The high animate inflections in the singular use a single suffix *-ne^{VH}* to mark the ergative/instrumental, locative, and allative cases. In addition, the equative uses this suffix along with the standard equative case suffix *-u*.

• **HIGH ANIMATE PLURAL:** This is the plural of the high animate category. The plural of a personal name is an *associative plural*, used to refer to the group that the person is the head of. The high animate plural inflections are marked with the thematic suffix *-r^{VH}* or *-c^{VH}* (men's and women's dialects respectively) prior to the case ending. The ergative case has an irregular form *-rək^{VH}/cək^{VH}*, which is identical to the (regular) locative *-r-ə-k^{VH}/c-ə-k^{VH}*, and the allative has an irregular form *-rəkə^{VH}/cəkə^{VH}*.

• **PERSONAL PRONOUN:** Personal pronouns in most cases inflect like common nouns but have a thematic suffix *-ke-* joining the stem to the case suffix. In the locative case personal pronouns inflect like any noun, and in the absolutive and ergative/instrumental they have slightly irregular forms (fig. 6.2, notes 12 and 14).

FIGURE 6.2. Chukchi case endings and thematic suffixes.

Case	Case ending	HIGH ANIMATE SINGULAR	HIGH ANIMATE PLURAL	PERSONAL PRONOUN
ABS PL.	-t ^{VH} [1]	**	-nti [8]	-
ERG/INST	-e ^{VH} [2]	-ne ^{VH} [6]	-rək/-cək ^{VH} # [9]	-(n)an [13]
LOC	-k ^{VH} [3]	-ne ^{VH} #	-rək/cək ^{VH} # [10]	- [14]
EQU	-u ^{VH}	-n ^{VH} (<*ne ^{VH})	** [11]	-k ^{VH}
ALL	-ytə ^{VH} [4]	-ne ^{VH} # [7]	-rəkə/-cəkə ^{VH} # [12]	-kə ^{VH} /-ka- [15]
ABL	-jpə ^{VH} [5]	-	-r/-c ^{VH}	-ka- (<*ke ^{VH}) [16]
ORI	-ɣit ^{VH}	-	-r/-c ^{VH}	-ke ^{VH}
INESS	-cəku ^{VH}	-	-r/-c ^{VH}	-ke ^{VH}
PERL	-jekwe ^{VH}	-	-r/-c ^{VH}	-ke ^{VH}
SUBLAT	-jilkwə ^{VH}	-	-r/-c ^{VH}	-ke ^{VH}
COM	ye-__e ^{VH}	-	-r/-c ^{VH}	-k ^{VH}
ASS	ya-__ma ^{VH}	-	-r/-c ^{VH}	-ɣ ^{VH} (<*k ^{VH}) [17]
PRIV	e-__ke ^{VH}	-	-r/-c ^{VH}	-k ^{VH}

KEY: ** Impossible combination; - No thematic suffix; # Terminal form (no additional suffix)

NOTES TO TABLE:

Notes [1]-[5] are statements of allomorphy; the remainder are explanations of regularities and hypotheses about underlying structure.

$$[1] \quad \{ABS.PL\} \rightarrow \begin{cases} -ti / VC_{coronal} \\ -t \text{ elsewhere} \end{cases}$$

The coronal consonants are c, r, l, j, n and t (see §3.3); for example, *tičjəc-ti* *thousands*; *coqat-te* *bread (loave)s* (<*coqar* *bread*); *kilkil-ti* *umbilical cords*, *ɟinqeɣ-ti* *boys* (<*ɟinqeɟ* *boy*), *rətən-te* *claws*, *ɟewəcqeɣ-ti* *women*.

$$[2] \quad \{ERG\} \rightarrow \begin{cases} -te^{VH} / V_ \\ -e^{VH} \text{ elsewhere} \end{cases}$$

$$[3] \quad \{LOC\} \rightarrow \begin{cases} -kə^{VH} / \sigma^*(C)VC_ \text{ (i.e. after polysyllabic syllable final stem)} \\ -k^{VH} \text{ elsewhere} \end{cases}$$

$$[4] \quad \{DAT/ALL\} \rightarrow \begin{cases} -etə^{VH} / C_ \\ -ytə^{VH} \text{ elsewhere} \end{cases}$$

$$[5] \quad \{ABL\} \rightarrow \begin{cases} -epə / CC_ \\ -ɣəpə / VC_ \\ -jpə \text{ elsewhere} \end{cases}$$

[6] Although underlying **ne-e* would be realised as *-ne* because of vowel contraction, this form is better treated as unanalysable, since the usual postvocalic allomorph of the ergative is *-te*, which means that the predicted form would actually be the unattested **nete*. Note that the high animate ergative is identical to the high animate locative.

[7] Moll and Inenlikej (1957:169) and Skorik (1961:186) both give two forms, -na^{·VH}# or -naytə#. The recessive vowel harmony form -ne^{·VH}# which is identical to ergative and locative seems to be a feature of Telqep Chukchi (see §15.2.2 for example).

[8] High animate plurals have the irregular suffix -nti. Note that the high animate singular thematic suffix is -ne-, so if the plural was formed with this (not implausible, since the absolutive plural otherwise patterns with forms unmarked for number) the expected form would be the unattested *-net. The form -nti is also not formed from an underlying high animate plural thematic suffix -r/-c-, since underlying *r/c-t would be expected to give -tt- in the men's dialect and -cc- in the women's dialect.

[9] The thematic suffix for the high animate plural shows the r-c alternation between men's and women's dialects (§3.3.5).

[10] This could be treated as unanalysed syncretism with high animate plural ergative/instrumental -rak^{·VH}#/-cak^{·VH}#, or could be treated as a regular form with underlying *-r-k#/*-c-k# (thematic suffix + locative case)

[11] The equative cannot have number specification; it always inflects like a singular.

[12] Unlike the other high animate plural forms made with r/c and k, the suffix -rakə/-cakə has dominant vowel harmony, which suggests a historical derivation from a more regular form with the general allative suffix -ytə. See also the allative form of personal pronouns, note [15].

[13] Ergative markings are slightly irregular—all ergative pronouns are based on the oblique personal pronoun stem; in the 2nd and 3rd person singular these are suffixed with -an, and in 1sg and all the plurals the suffix is -nan.

1sg	yəm-nan	1pl	mory-ə-nan
2sg	yən-an	2pl	tory-ə-nan
3sg	ən-an	3pl	əry-ə-nan/əcc-ə-nan

This seems to be a true irregularity. There are subminimal pairs which show that reduction of an underlying geminate in the hypothetical regular forms *yən-nan and *ən-nan is not a regular process; e.g. ənən (3sg.ERG) can be contrasted with ənnen *one* or ənnanmətləgen *six*, and yənan (2sg.ERG) can be contrasted with yənnik *animal*. However, the interesting thing here from a typological point of view is probably not that there is irregularity in the personal pronouns, but how little of it there is.

[14] Locative personal pronouns are formed without any thematic suffix: yəm-ə-k, yən-ə-k, ən-ə-k, mur-ə-k, tur-ə-k, ər-ə-k/əc-ə-k. The stems used with the plural locative forms are unusual (compare note [13]).

[15] Personal pronouns have two possible endings in free variation; -kə^{·VH}, or the thematic suffix -ke^{·VH} plus the usual allative case ending, i.e. -ka-ytə. The

dominant vowel harmony of the -kə^{·VH} form of the suffix suggests that it derives from a truncated form of -kaytə.

[16] This element gets its dominant vowel harmony from the basic ablative suffix -jpə^{·VH}.

[17] This -y- is underlyingly a *-k- (§3.3.1).

•DISCUSSION. These case endings are completely regular. The only morphological irregularities are in the markings of the absolutive singular. The absolutive singular markings are quite complex, with a mixture of lexical and morphophonological conditioning factors determining the appropriate form (§6.3.1).

Membership of the high animate declension class is somewhat fluid; personal names are always high animate, but kin terms are usually only declined with the high animates when the kin term is being used like an address term or when the kin term is used by a speaker to whom that kin relation actually applies—I decline *ətla* *mother* as a high animate when I'm talking about my mother, but not yours. This is illustrated in examples 001 and 002, which come from close proximity in the same text. In example 002 the noun *enjiwqej* *uncle* (DIM) declined as a high animate in the quoted speech of the uncle's nephew, whereas the preceding example *ʔeqenjiw* *bad uncle* is used by the unrelated narrator.

- 001 [...] / tag-qonpə ənqen ʔeqe-njiw-e n-in-iw-qin
INTS-always DEM.3sgABS bad-uncle-ERG HAB-TR-say-3sg
galwilʔ-ətə q-ə-lqət-yi gelwilʔ-ə-k q-ə-twa-rken
herd-ALL INT-E-set.off-TH herd-E-LOC INT-E-be-PROG
... the bad uncle always said to him "Go to the herd, be at the herd!" [cy002]
- 002 qəram ʔetki qejwe ənjiw-qej-ə-ne r-ena-ccəpcew-ə-yʔa
NEG.FUT badly truly uncle-DIM-E-AN.ERG FUT-TR-beat-E-PF
"No, uncle will badly beat me" [cy006]

Talking animals acting as protagonists in folktales are also declined as high animates, the reason once again being that the name of these animals can be considered as equivalent to personal names.

- 003 epeepe-qej-ə-ne iw-nin / re-pkır-yʔe
spider-DIM-E-ERG say-3sgA.3sgO FUT-arrive-TH
galwəlʔ-ətə ne-re-njiw-ə-yət
herd-ALL 3pl-FUT-send-E-2sg
Spider [or 'the spider'] said "You'll arrive, and he'll send you to the herd" [cy213]

The high animate declension pattern is obligatory for personal names and the indefinite/interrogative pronoun *mik*- *someone/who?*

Demonstratives can also be declined as high animates when they are acting as anaphors for nominals which would be declined as high animates. In the following example the demonstrative is declined in the ergative once as a high animate

(ənqenana) and once as a regular nominal (ənqenata), although in both instances it refers to the same entity:

004	ɲenku	wa-rkən	ʔetkiɲ	qora-jɣ-ə-n	ənqena-na	ənɾʔaq
	there	be-PROG	bad	reindeer-AUG-E-ABS	that-AN.ERG	then
	na-ra-penɾ-ə-ɣət	/	ənqena-ta	ənqen		
	3A-FUT-attack-E-2sgO		that-ERG	DEM.3sgABS		

There's a bad reindeer there, that one will attack you, it will. [cy214]

In the context this reindeer is highly individuated, and it later becomes companion and assistant (although, perhaps unusually for a folktale, it does not ever talk). The free variation in the choice of declension pattern reflects the lack of constraint on what would be the appropriate choice in this context. The following example shows another instance of the two declensional patterns being used to indicate a single entity. This is a rare occurrence of what could be argued to be an ergative case noun phrase. The demonstrative pronoun ənqenacək is declined as a high animate, even though its head *remke* *folk* is not.

005	ənqena-cək	remk-e	ɣe-piri-lin	/	uget-lʔ-ə-n
	that-ANpl.ERG	folk-ERG	PF-take-3sgO		collect.firewood-NMZR-E-3sgABS
	ɣa-n-rayt-at-len				
	PF-CS-go.home-CS-3sgO				

Those folk kidnapped the firewood-collector and took her home. [ot006]

The possibility of ergative case noun phrases is discussed in §9.3 (including this particular example).

Absolutive case nominals can also be marked for (non-third) person by means of pronominal suffixes. These are illustrated with the demonstrative ɲotqen(a-) *this* in fig. 6.3:

FIGURE 6.3. Person marked nominals.

	Singular	Plural
First person	ɲotqena-jɣəm <i>this is me</i> (1sg: -jɣəm, -iyəm)	ɲotqena-more <i>this is us</i> (1pl: -muri)
Second person	ɲotqena-jɣət <i>this is you</i> (2sg: -jɣət, -iyət)	ɲotqena-tore <i>this is you PL</i> (2pl: -turi)

All first and second person pronominal suffixes are -VH. The allomorphs of the 1sg and 2sg occur after vowels (-jɣəm, -jɣət) or after consonants (-iyəm, -iyət). Person marked nominals are commonly used in zero-copula existential constructions (see §17.2.4).

6.3 Core grammatical cases

Grammatical cases show the grammatical relations of nominals in clauses. There are three core grammatical cases; *absolutive*, *ergative* and *equative*. The ergative case marks a nominal in A function, the equative marks a nominal functioning as copula complement, and the absolutive is the case for all other nominals in core

function, i.e. S of an intransitive verb or copula, and O of a transitive verb. The *instrumental* case is formally identical to the ergative, and so is treated here as well.

6.3.1 Absolutive singular

The absolutive singular of nouns is formed according to a number of different patterns. The choice of morphological pattern is partially lexicalised, but there are also significant regularities. Phonological form or morphological origin determines the choice of absolutive singular marker for most words. A global morphological constraint is that nouns cannot be realised as short-vowel monosyllables¹.

FIGURE 6.4. Strategies for marking absolutive singular of common nouns.

Ia.	Bare Stem
b.	Bare Stem, reduced final vowel
c.	Bare Stem, deleted final vowel
IIa.	Reduplication, monosyllable
b.	Reduplication, disyllable
III.	Suffix -n ^{VH}
IV.	Suffix -ɲə ^{VH}
V.	Irregular

Types Ia (bare stem) and Ib (reduced final vowel) and IIa (reduplicated monosyllables) are mostly underived nouns. Type Ic (deleted final vowel) are frequently compounds of several different stems or zero derived nouns from verbs. Type IIb (reduplicated disyllables) are underived stems of a restricted phonological form. Type III (-n^{VH} suffix) is the functionally and morphologically unmarked absolutive forming affix. Most morphologically derived nouns take this suffix. Type IV (-ɲə^{VH} suffix) is an archaic absolutive suffix used with only a few stems. Type V is the residue, consisting of a small number of stems which have an absolutive which does not relate to the non-absolutive stem in a systematic way. In all instances of type V the forms are phonologically similar—some of the forms might be representatives of regularities with extremely low functional load.

All three of the type I morphological patterns are observed in the allomorphy of other (non-case marking or non-nominal) word final derivational affixes; thus, although they are in some instances overt markings, they are not specifically absolutive case markings.

Sometimes the structure of a word is obscured by other phonological processes. For example, the word jʔaaq *seagull* is onomatopoeic—the noise a seagull makes is startlingly similar to the phonetic sequence [jaq]. A noun formed from a CVC stem is reduplicated, giving *jaqjaq (see type IIa, below), which is subject to further

¹ Long vowel monosyllables, such as jʔaaq *seagull* discussed below, are all historically disyllables.

regular phonological processes, glottalisation ($Vq \rightarrow ?V / _C$; §3.4.2) giving *jʔajaq, and then intervocalic approximant elision with compensatory lengthening ($V_1C_{approx}V_2 \rightarrow V_2V_2$; §3.2.4) giving the surface form jʔaaq in the absolutive.

Ia) BARE STEM. Most nouns which form the absolutive with a bare stem are consonant final.

iniryig (sg.)	iniryig-ə-t (pl.)	'blanket'
ajmak	ajmak-ə-t	'carcass'
ilir	ilin-ti	'island'

There are only a few examples of vowel final noun stems forming the absolutive with a bare stem with unreduced, undeleted final vowel. These are:

apaʔake (sg.)	apaʔake-t (pl.)	'newborn reindeer with undeveloped leg muscles' ²
areqago	areqago-t	'reindeer with a white backside'
cewaro	cewaro-t	'grey skinned reindeer'
ilyəlʔu	ilyəlʔu-t	'reindeer with a white face' (ily- 'white', ʔu- 'look, see'; cf. ʔu-lqəl 'face' lit. 'used for looking')
ʔinnəpʔi	ʔinnəpʔi-t	'harpoon'
nənnə	nənnə-t	'name'

There are also vowel final suffixes which can be terminal element of the absolutive singular (e.g. passive participle -jo §8.2).

Ib) BARE STEM, REDUCED FINAL VOWEL. This formation type only occurs with stems ending in the vowel e~a (i.e. e^{-VH} or a < *e^{-VH}, but not e^{-VH}). The absolutive singular is formed by reduction of the final e~a to ə. Reduction of word final e~a is a regular phonological feature of Chukchi (albeit with a few lexicalised exceptions; e.g. ergative suffix for personal singular nouns -ne^{-VH}; §3.5.4)³.

aqqa (sg.)	aqqa-t (pl.)	'sea'
walə	wala-t	'knife'
wopqa	wopqa-t	'moose'
makə	maka-t	'nappy'
nenenə ^{-VH}	nenene-t ^{-VH}	'child'
rərəkə/cəccə	rərka-t/cəcca-t	'walrus' (men's/women's dialect)
umqə	umqe-t	'polar bear'

² This may be a fossilised form of the negative circumfix e-___-ke^{-VH}. This word is phonologically exceptional (see §3.4.2).

³ Other Chukotian languages do not have this reduction. For example, the KoCh reflex of rərəkə/rərka- *walrus* is jajka in the absolutive singular.

Forms which have glottalisation in a final open syllable lose the glottalisation along with syllable reduction⁴.

ətlə (sg.)	ətlʔa-t (pl.)	'mother'
kələ	kelʔa-t	'spirit, ogre'

Ic) BARE STEM, DELETED FINAL VOWEL. There are no phonological restrictions on which final vowel may be deleted:

wiwər (sg.)	wiwri-t (pl.)	'board for scraping hides upon'
qəməl ^{-VH}	qəm-la-t	'bone marrow'
ewic	ewicu-t	'bag for plant gathering'
ceɟəl ^{-VH}	cenle-t	'bo'
ekək ^{-VH}	ekke-t	'son'
ətlɛɟəɟ ^{-VH}	ətlɛnju-t	'younger brother'

Note that *CCV# final stems undergo schwa epenthesis after the deletion of the final vowel to avoid an impossible word final consonant cluster.

The word final heads of compound nouns often fall into this type, even when the uncompounded stem belongs to another type.

recet-wal (sg.)	recet-wala-t (pl.)	'belt knife'
		< walə#/wala- 'knife', ricit 'belt'
wen-qor	wen-qora-t	'harness reindeer'
		< qora-ɟə 'reindeer', win- 'trained'

There are a number of nominaliser suffixes which also delete their final vowels when they occur word finally (see §6.3.2).

IIa) TOTAL REDUPLICATION. Chukchi has two types of reduplication. Total reduplication applies to (C)VC stems, which are reduplicated in the absolutive singular and usually also in the absolutive plural. Other case forms and incorporated forms use the non-reduplicated stems.

<i>Absolutive singular</i>	<i>Absolutive plural</i>	<i>Meaning</i>
wətwət ^{-VH}	wətwət-te	'leaf'
witwir	wirwir-ti	bark used for dyeing (cf wir-et- 'to dye'; -et is a verb-derivational suffix; §14.3)
ʔecʔec ^{-VH}	ʔecʔec-ə-t	<i>gorbusha</i> (fish species)
ococ	ococ-te	boss, chief (also oc-a, oc-o)
nəmnəm ^{-VH}	nəmnəm-ə-t	settlement (also nəm-ə-twa- 'to be settled')
cotcot	cotcot-te	cushion (incorporated as cot-)

This may be, or may recently have been, a productive process; compare the reduplicated forms:

⁴ This cannot be shown to be a regular phonological process, since Chukchi has few words ending in a schwa, and none of these are preceded by an underlying glottal stop.

jit-jit (sg.)	jit-ti or jitjit-ti (pl.)	'drop' (e.g. of water)
jən-jən	jən-ə-t or jənən-te	'fire'

The words *jara-ŋə* *house* and *joro-ŋə* *sleeping chamber* both have stems which were originally reduplicated, but which have undergone a historical process of dissimilation whereby multiple instances of *r* in a word are avoided (compare Palana Koryak *rara-ŋə*, *roro-ŋə* Zhukova 1980). The elements *ra-* and, less commonly, *ro-* are still encountered as incorporated or compounded forms, e.g. *ra-ŋtə* (*house-go.to-*) *go home*.

Iib) PARTIAL REDUPLICATION. Stems which are underlyingly disyllabic can form the absolutive singular by partial reduplication. The glottalisation prosody is also considered for the purposes of syllabification; the final glottalisation prosody (a syllable prosody, indicated here by the segment *ʔ*) is realised as a prevocalic glottal stop, so a schwa in epenthesis to any stem ending with glottalisation to preserve phonological well-formedness. For example, the segmental and prosodic phoneme sequence /kmʔ/ must be syllabified as the disyllable *kəmʔə* (see below).

In the process of reduplication the sequence CVC from the beginning of surface form of the stem is copied to the end (if there is no initial C then just VC is copied). The following figure shows reduplicated (absolutive singular) and non-reduplicated (any other, here absolutive plural) forms:

CV skeleton	Absolutive singular	Absolutive plural	Meaning
C.Cʔ	kəmʔə-kəm	kəmʔ-ə-t	'worm, caterpillar'
V.CV	eme-em	eme-t	<i>suxostə</i> (type of tree)
VC.C	irw-ə-ir	irw-ə-t	'something sharp, an edged weapon'
CV.CV	weni-wen	weni-t	'bell'
CV.CʔV	jilʔe-jil	jilʔe-t	'arctic ground squirrel'
CVC.C	tang-ə-tan	tang-ə-t	'stranger'
CVC.CV	jokwa-jow	jokwa-t	'eider duck' (underlying form is apparently *jowya; *ɣw → kw see §3.3.4)

Note that this type does not include stems with the structure VC or CVC—these go into type IIa. Glottal stop is best analysed as a syllable prosody outside of the CV structure (§3.4.2). The glottal stop only occurs prevocally, and is not carried over into the reduplicated syllable unless there is no initial C.

CʔV.CV	wʔare-war	wʔare-t	'forked stick'
CʔC.C	mʔəcq-ə-məc	mʔəcq-ə-t	part of reindeer leg
ʔV.CV	ʔitu-ʔit	ʔitu-t	'goose'
ʔV.CʔV	ʔer-ʔer	ʔerʔə-t	'iceberg' (underlying form of singular is *ʔerʔə-ʔer; §3.2.3)

None of the stems which undergo total (type IIa) reduplication have the glottalisation prosody.

III) SUFFIX -n^{VI}. This is the most common class for derived nominals, and is always used for derived nouns with non-terminal suffixes:

weriw-ə-cʔ-ə-n	weriw-ə-cʔ-ə-t	foxberry
sour-E-NMZR-E-3sgABS	sour-E-NMZR-E-3plABS	

Many underived nouns also belong to this type:

kaara-n (sg.)	kaara-t (pl.)	sled for carrying baby and nursing mother
kemlilu-n	kemlilu-t	type of women's costume
nily-ə-n	nily-ə-t	'rope'
nanq-ə-n	nanq-ə-t	'stomach'
rojer-ə-n	rojer-ə-t	'family'
ətləy-ə-n	ətləy-ə-t	'father'

IV) SUFFIX -ŋə^{VI}. A few high frequency nouns (this list may be exhaustive):

jara-ŋə	'house'	} Note that these two forms are historically type IIa reduplication (see above)
joro-ŋə	'sleeping chamber'	
kuke-ŋə	'pot'	
qeme-ŋə	'dish' (stem qeme- ^{VI})	
qora-ŋə	'reindeer'	
rəpe-ŋə	'hammer' (stem rəpe- ^{VI})	
titi-ŋə	'needle'	
əpa-ŋə	'broth'	

Note that this suffix only occurs with disyllabic stems of the form (C)VCV-. Comparative data shows that the original form was *-ŋe^{VI} (cf. type Ib for other examples of reduction of word-final e-a). This suffix is equally rare in Koryak and Alutor, but apparently has a much wider distribution in Kerek (Leont'ev 1983, Skorik 1968).

V) IRREGULAR ABSOLUTIVE SINGULAR. Irregular absolutive singular forms are very rare. All examples seem to be partially suppletive; possibly some of the forms are the result of minor phonological processes or dialect mixing.

cakəyet (sg.)	cakett-ə-t (pl.)	'sister'
nəkit	nəkit-ti	'night'
ɣatte	ɣatya-t	'adze'
ɣatle	ɣalya-t	'bird'
wetlə	welw-ə-t	'raven'
wonnə	worwə-t	'spoon'

There are a number of irregular forms ending in -nə. The following two forms could be examples of underlying *-ŋə with regular dissimilation *ŋ* → *n* / *ɣ*__ (§3.3.4); this would have to be an ordered rule, since the *ɣ* is from underlying *j*, and *majŋ-* is an attested stem.

gey-nə ^{VI}	'hill'	ŋaj-ə-tkən	'hill', 'top of hill'
may-nə	'store, stash' (n)	maj-ə-k	'store' (vt)

The following two stems are completely irregular; there is no productive phonological or morphological process which causes deletion of non-intervocalic consonants.

ʔi-nə	'wolf'	ʔiy-ə-t	'wolves'
ti-nə	'goad'	tiw-ə-t	'goads'

In all four of the preceding examples the suffix -nə appears to be in complementary distribution with -ŋə, with -nə used with (underlyingly) consonant final stems, and -ŋə with vowel final stems.

The next two examples are similar to words formed with the -n^{VH}##-nwə-^{VH} derivational suffix (which makes deverbal nouns with meaning of place where VERB happens):

wanə	wanwə-t	'place'
winə	winwə-t	'track, trace'

The form wanə is almost a semantically and phonologically regular formation from #wa-/twa- 'be located'—the only irregularity is the final schwa, which might be inserted to avoid making a monosyllabic noun (Chukchi has no monosyllabic nouns). The form winə is semantically appropriate to belong to this class, but vowel harmony is violated, and there doesn't seem to be a stem wi- (the verb 'track, trace' is winw-et-, formed with the -et verb derivational suffix; §14.3).

6.3.2 Absolute forms of nominal derivational suffixes

Certain nominal derivational suffixes determine the morphological class of the derived noun, for example:

- (Ia) Bare stem: -qeʃ#/-qeʃ-^{VH} diminutive suffix, e.g. əŋjiw-qeʃ *dear uncle* ABS, əŋjiw-qeʃ-ə-ne *dear uncle* ERG
- (Ic) Bare stem, deleted final vowel: -neŋ#/-neŋe-^{VH} derives a term for a tool, e.g. riŋe-neŋ *aeroplane* ABS, riŋe-neŋe-te *by aeroplane* INST (< riŋe fly)
- (III) -n^{VH}: -tkən-ə-n#/-tkən-^{VH} the top of something, e.g. orw-ə-tkən-ə-n *the top of a sled* ABS, orw-ə-tkən-ə-k *on top of a sled*.
- (V) Irregular: for example, -n#/-nwə-^{VH}, derives place noun from verb, thus tələ-n *path*, tələ-nwə-k *on the path* LOC (< tələ- go)

The bare stem, reduced final vowel type (Ib) is not attested with nominals⁵. Reduplication (IIa-b) and the -ŋə suffix (IV) are incompatible with derivational morphology. Derived forms from these morphological classes regularly enter class I (bare stem), with the final vowel deleted where one is present.

⁵ The -kə#/-ke-^{VH} thematic suffix for deictic adverbs also acts in this way, e.g. miŋ-kə *where*, miŋ-ke-te *along where*

6.3.3 Singulative

The number category of 'singulative' is only marked on nouns in the absolutive case. Nouns marked with the singulative have the common semantic core that they are prototypically non-individuated and have to be 'singulativised' to get individuated. Typical examples are listed below contrasting the (absolutive case) singulative form with the absolutive plural:

<i>paired body parts</i>	<i>small birds and animals</i>
welo-ly-ə-n, wilu-t 'ear/s'	melota-ly-ə-n, milute-t 'hare/s'
rel-ətləŋ-ə-n, ril-ti 'wing/s'	<i>things that occur collectively</i>
<i>paired items of clothing</i>	əŋat-ləŋ-ə-n, eŋer-ti 'star/s'
plak-ə-ly-ə-n, plek-ə-t 'shoe/s'	romo-ly-ə-n, romo-t 'flotsam'
<i>paired objects</i>	<i>ropes, strings etc</i>
payt-ə-ly-ə-n, payt-ə-t 'sled runner/s'	wəjo-ly-ə-n 'sling cord'
<i>berries, grains</i>	
oonʔ-ə-ly-ə-n, uunʔ-ə-t 'berry/les'	

The singulative morpheme does not occur with noun stems outside the absolutive. This suffix can be shown to have the underlying form *-lŋ^{VH}-ə -n^{VH} where -n^{VH} is the usual ending for derived nouns (cf. type III) and *-lŋ^{VH} is realised variously as -ly- or -ləŋ-. These suffixes are phonologically conditioned allomorphs:

$$(\text{SINGULATIVE}) \rightarrow \begin{cases} -l\dot{\eta}^{VH} / VC_{\text{coronal}} \text{ (underlying)} \\ -ly^{VH} \text{ elsewhere} \end{cases}$$

The conditioning environment VC_{coronal} refers to the underlying form; stems ending in j (which is + coronal) take the -ləŋ^{VH} suffix, even though the j itself is realised as ɣ when it occurs before l (according to the regular rule j → ɣ / __C_{coronal}; §3.3.4). For example, the singulative form of the word epeepej-^{VH} *spider* is əpaapeyləŋə.

There is also a special form -tləŋ-^{VH} which only occurs with stems of the form #CVC(C) which refer to paired/non-singular body parts (human or animal), e.g. par-ə-tləŋ-ə-n *shoulder*, par-te *shoulders*. This suffix is maintained even when compounding disrupts the canonical CV structure of the stem, e.g. jaal-rəly-ə-tləŋ-ə-qaj (hind-finger-E-SING-E-DIM.ABS) *toe* (compare rəly-ə-tləŋ-ə-n *finger*-E-SING-E-ABS).

Occasionally the singulative suffix is found with suffixes which fuse absolutive singular meaning with some other. The diminutive is such a suffix. Thus, beside kəmʔ-ə-ly-ə-n (worm-E-SING-E-3sgABS) *a (single) worm*, there is also the form kəmʔ-ə-ly-ə-qaj (worm-E-SING-E-DIM.3sgABS) *a (single) little worm*.

6.3.4 Absolute plural

All common nouns have an absolutive plural. There are no singularia tantum, pluralia tantum, and there are no irregular plurals. The absolutive plural is usually formed with the suffix -t, but it has an allomorph -ti which can occur after

coronals (i.e. t, r, c, j, n). Within this phonological condition, selection of -t or -ti seems to be lexical.

{absolutive plural} → $\begin{cases} -ti^{VH} / C_{coronal} ___ \\ -t^{VH} / \text{elsewhere} \end{cases}$

Example:

006 qelug=7m l7u-nine-t yenku tang-a-warat jara-mk-a-jg-a-t
because see-3sgA-3plO there stranger-E-FOLK house-COLL-E-AUG-E-3plABS
Because he saw there the stranger-folk, the group of big houses. [ot063]

High animate nouns form their absolutive plural in the same way, but with the post-coronal consonant form -ti of the plural following the high animate thematic suffix *-r^{VH}, which gives a plural with surface form -n-ti (see note [8] to figure 6.2).

007 ana layen=7m waj nam-a-twa-y7a-t kol:0 lee layen /
so really=EMPH DEICT live-E-RESULT-PF-3pl very excellent really
ankə Cəkwajəqaj-a-n-te layen
there personal.name-E-AN-3plABS really
And so thus they lived, just excellently Cəkwajəqaj's people there. [cy443]

Plural used with a personal name is an associative plural, indicating the named person and his or her household. Plural terms for father and mother can both be used to refer to 'parents', e.g. ətləy-a-t *fathers* or *parents*, and ətl7a-t *mothers* or *parents*. Other terms for humans which imply one sex or the other in the singular also show this behaviour, e.g. ənpənacyən *old man*, ənpənacyəc *old man, old people*.

6.3.5 Ergative/instrumental

The ergative and instrumental cases are formally identical in each of the inflection types, but they have different syntactic functions. Examples 008 to 011 show the ergative case marked on a common noun, a high animate noun, a personal pronoun and a quantifier pronoun with high animate plural reference. Examples 012 to 017 illustrate instrumental uses.

COMMON NOUN

008 paker-a-ggo-y7a-t ewən orw-a-tkən-a-k garyən /
approach-E-INCH-PF-PL but sled-E-ON.TOP-E-LOC outside
Cəkwajəqaj new7en-e n-ine-mlu-qin
personal.name.3sgABS wife-ERG HAB-TR-delouse-3sgO
They started approaching, but on a sled there outside Cəkwajəqaj is being deloused by his wife [lit. the wife is delousing Cəkwajəqaj]. [cy364]

HIGH ANIMATE

009 [...] j7a-məny-a-l7-a-t neməqej / rəpet=7m kej7-a-t
quick-hand-E-NMZR-E-3plABS also even=EMPH bear-E-3plABS
talwa-rkəpl-a-nm-a-tko-ta caj Təjawje-j7-a-rək
INTS-hit-E-kill-E-ITER-CONV DEICT personal.name-AUG-E-3pl.ERG
[...] They had quick hands too—oh, those people of Təjawj's struck and killed bears! [kr132]

PERSONAL PRONOUN

010 n-iw-7e-n / opopə 7elwəl moryənan mən-yənrit-a-n /
3-say-TH-3 musy herd.3sgABS 1pl.ERG 1pl.INT-guard-E-3sg
mən-piri-7e-n
1pl.INT-take-TH-3sg
They said: "We'll have to guard the herd, we'll take it" [ka04]

QUANTIFIER PRONOUN

011 qut-a-rək=7m omk-a-ly-a-n n-a-kəlw-a-qin ənqen
one-E-ERG.PL=EMPH forest-E-SING-E-3sgABS HAB-E-tie.up-E-3sg DEM.3sgABS
Others tie up the tree [ab4.06]

The instrumental marks several non-syntactic roles within the sentence. Most commonly it is the marking for nominals with the semantic role *instrument*, which is prototypically the means by which an action is carried out; see examples 012 and 013.

012 cama layen cəmqək n-ine-pipk-a-lwi-qinet pojy-a-qa-a
and really other HAB-TR-ankle-E-cut-3plO spear-E-DIM-INST
And he just cut the others' ankles with his little spear. [ot074]
013 rak-wəry-a-jg-a-n / 7ily-e əngin ya-nəmgəta-w-len [...]
pierce-NMZR-E-AUG-E-ABS cord-INST thus PF-close-3sg
The big hole they closed up thus with a cord... [cy393]

For semantic reasons nouns marked with the instrumental case are most commonly inanimate; this is not however a syntactic restriction. In particular, passive participles may have an underlying agent specified in the instrumental case (note however that although the agent of a passive participle is a non-core role this function is very close to the ergative; §8.2).

Because of the ubiquity of ellipsis in Chukchi, most examples of the instrumental do not have contrasting ergatives in the same sentence, although, as in the preceding two sentences, different arguments in A role are retrievable from the wider discourse context. Contrasted ergatives and instrumentals are however freely elicited, as in example 014:

014 ajwe muri na-n-qame-twa-a-mək tekicy-e newəcget-te
yesterday 1plABS 3A-CS-eat-RESULT-CS-1plO meat-INST girl-ERG
Yesterday the girl fed us with meat. [na120:2]

Examples 015 and 016 show instrumental nouns in intransitive clauses, where they could not possibly be interpreted as being ergatives.

- 015 *n-a-macaw-a-lʔat-qenat* *tejem* *tinur-e*
 HAB-E-fight-E-DUR-3plS only bow-INST
They fought a lot, just using bows. [kr045]
- 016 *ənqen* *teŋ-wər-yəry-e* *kəjek-wʔe-t*
 DEM.3sgABS INTS-rumble-NMZR-INST wake-TH-3pl
From that rumbling and roaring they woke up. [ke144]

Certain lexically determined oblique arguments of intransitive verbs are marked in the instrumental. The oblique object of verbs of consumption (i.e. the thing consumed) is regularly marked with the instrumental. For example, the intransitive verb *qame-* eat has an optional instrumental argument marking the thing eaten, as in 017.

- 017 *ləyen=ʔm* *em-a-rʔa-qəmce-erʔa* *keŋi-irʔ-e* *ya-qame-twa-lenat*
 really=EMPH REST-E-what?-various-guts-INST ??-guts-INST PF-eat-RESULT-3pl
They'd just eaten various bits and pieces, internal organs. [ke136]

According to Skorik, the oblique argument of antipassivised verbs is sometimes marked with the instrumental case. These claims are difficult to evaluate—in Telqep Chukchi instrumental case semantic agents of antipassivised verbs do not occur in the corpus.

One of the suffixes which forms verbal bases is formally identical to the ergative/instrumental case, but occurs with verb stems (§13.5).

6.3.6 Equative

The equative has two functions; it marks the grammatical role of copula complement (§17.1.2), and in non-copula clauses it marks oblique nominals in a similar function. The equative is the only case which cannot under any circumstances be marked for number.

- 018 *ənqen* *jokwajo* *ipe* *ʔiy-u* *@* *n-it-qin* *@@*
 DEM.3sgABS duck.3sgABS truly wolf-EQU [laughter] HAB-be-3sg [laughter]
That duck was actually a wolf, ha ha! [jo104]
- 019 *iw-nin* *ʔeryatak* *waj* *muri* *məz-ra-rʔela-yt-a-yʔa* *turi*
 say-3sgA.3sgO tomorrow DEICT 1plABS 1pl-FUT-race-go.to-E-PF 2plABS
ətcaj-qaj *jara-lʔ-o* *q-it-y-a-tək*
 aunt-DIM.3sgABS house-NMZR-EQU INT-be-TH-E-2pl
He said to him: "Tomorrow we are going racing. You and aunty be the householders" [cy062]

In a zero-copula construction (§17.2.4), the complement may be in the equative or in the absolutive. The following example shows adjacent zero-copula constructions using both strategies.

- 020 *ləyen* *jara-k* *genku* *pəkir-yʔi* *teŋ-ənjlw-a-k* / *ʔeqe-njiw*
 really house-LOC there approach-PF good-uncle-E-LOC bad-uncle.3sgABS
ʔəttʔəjot-ra-lʔ-a-n *nutku* *jaat-ra-lʔ-o* *teŋ-ənjlw*
 first-house-NMZR-E-3sgABS here last-house-NMZR-EQU good-uncle.3sgABS
So there he approached the good uncle's house, the bad uncle had the chief
[first] jaraŋə, here the inferior [last] householder was the good uncle. [cy309]

When the copula verb is present the equative case marking of the copula is obligatory.

In oblique function the equative case marks a secondary predication which is a complement of an NP. The argument selected as head of the secondary predication is the one in S/O function, which may be represented by an absolutive case nominal and/or a verb inflection.

Example 021 shows a secondary predication of S:

- I (S) 'had my eyes open' at the herd (i.e. 'My first memories date from...')
 + I was a boy
- 021 *ŋingej-u* *ləyen=ʔm* *t-a-tla-qeryaw-a-k* *gelwəlʔ-a-k*
 boy-EQU really=EMPH 1SG-E-eye-become.bright-E-1SG herd-E-LOC
As a boy my eyes opened at the herd. [he003]

Secondary predication of O is illustrated by example 022:

- Take that bad reindeer (O)
 + That bad reindeer is a driver
- 022 *e* *waj* *q-a-myul-y-a-tək* *q-a-jalyat-y-a-tək*
 so DEICT IMP-E-caravan-TH-E-2SG IMP-E-nomadise-TH-E-2PL
qora-yt-at-a-lʔ-o *q-a-piri-y-a-tka* *ənqen* /
 reindeer-lead-TH-E-NMZR-EQU IMP-E-take-TH-E-2PL that.3sgABS
yən-in / *ʔatkeg-a-jg-a-n* *qora-ŋə*
 2sg-POSS.3sgABS bad-E-AUG-E-ABS reindeer-ABS
Make a caravan, start nomadising, take that bad reindeer of yours as a driver
[to goad the others]. [cy235]

The equative case has a high animate declension formed with the *-ne* thematic suffix, which is realised as *-nu* (< **-ne-u* -TH-EQU):

- 023 *ənraq* *ənqen* *əntuulpəre-n-u* / *ləy-nin*
 then that.3sgABS brother.in.law-AN-EQU AUX-3sgA.3sgO
ənqen / *rə-yno-w-jo* *ʔoratceq-qaj*
 that.3sgABS CS-remain-CS-PASS.PCPL youth-DIM
Now then he took that youth who was left as a brother-in-law. [ot116]

6.4 Locational cases

Chukchi allows quite a rich set of spatial relationships to be expressed morphologically on nominals. Many of these are marked by means of case suffixes. Other spatial relationships are marked by derivational affixes, or by clitic adverbs. Of the case suffixes, the Inessive has some derivational character as well, as it can

combine with directional cases. The basic spatial case is the LOCATIVE *-k^{VH}*, which is used to indicate location without any more precise semantic specification (§15.2.1).

There are three cases expressing direction:

ALLATIVE *-y^{VH}*: motion towards an entity (§15.2.2)

ABLATIVE *-jp^{VH}*: motion away from an entity or within an enclosure (§15.2.3)

PERLATIVE *-jekwe^{VH}*: motion along a path (§15.2.4)

The ORIENTATIVE case marks an entity used as a point of reference (literally or figuratively), but this is not inherently directional (§15.2.5).

There are another two cases marking location without specifying motion:

INESSIVE *cəku^{VH}*: location inside an entity (§15.2.6)

SUBLATIVE *jinjka^{VH}*: location under an entity (§15.2.7)

6.5 Accompaniment cases

All the accompaniment cases are homophonous with verb bases. Apart from the accompaniment cases, there is also the postposition *reen together with*, which is used to indicate accompaniment of people by people (§4.9.1).

6.5.1 Comitative

The comitative case marks a nominal which accompanies another nominal. The two arguments are generally equally ranked, i.e. there is no part-whole or any other hierarchical relationship.

The comitative is marked by a circumfix, with the following allomorphy:

$$\{\text{comitative}\} \rightarrow \begin{cases} \text{ye-} __\text{-te}^{\text{VH}} / \text{vowel final stem} \\ \text{ye-} __\text{-e}^{\text{VH}} / \text{elsewhere} \end{cases}$$

This case is relatively rare; the associative is much more common.

- 024 [...] əməɫʔo / jara-ŋə / ya-ppəlo-ra-ta nʔel-ɣʔɪ
all.3sgABS house-3sgABS COM-little-house-COM become-TH
remk-ə-n taŋ-əməɫʔ-etə=ʔm
folk-E-3sgABS INTS-all-ADV=EMPH
... all the people came to be with little houses. [he055]

6.5.2 Associative

The associative marks accompaniment by something which is part of, or a typical possession of, the head. The marker for the associative is *ya-___-ma^{VH}*.

'People with their herds:'

- 025 ya-ŋalwəlʔ-ə-ma n-ə-piri-qinet=ʔm
ASS-herd-E-ASS HAB-E-take-3plO=EMPH
Together with their herds they took them. [he017]

'Houses with their occupants'

- 026 ləyən / əməɫʔo jara-ŋə n-ə-n-pir-q-ə-qin ləyən əŋɪn
really all.3sgABS house-ABS HAB-E-CS-collapse-E-3sg really thus
y-ʔorawetɪʔa-ma / qeluq=ʔm n-ə-mk-ə-qin ra-jekwe-n
ASS-people-ASS because=EMPH HAB-E-many-E-3sg house-PERL-3sgABS
n-ə-pelqet-qin
HAB-E-collapse-3sg

They knocked down all the houses thus along with the people, because many encampments had died out. [he013]

'Animal hide along with its legs'

- 027 nely-ə-n taŋ-əməɫʔ-etə tani-jw-ə-nin ləyən əməɫʔ-etə ləyən
hide-E-ABS INTS-all-ADV sew-INTS-E-3sgA.3sgO really all-ADV really
ya-yatka-ma tani-jw-ə-nin
ASS-leg-ASS sew-INTS-E-3sgA.3sgO

He sewed up all the hide, along with the legs he sewed it all up. [cy256]

'Pot with something [its contents]'

- 028 teŋ-em-cənce mat-re-rewiw-ə-rkən / ya-rʔa-ma kuke-t /
INTS-REST-near 1pl-FUT-make.camp-E-PROG ASS-something-ASS pot-3plABS
penjoly-ə-k ewəca t-ə-re-tcil-ə-rkə-net qonpə penjoly-ə-n
fireplace-E-LOC under 1sg-E-FUT-put-E-PROG-3plO always fireplace-E-3sgABS
q-ə-wey-ə-tku-rkən ewar ralqan-ə-nwə-k pəkir-ə-k
INT-E-claw-E-UTIL-PROG so make.camp-E-PLACE-LOC approach-E-SEQ

We'll always make camp nearby. I'll always put a pot of something under the fireplace, so always dig up the fireplace as soon as you approach an old campsite [jo020]

6.5.3 Privative

The privative is the case which expresses absence or lack of something. A similar form is used derivationally (§18.7.3). The privative is usually accompanied by a form of the particle *ujje* 'not, without, there isn't any' (see §18.4).

The marker of the privative is the circumfix *e-___-ke*.

- 029 e-rilq-ə-ke n-ə-nʔel-qinet əŋqen qaa-tʔ
PRIV-stomache.contents-E-PRIV HAB-E-become-3pl DEM.3sgABS reindeer-3plABS
Do the reindeer lose [lit. become without] their stomach contents? [ab5.31]
030 aŋkat-ɣʔe ləye-teŋ-ujje a-rənn-ə-ka
open.mouth-TH INTS-INTS-NEG.EXI PRIV-tooth-E-PRIV
He opened his mouth - completely toothless. [jo026]

7

Pronouns

7.1 Introduction

Chukchi carries out pronominal reference functions with bound and free morphemes. Various bound pronominal morphemes are attached to verbs, nouns, and adjectives—these are described in the relevant chapters, and will not be discussed further here. Chukchi also has four types of free pronouns. These can all act as heads of NPs, and, apart from the personal pronouns, can also occur adnominally (i.e. as a modifier within a noun phrase).

- **PERSONAL PRONOUNS** (§7.2). There are six personal pronoun stems, which are formally very similar to the bound forms occurring with other word classes. Personal pronouns show the person (first, second or third) and number (singular or plural) of a referent. They also take case markings (§6.2) and some derivational morphology, particularly diminutives and augmentatives.

- **INDEFINITE/INTERROGATIVE PRONOUNS** (§7.3). There are two stems, one for animates and one for inanimates. These pronouns are used in both indefinite and interrogative functions, i.e. *what?* and *something*, *who?* and *someone*.

- **DEMONSTRATIVE PRONOUNS** (§7.4). The demonstrative pronouns are used deictically and anaphorically. One of the demonstratives is specialised for anaphora, and the others are mostly used for deixis, although they are all in a regular paradigmatic relationship to one another.

- **QUANTIFIER PRONOUNS** (§7.5). The quantifier pronouns specify an argument according to its membership of some given set. There are two stems: *əɲəɲʔo*, which is intrinsically plural and means *all*; and *qut-*, which means *one*, *one of them* in the singular, and *some*, *some of them* in the plural.

Indefinite/interrogative, demonstrative, and quantifier pronouns in NP modifier function can agree with the number of their head noun, but when the head is a plural and it is overtly present in the NP (i.e. not ellipsed) number agreement is often not marked (see §9.2).

There are a number of other forms which act like absolutive case pronouns, but which do not take other case forms. These 'argument-like' particles include a

quantifier *cəmqək* (§7.6.1), the reflexive adverb *cinit* and reflexive relational pronoun *cinitkin(e-)* (§7.6.2), and a set of restrictive pronominal adverbs (§7.6.3).

7.2 Personal pronouns

The absolutive stems of personal pronouns differ from the oblique stems as summarised below (in the form ABS-oblique):

FIGURE 7.1. Personal pronoun stems.

	singular	plural
1	yəmo-yəm-	muri-mur(y)-
2	yəto-yən-	turi-tur(y)-
3	ətlon-ən-	əcci-əcc- (female speakers) ətri-əry- (male speakers)

Personal pronouns are a textually rare and pragmatically marked way of referring to an argument within a clause. Verbs have detailed obligatory pronominal cross reference, and overt personal pronouns are only used in contexts where they have special discourse significance. In eight texts (1564 prosodic phrases) there are only 109 examples of personal pronouns in absolutive or ergative case. Of these 109 personal pronouns, about a quarter occur within quoted speech, where personal pronouns are important in setting up an imaginary discourse context.

The functions of the independent core-case personal pronouns are:

- i) contrastive
- ii) part of a conjunctive NP (see below and §9.6.1)
- iii) imaginary speech act participant differentiation in quoted speech

In unelicited texts free personal pronouns are not used for anaphoric specification of arguments in clauses—this function is carried out by verb cross-reference and, to some extent, by the specialised anaphoric demonstrative *ənqen(a-)* (see §7.4). Personal pronouns do not normally occur in copula clauses. Pronominal identity relations are marked by pronominal affixation of the noun (§6.2, §17.2.4). In context-free elicited sentences and/or in sentences which are translations from Russian free personal pronouns appear much more often.

In case functions which do not receive verbal cross-reference the use of independent personal pronouns is the only option provided by the grammar for cross-referencing the person and number of a referent. The following two examples show personal pronouns in non-core functions. Example 001 has *yəməkēcəku*, a form with inessive case which means *inside of me*, and example 002 has *yəməkətkənək* on *the top of me*, formed by means of a spatial derivational suffix *-tkən-* TOP and the locative case.

001 qənwet qit-ə-wʔi-lʔet-ə-lʔ-ə-n n-in-lw-qin "opəpə
finally freeze-E-die-DUR-E-PCPL-E-3sgABS HAB-TR-say-3sg must
yəm-ə-ke-cəku wiin q-ə-nʔel-yi"
1sg-E-TH-INESS awhile INT-E-become-TH
Finally to the always freezing (boy) she said "(You'd better) climb inside me for the moment" [cy005]

002 ənkʔam q-ekwet-yi akwat-ə-ŋgo-k=ʔm
and INT-set.out-TH set.out-E-INCH-CONV=EMPH
yəm-ə-ka-tkən-ə-k q-ə-kawratl-ə-lʔat-yə
1sg-E-TH-TOP-E-LOC INT-E-roll-E-DUR-TH
And then go off, but as you [start to] go, roll on me [jo041]

Forms identical to the third person singular pronouns *ətlon* (3sgABS) and *ənan* (3sg.ERG) are also used as emphatic particles. These most commonly occur in conversation and quoted speech. The particle *ətlon* occurs in questions:

003 eej kəkə! ətlon mik-iyət?
INTJ INTJ INTER who?-2sg.ABS
Oh my! Who are you? [cy108]

The emphatic particle *ənan* occurs in statements about the future:

004 qərəm ənan ra-jat-ə-ŋgo-γʔa ənan t-ə-ra-yto-yət
NEG.FUT FUT FUT-come-E-INCH-TH FUT 1sg-E-FUT-pull.out-2sg
No, if he will start to come I will pull you out [cy008]

• **CONTRASTIVE.** Independent pronouns are used to emphasise arguments which are contrastive or acting counter to expectation.

Example 005 is from a discussion of hunting technique and animal behaviour. It clearly shows the contrastive use of the independent personal pronouns:

005 Waj iyər yəmo qejwe t-ʔ-ekwet-γʔe-k=m ewər
DEICT now 1sg.ABS truly 1sg-COND-go-TH-1sg=EMPH CONJ
yətə n-ʔ-ekwet-γʔe-n ESLI TY RANIS kejj-ə-n
2sg.ABS 2/3-COND-go-TH-2/3 if you wound bear-E-ABS
ewən yən-in winə n-ʔ-ə-rkəle-nin
then 2sg-POSS.3sgABS track.3sgABS 2/3-COND-E-follow-3sgA.3sgO
Well now, if I go out and you go out and if you wound a bear then he would follow your tracks [not mine]. [an018]

Example 006 is from a text by an elderly man about the decay of reindeer herding in recent years and the means necessary to improve it.

006	et?opel	yajol-qora-yänret-a-l?-a-t	neme	moo-k	/
	better	experienced-reindeer-guard-E-PCPL-E-3plABS	again	begin-INF	
	qänur	gelwəl?-a-k=?m / ank?am /	qänur	änqora	wec?äm /
	like	herd-E-LOC=EMPH and	like	then	probably
	[mac#]	mac-taγ-a n-?-a-n?el-a-rkanet	anan-ken=?m		
		A?PR-good-ADV 3.COND-E-become-E-3pl.PROG	??-REL.3sgABS=EMPH		
	gan	[petə#] pet-a-yjolat-a-l?-a-t=?m	anan-ken=?m		
	DEICT	old-E-experienced-E-PCPL-E-3plABS=EMPH	??-REL.3sgABS=EMPH		
	läyi	əryənan ye-tc-a-linet=?m			
	know.VBase	3pl.ERG PF-AUX-E-3pl=EMPH			

If only the experienced herders were again to begin working at the herd then perhaps the situation would become better from it, the old experienced ones, they know the situation. [he081]

His use of the full pronoun in the phrase *läyi eryənan yetcəlinet* they know it emphasises that it is them, the elderly experienced herdsman, who know what to do, and not anybody else (particularly the youth of today, who have come in for some criticism already in this text).

The different use of personal pronouns in quoted speech will be discussed below. However, even in quoted speech personal pronouns can be used in the contrastive function, as illustrated in the following two examples. Example 007 is from a story about a reindeer sled race. The orphan boy Cəkwajaqaj was mocked for his aspiration to participate in the race, since he owned no sled or reindeer. However, with the aid of a magical horse, he manages to get prepared for the start of the race.

007	ʔeqe-njiw	n-iw-qin	“ənqatal	ʔamən	Cəkwajaqaj
	bad-uncle.3sgABS	HAB-say-3sg	of.course	INTJ	personal.name.3sgABS
	ʔəyi-req-a-rkən	r?ela-ytə-rkən	atlon		
	INTS-do.something-E-PROG	race-go.to-PROG	3sgABS		

The bad uncle says, "Well look what Cəkwajaqaj's doing, he's going racing" [cy090]

Example 008 shows contrasting first and second person pronoun participants, similar to that in example 005 above, but this time contained within a quote:

008	cakəyet	/	na-t?əm-rer-y?a-n	ik-w?i	t-a-re-winret-yət	yəmo	/
	sister.3sgABS		INV-bone-seeK-TH.3sg	say-TH	1sg-E-FUT-help-2sg	1sg.ABS	
	yəmo	/	ii	yəmo	ʔiy-u	t-a-r-it-y?e=?m	/
	1sg.ABS		yes	1sg.ABS	wolf-EQU	1sg-E-FUT-be-TH=EMPH	2sgABS
	jokwa-n-o	q-it-yi	/	ənqen	jinqeγ	iw-nin	
	duck-AN-EQU	INT-be-TH		DEM.3sgABS	boy.3sgABS	say-3sgA.3sgO	

They started searching for the sister's bones. He said, "I'll help you, I'll... yes, I'll be a wolf and you be a duck", this he said to the boy. [n075]

An independent pronoun is often used when a person does something counter to expectations. Example 009 is from an episode from the same folktale as 007. Everybody else has set off in the reindeer sled race, and the boy who was not expected to participate manages to set off too, even though he was widely believed

to be incapable of it. The use of the particle *neməqej* also is another indicator that the boy's act is unexpected.

009	atlon=?m	neməqej	ekwet-y?i	/	ana
	3sgABS=EMPH	also	set.off-TH		so
	n-a-lyi-mi?ucir-a-l?et-qin	orw-oor	n-a-n-kawra-l?aw-jəw-qen		
	HAB-E-INTS-circle-E-DUR-3sg	sled-REDUP.3sgABS	HAB-E-CS-tum.over-DUR-COLL-3sg		

He too set off, but he went around in circles almost on the spot, and turned the sled over several times. [cy094]

Example 010 is from an episode of another story about a boy who roams about at night disguised as a wolf after his parents are asleep. This section emphasises that the boy goes to bed at the same time as the parents do, even though we know that he will actually spend the night out stalking the Koryaks.

010	neme	läyen	wulqətwik	neme	läyen	atc?at-y?a-t	ati?a-t
	also	really	become.evening	again	really	go.to.bed-TH-3pl	mother-3plABS
	ewat	atlon	neməqej	ewat	atc?at-y?e		
	likewise	3sgABS	also	likewise	go.to.bed-TH		

Again evening fell, again his parents went to bed, and he too went to bed. [ot062]

In example 011 the free personal pronoun is part of a set phrase *yəmo tiwərkən* I am saying which the speaker uses when he is making value judgements about how things ought to be and is emphasising that what he is saying is his own personal opinion:

011	e-gelwəl?-a-ke	n?el-a-k	mət-?enqee-rkən=?m	ənqam	
	PRIV-herd-E-PRIV	become-E-INF	1pl-don't.want-PROG=EMPH	and	
	ənqena-jpə	/	yəmo	t-iw-a-rkən	ʔamən
	DEM-ABL		1sg.ABS	1sg-say-E-PROG	INTJ
	wec?əm=qun	yajol-qora-yänret-a-l?-a-t	wa-k=?m		
	maybe=once	experience-reindeer-guard-E-PCPL-E-3plABS	be-INF=EMPH		

We resist becoming herdless, and from that, I say, (we are) probably better experienced reindeer herders [he084]

• **CONJUNCTIVE NP.** The structure of an NP with associative conjunction is described in §9.6.1, and will not be discussed here except to point out that the structure of an associative conjunction NP requires the use of a free pronoun irrespective of discourse conditions. The phrase *muri yemataγən yemataγən* and *I* [lit. *We + yemataγən*] in the following is an example of associative conjunction in a noun phrase:

012	ii	j?arat	wəne	telenjep	SOROK	DEVJATI	yiwi-k	muri
	yes	very	INTJ	long.ago	forty	ninth	year-LOC	1plABS
	yemataγən	/	n-a-qora-nta-more	/	peecwak-a-k			
	personal.name.3sgABS		HAB-E-reindeer-stand.watch-3pl		nonbreeding.herd-E-LOC			

Yes, long ago, in 1949 yemataγən and I stood watch over reindeer in the non-breeding herd. [kr179]

•QUOTED SPEECH. In quoted speech independent pronouns occur with much greater frequency than in direct speech. There is usually a clear functional motivation for this in the need to establish the participants of the imaginary speech act. However, more frequent use of independent personal pronouns is a general feature of quoted speech, even in sentences where the free personal pronoun is redundant. In example 013 the first person singular absolutive pronoun *yəmo* is used despite the unambiguous presence of the first person agreement prefix *t-* on the verb *tərenewənjucqiwə* *I will go looking for a wife*.

- 013 *iw-nin* "əŋjiw-qej *q-a-rayt-a-ye* *waj* / *eryatak*
say-3sgA.3sgO uncle-DIM.3sgABS INT-E-go.home-E-TH DEICT tomorrow
yəmo *t-a-re-gew-a-nju-cqiw-a*
1sgABS 1sg-E-FUT-wife-E.seek-PURP-E
He said to him "Uncle, go home, tomorrow I will go looking for a wife" [cy169]

7.3 Indefinite/interrogative pronouns

There are indefinite/interrogative pronouns with animate and inanimate reference. Both animate and inanimate forms have a different absolutive case stem to the stem used in other cases:

FIGURE 7.2. Indefinite/interrogative pronoun stems.

	Absolutive stem	Non-absolutive stem
Animate <i>who?, someone</i>	<i>megin(e)-^{VH}</i>	<i>mik-^{VH}</i>
Inanimate <i>what?, something</i>	<i>rʔenut(e-)/cʔenut(e-)-^{VH}</i>	<i>req-/ceq-^{VH}</i>

Through normal allophonic variation of *q* the *req-/ceq-* stem has allomorphs *rʔe-/cʔe-* before consonants (see §3.3.1). The non-absolutive stem takes regular case affixes.

ABSOLUTIVE STEMS *rʔenut(e-)/cʔenut(e-)*:

- 014 *waj* / *cʔenut* *ənqenʔ*
DEICT what?ABS thatABS
Now what [was he called...]? [ot129]
- 015 *rʔenute-t* *ra-jaa-ŋ-a-natʔ*
what?ABS.PL FUT-use-TH-E-3pl
What (pl) will you use? [cy066]

The (e-), which is not present in the absolutive singular form, is nevertheless part of the stem. It appears along with derivational morphemes, such as the collective form in example 016 and the diminutive in example 017. These pronouns are therefore nominals of morphological class Ic (deleted final vowel; §6.3.1).

- 016 *wecʔəm* *nemaqej* *rʔenute-tku-t* *yənan*
maybe also something-COLL-3plABS 2sg.ERG
ləyi *ləŋ-a-rkəne-t*
know.Vbase AUX-E-PROG-3pl
... perhaps you also know a whole lot of things ... [ab5.11]

- 017 *gewəcget-e* *n-iw-a-n* "okkoʃl *waj* *menine-qej*
woman-ERG 3pl-say-E-3sg INTJ DEICT who-DIM.3sgABS
waj *q-a-caj-o-rkən* *kəke* *wəne-qaj* *qon-qora-lʔ-eyət*
DEICT INT-E-tea-CONSUME-PROG INTJ INTJ-DIM one-reindeer-NMZR-2sgABS
megqoʔ
whither?

The women said to him, "Who's this? Drink some tea! Well well, you've got one reindeer... Where have you come from?" [cy104]

The interrogative/indefinite pronouns have a slightly irregular possessive derivation; they have the absolutive forms *reqən* and *mikən* for both singular and plural agreement with the possessed (see 018).

- 018 *kolə* *koləl* *ənjiw-qej* *mik-a-n* *qora-tʔ*
INTJ INTJ uncle-DIM.3sgABS who?-E-POSS.3sgABS reindeer-3plABS
Oho, uncle, whose reindeers? [cy053]

The verb *iw-* *say* takes an interrogative/indefinite O in the possessive rather than the pure absolutive. This is a lexical peculiarity of this particular verb..

- 019 *req-a-n=ʔm* *qol* *ənjiw-qej* *n-iw-qinʔ*
what?-E-POSS.ABS=EMPH QUANT.3sgABS uncle-DIM.3sgABS HAB-say-3sg
What does the other uncle say? [cy073]

The extended intransitive verb *iw-* is further discussed in §11.3.

The interrogative and indefinite functions of the pronoun are distinguished contextually, usually by intonation. Example 020 shows this distinction with the pronoun in the instrumental case.

- 020 *req-e* *ye-jet-iyətʔ*
what?-INST PF-come-2sg
What did you come by? [na081:7]

Many languages provide series of different indefinite pronouns used in different functions, such as the English types *someone*, *anyone*, *noone* or the Russian *koe-kto*, *kto-to*, *kto-nibudʔ*, *kto-libo*, *ni-kto* (Haspelmath 1997). Chukchi has only one type of indefinite pronoun, and, unsurprisingly, it has a wide range of functions. The Chukchi indefinite pronouns can apparently carry out all the functions typical of indefinite pronouns, as described by Haspelmath (1997:63-64).

Example 021 shows an indefinite pronoun indicating someone/something which is SPECIFIC and KNOWN to the speaker. This contrasts to example 022, which represents someone/something SPECIFIC, the identity of which is UNKNOWN to the speaker.

SPECIFIC KNOWN

- 021 *yəmnən=ʔm* *waj* *rʔenut* *t-ra-tw-a-ŋ-a-n*
1sgERG=EMPH DEICT something.3sgABS 1sg-FUT-tell.about-E-TH-E-3sg
atrʔec=ʔm *n-a-lyi-n-iwl-a-qin*
all=EMPH HAB-E-INTS-HAB-long-E-3sg
Hm, I will I tell about something, only it's a long one... [ka37]

SPECIFIC UNKNOWN

- 022 e geekke-turi menin ewat ənqen
 INTJ daughter-3plABS someone.3sgABS so DEM.3sgABS
 mac-jetəp-n-ə-twa-rkən ənqen ɲew-ə-nju-lʔ-ə-n [...] *[cy218]*
 seems-be.ready-E-RESULT-PROG DEM.3sgABS woman-E-see-PCPL-E-3sgABS
Oh daughters, let someone be ready. This is the suitor [for you] ...

Example 023 shows the NON-SPECIFIC 'irrealis' use of the indefinite pronoun. In this story somebody passes through a fire unscathed:

NON-SPECIFIC

- 023 welet rʔenut ye-mec-təlw-e ləyən tem-penine-mil
 if.even something.3sgABS COM-APPR-burn-VBase really MPH-same-ADV
And if anything even slightly burned, [no,] it remained like it was [cy197]

Other irrealis uses, like polar questions (example 024) and conditionals (example 025) are also attested:

POLAR QUESTION

- 024 rʔenut tələ-nwə-k lun-lʔu-te
 something.3sgABS go-PLACE-LOC NEG-see-NEG
Did(n't) you see anything on the way? [na084:01]

CONDITIONAL

- 025 tite mik-ə-ne ənqen ye-n-ə-mlətj-ew-lin
 when someone-E-ERG DEM.3sgABS PF-CS-E-wound-CS-3sg
 ənqen winwə-t qonpə ləyi n-ine-ly-ə-qin
 DEM.3sgABS track-3plABS always know.Vbase HAB-TR-AUX-E-3sg
When/if somebody has wounded him [a bear] then he always knows their tracks [an015]

Although the indefinite/interrogative pronouns can be negated with the privative case, the they can also be used in negative sentences without any modification (example 026). Privative case indefinite pronouns are used for negative existentials (see §18.4 and example 027 below).

- 026 ən-ka-tayn-epə menin lun-tʔəl-e
 DEM-TH-EDGE-ABL someone.3sg NEG-fall.sick-NEG
Since then noone got sick. [nb055.3]

- 027 naqam yəmnən tite t-ə-walom-ə-n minkə n-ə-nu-jw-ə-qin
 but 1sgERG then 1sg-E-hear-E-3sg how HAB-E-eat-COLL-E-3sg
 janot rʔenut ɲanraqanate-t n-ə-nu-jw-ə-qinet=ʔm ənqo
 first something kind.of.root-3plABS HAB-E-eat-COLL-E-3pl=EMPH then
 qənut ən-in əməlʔ-etə qe-ce-jərʔ-ə-n qənut [nine...]
 like 3sg-POSS.3sgABS all-ADV gut-contents-E-3sgABS like
 uŋce e-req-ə-ke n-ə-nʔel-qin /
 NEG.EXI PRIV-something-E-PRIV HAB-E-become-3sg
 atcʔat-ə-ɲgo-k jəlq-ə-ɲgo-k
 go.to.bed-E-INCH-SEQ sleep-E-INCH-SEQ
But I heard it some time how it first eats something, it eats [a kind of root], then like all its gut contents like, become without anything, upon starting to go to bed, starting to sleep. [an057]

There are two indefinite pronoun functions I have no information for. The use of indefinite pronouns as STANDARD OF COMPARISON ('This tastes worse than anything I've had before'; Haspelmath 1997:2,33-37) is difficult to evaluate, since the Chukchi comparative does not normally use an overt standard of comparison (§16.6). The FREE CHOICE function of indefinite pronouns is also not attested (e.g. 'Anybody can come to the kolxoz disco'; Haspelmath 1997:48-51).

There is a special prefix im- (perhaps related to the em--am- restrictive prefix; §8.10.3) which derives a pronoun with the meaning *everything* from the inanimate indefinite pronoun. With this prefix the interrogative reading of the pronoun is impossible.

- 028 ənqorə ənqen [#] qaa-nm-at-ə-lʔat-ə-k=ʔm cama
 then DEM.3sgABS reindeer-kill-TH-E-DUR-E-SEQ=EMPH and
 n-ə-tennəg-qinet=ʔm / cama [#] wage-ra-k n-ə-twa-qen
 HAB-E-catch.fish-3pl=EMPH and sew-house-LOC HAB-E-be-3sg
 im-ə-rʔenut n-ə-tejk-ə-qin wil-u=ʔm / cama ənqen /
 REST-E-something HAB-E-make-E-3sg trade-EQU and DEM.3sgABS
 cowqoc-eta [...] *[...]*
 state.farm-ALL
Then after the [autumn] reindeer slaughter they fished, they were in the sewing-house, they made everything for trade, and for the state farm... [he049]
- 029 kolo TARPASA-t im-ə-rʔenut n-ine-tejk-ə-lʔet-qin
 INTS boots-3plABS REST-E-something HAB-TR-make-E-DUR-3sg
She's already made a complete pair of fur boots. [ke100]

This prefix is rare. The same prefix occurs with req- when it is used as a verb stem (*do something*), giving a form im-ə-req- *do everything*:

- 030 il ənqen mury-lin yəpl-lʔ-ə-n cama /
 yes DEM.3sgABS 1pl-POSS.3sgABS do.house.work-PCPL-E-3sgABS and
 winret-tumy-ə-n ləyən im-ə-req-ə-k
 help-friend-E-3sgABS really REST-E-do.something-E-INF
Yes, that's our houseworker, our helper to do everything. [cy334]

- 031 il ənqo ən-in nenene-t n-ine-lyi-teg-a-n-a-yjul-ew-qinet
 yes then 3sg-POSS.3sgABS baby-3plABS HAB-TR-INTS-EMPH-E-CS-E-learn-TH-3pl
 Im-a-req-a-k ləyen teg-im-a-req-a-k
 REST-E-do.something-E-INF really EMPH-REST-E-do.something-E-INF
And then how does she teach her children to do everything? [an044]

The interrogative pronoun may be incorporated when it occurs in the same nominal slot as a full noun. As with other occurrences of incorporation of nominal modifiers, this is obligatory in non-absolutive case roles and optional in the absolutive. Example 032 shows the phrasal construction *r?enutet ejwelqeyti* *what orphans?* and the incorporational construction *r?ayatile* *what bird?* in juxtaposition. In the absolutive case these two strategies are distinguished pragmatically (§19.3). The phrasal construction is preferred when the noun has number marking, and number marking is more likely when the noun has human reference or is otherwise highly individuated.

- 032 ee r?enute-t ejwel-qey-ti nute-k n-ena-pela-tore:e?
 INTJ whatABS-3plABS orphan-DIM-3plABS land-LOC HAB-TR-leave-2pl
 ənqen=?m r?a-yatile ajga-γgo-?e?
 this=EMPH what?bird.3sgABS cry-INTCH-TH
Oh what orphans have you left in the tundra? What kind of bird is that crying? [jo084]
 033 okkoj mejl / ləyi-req-?ina əngatal taγ-wen?əm [...]
 INTJ INTJ INTS-what?wolf.3sgABS of.course INTS-INTJ
Oh, what kind of wolf is this? It's too much! ... [ot056]

7.4 Demonstrative pronouns

Most of the demonstrative pronouns are formed using the same stems as deictic adverbs and particles (§15.6). They are graded for distance from speaker:

- gotqen(a-) *this* < *γut-VH.q-VH-ine-VH (cf. γut.ri "here")
 ɣanqen(a-) *that* < *ɣen-VH.q-VH-ine-VH (cf. ɣan deictic particle)
 ɣaanqen(a-), ɣoonqen(a-) *that yonder*

The forms ɣaanqen(a-) and ɣoonqen(a-) cannot be used in contrast to each other, and seem to be no more than stylistic variants. All these demonstratives can also be used anaphorically, although the remaining demonstrative ənqen(a-) (see below) is most common in this function. Examples 034 and 036 illustrate the deictic function of these demonstratives, while example 035 shows a demonstrative used for discourse functions, reactivating a referent which had been previously mentioned.

- 034 il ʔal-a-tkən-a-k ʔq-ine-pet-γʔi am-gotqena-ta
 yes snow-E.TOP-E-LOC INT-TR-butcher-TH REST-this-INST
 qame-twa-t-a-k / [...]
 eat-RESULT-TH-E-INF
Yes, on the snow. "Butcher me, only eat these bits" [he said] [ke132]

- 035 [...] atla ɣanqen ləyen kolo wetaweta n-a-γantew-qin
 mother.3sgABS DEM.3sgABS really INTS definitely HAB-E-run.away-3sg
... that mother would definitely run away [aa2.30]
 036 q-ik-wi ɣaanqen qaa-γγ-a-n ɣaj-ecy-eta
 INT-say-TH DEM.3sgABS reindeer-AUG-E-3sgABS hill-fall-ALL
 q-a-n-cejw-ee-rkən ɣacya-kemce-rpʔo-corm-a-jaal-kena-lʔ-a-n
 INT-E-CS-wander-CS-PROG left-curly-[fur?]-EDGE-E-rear-REL-NMZR-E-3sgABS
Say "Drive yonder big reindeer with the leftside curly back fringe lower down on the hill!" [kr187]

The remaining demonstrative pronoun is formed from the 3rd person singular stem:

- ənqen(a-) *this, that* < *ən-VH.ɣ-VH-ine-VH (cf. ən-3sg)

This demonstrative has identical morphosyntactic behaviour to the others, but differs in that it is not graded for distance. It is used mostly in discourse tracking functions. Typologically it is not uncommon to have words in a clear paradigmatic relationship with demonstratives which are neutral with respect to distance (Himmelman 1996:211); and the form ənqen is clearly of this type. Most examples of demonstratives in texts are forms of ənqen(a-).

- 037 ləyen remk-a-n qənur ləyen=?m rapet remk-a-n ləyen
 really folk-E-3sgABS like really=EMPH even folk-E-3sgABS really
 ʔuri n-a-qərʔacet-qen ləyen qərʔacet-a n-it-qin
 ?? HAB-E-compete-3sg really compete-VBase HAB-AUX-3sgABS
 n-a-miyciret-qin=?m //
 HAB-E-work-3sg=EMPH
 ənqam ɣanqena-ɣpə=?m qənur n-a-rojw-ʔaw n-a-le-qin
 and DEM-ABL=EMPH like ADJ-strong-ADV HAB-E-go-3sg
 remk-a-n miyciret-a-k //
 folk-E-3sgABS work-E-INF
So it's like people, people tried really hard, competing as they work. And from that it's like people went stronger in their work. [he028-029]
 038 ɣanqena-ta cit amalwaγ wa-lʔ-a-t [...]
 DEM-INST first variously be-PCPL-E-3plABS
 qəcəmena-t=?m nənna-lʔ-a-t=?m ləyen ənqam ɣanqena-n-o
 NEG.ID-3pl=EMPH name-NMZR-E-3plABS=EMPH really and DEM-AN-EQU
 ye-tenənnən-lin
 PF-call-3sg
Because of this first there were various... they didn't have these names, only later they started to call them these. [kr043]

The non-deictic demonstrative form ənqen frequently occurs preceded by one of the deictic particles waj or raj/caj (§15.4) and these pairings seem to behave like deictic demonstratives (the other deictic particle ɣan is already cognate with the demonstrative ɣanqen, and doesn't combine with ənqen). Generally they are used

¹ This is a tongue-twister; §12.5.1.

to introduce new participants, as in examples 039 and 040. There is no phonological way of determining whether these are separate words since both stems have dominant vowel harmony and so there is no possibility of triggering vowel alternation. Literate speakers tend to write them separately, but occasionally join them.

- 039 waj-ənqen nirkəgʊt / megin / ɲan
DEICT-DEM.3sgABS ?? who? DEICT
Tələlʔ-ə-watr-ə-qej / ʔOmrən-en ekək
personal.name-E-similar-E-DIM.3sgABS personal.name-POSS.3sgABS son.3sgABS
There's that one, what's he called, who looks like Tələlʔan, ʔOmrən's son. [kr006]

- 040 caj-ənqen neməqej ənp-ə-ɲew arʔala
DEICT-DEM.3sgABS also old-E-woman.3sgABS quite
n-ə-pəcwetɣaw-qen [...] HAB-E-converse-3sg
That there old woman too, she's quite talkative... [kr177]

However, example 041 shows the word order ənqenat raj with apparently the same deictic demonstrative meaning:

- 041 ənqena-t raj Wareeg-tang-ə-ɲaw-ə-t ləyən teɲ-ʔetki-jɔ-ə-t
DEM-3plABS DEICT Vaegi-stranger-E-WOMAN-E-3plABS really INTS-bad-AUG-E-3plABS
Those there stranger women from Vaegi are very, very bad. [ot050]

The distal demonstratives (i.e. apart from ɲotqen *here* and ənqen, which isn't graded for distance) in the third singular absolutive form are also used as deictic adverbs with directional meaning (see also §15.6). Most of the seeming deictic demonstratives in texts are actually examples of this type of deictic adverb:

- 042 ne-n-pelq-ew-ə-n pelqet-e it-ɣʔi ne-n-jalɣət-at-ə-n ɲanqen
3pl-CS-die-CS-E-3sg die-VBase be-TH 3pl-CS-nomadise-CS-E-3sg DEM.3sgABS
They left him to die, he died, they drove him away/thither. [jo122]

Speakers lengthen the initial vowel of ɲanqen and ɲoonqen as an iconic way of emphasising distance:

- 043 əɲɲin=ʔm n-ə-yrətku-qin teɲ-em-rəntəɲet-e
thus=EMPH HAB-E-slaughter-3sg EMPH-CONV-divide-CONV
ɲa:a:a:ənqen n-ine-lyi-n-jəqunt-ew-qin=ʔm
yonder.3sgABS HAB-TR-INTS-CS-go.far.away-CS-3sg=EMPH
Thus he slaughtered meat, butchering it, way off yonder he took it. [jo053]

7.5 Quantifier pronouns

There are two quantifier pronouns stems, əməlʔo *all* and qut- *one, some*. They both decline according to the high animate declension in non-absolutive contexts (§6.2).

Any inflected form of əməlʔo—that is, any form except for the third person absolutive—is declined as a plural. Example 044 shows it as a first person plural

absolutive, and example 045 shows it in the possessive indicating a high animate plural possessor.

- 044 [...] / mət-ra-poɲɣəlʔat-ə əməlʔo-more ənɲatal
1pl-FUT-spear.fight-E all-1plABS of.course
ənka mən-ə-nm-ə-ɣət
here 1pl.INT-E-kill-E-2sg
... we'll all fight with spears, and there of course we'll kill you. [ot083]
- 045 n-ə-lyi-n-ecʔ-ew-qeet ɲan ɲelwəlʔ-ə-t taɲ-əməlʔo-ry-en=ʔm /
HAB-E-INTS-CS-fat-CS-3pl DEICT herd-E-3plABS INTJ-all-3pl-POSS.3sgABS-EMPH
ɲutrilə [#] n-ə-koral-ə-tko-cqew-qenat / ləyən [anə]
hither HAB-E-corral-E-USE-PURP-3pl really
n-ə-qaa-ɣt-at-qen remk-ə-n n-ə-qaa-jonrat-qen [...] HAB-E-reindeer-drive-TH-3sg folk-E-3sgABS HAB-E-reindeer-wean-3sg
They fattened up herds, everyone's [deer] they corralled hither, the folk drove the deer, weaned them. [he058]

It is common for əməlʔo to occur as an absolutive NP in its own right. It generally takes plural verb agreement, such as 046, but it can also take singular (or unmarked for number) agreement, as in 047.

- 046 qərəm-ewən ləyən əməlʔo n-ena-ponɲe-qenat
NEG-INTS really all.ABS HAB-TR-cut.off-3plO
It was hopeless, he cut them all off. [ot078]

Although it is not overtly marked, according to the habitual verb paradigm (§10.3.2) the agreement of the verb nenatənpəqen in the example 047 is unambiguously 3sgA and 3sgO:

- 047 ii / anə qut-ə-ne=ʔm cama poɲɣ-ə-n n-ine-nr-ə-qin
yes so QUANT-E-ERG=EMPH and spear-E-3sgABS HAB-TR-hold-E-3sg
tumy-in poɲɣ-ə-n ənqena-ta ɣəɣola-ta n-ə-rige-mjet-qin
friend-POSS.3sgABS spear-E-3sgABS DEM-ERG above-ADV HAB-E-fly-charge-3sg
əməlʔo ləyən n-ena-tənp-ə-qen
all.ABS really HAB-TR-stab-E-3sg
Yes, and the other one was holding the spear, that one was holding his friend's spear, he flew above them, stabbed them all. [jo111]

Within absolutive noun phrases əməlʔo can also occur with singular (example 048) or plural (example 049) nominals; these nominals (not əməlʔo) determine verb number agreement.

- 048 əməlʔo remk-ə-n / pəl-teɲen-cit-e n-it-qin [...] all.3ABS folk-E-3sgABS RECIP-desire-ADVERS-VBase HAB-AUX-3sg
All the people were living in harmony ... [he067]
- 049 orɣ-ə-t əməlʔo wajənrelə ajmak-ə-k
sled-E-3plABS all.ABS thither carcass-E-LOC
qaca-ɣtə rə-lʔat-en-nenat
beside-ALL CS-move-CS-3sgA.3plO
He dragged all the sleds there to the carcasses [cy437]

The quantifier *qut-* occurs in singular and plural. In the singular it means *one*, *another* or *the other*, and in the plural it means *some* or *the others*.

The absolutive singular has the irregular form *qol*:

- 050 *neme qol* / *ʔalet-a-k jawren-a=ʔm*
 also QUANT.3sgABS snow-E-SEQ next.year-CONV=EMPH
neme annan-mətləŋ-qaw nʔel-ʔi=ʔm
 also one-five-ADV become-TH=EMPH

Also another [herd], after the snow fell, the next year again a sixth [herd] came to be. [he038]

The absolutive plural is formed regularly, but does not decline like a high animate:

- 051 *qut-ti=ʔm SPAT* / *jəlqet-rʔu-ʔe-t*
 QUANT-3plABS=EMPH sleep sleep-COLL-TH-3pl

The others sleep. [ke021]

The quantifier takes high animate declensions in non-absolutive contexts; thus, the ergative singular is *qutəne*, and ergative plural *qutərək-qutəcək*:

- 052 *ənqo* / *qut-a-ne* *lʔu-nin qəyite ɣan ɣaanqen*
 CONJ QUANT-E-AN.ERG see-3sgA.3sgO look! DEICT yonder
qətləyi ənka n-a-twa-qenl
 seems here HAB-E-be-3sg

Then, one of them saw him, "Look, there he is!" [ke049]

- 053 *qut-a-cək* *ənʔaq ənqen n-a-tci-tku-jw-a-qin* /
 QUANT-E-ANpl.ERG CONJ DEM.3sgABS HAB-E-cut-ITER-COLL-E-3sg
KOLPASA pcacam-a-jŋ-a-n / [...] *[...]*
 sausage sausage-E-AUG-E-3sgABS

Others now cut the prerem-sausage... [ke279]

As modifiers within noun phrases, forms of *qut-* agree with the number of the NP head:

- 054 *ənqorə neme* / *[#] neme ənka jawren-a=ʔm*
 then also also here next.year-ADV=EMPH
inqun peəcway-jonr-at-a-k=ʔm əmə /
 so.that spring-wean-TH-E-SEQ=EMPH also
neme qol nəlwal na-n-tomy-aw-a-n
 also QUANT.3sgABS herd.3sgABS 3pl-CS-exist-CS-E-3sg

Then again, again there the next year after the spring weaning too, again they made another herd. [he035]

- 055 *ɣan=ʔm ʔa-rʔela-ʔt-a-lenat qut-ti* /
 DEICT=EMPH PF-race-go.to-E-3pl QUANT-3plABS
ʔorawetlʔa-t ənpanacy-a-t
 person-3plABS old.man-E-3plABS

Well, some people went to a race, old people. [ke001]

The following example shows both the quantifiers combined in a single NP:

- 056 *əməiʔo qut-ti tam-a-tko-jw-a-nena-t*
 all.3ABS other-3plABS kill-E-COLL-COLL-E-3sgA.3plO

He killed all the others. [ot115]

The quantifier *qut-* has an allomorph *qulle-* which is used with derivational suffixes (examples 057 and 058) and in incorporation (059).

- 057 *qulle-qej panena n-ʔatca-qen*
 QUANT-DIM.3sgABS still HAB-wait-3sg

The other little one is still waiting [ot110]

- 058 *qolla-jŋ-a-n=ʔm ʔinə=ʔm* / *ləyen optərəro*
 QUANT-AUG-E-3sgABS=EMPH wolf.3sgABS=EMPH really far.off.ADV

n-a-palomtel-qen / *n-apaqatla-twa-qen*
 HAB-E-hear-3sg HAB-lie-RESULT-3sg
The other one, that wolf, heard this from far off. [where] he was lying on his stomach. [jo103]

- 059 *rʔela-ʔt-a-lʔ-a-t jet-ʔe-t ɣan* / *qolla-nəm-ʔəpə*
 race-go.to-E-PCPL-E-3plABS come-TH-3pl DEICT QUANT-settlement-ALL

The racers came, from the other camp. [ke036]

7.6 Argument-like adverbs

There are several adverbs which semantically overlap with pronouns, but which do not have case forms. These include *cəmqək* *others* (§7.6.1), *cinit* *self* (§7.6.2), and a series of person marked restrictive forms, e.g. *aməmnən* *alone*, *by myself*, *ammoryən* *an alone*, *by ourselves* (§7.6.3). These words belong to a subclass of adverbs with the distinctive behaviour that they can act as modifiers within a noun phrase (§4.8.5).

7.6.1 Quantifier adverb cəmqək

The quantifier adverb *cəmqək* acts syntactically like an absolutive case quantifier pronoun, but does not have any morphological variation and does not mark any nominal syntactic categories (such as number). It either occurs as a modifier in a noun phrase (see 062). Example 060 apparently shows *cəmqək* with the O role of a transitive verb, and example 061 shows it apparently in the S role of an intransitive. However, in both instances the argument of the verb is specified by the form of the verb, thus *cəmqək* is an adverb modifier of a zero-pronominal head:

- 060 *cama ləyen cəmqək n-ine-pipk-a-lwi-qinet pojy-a-qa-a*
 and really others HAB-TR-ankle-E-cut-3pl spear-E-DIM-INST

And he just cut the others' ankles with his little spear. [ot074]

- 061 **ii** **taŋ-əm-ləye** **ŋan** **cəpet** [mel] **cəmɣək** **ləyen**
 yes EMPH-7-know DEICT even others really
ʔaqa-tw-ə-ŋ=ʔm / [etel...] **aa** / **ləyen=ʔm**
 IMPOSS-speak-E-ADV=EMPH INTJ really=EMPH
taŋ-ə-tw-a=ʔm **kejməgin** **əmə** **cəmɣək**
 stranger-E-speak-VBase=EMPH ?? also others
ləy-ʔorawetlʔa-t **ŋan** **aləmə**
 AUTH-person-3plABS DEICT you.know

Yes, and I know like even... some were impossible to talk to [The Yukhā...] oh, and some spoke Russian [or "foreign"] also, Chukchis you know. [kr034]

This particle usually has human reference, but can indicate non-humans and inanimates as well, e.g. *kantemkən cəmɣək* *some lollies* [kr238] (see example 032 §5.6.3). Example 062 shows *cəmɣək* together with *əməlʔo*, the quantifier pronoun *all* to form a noun phrase:

- 062 **n-iw-qin** **"itək-ewən** **ləyen** **cəmɣək** **əməlʔo** **t-ə-tku-net** [...] **[...]**
 HAB-say-3sg so-INTS really others all.3ABS 1sg-E-annihilate-3pl
He said "As it happens I simply wiped out all the others" ... [ot123]

7.6.2 Reflexive adverb and reflexive relational pronoun

The form *cinit* *self* is not a pronoun (or any sort of nominal) since it doesn't have case forms. It is used to emphasise the fact that an argument acted alone, by itself. There need not be any overt nominal argument for it to modify; zero-pronominal from the verb is sufficient. The form only occurs with agentive arguments (i.e. A or S_A syntactic role). Example 063 has two instances of *cinit*, the first refers to and S and the second to an A; example 064 shows *cinit* referring to an A:

- 063 **qol** **ləyen** **cinit** **n-enomat-ə-lʔat-qen** /
 one.3sgABS really self HAB-E-tie.load-E-DUR-3sg
cinit **retem-ə-t** **n-inetril-qinet** **orw-ə-k**
 self roof-E-3plABS HAB-E-pack-3pl sled-E-LOC
This other one tied up the load by herself, packed the roof by herself on the sled. [cy297]

- 064 **neme** **ən-in** / **wenqora-jŋ-ə-n** **cinit**
 again 3sg-POSS.3sgABS harness.doe-AUG-E-ABS self
kənʔu-nin [...] **[...]**
 lasso-3sgA.3sgO
Again he lassoed his harness doe himself ... [cy119]

Chukchi doesn't have any morphological reflexivisation strategies; certain verbs can be considered as lexical reflexives, and *cinit* can be used to support the reflexive reading (see §11.7).

There is also a reflexive pronoun *cinitkin* *one's own* derived from *cinit* with the relational suffix (§8.7.2). This form is a true nominal (and semantically a pronoun), although it rarely occurs in non-absolutive forms for semantic reasons. Unlike

cinit, it doesn't necessarily refer to a particular syntactic role. In the following the identity of the possessor is ambiguous:

- 065 **Nutekew-ne** **Majkal-ə-na** **rəjp-an-nen**
 personal.name-ERG personal.name-E-ALL CAUS-wear-3sgA.3sgO
cinit-kin **witacy-ə-n**
 self-REL.3sgABS overtunic-E-3sgABS
Nutekew dressed his overtunic on Michael (i.e. N. dressed M. in his overtunic). [nb075.1]

Example 066 contrasts the reflexive particle and the reflexive relational pronoun:

- 066 **ləyen** **[#]** / **cinit** **kənʔu-nin** **wenqora-jŋ-ə-n** //
 really self lasso-3sgA.3sgO harness.doe-AUG-E-3sgABS
ən-in **cinit-kin**
 3sg-POSS.3sgABS self-REL.3sgABS
Well... himself he lassoed the harness doe. [It was] his very own. [cy082-083]

The form *cinitkin* is also used as a noun meaning *relatives, kinfolk*.

7.6.3 Restrictive pronominal adverbs

There are a set of adverbs meaning *alone* which can have person-number marking. These forms are derived from instrumental/ergative case personal pronouns with the restrictive prefix *em-*-*vh*.

FIGURE 7.3. Restrictive pronominal adverbs.

	Singular	Plural
1st person	amyəmnan	ammoryənan
2nd person	amyənan	amtoryənan
3rd person	nənan	aməryənan/aməccənan

In all person and number combinations the person+number marked forms can be substituted by the third-person singular form. The unmarked 3sg form occurs commonly in contexts where there is an overt pronoun argument also present; the person marked forms are only obligatory when there is no overt personal pronoun.

Restrictive adverb with person-number marking:

- 067 **ik-wʔi** **ammoryənan** **ləyen** **q-ə-jet-γ-ə-tək** /
 say-TH REST.1pl.ADV really INT-E-come-TH-E-2pl
ləyen **q-ə-jet-γ-ə-tək** [...] **[...]**
 really INT-E-come-TH-E-2pl
He said, "We are alone, you come [out], come [out]!" [jo006]

In example 067 the first-person plural restrictive adverb appears predicatively; it could be considered to be functioning as a verb base, as an auxiliary verb could be added to make this an analytic verb.

Restrictive adverbs usually appear without person-number marking when they modify a nominal which is overtly expressed:

068 amənan ləle-t re-nu-γ-ə-net [...]
only eye-3plABS FUT-eat-TH-E-3pl

Eat just the eyes...

[jo040]

In example 069 the non-person marking form is used in the first sentence, where there is an overt personal pronoun, e.g. γəmo amənan *me myself*, and the person-marking form is used in the second sentence, where there is no overt nominal, e.g. amyənan *yourself*.

069 γəmo amənan γənan ena-γto-γ?e? //
1sgABS only 2sgERG INV-pull.out-TH

ii ləyen taγ-amyənan //
yes really INTJ-only.2sg

"Did you bear only me?" [i.e. "Am I your only child?"] — "Yes, you're the only one"
[or014-015]

In this example the restrictive adverb taγamyənan *you alone* is the sole exponent of an NP in a zero-copula existential construction (see §17.2.4).

8

Nominal derivation

8.1 Introduction

Nominal derivation includes derivation with morphosyntactic functions, such as forming nominals from stems of other word classes (e.g. participles), or deriving nominals which are related to other nominals in an NP (possessive and relational), and purely semantic derivations, which modify the meaning of a stem without any morphosyntactic changes (e.g. spatial derivations).

•WORD CLASS CHANGING DERIVATIONS. The first part of this chapter (§8.2-4) will mainly focus upon deverbal nominalisations, which are interesting from a morphosyntactic point of view as they show formal influence of verbal grammatical categories and verbal semantics (particularly in the areas of transitivity and aspect). Section §8.2 describes the behaviour of participles, which are deverbal nouns oriented towards one of the underlying core syntactic roles (S, A, O) of the verb stem. The main participle-forming suffix also forms nominals from other classes, described in §8.3. Section §8.4 describes the action nominalisation, which is another deverbal noun derivation. Action nouns refer to the action/event of the verb in the abstract, without syntactic orientation towards any underlying argument. With participles and action nouns, nominalisation follows verbal derivational affixation. There are also deājectival nominals, and nominals formed from adverbs, particles, numerals, and even interjections. Some of these nominaliser affixes also combine with noun stems. These combinations are also classified as nominalisation (and dealt with in this chapter) due to the formal similarities with other sorts of nominalisation, and also because of the semantic and functional similarities—the main being that a nominalisation of a noun stem has different reference to the noun stem alone, whereas other lexical derivations of nouns have the same basic reference (e.g. from the noun stem qəra- *reindeer* the nominalised form qoralʔən means *reindeer owner*, not the reindeer itself, but a non-word-class changing lexical derivation such as the augmentative qorajən *big reindeer* can refer to the same reindeer as the underived stem).

Section §8.5 considers a number of other derivational affixes which form nouns with more complex semantics, such as 'place', 'instrument' and 'container'. In §8.6 the various ways of deriving personal names are discussed.

The main nominaliser affix is the suffix *-lʔ-*, which can form nominals from all classes with a number of functions (§§8.2-3). Other nominalisers include *-jo* (passive participle; §8.2), *-yərɣ-^{VH}* (action noun; §8.4), *-n/-nwə-^{VH}* (place of activity; §8.5), *-ɣew^{VH}/-ɣewət-^{VH}* (names of and terms for women; §8.6) and *-wji* (names of men; §8.6). These nominalisers are more limited than *-lʔ-*, both in the classes of stems which they can derive from and in the number of functions which they carry out.

•POSSESSIVE AND RELATIONAL FORMS. Section §8.7 describes the possessive and relational derivations of Chukchi. These forms have a 'genitive' meaning, but function like a derived verb stem, not like a case form. Possessive and relational forms can act as head nouns in NPs, but more usually function as modifiers (§9.2.2).

•SEMANTIC DERIVATIONS. Sections §§8.8-10 describe a number of derivational affixes which modify word meaning without any syntactic function; these include some spatial derivations, speaker evaluation (diminutive and augmentative) and quantitative derivations such as collectives and intensifiers.

8.2 Participles

There are two participle suffixes occurring with verb stems with positive polarity: the active participle suffix *-lʔ-* and the passive participle suffix *-jo* (plural *-jot-te*). When a verb stem is negated (either by the negative circumfix *e-...-kə-^{VH}* or the prefix *lup-*), the participle suffix *-lʔ-* forms both active and passive participles depending on the transitivity of the verbal stem (intransitives form active participles, transitives form passives, see below). The suffix *-lʔ-* occurs very frequently in Chukchi, and also derives nouns from stems of other word classes (§8.3).

The *-lʔ-* participles can be active or, with negative polarity, passive. The *-jo* participle has only positive polarity and is only passive. The key grammatical difference between the *-lʔ-* participle and the *-jo* participle is that the *-jo* participle is resultative and the *-lʔ-* participle is non-resultative (Haspelmath 1993:157-162). This means that the existence of the entity referred to by the *-jo* participle implies a previous event; the *-lʔ-* participle carries no such implication. The functional correlation between passive and resultative is well attested (see Nedjalkov & Jaxtonov 1988:17), and the clustering of passive and resultative in Chukchi positive polarity participles is typologically well motivated. In the negative the passive is not resultative, as by definition there has been no prior event, and so the non-resultative *-lʔ-* participle morpheme is required. Indeed, a more felicitous terminology for these participles might be RESULTATIVE PARTICIPLE for the *-jo*

form, and NON-RESULTATIVE PARTICIPLE for the *-lʔ-* form. However, the distinction between 'passive' participles and 'active' participles also has to be retained to describe certain phenomena, e.g. passive participles can have agent nominals in the instrumental case (see discussion to examples 005-007).

From the intransitive stems *təle-l-le-* *go* or *wʔi-* *dle* the positive polarity participles are formed as follows:

təle-lʔ-ə-n *go-PCPL-E-3sgABS* *one who goes*
wʔi-lʔ-ə-n *dle-PCPL-E-3sgABS* *one who is dead*

and the negative polarity participles are formed:

e-le-kə-lʔ-in *NEG-go-NEG-PCPL-3sgABS* *one who doesn't go*
e-wʔi-kə-lʔ-in *NEG-dle-NEG-PCPL-3sgABS* *one who isn't dead.*

From the transitive stem *təm-/nm-* *kill* and the positive polarity passive participle (i.e. the resultative participle) is formed with *-jo*:

təm-jo *kill-PASS.PCPL-3sgABS* *one who has been killed.*

but the negative polarity passive participle (non-resultative) is formed with *-lʔ-* just like the active participles:

e-nm-ə-kə-lʔ-in *NEG-kill-E-NEG-PCPL-3sgABS* *one who isn't killed.*

Unsurprisingly, passive participles are only formed from transitive stems. Less trivially, active participles are only formed from intransitives (this includes various intransitivised forms derived from a transitive). The motivation for this is not entirely clear, and may be historical rather than syntactic.

Participles usually act as regular nominal arguments in clauses, and are frequently attested in noun phrases as both heads (example 001) and modifiers (002-003).

The following examples illustrate passive participles:

001 *təm-jo* *iyət-kin* *enmec* *n-ine-mlu-qin* *ɣewʔen-e*
kill-PASS.PCPL-3sgABS *now-REL-3sgABS* *only* *HAB-TR-delouse-3sgO* *wife-ERG*
The wife is already delousing the only just now killed one [i.e. He was just now killed, and already he is alive again and his wife is delousing him]. [cy365]

Example 002 shows the passive participle with a plural:

002 *kolol* */* *rəpet=ʔm* *waj-ə-ɣqac* *reɣa-twə-cemat-ə-nwə-k*
INTS *even=EMPH* *DEICT-E-SIDE* *fly-??-crash-E-PLACE-LOC*
wanewan *q-ə-lʔu-ɣ-ə-n* *ratrel-jot-te* *wakw-ə-tʔ*
NEG *INT-E-see-TH-E-3sg* *arrange-PASS.PCPL-3plABS* *stone-E-3plABS*
Oh yes! Even over yonder where the aeroplane crashed, have you seen the arranged stones? [i.e. how the stones there have been arranged] [kr104]

The following example has a passive participle from the transitive verb *rəp-* which means (among other things) *stake something as a prize*.

- 003 ʔire-remk-a-k pakir-ʔi=?m rap-jo qoraga
 race-folk-E-LOC arrive-TH=EMPH stake-PASS.PCPL-3sgABS reindeer-3sgABS

piri-nin / ena-wenaw-a-myō-ʔe ankā
 take-3sgA-3sgO AP-train-E-INCH-TH there

He arrived in the racers' encampment, took the prize reindeer - he started training there. [cy143]

As discussed above, negative passive participles are formed by means of the -lʔ- suffix, not the -jo suffix. Example 004 shows a negative passive participle formed from the transitive verb *wjat untie*:

- 004 ləyen qora-t ʔe-kwut-linet əngin
 really reindeer-3plABS PF-harness-3plO thus
 ləyen loŋ-a-wjat-a-lʔ-a-t
 really NEG-E-untie-E-NMZR-E-PL

He harnessed the reindeer, as they weren't completely untied. [cy267]

Occasionally the underlying syntactic agent (underlying A) of a passive participle is overtly specified. Usually this occurs in the instrumental case, as in examples 005 *rəmajjawjo əccənan (one) brought up by them*, 006 *moryənan rəjəlawətkojotte (ones) trained by us*, and, with a negative passive participle, 007 *enukəlinet ʔorawetlʔata (ones) not eaten by people*:

- 005 wanewan rə-majj-aw-jo cit əcc-a-nan / neməqe /
 NEG.NFUT CAUS-be.big-TH-PASS.PCPL first 3pl-E-INST also

macaw-ma a-tlʔa-ka nʔel-ʔi
 fight-SIM PRIV-mother-PRIV become-TH

No, she was brought up by them to begin with / also / she'd become motherless during a war [kr154]

- 006 mory-a-nan qənur [#] rə-ʔjəl-aw-a-tko-jot-te
 1pl-E-INST like CS-learn-CS-E-ITER-PASS.PCPL-3plABS
 naqam paa-rʔo-ʔa-t waj qora-ʔənret-a-k=?m / [...]
 but finish-COLL-TH-3pl DEICT reindeer-guard-E-INF=EMPH

[Reindeer were] trained by us, but now they've completely stopped herding reindeer... [he082]

- 007 e-nu-kə-lʔ-ine-t ʔorawetlʔa-ta?
 NEG-eat-NEG-PCPL-TH-3plABS person-INST

Are they not eaten by people? [ab4.09]

More rarely the underlying agent of a passive participle can occur as an absolutive case noun in the possessive derivation. Example 008 shows three examples; *əlwin jətoo* (underlying form *jəto-jo) *the wild reindeer's one which is born*, *ləyeqoren jətojotte* *the domestic reindeer's ones which are born*, and *əlwin tajkəjotte* *the wild reindeer's one which is made*.

- 008 əlw-in nekem waj jəto-o ənrʔam
 wild.reindeer-POSS-3sgABS particularly DEICT bear-PASS.PCPL-3sgABS and
 ʔan ləye-qor-en jəto-jot-te
 DEICT AUTH-reindeer-POSS-3sgABS bear-PASS.PCPL-3plABS

əlw-in tajk-a-jot-te əm-ənrʔam ele-k
 wild.reindeer-POSS-3sgABS make-E-PASS.PCPL-3plABS REST-then summer-LOC

omom-a-jə-a-k=?m [...]
 heat-E-AUG-E-LOC=EMPH

The wild reindeer's one is born, and [likewise] the real [domestic] reindeer's ones are born, the ones made of the wild reindeer are [only?] in summer, in the heat... [ab3.01]

Passive participles are very rare with non-absolutive case marking (no spontaneous examples in the corpus). The passive participle suffix -jo is obligatory with transitive verb stems occurring with certain derivational suffixes. The suffix -lqəl, which derives a noun with the meaning 'used for X', 'equivalent to X', can occur with a nominalised transitive verb stem only when the verb stem is in the passive participle form (it can derive nouns from noun stems directly, e.g. *ətʔa-lqəl adoptive mother* < *ətʔa-mother*). Example 009 shows the word *roolqəl food* (*ru-jo-lqəl), derived from the transitive verb *ru-l-nu-eat*:

- 009 əmə ənge KROV e-nint-a-ke / neməqe / tury-in
 and NEG.HORT blood NEG-throw-E-NEG also 2pl-POSS-3sgABS

ru-o-lqəl / əməlʔ-etə
 eat-PASS.PCPL-NMZR-3sgABS all-ADV

Don't throw away even the blood, that's also your food, everything. [ke137]

Example 010 shows a derived noun *jaəjəlqəl piece of equipment, thing which is used* derived from the transitive stem *jaa-use*.

- 010 ənqen n-a-tejk-a-qin ənan-kəkw-a / ləyen=?m
 DEM-3sgABS HAB-E-do-E-3sg SUPER-dry-ADV really=EMPH
 kəkwat-etə ewən wa-lʔ-a-n n-a-mitʔenumkew-qin
 dry-ADV INTS be-PCPL-E-3sgABS HAB-E-hide-3sg

kəmniget-kin jaa-jo-lqəl
 birth-REL-3sgABS use-PASS.PCPL-NMZR-3sgABS

That is done with a really dry one, a dried out one [to be] used for births put aside ("hidden") earlier. [ch04]

The active participle can only be formed from intransitive stems. Example 011 shows an active participle acting as an NP head, example 012 shows an active participle as a dependent within an NP.

- 011 ewat ʔe-rəwiw-e=?m me-melnet-a-lʔ-a-t=?m ewat
 so COM-make.camp-Vbase=EMPH APPR-become.big-E-PCPL-E-3plABS=EMPH so
 ʔe-wey-a-tku-lʔet-e ralqan-a-nwə-k / ʔa-walpa-tko-ma
 COM-claw-E-USE-OUR-Vbase make.camp-E-PLACE-LOC COM-shovel-USE-SIM

While making camp the somewhat grown up ones clean the snow away [lit. scratch] at the campsite, shovelling. [ch24]

- 012 [...] ənqen qol / wʔl-lʔ-a-n newəcqet [...]
 DEM.3sgABS QUANT.3sgABS die-PCPL-E-3sgABS woman.3sgABS
 ... *that one dead woman* ... [ka34]

The negated stem of negative participles can be formed from the *e-___-kə-* circumfix or the *luŋ-* prefix (see §18.7.1 for examples and further discussion). Negative participles formed by the *e-___-kə-* circumfix and the *-lʔ-* suffix take the endings *-in* (absolute singular) and *-ine-* (derived, plural, or oblique), e.g. *aalomkəlʔen* *disobedient one* (<**e-walom-kə-lʔ-in* NEC-listen-NEG-PCPL-TH.3sgABS), *aalomkəlʔenat* *disobedient ones* (<**e-walom-kə-lʔ-ine-t* NEG-listen-NEG-PCPL-TH-3plABS). Negatives formed by the *luŋ-* prefix take the normal *-n* final (morphological type III; §6.3.1) absolute suffix, e.g. *luŋulwewəlʔən* *unresting one* (<**luŋ-ulwew-a-lʔ-a-n* NEG-rest-E-PCPL-E-3sgABS). It is unclear how to motivate the *-in(e-)* ending which occurs with negative participles in *e-___-kə-*. It is hard to suggest a semantic motivation, particularly since it is never used with the *luŋ-* negative. It may be significant that *-in(e-)* also does not appear when a negative participle in *e-___-kə-* is used as a personal name (see §8.6 for examples). There does not seem to be any correlation between the use of *-in(e-)* with *e-___-kə-* negatives and any of the other uses that *-in(e-)* has, such as possessive, demonstrative endings, and so on.

To make an active participle from a verb with a transitive stem the verb stem must be intransitivised. It can be antipassivised, using either (or both) of the antipassive morphemes *ine-* (note this prefix is *not* the same as the suffix discussed above) and *-tku*, or it can incorporate an object (§11.6.2).

Example 013 illustrates use of the transitive verb stem *penr-* *attack*. Example 014 shows the same stem antipassivised with the antipassive + iterative suffix *-tku* in an active participle:

- 013 ənqen neme qora-jŋ-a-na ya-penr-a-len ya-jayna-len
 DEM.3sgABS again reindeer-AUG-E-ERG PF-attack-E-3sg PF-charge-3sg
 Again this big reindeer attacked him, charged him. [cy222]
- 014 penr-a-ŋko-lʔ-a-jŋ-a-n qora-jŋ-a-n ənqen
 attack-E-AP.ITER-PCPL-E-AUG-E-3sgABS reindeer-AUG-E-3sgABS DEM.3sgABS
 n-a-qora-yt-at-qen
 HAB-E-reindeer-drive-TH-3sg
 That attacking reindeer drove the others. [cy247]

Negated active participles formed from underlyingly transitive stems must also be antipassivised (§18.2.5).

Incorporation is a common intransitivisation strategy used for forming active participles.

- 015 teŋ-ənjlw qora-nla-lʔ-a-n wulqatwi-k ye-lqat-lin
 good-uncle.3sgABS reindeer-lead-PCPL-E-3sgABS evening-SEQ PF-set.off-3sg
 ŋalwəlʔ-eta cit ye-nju-lqat-lin
 herd-ALL first PF-do.night.watch-set.off-3sg
 The good uncle, who was leading reindeer, in the evening went to the herd, intending to do the night watch. [cy168]
- 016 qora-yərke-lʔ-eta qat-yʔl
 reindeer-catch-PCPL-ALL set.off-TH
 He set off to those who had caught their reindeer [cy088]

As already stated, the verb stem of active participles is always intransitive. This means that the underlying subject (S) of the verb stem is coreferential with the referent of the participle. Because of the nature of the Chukchi NP (largely appositional, almost always absolute; §9.2) it is meaningless to try to distinguish an NP with a noun and an active participle from an active participle with overt subject. However the oblique arguments of participle verb stems are preserved. For example, 017 shows a participle formed from the verb stem *təle-/le-* *go* with a locative complement, and example 018 shows a participle formed from the copula verb *wa-/twa-* with an adverbial complement (for a further example of the latter, see the phrase *kəkwatetə walʔən* *a dried out one* in example 010).

- 017 ŋinqeŋ-qej təle-lʔ-a-n moo-rʔet-jekwe-k /
 boy-DIM.3sgABS go-PCPL-E-3sgABS caravan-path-PERL-LOC
 ʔattʔajoca n-en-apaqatla-ŋko-jw-a-qen
 in.front HAB-TR-crawl-ITER-COLL-E-3sg
 The boy going along the caravan path crawled in front of it. [jo024]
- 018 qəram-ewən itək ənqena-t ʔaqa-tamjeŋ-a-ŋ wa-lʔ-a-t
 NEG-INTS so DEM-3plABS IMPOSS-trick-E-VBase be-PCPL-E-3plABS
 No way, they're untrickable [an021]

8.3 Non-participle derivations with *-lʔ-* and *-cʔ-*

The suffix *-lʔ-* derives nominals from all word classes (including other nominals). Nominals derived from verb stems by means of this suffix are participles, and are treated above (§8.2). The meaning of the non-participle derivations with *-lʔ-* depends on the semantics of the stem, although there is the semantic link that *-lʔ-* derives a noun specified by its relation to another word:

• **SPATIAL TERM.** With a spatial term the *-lʔ-* suffix forms a word indicating a person or thing originating from that place. Thus, from the noun *emnuŋ tundra* it is possible to derive *emnuŋ-a-lʔ-a-t tundra folk* (*tundra-E-PCPL-E-3plABS*). Note that this contrasts to the relational formed with *-kin(e-)*, e.g. *emnuŋ-kine-t tundra-REL-3plABS* [*thing*] *from the tundra* (*emnuŋkinet mrenti tundra mosquitos*; §8.7.2). It is likewise possible to form one of these *-lʔ-* nominalisations with a spatial adverb, such as *jaat-a-lʔ-a-t ones situated behind* (*behind-E-NMZR-E-3plABS*) from the adverb *jaat behind*.

- 019 ʔire-lʔ-a-t pakir-ʔe-t / teg-ənjiw taŋ-ənan-ʔattʔajoca
 race-PCPL-E-3plABS arrive-TH-3pl good-uncle.3sgABS INTS-SUPER-in.front.ADV
 ʔa-twa-len / ʔeqe-njiw ənqen macənan ʔaat-lʔ-a-k
 PF-be-3sg bad-uncle.3sgABS DEM.3sgABS enough behind-NMZR-E-LOC
 ʔattʔajoca ʔa-twa-len
 in.front.ADV PF-be-3sg

The racers arrived. The good uncle was first of all. That bad uncle, he was a little in front of the following ones. [cy144]

•PHYSICAL ENTITY. With a term indicating a physical entity a -lʔ- derived noun indicates a person or thing possessing that entity, as in the following example:

- 020 [...] kəke wəne-qaj qon-qora-lʔ-eyət meŋqo?
 INTJ INTJ-DIM one-reindeer-NMZR-2sgABS whence?
Well well, you with one reindeer... Where have you come from? [cy104]

A more consciously contrived example is the tongue twister by ɲawkəke:

- 021 ʔəmo ɲarʔo-wʔare-keŋu-neŋe-lʔ-iyəm
 1sgABS three-fork stick-tool-NMZR-1sgABS
I have a three pointed waiking stick [ɲawkəke 230895]

•PROPERTY. A nominalisation with -lʔ- formed from a word indicating a property makes a term for an entity having that property.

- 022 ʔeqe-lʔ-e neme na-kanilelta-nat
 bad-NMZR-ERG again 3pl-surround-3pl
The evil ones again surrounded them. [jo003]

This is most common with adjective stems, as with the adjective ʔeqe- *bad* in example 022, but also occurs with abstract nouns, as in the -lʔ- nominalisation of the abstract/action noun in example 025 below.

The suffix -cʔ- gives more lexicalised versions of words formed with -lʔ-:

weriw-a-lʔ-a-n 'it is sour, the sour one'
 weriw-a-cʔ-a-n 'cowberry' (a type of berry which is very sour, Rus. *brusnika*)

8.4 Action noun derivation (-vəry-^{VH})

The suffix -vəry-^{VH} derives an 'action noun' from a verb, or, occasionally, an adjective or noun. An action noun is a derivation which forms a word referring to the act or state indicated by the verb stem (Comrie 1976b). They are thus not participles, as they are not oriented towards any of the underlying syntactic arguments of the verb stem. The suffix can be applied equally to transitive and intransitive verb stems, and is not subject to any transitivity related phenomena (such as the obligatory intransitivisation required by active participles, §8.2). Their semantics are not quite predictable, and it is unclear whether they are fully productive.

The following two examples are typical. Example 023 shows the noun wʔe-tko-vəry-a-n *plague, epidemic, death*, which is derived from an iterative (-tku suffix) form of wʔi- *die*.

- 023 ʔotcoj ʔan=ʔm / ʔan ʔəyi=ʔm ʔan [#] /
 long DEICT=EMPH DEICT know.VBASE=EMPH DEICT
 ʔemo=ʔm ʔotqena-tko-rək ʔəyat-kena-ʔorawetlʔ-a
 not.know.VBASE=EMPH DEM-COLL-ANpl.ERG now-REL-people-ERG
 ʔine-lʔ-e ʔanwa taŋ-ʔemo wʔe-tko-vəry-a-n
 young-NMZR-ERG ?? INTS-not.know.VBASE die-ITER-NMZR-E-3sgABS
 ʔanqen ʔan / ətrʔec walom-a etʔəm n-a-nt-a-qin
 DEM.3sgABS DEICT only hear-VBase apparently HAB-E-AUX-E-3sg
For a long time.. well... all these ones, today's people, youth, don't know a thing about death, they've only heard about it apparently. [he006]

Example 024 has an action noun derived from wicet- *be worried* (note that the -et in wicet- is a thematic suffix which occurs only in the absence of other derivational suffixes which fill that slot, such as the collective -rʔu; §§14.2-3):

- 024 [...] əngatal wec-a-rʔo-vəry-a-jŋ-a-n / ʔanwer meŋget-ʔʔ
 after.all worried-E-COLL-NMZR-E-AUG-E-3sgABS finally become.big-TH
...After all he was really worried [when] finally he grew up.. [ot035]

Example 025 shows two sorts of nominalisation, the action noun wʔare-tʔac-vəry- meaning *sexually transmitted disease* (morphemic structure: fork-be.sick-NMZR-, i.e. a sickness where the legs part) with the possessor nominalisation with -lʔ- to mean *one who has a sexually transmitted disease*.

- 025 Etetlʔen=ʔm ənqen n-iw-qinet Etetlʔen
 Yukaghirs.3sgABS=EMPH DEM.3sgABS HAB-say-3pl Yukaghirs.3sgABS
 taŋ-am-wʔare-tʔac-vəry-a-lʔ-a-n penin n-a-lyi-wʔe-tʔal-qin
 EMPH-REST-fork-be.sick-NMZR-E-NMZR-E-3sgABS previously HAB-E-INTS-die-be.sick-3sg
Yukaghirs, they say Yukaghirs are always sick between the legs [i.e. sexually transmitted disease], it was a fatal illness. [kr062]

Action nouns can be formed from verbal stems with incorporated objects:

- 026 ənkʔam / ənqen qənut telenjep-kin ənqen ʔəp
 CONJ DEM.3sgABS like long.ago-REL.3sgABS DEM.3sgABS now
 qənur qora-yənret-vəry-a-n=ʔm talanjab-kena-jpə=ʔm
 like reindeer-guard-NMZR-E-3sgABS=EMPH long.ago-REL-ABL=EMPH
 mat-ketʔo-rkən=ʔm
 1pl-remember-PROG=EMPH
And, like from long ago, this reindeer herding now... [us] from long ago, we remember. [he074]

- 027 ənqen ənan ɲawən-ra-yt-at-vəry-a-n ʔe-tejk-a-lin
 DEM.3sgABS 3sgERG wife-house-go.to-TH-NMZR-E-3sgABS PF-make-E-3sg
It was she who made up the marriage ceremony. [ke241]

Bare transitive stems without any intransitivisation can also form action nouns; for example, the noun *rakwəry- hole* is formed from the transitive verb *rew- pierce* (<*rew-^{VH}.-yərɣ-^{VH}).

The action noun formed from the transitive verb *təni-/nni- sew* means *seam*:

- 028 [...] / *rə-tityət-et-jəw-nin* / *ənqen* / *təne-yəry-ə-t*
 cause-separate CS-COLL-3sgA.3sgO DEM.3sgABS sew-NMZR-E-3plABS
ənqen / *cəwi-tku-jw-ə-nin* / *nely-ə-n* / *gəryən*
 DEM.3sgABS cut-ITER-COLL-E-3sgA.3sgO hide-E-3sgABS outside.ADV
rə-rər-an-nen / [...]
 CS-spread-CS-3sgA.3sgO
 ... He cut the seams all apart, cut along them, spread the hide out outside ...
 [cy341]

Action nouns can also be formed from noun stems. The derived noun has an abstract meaning related lexically to the stem, e.g. example 029 has the action noun *galwəlʔəyərɣən herding* which is derived from the noun *galwəl herd*, and example 030 has the action noun *ʔaqaleŋyərɣən terror* derived from a complex noun formed by an adjective *ʔeqe- bad* incorporated with the noun *liŋ- heart*:

- 029 *ənqorə* *qənur* *iwke=ʔm* *yəmo* *t-iw-ə-rkən* *iwke*
 then like so=EMPH 1sgABS 1sg-say-E-PROG so
ənqatal *ənqin=ʔm* *mac-etʔopel* *remk-ə-n* *wecʔəm*
 INTJ thus=EMPH APPR-somewhat folk-E-3sgABS maybe
nʔ-ə-nʔel-yʔe-n / *qənur* *galwəlʔ-ə-yəry-ə-t*
 3.INT-E-become-TH-3sg like herd-E-NMZR-E-3plABS
 Then like... I say it's perhaps a little better, if people would start herding
 [again] [he107]
- 030 *ʔəkə* *wənəl* *ətlon* *meŋqorəʔ* *qora-ytə* *n-ajəlyaw-qen*
 INTJ INTJ INTER whence? reindeer-ALL HAB-be.afraid-3sg
ʔəkkoj *qora-gə* / *ʔetki* *ʔaqaleŋ-yəry-ə-ŋə-ə-n*
 INTJ reindeer-3sgABS bad.ADV bad-heart-NMZR-E-AUG-E-3sgABS
 "Oh dear me! Where are they from?"—She feared the reindeer—"Oh what
 reindeer, it's terrifying!" [cy431]

8.5 Nominalising derivations

There are several other types of nominaliser which form nouns with slightly unpredictable meanings. These forms a reasonably productive, although nominalisations of particular stems are frequently conventionalised (e.g. the container nominalisation *penjolyən* denotes *fireplace* but not *ashtray*, although both could be thought of as *containers for ashes*).

•LOCATIVE NOMINALISATION (Comrie 1985:355). The derivational suffix *-n^{VH}* / *-nwə-* derives a noun from a verb indicating an action or state and means the place where the action or state occurs, for example *təla-n path*, *təla-nwə-t paths* is derived from the verb *təle-/le- go*.

•'AGE' NOMINALISATION. The derivational suffix *-ja* forms a small set of deverbal and deadjectival nouns meaning an age or era characterised by the stem, e.g. *wʔe-tko-ja-n epidemic*, 'time of dying' *die-COLL-NMZR-3sgABS*, *ənɸ-ə-ja-n old timer* *old-NMZR-3sgABS*.

•INSTRUMENTAL NOMINALISATION (Comrie 1985:353). The derivational suffix *-ineŋ(e-)* indicates a tool or apparatus derived from a verbal stem. The verb stem must be intransitive. For example, the noun *riŋeneŋ aeroplane, helicopter* (plural *riŋeneŋe-t*) is formed from the intransitive stem *riŋe- fly*, if this derivation is to be used with a transitive stem, the stem must be intransitivised, either by incorporation (*wʔaj-ə-cwe-tko-naŋ scythe grass-E-cut-ITER-TOOL.3sgABS*) or by antipassivisation (*ine-n-ə-yjiw-et-ə-tku-neŋ sign, symbol AP-CS-E-know-CS-E-ITER-TOOL.3sgABS*).

•'CONTAINER' NOMINALISATION. The derivational suffix *-joly-* forms a nominal with meaning 'container'. Derivations may be deverbal (*wetɣaw-joly-ə-n radio speak-CONTAIN-E-3sgABS*) or denominal (*pen-joly-ə-n fireplace ash-CONTAIN-E-3sgABS*).

8.6 Personal names

Personal names are regular nouns, and their only universally distinctive morphological feature is that they obligatorily use the high animate declension pattern. Many personal names are derived nouns, both participles and other nominalisations (Chukchi naming practices are discussed in §1.1.4). The name *Wəkəwəryəyərɣən* is an action noun, literally meaning *Homecoming stone* (*wəkəw-ə-ra-yt-ə-yəry-ə-n stone-E-house-go.to-E-NMZR-E-3sgABS*). Because of the obligatory use of the high animate declension, negative passive participles look slightly different in the absolutive when they are being used as personal names than when they are common nouns, e.g. the participle *aalomkəlʔən disobedient one* (**e-walom-kə-lʔ-in(e-)* NEG-listen-NEG-PCPL-TH.3sgABS) has the distinctive *-in(e-)* suffix of the negative passive participle formed by *e-___-lʔə-*, but this suffix does not occur when the same participle is used as a personal name, e.g. *Aalomkəlʔən*. The distinction is clearer in the ergative case; the common noun participle is *aalomkəlʔənata* (ergative suffix **-te^{VH}*), whereas the personal name is *Aalomkəlʔəna* (ergative suffix **-ne^{VH}*).

The nominalisers *-gewət* and *-wji* are only used with personal names.

Women's names are frequently derived by means of the affixes *gew-^{VH}*, *-gew^{VH}* and *-gewət^{VH}*. These suffixes form women's names from almost any class of stems. Much of the data used in this work comes from *ɣawəkə*, whose name is derived from the interjection *kəkəl, kəkəkəkəl* an exclamation of amazement used by women, and from *ʔEjgewgewət* whose name is derived from the intransitive verb *ʔejgew- cry out*. The suffix *-gewət* only forms personal names, but the cognate affixes *gew-* and *-gew* also derive other words for females. The prefix *gew-* forms

the female of all types of animals, and the suffix *-jew* derives the word *ənpəjew* *old woman, granny* from the adjective stem *ənp-* *elderly* (note that there is no corresponding suffix deriving a word for man—the word for *old man, grandad* is formed from the stem *ənp-* by means of the high animate thematic suffix and the augmentative suffix, giving *ənp-ə-na-cy-ə-n* *elderly-E-AN-AUG-E-3sgABS*).

The suffix *-wji* forms personal names from verb and noun stems; e.g. *Rintuwji* < *rintu* *throw*, *Təmpəwje* < *təmpə-*^{VH} *get lost*, *ʔəttʔəwji* < *ʔəttʔə-* *dog*. These names are always the names of men. It is mostly interesting linguistically because it is perhaps the only non-grammatical morpheme which doesn't seem to have any synchronically recognised meaning. The form is possibly cognate with the Koryak plural suffix *-wwi*, but if it's cognate with a plural it's odd that it can go on verb stems. Local Chukchis have pointed out to me its similarity to the verb stem *wji-* *breathe*, but not with any conviction (§1.1.4).

8.7 Possession and relation

There are several morphological strategies for showing possession or origin within a noun phrase. Possessive and relational forms can be used as NP heads, or can be modifiers within an NP.

•The POSSESSIVE suffix *-in(e)-* derives a noun indicating something possessed by means of suffixation on the stem indicating possessor; e.g. *qor-ena-t qejuu-t* (reindeer-POSS-3plABS calf-3plABS) *calves belonging to the reindeer*. These forms generally occur in the absolutive case, but can be marked for other cases too. See §8.7.1.

•The RELATIONAL suffix *-kin(e)-* has the same morphosyntactic behaviour as the *-in(e)-* suffix, but indicates source, origin, or purpose rather than possessor; e.g. *qora-ken orwor* (reindeer-REL-3sgABS sled-3sgABS) *reindeer sled*; *telenjep-kin ʔorawetlʔan* *person from the olden days*. See §8.7.2.

•The nominaliser suffix *-lʔ-*. Identical in form to the participle suffix. This suffix can attach to a noun or adjective to form a noun indicating the possessor of that object or quality. This has been discussed above (§8.3).

•Possessors can be prefixed to their possessed to make a nominal with incorporated possessor. See the discussion of nominal incorporation, §9.4.

The *-in(e)-* and *-kin(e)-* forms usually derive words from other nominals, but can also derive nouns from verbs, for example:

031 ewat ya-tajo-tko-ggo-ta ʔan
then CONV-beat.snow-ITER-INCH-CONV DEICT
Jalyat-ken inage-t
nomadise-REL-3sgABS cargo.sled-3plABS

Then (they) begin beating off snow from the cargo sleds used in nomadising...
[ch25]

The noun *Jalyatken* in the above example is derived from the verb stem *Jalyat-* *to nomadise, migrate, move camp*.

In addition to the possessive nominalisations listed above, there is also a special circumfixed nominal form made up of the *ye-* prefix and a pronominal suffix. This form marks a possessed predicate only; it cannot function as an argument of a verb. It is described in §17.4.

8.7.1 Possessive suffix *-in(e)-*

The possessive form is not a case suffix¹. Nouns with the possessive marker can act as arguments of a verb in their own right and can be followed by other nominal derivational and case morphology. Usually however, they form part of noun phrases. The possessive suffix indicates solely that the stem is a possessor; all subsequent affixes for person or number indicate features of the possessed nominal.

The possessive suffix has the underlying form **-ine*, which precedes all case suffixes (as well as derivational suffixes fused with case suffixes, such as the diminutive and augmentatives), and which follows all purely derivational suffixes. In the absolutive singular this suffix is truncated, to form a fused possessive-absolutive suffix (morphological class Ic. deleted final vowel).

Example 032 shows a noun phrase with possessive forms *kelʔin* *of the spirits* and *wʔiremkin* *of the dead folk*.

032 ənkə jara-mk-ə-jg-ə-n kelʔ-in
there house-GROUP-E-AUG-E-3sgABS spirit-POSS.3sgABS
ənqen wʔi-remk-in
that.3sgABS dead-folk-POSS.3sgABS
There was a big group of spirit houses, belonging to the dead folk [cy410]

Recursive possessors do not occur very often. Example 033 is a rare example:

033 Jare-n uweqəc-in atlay-ə-n
Jare-POSS.3sgABS husband-POSS.3sgABS father-E-3sgABS
[He was] Jare's husband's father. [ot128]

PRONOMINAL POSSESSORS are produced regularly, by means of a pronominal stem and the possessive suffix:

034 amənan ye-wʔi-lin ənqen caləyet ʔən-in
only PERF-die-3sg that.3sgABS sister.3sgABS 2sg-POSS.3sgABS
Only one that died, that sister of yours. [ot017]

¹ Koptjevskaja-Tamm proposes an analysis of the Chukchi possessive and relational forms, suggesting that they represent a form of double case marking ('suffixaufnahme'; Koptjevskaja-Tamm 1995).

FIGURE 8.1. Possessed pronouns.

		<i>possessed:</i>	
		3sg	3pl
<i>possessor:</i>	1sg	yəmn-in	yəmn-ine-t
	1pl	mury-in	mury-ine-t
	2sg	yən-in	yən-ine-t
	2pl	tury-in	tury-ine-t
	3sg	ən-in	ən-ine-t
	3pl	əry-in/əcc-in	əry-ine-t/əcc-ine-t

Note the absence of the thematic suffix *-ke* which goes on the case-marked forms of the personal pronouns (§6.2, fig. 6.2).

When the possessed entity is not third person, a person-number suffix is added. The following examples have pronoun possessors, but noun possessors are also possible:

- 035 tury-ine-yəm qora-yənret-ə-lʔ-eyəm
2pl-POSS-1sgABS reindeer-herder-E-NMZR-1sg
I am your(PL) herdsman [na092:1]

- 036 yəmn-ine-turi tələ-tumy-ə-turi
1sg-POSS-2plABS travel-friend-E-2pl
You (PL) are my fellow travellers [na092:2]

The Telqep variety of Chukchi does not usually do number agreement with a possessed nominal when the possessed nominal is overtly present. Dialects which do, including the closely related dialect of the Onmälʔət (many of whom live in the village of Kanchalan) would require *-ine-t*. All dialects mark number of the possessed when the possessed nominal is not present in the nominal phrase. Compare example 037 (plural possessed, no number agreement), from a Telqep speaker, to example 038 (plural possessed, number agreement), which comes from a text by a woman in Kanchalan, about 50km to the north-west.

- 037 ənɾʔaq ənqen ʔeqe-njiw-in ekke-t=ʔm /
then that bad-uncle-POSS.3sgABS son-3plABS=EMPH
lejw-ə-lʔ-ə-t jet-ʔe-t ecyi
walk-E-NMZR-E-3plABS come-PF-3pl as soon as
ənqen ʔera-mɣəl-at-ə-ɣɣo-ʔa-t
that.3sgABS race-announce-E-INCH-PF-3pl
Then that bad uncle's sons came, they walked there, as soon as they heard about the race. [cy352]

- 038 meɭ-ɣelwəlʔ-ə-k n-ə-twa-jyəm n-iw-qinet layen ənqena-t
EVID-herd-E-LOC HAB-E-be-1sg HAB-say-3pl really this-3plABS
Tələlʔ-ə-n-ine-t ɣinqeɣ=ʔm ənɾʔam ɣække-qej
personal.name-E-TH-POSS-3plABS boy.3sgABS=EMPH and daughter-DIM.3sgABS
It seems I was in the herd [at the time]... they say, just these [children belonging to] Tələlʔən, the boy and the girl. [kr014]

Plurality of possessor noun is marked by the suffix *-ry-* prior to the possessive suffix. This suffix is probably etymologically the same as the *-rək* suffix used in high animate plural declensions (i.e. *-ry-*, *-rək* < **-rk*).

- 039 enmen ənqen Jare /
anyway this.3sgABS Jare.3sgABS
ənɸənacy-ə-qaj-ə-ry-en neekək
old.person-E-DIM-E-3pl-POSS.3sgABS daughter.3sgABS
Anyway, this was Jare, the old people's daughter. [ot007]

An interesting subset of possessive examples have 'dative' type meanings, as shown in examples 040-041:

- 040 ətləy-ə-n iw-nin / ʔateɣ! yəmn-in
father-E ABS say.3sgA.3sgO Dad.VOC! 1sg-POSS.3sgABS
poɣy-ə-qaj q-ə-tejk-ə-ʔ-ə-n
spear-E-DIM.3sgABS INT-E-make-E-TH-E-3sgO
He said to his father "Daddy! Make me a little spear" [ot021]

- 041 ənqen yən-in ənqen ənɸənacy-ə-qay-te
DEM.3sgABS 2sg-POSS.3sgABS DEM.3sgABS elderly.person-E-DIM-3plABS
telenjep-kine-t ʔamən anəl
long.ago-REL-3plABS INTJ INTJ
That would be some real old timers for you! Oh yes! [kr200]

8.7.2 Relational suffix *-kin(e)-*

The relational is a form morphosyntactically like the possessive. It derives a nominal which takes case marking, and which occurs in appositional nominal phrases. The relational form defines its head according to place of origin, time of origin, or purpose. It can derive nominals from other parts of speech, particularly verbs (indicating purpose) or adverbials (of place or time).

Deverbal relational form (<iwtəlet vi. descend>)

- 042 iwtəlet-kin ʔorawetlʔ-en rʔet
descend-REL.3sgABS person-POSS-3sgABS road.3sgABS
a road for people to descend by [nb039.1]

Deadverbial relational form (<iyət adv. today>).

- 043 ənɾʔam caj Təjulqut iyət-kin ɣotqen /
and DEICT personal.name.3sgABS now-REL.3sgABS that.3sgABS
Tʔejuntəyrew-ə-n ətləy-ə-n
personal.name-E-AN-POSS.3sgABS father-E-3sgABS
And there's that Təjulqut of today, Tʔejuntəyrew's father. [kr134]

Denominal relational form (<j²ily- n. moon), indicating place of origin:

- 044 ɲote-nqac ta-ɣ²e ewan ənpənacy-ə-n j²ily-ə-kin
 here-SIDE pass-PF INTS old.man-E-3sgABS moon-E-REL.3sgABS
orw-ə-taraŋ-rajwacə n-ə-yatya-tko-qen / iw-nin
 sled-E-build.house-leeward.side HAB-E-adze-USE-3sg say-3sgA.3sgO
okkojl mejl yekeŋ-ə-l²-ə-qej
 INTJ INTJ ride-E-PCPL-E-DIM.3sg

He came out of there, the old man from the moon it seemed, he was working in the leeward side of a house made out of sleds with an adze, he said to him "Hey! It's a rider!" [cy187]

Denominal relational form (<cawcəca- n. rich herder), denoting origin or source:

- 045 cawcəwa-ken ewət enaral²-ə-t ɲiŋcey-ti /
 rich.herder-REL.3sgABS so neighbour-E-3plABS child-3plABS
n-ə-twa-qə-ia-ə əmə
 HAB-E-be-3pl also

The rich herder-neighbours had children too. [o1004a]

Plural marking of the relational form is the same as that of the possessive; plurality of the possessed is usually only marked in Telqep Chukchi when the possessed nominal is plural but not present in the clause. Example 046 shows a sentence with a plural possessed noun; number is unmarked on the relational form:

- 046 n-iw-qinet ɲire-remk-ə-kin ɲlawəl-te "ok kakoj
 HAB-say-3pl race-folk-E-REL.3sgABS man-3plABS INTJ INTJ
Cəkwajaqaj ənmeç qəyite n-ine-winew-qin
 personal.name.3sgABS already look! HAB-AP-train-3sg

The men of the racers' encampment said "Oh boy, look at Cəkwajaqaj already training [it]". [cy146]

Example 047 has a plural marked relational form; no other head noun is present:

- 047 kaara-cəko-kena-t jan-nenat / Cəkwajaqaj-ə-na
 nursery.sled-INESS-REL-3plABS go.for-3A.3plO personal.name-E-ERG

Cəkwajaqaj went for those who were in the nursery sled. [cy290]

Pronouns can also make relational forms. The pronoun head is generally augmented by a thematic suffix -ke before the relational suffix; this thematic suffix occurs with case-marked personal pronouns (§6.2), but not with the possessive derivation (§8.7.1):

- 048 ər-ə-ke-kine-t awce-nwə-t
 3pl-E-TH-REL-3plABS pasture-PLACE-3plABS
their pastures

[na107:12]

- 049 lk-w²i / ɲew-ɲatt²-ə-qej-e lw-nin waj-ənqen jan
 say-TH woman-dog-E-DIM-ERG say-3sgA.3sgO DEICT-this.3sgABS DEICT
nəmənəni q-ə-j²o-ɣ-ə-n / ɲencilə q-ə-ɲewənjuçqik-wi /
 settlement.3sgABS INT-E-go.to-TH-E-3sgO thither INT-E.find.bride-TH
DEVUSHKA q-ə-piri-ɣ-ə-n ən-ke-kin
 girl INT-E-take-TH-E-3sg 3sg-TH-REL.3sgABS
She said, the dog said to him, "Visit that there settlement, go there to find a bride, take a girl from that (place)". [ke155]

However, relational pronouns with SAP heads have alternative forms with -ine instead of -ke (see also §8.7.1):

FIGURE 8.2. Relational pronouns.

	person/number of modified nominal	
	3sg	3pl
	1sg	3pl
pron. an head	ɲəm-n-ine-kin	ɲəm-n-ine-kinet
	ɲəm-ə-ke-kin	ɲəm-ə-ke-kinet
	1pl	
	mury-ine-kin	mury-ine-kinet
	mur-ə-ke-kin	mur-ə-ke-kinet
	2sg	
	ɲən-ine-kin	ɲən-ine-kinet
	ɲən-ə-ke-kin	ɲən-ə-ke-kinet
	2pl	
	tury-ine-kin	tury-ine-kinet
	tur-ə-ke-kin	tur-ə-ke-kinet
	3sg	
	ən-ke-kin	ən-ke-kinet
	3pl	
	ər-ə-ke-kin	ər-ə-ke-kinet

8.8 Spatial derivation

Chukchi nominal spatial relationships are indicated by spatial cases, spatial derivations, and spatial adverbs/postpositions. There does not seem to be a semantic motivation for the selection from these morphosyntactic strategies; rather, their position on the grammaticalisation cline seems to be a result of historical accident. The spatial derivation affixes are -tkən^{VH} TOP, -ɲqac SIDE, -ləŋ-/lɣ- SIDE, -curm EDGE. The absolutive case form of nominals with these derivations generally refers to the corresponding part of the matrix nominal, rather than a spatial location. The derivations -tkən and -ɲqac indicate the absolutive case without a further case marker; -ləŋ-/lɣ- and -curm- mark the absolutive singular with the suffix -n.

Stem:	Absolutive singular:
-tkən ^{VH}	orw-ə-tkən <i>top of a sled</i> (allative: orw-ə-tkən-etə)
-ɲqac(a-)	jara-ɲqac <i>side of a house</i> (allative: jara-ɲqaca-ɣtə)
-ləŋ-/lɣ-	ɣəɣ-ə-lɣ-ə-n <i>edge of a lake</i> (allative: ɣəɣ-ə-lɣ-etə)
-curm-	weem-curm-ə-n <i>side of a river</i> (allative: weem-curm-etə)

These derivations are frequently marked with locational case, most frequently locative or the basic directional cases (allative, ablative):

- 050 wətku əkə q-a-qame-twa-rkən ewər r-ʔenqew-a-rkən
 only there INT-E-eat-RESULT-PROG so FUT-not.want-E-PROG
 taŋ-ənan-ekw-a-cʔ-a-n lewt-a-ly-a-n q-a-ttet-a-rkən
 INTS-COMPAR-high-E-NMZR-E-3sgABS head-E-SING-E-3sgABS INT-E-climb-E-PROG
 əmə akawkeytə q-a-jajqet-a-rkən wək-w-a-tkən-a-k
 and uncomfortably INT-E-sleep-E-PROG stone-E-TOP-E-LOC

Only eat there, and once you don't want [any more], climb up onto the very highest peak and sleep there, even uncomfortably on top of the stones. [jo035]

Strategies for marking spatial relationships are discussed in §15—see in particular §15.3 'Spatial derivations'.

8.9 Speaker evaluation

Chukchi has one diminutive and two augmentative suffixes used with nominals. These suffixes also occur with words of other classes; e.g. adjectives (§16.3.2), similar forms also occur with verbs (§14.6.3).

8.9.1 Diminutive

The diminutive suffix *-qeɟ*^{VI} expresses the idea of smallness or fondness.

- 051 n-ine-temjun-qin ənqen ɲinqeɟ-qeɟ
 HAB-INV-lie.to-3sg DEM.3sgABS boy-DIM.3sgABS

She is lying to that boy.

[ot018]

The diminutive is sometime used as a derivational suffix. For example, the noun *aw-qay-te* ('grunt'-DIM-3plABS from [cy426]) is sometimes used to refer familiarly to reindeer. The morpheme *aw* is an interjection which is a conventionalised imitation of the grunting sound that a reindeer makes; thus *awqayte* means something like 'little grunters'.

8.9.2 Augmentatives

There are two nominal augmentative suffixes *-jɟ* and *-cy*. These both express the notion of bigness. Speakers report that *-jɟ* expresses fondness and *-cy* expresses disdain, but this is not borne out by the use of these suffixes in texts (see 055, which uses both with two instances of the same referent).

The *-cy* augmentative has the following allomorphic alternation:

$$\{AUG\} \rightarrow \begin{cases} -cəŋ- / VC_ \\ -cy- \text{ elsewhere} \end{cases}$$

This shows that its underlying form is **-cy*.

- 052 n-iw-qin / ɲewʔen teŋ-əŋiw-in / kəke wənel /
 HAB-say-3sg wife.3sgABS good-uncle-POSS.3sgABS INTJ INTJ
 ɲawacqat-cəŋ-a-nl
 woman-AUG-E-3sgABS

The good uncle's wife says, "Dear oh dear! What a woman!"

[cy333]

In context, the augmentative in the preceding example should be taken as a positive evaluation, as should the *-cy*-forms in 053 and 055.

- 053 ənqəŋə / laɣen=ʔm ɲan ɲalwəlʔ-a-cy-a-t n-a-mk-a-qinet=ʔm
 then really=EMPH DEICT herd-E-AUG-E-3plABS HAB-E-many-E-3pl=EMPH
 ɲan laɣen=ʔm taɟjaco ya-parol-lena-t towarne ɟutku /
 DEICT really=EMPH thousand POS-PRED-extra-3pl trade.herd here
 n-a-capoj-qen=ʔm
 HAB-E-slaughter-3sg=EMPH

Then like that great herd increased, a thousand and more here were slaughtered.

[he046]

The *-jɟ* augmentative doesn't have any allomorphic variation:

- 054 cʔacəŋ-a-ɲ-a-n
 cold-E-AUG-E-3sgABS
(During/there is) extreme cold.
 [ch17]
 055 ənʔa ɲalwəlʔ-a-ɲ-a-n=ʔm laɣen TRANSPORTA-ken [#]
 then herd-E-AUG-E-3sgABS=EMPH really transport-REL.3sgABS
 ɲaa-ɲalwəlʔ-a-cy-a-n / n-a-twa-qen=ʔm [...]
 reindeer-herd-E-AUG-E-3sgABS HAB-E-be-3sg=EMPH

Then there was a huge transport herd, a vast herd of reindeer.

[he063]

Like diminutives, augmentatives also intermittently act as nominalisers. The noun *wʔetkojɲan* *plague* is derived from an iterative-marked intransitive verb stem (*wʔi* *die* and *-tku* *ITER*); see example 023 in §14.4.5.

8.10 Quantitative derivations

Chukchi has three noun-specific collective suffixes and a number of quantitative prefixes which occur with nominals as well as with words of other classes.

8.10.1 Collective suffixes

There are three collective derivational suffixes. The suffix *-mk-* is the most common (see examples 056, 057, 059). It is unclear how this differs from the *-tku* collective suffix (example 058). The suffix *-yiniw* (example 057) derives a collective noun indicating a human group (tribe, nation etc.). Examples 057-059 include the stem *cawcaw(a-)* with each of the collective suffixes.

- 056 qeluw=ʔm n-a-mk-a-qin ye-lqut-lin ʔattʔ-mk-a-ɲ-a-n
 because=EMP ADJ-E-many-E-3sg PF-stand.up-3sg dog-COLL-E-AUG-E-3sgABS
 H

Because lots of dogs had stood up.

[ke252]

The *-mk-* suffix is clearly cognate with the adjective stem *mk* *many*.

- 057 ənkʔam ləyən gan cit taŋ-kolo gan nəmnam-a-mk-a-cy-a-n
 and really DEICT first INTS-INTD DEICT village-E-COLL-E-AUG-E-3sgABS
ləyən=ʔm ləyən cawcawa-yenew cit tey-n-a-mk-a-qinet /
 really=EMPH really reindeer.herder-COLL first INTS-ADJ-E-many-3pl
n-a-twa-qenat
 HAB-E-be-3pl

And well at first there were lots and lots of settlements, there lived a huge number of reindeer people. [he009]

- 058 ənqorə gan tʔe-ce yiwi-kine-k=ʔm / gəra-ca
 then DEICT some-ADV year-REL-LOC=EMPH four-ADV
yiwi-kine-k / emelke ləyən=ʔm cawcawa-tko-n
 year-REL-LOC probably really=EMPH reindeer.herder-COLL-3sgABS
yənu-lʔ-a-n itək-ewən n-a-mk-a-qin ye-yūu-lin=ʔm
 remain-PCPL-E-3sgABS so-INTS ADJ-E-many-3sg PF-remain-3sg=EMPH

Then after several years, four years or so, the reindeer folk remaining, quite a few remained. [he015]

The -tku collective suffix is formally identical to the iterative/antipassive-iterative suffix (§14.4.5).

- 059 aləmə cawcawa-mk-a-n
 apparently rich.herder-COLL-E-3sgABS

Apparently they were a rich herder family [cy017]

8.10.2 Intensifier prefixes

The intensifier prefixes *lyi-* and *teŋ-*^{VH} occur with words of most word classes (e.g. verbs §14.5.2, adjectives §16.3.3). They are most common with nominals derived from other word classes, or with pronouns. They very rarely occur with underived nouns.

- 060 ecyi cakett-a ətrec / taŋ-əməlʔə maj-a-tkən-ətə
 no.sooner sister-ERG finish EMPH-all.3ABS store.place-E-TOP-ALL

As soon as the sister had carried off absolutely everything onto the store place... [jo106]

The intensifier prefixes often occur together:

- 061 [...] qənur qora-t cama ləyi-teŋ-tekicy-a-lʔ-a-qey-ti
 like reindeer-3plABS and INTS-INTS-meat-E-NMZR-E-DIM-3plABS
... like reindeer they've got very good meat [kr158]

- 062 ənqorə / gotqen Roclow-a-na ləye-taŋ-əməlʔə
 then DEM.3sgABS personal.name-E-ERG INTS-EMPH-all.3sgABS
qənut ŋelwəlʔ-a-kin ʔorawetlʔa-n / [...]
 like herd-E-REL.3sgABS person-3sgABS

Then that Roslov resettled absolutely all the herding people... [hr055]

The prefix *lyi-* also derives nouns from nouns with the meaning 'authentic', 'real', 'proper'; see §8.11.

8.10.3 Approximative and restrictive prefixes

The restrictive prefix *em-*^{VH} occurs most frequently with nouns and adverbs. The approximative prefix *mel-*^{VH} occurs with nouns and adjectives (see also §16.3.3), and the related form *mec-*^{VH} occurs with nouns, verbs, and adverbs.

- 063 Enməlʔ-a-lʔ-a-n VSJO VREMJA BOITSJA
 cliff-E-NMZR-E-3sgABS all time fighting
əcci Ciwt-a-qeme-lʔ-a-n əcci Enməlʔ-a-lʔ-a-n /
 3plABS low-E-pot-NMZR-E-3sgABS 3plABS cliff-E-NMZR-E-3sgABS
ʔetki-jg-a-t am-macaw-a-lʔ-a-t
 bad-AUG-E-3pl REST-fight-E-PCPL-E-3plABS

The "Cliff folk" are always afraid of them, the "Low Pots", those Cliff folk.

They're really bad, always fighting. [kr042]

- 064 [...] / ənʔaq mel-ŋelwəl qawratkat-ʔeʔ
 then APPR-herd.3sgABS rustle-TH

... that sounds like it might be the herd [ke192]

See example 011 for an example of the rarer *mec-* from of the approximative prefix: *mec-mejget-a-lʔ-a-t* (APFR-become.big-E-PCPL-E-3plABS) *the ones who had become rather big*. The *l-c* alternation is common in derivation.

Several prefixes can occur together (this is also a rare example of these derivations on an underived noun):

- 065 ləyən=ʔm luŋ-keli-tku-te t-it-ʔe-k teŋ-em-ŋelwəlʔ-a-k /
 really=EMPH NEG-write-ITER-Vbase 1sg-be-TH-1sg EMPH-REST-herd-E-LOC
t-a-miyciret-ʔe-k
 1sg-E-work-TH-1sg

But I didn't go to school, I was only at the herd, I worked. [he004]

The *em-* restrictive prefix combines with instrumental case personal pronouns to form adverb meaning *alone*; *am-ənan* *alone*, *by him/herself*, *am-əryənan/am-əccən* *by themselves*, *am-əmnən* *by myself*, *am-ənan* *by yourself* etc. The form *amənan* can be used in place of any of the person/number specific forms (§7.6.3).

8.11 Miscellaneous lexical affixes

The prefix *lyi-* (see §8.10.2) has a special meaning with certain nouns, deriving a noun denoting the authentic, usual or traditional kind of the entity referred to. The obvious example is *ləy-ʔorawetlʔa-n* (AUTH-person-3sgABS), which is the native Chukchi ethnonym used for self reference. There are quite a few similar terms; *ləy-oonʔ-a-t* *berry species* (considered specific to Chukotka; Russian *shiksha*), *ləy-ewir-a-t* *traditional Chukchi clothing*, *ləy-ittʔəqej* (<*lyi-ʔəttʔəqej) *Chukchi sled dog*. The form seems to be productive and there are examples of it used in spontaneous compounds; e.g. the word *ləy-ʔorawetlʔa-taŋ-a-t* AUTH-person-stranger-E-3plABS (from [ot019]) is used to specify *Koryaks* when the

interpretation of the usual term *tang-a-t* (which can be used to mean *stranger*, *enemy* and *foreigner* as well as *Koryak*) is contextually unclear.

The suffix *tʔul* forms derivations from nouns with the meaning 'piece of [noun]'. This is particularly common for deriving names of animal-origin foodstuffs, e.g. *qora-tʔol* *reindeer meat* (<*qora*- *reindeer*), *wopqa-tʔol* *moose meat* (<*wopqa*-*moose*), etc. The suffix is also used productively, as shown in the textual example below:

066 *utt-a-tʔul-qej-e*
stick-E-PART-DIM-INST
With the little bit of stick.

[ot080]

9

Complex nominals

Noun phrases, incorporation, compounding, conjunction

9.1 Introduction

Chukchi noun phrases (NPs) are restricted, with one possible exception (see below and §9.3), to appearing in the absolutive case. In non-absolutive cases modifiers are incorporated by their heads to form a single word. Thus, free modifiers of nominals only occur in the absolutive case. Nevertheless, even in the absolutive modifiers are often incorporated; incorporation in the absolutive is governed by pragmatic factors. Section §9.2 surveys the structural features of NPs. In §9.3 there is a discussion of the syntactic status of series of coreferent ergative case nominals in order to demonstrate that these are not syntactic phrases. The pragmatic motivation for the selection of incorporation versus phrasal modification is discussed in §9.4, along with a description of incorporation of modifiers by non-absolutive case heads. However, only discourse prominent nominals are likely to be modified, and the absolutive case is the case used for discourse prominent functions such as introducing new participants into the discourse, so in general modification by incorporation is rare in comparison to phrasal modification. Section §9.5 contains a description of conjunction in NPs. NP conjunction allows a number of non-coreferent nominals to inhabit the same syntactic slot, i.e. it allows several different referents to act as a single argument, as in the example below:

001 *ya-jalyat-lenat* *anp-a-gew-qey-ti* *anpanacy-a-qay-te* *ama*
PF-nomadise-3plS old-E-woman-DIM-3plABS old.man-E-DIM-3plABS too
ninqej-qej
boy-DIM.3sgABS

The old women, the old men and the little boy continued nomadising. [ot008]

Word order of absolutive noun phrases is structured so that more lexical elements are situated closer to the head than more grammatical elements (§9.2). Occasionally the noun phrase may even be interrupted by other syntactic elements (§19.3.2). The possibility of ergative case noun phrases is discussed in §9.3.

Occasionally speakers produce a series of coreferent nominals without any syntactic interdependencies. This is not conjunction, since the nominals are

coreferent, and is not a syntactic phrase, since any of the nominals taken in isolation could act as the head of a clause and none of them are dependent on any of the others. There can be difficulties distinguishing noun phrases formed in this way from absolutive case zero-copula clauses (§17.2.4). The following example shows an NP with two non-modifier noun heads (*ʔorawetʔat* *ənpənacʔat* *the people, the old people*) and a quantifier pronoun (*qutti* *some*) which could be either a modifier within an NP, or it could be another independent nominal:

- 002 *gan=ʔm* *ya-rʔela-ʔt-ə-ʔenat* *qut-ti* /
 DEICT=EMPH PF-race-go-E-3pl some-3plABS
ʔorawetʔa-t *ənpənacʔa-t*
 person-3plABS old.man-E-3plABS
Well, some people went to a race, old people. [ke001]

There are a few instances of ergative case nouns occurring in coreferent series which seem to inhabit the same syntactic slot; none of the elements can be shown to be heads or dependents of any of the others, so the criteria for phrasehood are inconclusive, e.g.:

- 003 *gewəcʔet* *y-ʔuʔet-lin* / *ənraq=ʔm* *ʔeqe-lʔ-e*
 girl.3sgABS PF-collect.firewood-3sg then=EMPH bad-NMZR-ERG
req-e *ye-piri-lin* *tanq-e* *qənut*
 something-ERG PF-take-3sg stranger-ERG like
waj-əŋqen-a-t *Wareŋ-ə-lʔ-a-t*
 DEICT-DEM-3plABS place.name-E-NMʔ-E-3plABS
The girl was going for firewood, and there she was kidnapped ('taken') by someone, evil-doers, by strangers/enemies/Koryaks, like those who live in Vaegi. [ot005]

The possibility of ergative case NPs is discussed in §9.3.

9.2 Noun phrases

A basic NP consists of a syntactic head and a number of dependents. Each part of a head and modifier NP refers to the same entity. The dependents of an NP head can be preposed (as in example 004), postposed (example 005), or both (examples 008, 009).

- 004 *ənka* *wajan-nenat* *ənqen* *ɣaw-ə-n-rayt-at-kena-t*
 there untie-3sgA.3plO DEM.3sgABS woman-E-CS-house-go.to-TH-REL-3plABS
qora-t *n-ə-wilulyet-qinet*
 reindeer-3plABS HAB-E-hang.earrings-3pl
There he untied them, the marriage reindeers, they hung earrings on them. [ke259]
- 005 *ujge* *kemlilu-n* *newəcʔet-inʔ*
 NEG.EXI kamlejka-3sgABS women-POSS.3sgABS
Doesn't the woman have a kamlejka? [ke215]

The heads of nouns phrases are usually nouns (or participles, which in Chukchi are a kind of noun). The modifier/s in the noun phrase can be

• **FREE PRONOUNS (§9.2.1).** Demonstrative, quantifier and indefinite/interrogative pronouns can be modifiers in NPs. Personal pronouns cannot, which probably follows from the special discourse conditions which obtain for their use (§7.2). Personal pronouns do occur in phrasal nominal constructions with cop function, but in these instances the personal pronoun is the head (determining agreement) and the noun is the modifier (§9.5.1)

• **NOUNS, including:**

- **PARTICIPLES (§9.2.2).**
- **POSSESSIVE & RELATIONAL DERIVATIONS OF NOUNS (§9.2.2).**
- **OBLIQUE CASE NOUNS (§9.2.3)**

• **ADJECTIVES (§9.2.4).**

• **NUMERALS (§9.2.5).**

Nominal modifiers within NPs can show number agreement throughout the NP. However, pronominal and possessive modifiers of a plural head frequently don't show agreement with plural. There doesn't seem to be any semantic conditioning, such as animacy or individuation. In example 006 the demonstrative and possessive modifiers don't agree in number with the noun head, while the participle *lejwəʔat* *who were walking* does.

- 006 *ənʔaq* *ənqen* *ʔeqe-njiw-lin* *ekke-t=ʔm* /
 and DEM.3sgABS bad.uncle-POSS.3sgABS son-3plABS=EMPH
lejw-ə-lʔ-a-t *jet-ʔʔe-t* *ecyi* *ənqen*
 walk-E-PCPL-E-3pl come-TH-3pl no.sooner DEM.3sgABS
ʔera-mɣəl-at-ə-ŋgo-ʔʔa-t
 race-bring.news-TH-E-INCH-TH-3pl
Then those sons of the bad uncle came, they walked there, as soon as they heard about the race. [cy352]

Pronominal and possessive/relational modifiers do however always agree with the number of the underlying head when the head nominal is ellipsed from the NP, e.g.

- 007 *layi-telenjep-kinet* *arʔala* *l-ɣə* [...] /
 INTS-long.ago-REL.3plABS quite now
[They're] from really quite a long time ago ... [kr122]

Many of the examples of nominal phrases in this chapter actually show combinations of different nominal elements. Example 008 shows a demonstrative and a possessive modifier with a single noun:

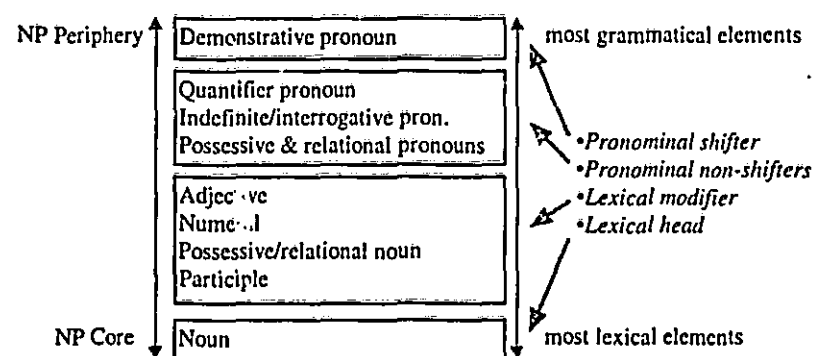
- 008 *iyat-qej* *waj* *ləyen* *mən-jalyən-mək* *mən-rayt-ə-mək* /
 now-DIM DEICT really 1pl.INT-move.camp-1pl 1pl.INT-go.home-E-1pl
notqen *kaara-n* *ture-in*
 DEM.3sgABS nursery.sled-3sgABS 2pl-POSS.3sgABS
mən-jaa-ʔʔa-n=ʔm / [...] /
 1pl.INT-use-TH-3sg=EMPH
We'll move camp right away, we'll go home. You use your nursery sled there. [cy413]

Constituents of a nominal phrase are ordered such that the most grammatical nominals are furthest from the head and the most lexical are closest. There is however no preferred left-to-right ordering; demonstratives are always at one extreme or another of a NP, with other pronominals next furthest out, and adjectives, numerals and modifier nominals situated closest to the head. Thus, the linear ordering within the NP is related to a grammaticality cline whereby the most grammatical elements are furthest from and least grammatical (most lexical) elements are closest to the lexical head. This is illustrated schematically in figure 9.1 (to avoid giving preference to left→right or right→left word order, the diagram is drawn with the NP core at the bottom and the periphery at the top). The rationale for demonstratives being considered more grammatical than other pronouns is that the selection of a demonstrative does not rely on any intrinsic properties of its referent, unlike the selection of other pronouns which, for a given referent, are not shifters. Any particular referent is intrinsically singular or plural, intrinsically animate or inanimate, etc. The selection of quantifier pronoun is determined by the number of the referent and selection of the indefinite/interrogative pronoun by its animacy. Possessive/relational pronouns are unique identifiers according to other semantic parameters (§8.7) such as possessor, source, material, use, which are also not shifters in the sense used here.

FIGURE 9.1 Relationship between word order and grammaticality in an NP.

Linear order within NP

Grammaticality cline



An NP can combine elements spreading both leftwards and rightwards. Example 009 shows a relational nominal preceding the noun and a possessive pronoun and demonstrative pronoun following it.

009 [...] tite-kin pəcwetyaw mury-in ənqen [...]
 then-REL.3sgABS conversation 1pl-POSS.3sgABS DEM.3sgABS
 ... that previous conversation of ours ... [ka34]

The preferred order within these types is unclear, as noun phrases don't normally occur with more than one non-shifter pronoun and one lexical modifier.

9.2.1 Free pronoun modifiers

Free pronoun modifiers in NPs can be demonstratives (example 010), quantifiers (011) or indefinite/interrogatives (012).

DEMONSTRATIVE

010 qənwet ko:l:o anə ɲiŋqej ənqen
 finally INTJ so boy.3sgABS DEM.3sgABS
 lejw-a-lʔet-a-rkən taŋ-qonpə layen
 walk-E-DUR-E-PROG INTS-always really

Finally, ooh! but that boy is always wandering.

[ot026]

QUANTIFIER

011 ənpənaɣ-a-qaj qətləyi qol jara-k n-a-twa-qen
 old.man-E-DIM.3sgABS however QUANT.3sgABS house-LOC HAB-E-be-3sg

There was one old man in the house however.

[ot127]

INDEFINITE/INTERROGATIVE:

012 ee rʔenute-t ejwel-qej-ti nute-k n-ena-pela-tore:e?
 INTJ what-3plABS orphan-DIM-3plABS land-LOC HAB-TR-leave-2pl

Oh, what orphans have you left in the tundra?

[jo084]

Free personal pronouns do not act as modifiers in noun phrases; person marking of nouns is carried out by pronominal suffixes (§6.2).

9.2.2 Participle and possessive/relational modifiers

Absolute noun modifiers in NPs include participles (013), and derivations of nouns and pronouns with the possessive and relational forms (014-018).

Participles with oblique dependents can form participle phrases within the NP:

013 teŋ-əŋjiw jʔo-nen ɲelwəlʔ-a-k wa-lʔ-a-n iw-nin
 INTS-uncle.3sgABS go.to-3sgA.3sgO herd-E-LOC be-PCPL-E-3sgABS say-3sgA.3sgO
 əŋjiw-e / ʔeej kakomej Cəkwəŋaqaj cik-inʔ-e
 uncle-ERG INTJ INTJ personal.name.3sgABS INTS-early-ADV

He reached the good uncle who was at the herd, the uncle said "Oho! Cəkwəŋaqaj's early"

[cy041]

In the above example, the locative nominal ɲelwəlʔək *at the herd* is a complement of the copula wa-lʔ-twa- *be (located)*.

Example 014 has three coreferent NPs, each consisting of a possessive nominal modifier and a noun head (NP elements are underlined, and each NP is bracketed). In this example the NPs are interrupted by other sentence elements. Here it seems to be a rhetorical device used to contrast the preposed elements in each NP with each other, rather than the noun heads.

- 014 [elwe-lʔ-ine-t qejwe ʃəl-ə-k qejuu-t] [ən-in
 other-NMZR-POSS-3plABS always give-E-INF calf-3plABS 3sg-POSS-3sgABS
ye-wʔi-lin qejuu] [elwe-lʔ-in ʃəl-ə-k qejuu]
 PF-die-3sg calf-3sgABS other-NMZR-POSS-3sgABS give-E-INF calf-3sgABS
 ləyən ewər qərəm
 really su NEG.FUT
*If you give another's calves [to a reindeer], her [own] calf died, you give the
 other's calf — straightaway no! [she rejects it]* [an017]

Examples 015 and 016 show relational modifiers formed from a noun (gelwəlʔəkin *having to do with herds* < gelwəl *herd*) and a temporal adverb (titekinet *having to do with that time* < tite *then*) respectively:

- 015 [...] ləye-taŋ-əməlʔo qənut gelwəlʔ-ə-kin ʔorawetlʔa-n / [...]
 INTS-INTS-all-3sgABS like herd-E-REL-3sgABS person-3sgABS
... like absolutely all the herding people ... [he055]
- 016 tite-kine-t rʔela-yt-ə-lʔ-ə-t /
 then-SRC-3plABS race-go.io-E-PCPL-E-3plABS
rʔela-mŋəl-at-ə-lʔ-ə-t mən-ʔejgew-ə-net
 race-tell.news-TH-E-PCPL-E-3plABS 1pl.INT-call-E-3pl
We'll call the racers from the other time, the ones who belong to other race.
 [cy348]

The following example are show the possessive derivations of personal pronouns.

- 017 taŋ-ə-t n-iw-qinet *ok anə ʔan yəm-n-in
 stranger-E-3plABS HAB-say-3pl INTJ so DEICT 1sg-POSS-3sgD
plak-ə-ly-ə-n pərəntet-ʔʔi
 shoe-E-SING-E-ABS rip-TH
The strangers say "Oh, it seems my shoe's ripped" [ot075]
- 018 naqam ən-ine-t ʔərʔo ʔinqey-ti ʔeqe-njiw-in
 but 3sg-POSS-3plABS three boy-3plABS bad-uncle-POSS-3sgABS
ənqen qonpə jara-k wa-lʔ-ə-t /
 DEM-3sgABS always house-LOC be-PCPL-E-3plABS
joro-cəko ləyən
 sleeping.chamber-INESS really
*And those three sons of the bad uncle were always at home, right inside the
 sleeping chamber.* [cy019]

9.2.3 Oblique noun modifiers

The comitative and associative cases function as modifiers, but it is unclear whether they modify NPs or only entire predicates/clauses, as there are no formal criteria which could be used to show that they are nominal modifiers. They frequently occur in sentences without overt nominal subjects in the absolutive. In sentences with overt nouns the associative is much more common than the comitative.

- 019 ʔaqa-tayjan-janwe-n=ʔm cəmqək ləyən ya-ŋəl-wəlʔ-ə-ma
 IMPOSS-desire-GROUP-3sgABS=EMPH furthermore.ADV really ASS-herd-E-ASS
n-ə-piri-qinet / ʔorawetlʔa-t //
 HAB-E-take-3pl people-3pl
qeluq=ʔm n-ʔeqe-teyjeg-qinet //
 because=EMPH HAB-IMPOSS-desire-3pl
*But the other people who didn't want to, they were taken with their herds,
 because they didn't want [to join the Sovxoz].* [he021-022]

9.2.4 Modifier adjectives

Adjectives can occur as modifiers within an absolutive noun phrase.

- 020 əŋge ik-we "camʔam" wajənre jʔely-eta q-ə-lqət-yi
 NEG.HORT say-NEG unable.MOD yonder moon-ALL INT-E.set.off-TH
ŋenku nəlyi-n-ə-ten-qinet nəwəcget-ti wa-rkat
 there INTS-ADJ-E.good-3pl woman-3plABS be-PROG-3pl
*Don't say "I can't"; you set off yonder to the moon, there are really good women
 there.* [cy165]

When an adjective occurs with a non-absolutive nominal it is regularly incorporated.

There are rare instances in which an adjective is used as a nominal, i.e. substantively (see §16.3). Such substantive adjectives are never case marked, and can only function as absolutive. There are no examples of adjective NP heads with modifiers, which suggests that this might better be considered ellipsis.

9.2.5 Modifier numerals

Numerals are not nominals and do not themselves take case markings, but they do occur as modifiers of nominals. Nominals are only modified by free numerals in the absolutive case; otherwise the numerals are incorporated. Compare 021-022, which show numeral modifiers in absolutive noun phrases, with 023, which shows an incorporated numeral modifier of an instrumental case noun:

- 021 ewat ənneŋ ənneŋ re-piri-rkən=ʔm ratan
 so one fish-3sgABS FUT-take-PROG=EMPH enough
It's enough if you catch one fish. [jo069]
- 022 jily-ə-n tʔer ʔala-ʔe=ʔm / [...]
 month-E-ABS so.many pass-TH=EMPH
A number of months passed ... [ka07]

Note that the word tʔer *how many?*, *a number of* in the preceding example is also a numeral (see §16.8.2).

- 023 *anə janot ləyən n-ə-pojyəlʔat-ə-lʔat-qenat / naqam*
 so first really HAB-y.spear.duel-E-DUR-3pl but
ən-in ənnan-məny-a qeluq=ʔm
 3sg-POSS.3sgABS one-hand-INST because=EMPH
n-ə-ppəlu-qine-qej pojy-ə-qaj
 ADJ-E-small-3-DIM.3sgABS spear-E-DIM.3sgABS

Well first they simply fought with spears, however [he used] his with one hand, because of his little tiny spear. [ot108]

In isolated instances a numeral can act as an argument of a verb, although it is not clear that such numerals are really NP heads as to say that they would be to hypothesise a subclass of nominals which could not mark case (compare the 'argument-like' adverbs discussed in §7.6). Example 024 shows a numeral which is an argument of the verb (note number agreement), but which also strongly implies an ellipsed nominal head *ləmgəlte stories* (understood from context):

- 024 *ii ətrʔec-teyən nəroq=ʔm waj t-ə-tw-ə-nat /*
 yes all-limit three=EMPH DEICT 1sgA-E-E-3plO
ujge ətrʔec
 NEG.EXI all
Yes, that's the end, I've told three [stories], no more, that's all. [ka29]

9.3 Ergative nominal phrases

Texts contain rare instances of series of coreferent ergative nouns; this is illustrated in example 025, which has several arguments in the ergative case representing the same set of people:

- 025 *ləyən ewət n-əna-n-raq-aw-ə-myo-qen pojy-ott-a*
 really so HAB-TR-CAUS-do.something-TH-E-INCH-3sg spear-wood-INST
n-ine-n-req-ew-qin ʔeqe-lʔ-e / req-e tanq-a
 HAB-TR-CAUS-do.something-TH-3sg bad-NMZR-ERG something-ERG stranger-ERG
[nine] n-əna-ponqe-qen pojy-ott-ə-ot
 HAB-TR-block-3sg spear-wood-E-REDUP.3sgABS
n-ə-mle-qin pojy-ə-n
 HAB-E-break-3sg spear-E-ABS

But whenever he started to do anything to him with the spear, the enemy was doing anything, the stranger whatever, he blocked the spearshaft, the spear broke. [ot109]

The ergative case arguments are all in the same syntactic relationship to the verb. However, unlike absolutive case NPs they do not have any demonstrable syntactic relationship to each other (for example, they can't be shown to be heads and modifiers). The pauses and false starts in 025 suggest that the speaker here is searching for the correct words, which in turn suggests that this series of ergative case nouns is simply an instance of repetition of different terms for a referent while the speaker is gathering her thoughts.

Example 026 shows a highly unusual example of an ergative demonstrative and an ergative noun which do seem to be in a modifier-head relationship:

- 026 *anqena-cək remk-e ye-piri-lin / uget-lʔ-ə-n*
 DEM-AN.ERG.3pl folk-ERG PF-take-3sg collect.wood-NMZR-E-ABS.3sgABS
ya-n-rayt-at-len
 PF-CAUS-go.home-TH-3sg

Those folk [for those ones, the folk] kidnapped the firewood-collector and took her home. [ot006]

The lack of number agreement between the two words is probably not significant; the selection of high animate plural inflection for demonstrative referring to a person is normal, but the noun *remk- folk* cannot be marked for number outside the absolutive (§6.2).

The question as to whether ergative NPs exist must be considered unresolved, but if ergative nominals do form syntactic phrases then these phrases differ markedly from absolutive case noun phrases.

9.4 Nominal incorporation

The syntactic distribution of the noun phrase in Chukchi is limited to contexts where it occurs in the absolutive case (§9.2). To get a semantically complex nominal argument in a non-absolutive context it is either (i) introduced by a noun phrase in the absolutive case and then referred to by a pronoun or single word, or (ii) made into a single word by syntactic incorporation. Absolutive nominals can also incorporate their modifiers; the motivation for selecting a modifier phrase or incorporation of the modifier is determined pragmatically.

The following two examples illustrate the pragmatic difference between phrasal modification (027) and incorporation (028):

- 027 *əmə panqen kətep-en nely-ə-t jel*
 and DEM.3sgABS wolverine-POSS.3ABS hide-E-3plABS INTJ
tey-n-ə-məku-qinet əngatal
 INTS-ADJ-E-light-3pl you.see
And that wolverine skin, oh!, [it] is so very light. [ah5.35]

- 028 *ləyən kajaw-ə-myo-γʔa-t ətlʔa-t raytə-γʔe /*
 really wake.up-E-INCH-TH-3pl parent-3plABS go.home-TH
ʔiy-ə-nely-ə-n jən-nen wenw-atʔat-γʔe
 wolf-E-hide-E-3sgABS take.off-3sgA.3sgO secretly-go.to.bed-TH
When the parents were starting to wake up he went home, took off the wolf skin, secretly went to bed. [ot057]

Example 027 is from a story about wolverine skins, and the NP with all its modifiers is centrally important to the discourse (i.e. it is FOCUSED; see §19.1.1). In contrast, in 028 the noun *ʔiyənelyən the wolf skin* is a background detail to a story about a person; the fact that the skin comes from a wolf is important to specify since otherwise it might be understood that the protagonist took off his own skin. The subsequent discourse is not concerned with the skin.

In example 029 the modifier is also incorporated. As in 028 the focus of the story is the activities of the boy and the wolf skin is a peripheral detail. However there is a stronger motivation for incorporation here: since the noun is in the inessive case, incorporation of the modifier is structurally obligatory.

029 ra-yt-a-y?a-t / ?att?ajol pəkir-y?i qeluq=?m
house-go.to-E-TH-3pl first.ADV arrive-TH because=EMPH
?iy-a-nely-a-cəku n-a-twa-qen
wolf-E-skin-E-INESS HAB-E-be-3sg

They went home. He arrived first because he was inside the wolf skin. [ot141]

Incorporations involving three or more lexical stems are unusual, and are sometimes considered to be funny (see also §12.5.1). When a French nurse from the organisation *Médecins du Monde* arrived in Anadyr' the brother-in-law of one of my consultants remarked that this was *another kawrajelyəməlyətanəŋ*¹ 'twisted-tongue match stranger', i.e. a European outsider who speaks a language other than Russian. This term was spontaneously formed and people were very amused by it, passing it back and forth around the village for several days.

9.4.1 Adjective, pronoun and numeral modifiers

Apart from attributive adjectives, Chukchi can also incorporate other NP elements such as demonstratives and pronominal possessors. These seem like syntactic phenomena, which is a typologically very unexpected².

Any nominal with modifiers which is to act as a non-absolutive argument must use incorporation. Example 030 shows an adjective modifying a noun in the comitative case (see also examples 036-037 below, which show incorporated possessors).

030 [...] ya-ppəlo-ra-ta n?el-y?i remk-a-n taŋ-əməl?-etə=?m
COM-little-house-COM become-TH folk-E-ABS.3sgABS INTS-all-ADV=EMPH
... the people in their entirety came to be in little houses. [he055]

Adjectives in attributive function are almost always incorporated. Compare 031-032 (adjectives in attributive function) with 033-034 (adjectives in predicative

¹ This compound *kawra-jely-a-mely-a-taŋ-a-n* is glossed twist-tongue-E-fire-E-stranger-E-ABS.

² As Spencer observes,

[...] Chukchi nouns regularly incorporate their modifiers, which could only be analysed as an illicit kind of lowering given normal assumptions about the structure of nominal phrases. [Spencer 1995:475]

Illicit or not, the behaviour of incorporating nominals seems to follow naturally from the privileged status of the absolutive case. Absolutive nominals have high discourse salience, with the concomitant assumption of greater specificity, etc. The tendency for verbs to incorporate low discourse salience Os (§12.2) is part of the same general phenomenon that non-specific, non-differentiated elements are referred to using a single word.

function). Example 030 shows a non-absolutive adjective-noun complex. In non-absolutive functions adjective+noun pairs always involve incorporation of the adjective.

031 n-a-lyi-ypi-l?et-qin ənqen j?a-naly-a-jn-a-n
HAB-E-INTS-co.house/work-DUR-3sg DEM raw-hide-E-AUG-E-ABS
That [magical] raw hide worked hard around the house. [cy265]

032 majn-a-maraw n-a-le-qin
big-E-fight.3sgABS HAB-E-go-3sgS
The [Second World] war was going on. [he024]

The following examples show free adjectives in predicative functions:

033 mecic?u n-a-clit-qin uwi-kuk / n-ena-yto-qen
sometimes ADJ-E-warm-3sgS cook-pot.3sgABS HAB-TR-pull.out-3sgS
Sometimes even the pot was still warm when he got it out. [jo021]

034 pojy-ott-a-ly-a-qaj ləyen n-a-ciwm-a-qine-qej
spear-wood-E-END-E-DIM.3sgABS really ADJ-E-short-E-3sg-DIM
The spearshaft was really short. [ot037]

Note that in examples 031 and 032 the incorporated adjectival modifiers make up entities which are similar to lexical compounds according to the nameworthiness test. It is impossible to (for instance) put emphatic stress on an incorporated adjective (unlike English: "It was a *green* car, not a red one").

Other elements of a notional noun phrase can also be incorporated. In the following example a quantifier *qun-* one is incorporated in the word *qonqoral?eyət* you have one reindeer (or perhaps better: you with one reindeer).

035 gewəcəqet-e n-iw-a-n "okkoj! waj meŋine-qej waj
woman-ERG INV-say-E-3O INTJ DEICT who-DIM.3sgABS DEICT
q-a-caj-o-rkən kəke wəne-qaj qon-qora-l?-eyət
INT-E-tea-COMSUME-PROG INTJ INTJ-DIM one-reindeer-NMZR-2sg.ABS
meŋqo?"
whence
The women said to him: Who's this? Drink some tea! Well well, you've got one reindeer... Where have you come from? [cy104]

The fact the man has one reindeer is noteworthy as a normal Chukchi reindeer sled is drawn by two. In this example the incorporation *one + reindeer* makes an *ad hoc* nickname, which in Chukchi would never be expressed by two words (all names are unitary; see §1.1.4).

In the following two examples personal pronouns are incorporated. In example 036 a first person singular pronoun is incorporated the noun *nute-* land, and the resultant stem occurs in the relational derivation to show place of origin³.

³ Note that possessive and relational forms cannot be combined recursively; *gymn-in nute-kin jokwa-qaj* (1sg-POSS.3sgABS land-REL.3sgABS duck-DIM.3sgABS) would

- 036 e waj ɣənəy-ɬute-kin jokwa-qaj etaana
 INTJ DEICT 1sg-land-REL.3sgABS eider.duck-DIM.3sgABS probably
Oh, it's probably a little eider duck from my [home]land. [ot132]

Example 037 shows another instance of a semantically complex non-absolutive element formed by incorporation rather than by phrasal syntactic means.

- 037 wəne wanewan wanewan n-ə-ponge-ʔa-n
 INTJ NEG.NFUT NEG.NFUT INT-E-take.short.cut-TH.3sgS
 ənəy-rʔet-jekwe ləyen mət-kawra-mək ɣan neməqeɟ ɣan
 3sg-road-PERL really 1pl-go.in.circle-1pl DEICT also DEICT
Oh no, he didn't turn around halfway; we too did the circle following his tracks. [cy149]

An example of an incorporated numeral is ənnan-məny-a *with one hand* one-hand-INST (example 023).

9.4.2 Noun modifiers

Nouns can be incorporated as modifiers, further identifying what kind of thing the head noun is. Often they express material (see 038) or place of origin (see 039).

- 038 ənɾʔaq ʔiy-nely-ə-n ɣən. ʔe:n / ɣanqen ɣan ekwet-ɣʔi
 then wolf-hide-E-3sgABS don-3sgA.3sgO yonder DEICT set.off-TH
Now he put on the wolf hide, went off yonder. [ot047]

In pragmatically different circumstances the incorporated noun ʔiy-nelyən *wolf hide* could be split into a phrasal nominal ʔiy-in nely-ə-n *wolf-POSS.3sgABS hide-E-3sgABS* (see example 027).

Here are some other complex nouns with a noun modifier indicating a material (case endings given here are arbitrary; taken from texts):

- maka-jərʔ-o
 nappy-contents-EQU
Nappy padding/stuffing [ch09]
 manek-wət:cy-ə-qaj-a
 cloth-kamleɟka-ɬ-DIM-ERG
Dress made of fabric (instead of fur) [cy223]
 ott-ə-pəɟy-ə-qaj
 wood-E-spear-E-DIM
Wooden spear [ot036]

Example 039 is one of very few in which a proper noun (here, a place name) is incorporated. There are no examples of an incorporated personal names attested in the corpus.

mean *my duck from the land*, not *the duck from my land*, i.e. a relational form cannot be the head of a possessive form.

- 039 ənqena-t raj Wareen-tang-ə-ɣaw-ə-t ləyen teg-ʔetki-jɟ-ə-t
 this-3plABS DEICT Vaegi-stranger-E-woman-E-3plABS really INTS-bad-AUG-E-3plABS
Those stranger women from Vaegi are very, very bad. [ot050]

In the following example the incorporated noun stem ləyʔorawetlʔa- *Chukchi* (lit. *ordinary kind of person*) show that the tang-ə-t *strangers, enemies* are the traditional strangers/enemies, i.e. Koryaks from the neighbouring tribe, rather than the new ones, the Russians.

- 040 ləy-ʔorawetlʔa-tang-ə-t qərəmena-t ərucɬ-ɬʔ-ə-t
 AUTH-person-stranger-E-3plABS NEG.ID-3plABS Russian-NMZR-E-3plABS
[They were] ordinary stranger people [i.e. Koryaks], not Russians. [ot049]

My data does not contain any spontaneous examples of incorporation of more than one modifier (but see the discussion of 'tongue-twisters'; §2.5.1)

9.4.3 Verb and adverb modifiers

Verb modifiers indicate the activity (e.g. *helping* see 041) or state (e.g. *die* see 042) which make the compound nameworthy.

- 041 macənan ənkə qelʔuq ɣewəcɟet / waj winret-tumy-ə-n
 enough there because woman.3sgABS DEICT help-friend-E-3sgABS
Let it be, for the woman, she's our helper. [cy295]
 042 ənkə jara-mk-ə-jɟ-ə-n kelʔ-in
 there house-COLL-E-AUG-E-3sgABS spirit-POSS.3sgABS
 ənqen wʔi-remk-in
 this.3sgABS die-folk-POSS.3sgABS
There was a big group of spirit houses, belonging to the dead folk [cy410]

Nominals compounds can also be made with adverbs. Here the adverbials ʔəttʔəjəl *first* and jaal *last* form compounds with -ra-ɬʔ- *house-NMZR person with a house, a householder*.

- 043 [...] ʔeqe-njiw ʔəttʔəjəl-ra-ɬʔ-ə-n ɟutku
 bad-uncle.3sgABS first-house-NMZR-E-3sgABS here
 jaal-ra-ɬʔ-o teg-ənjiw
 last-house-NMZR-EQU good-uncle.3sgABS
... the bad uncle was the first-householder, here the last-householder was the good uncle. [cy309]

9.5 Conjunction

The various strategies for nominal conjunction are used when an argument consists of two or more non-coreferent elements. This contrasts to the other types of noun phrase, which all consist of a head and modifiers. Nominal conjunction only occurs with nominals in the absolutive case.

Nominal conjunction can be achieved in two ways: the ASSOCIATIVE CONJUNCTION CONSTRUCTION (§9.5.1), or by use of a conjunctive particle (§9.5.2). Conjoined elements in a noun phrase rarely have equal status; it is normal for one element to

include the other—in such instances the associative conjunction construction is used. Otherwise, with equally ranked nominal elements, a conjunctive particle is used.

9.5.1 Associative conjunction

The most common type of conjunction of nominals is the associative conjunction construction. This construction is formed by a plural head nominal with collective meaning (the superordinate), accompanied by another nominal or nominals referring to an individual or individuals included in the collective (compare the use of the associative case with nouns in a part whole relationship: §6.5.2). The head nominal is usually a plural personal pronoun (as in 044 and 045) or a noun (which should be a hypernym of the conjoined noun, as in 046). When the nominals to be conjoined cannot be construed in these ways (i.e. when they are all nouns which are not in a superordinate-subordinate relationship) conjunctive particles are used instead (see §9.5.2 and also discussion of example 049).

Verbal agreement is always determined by the superordinate term, even though both nominals are in the absolutive case (see 044, 046).

- 044 turi atcaj-qaj jara-lʔ-o q-it-y-a-tək
2pl.ABS aunt-DIM.3sgABS house-NMZR-EQU INT-be-TH-E-2pl
You and aunty [lit. 'you (PL.) including auntie'] remain at home. [cy062]

- 045 naqam atrʔec atri new-ʔattʔ-a-qej
but only 3pl.ABS woman-dog-E-DIM
And it was just him and the bitch [ke147]

- 046 enmen / ʔeqe-lʔ-e [...] ya-nm-a-lenat
once.upon.a.time bad-NMZR-ERG PF-kill-E-3plO
atlay-a-t ammema
parent-E-3plABS mother.3sgABS
Once upon a time, evil-doers killed the father and mother [jo001]

The corpus has a few instances of a similar construction formed with the 3rd plural personal pronoun atri and two nouns (see 047-049). The pronoun here doesn't seem to add any more information about the composition of the noun phrase than that indicated by the nouns (contrast this to 044 turi atcajqaj *you and aunty*; the pronoun in this example indicates that the NP contains another person).

⁴ The word atlayət can mean *parents* or *fathers* (the singular atlayən only means *father*). In conjunction with the singular ammema *mother* the phrase atlayət ammema means father and mother, literally 'parents incl. mother'. In general the plurals of terms indicating men include women (§6.3.4).

- 047 li laye-tag-qonpə ye-tumyew-linet
yes INTS-INTS-always PF-befriend-3pl
atri jokwajo ʔi-na
3pl.ABS eider.duck.3sgABS wolf-3sgABS
Yes, and the wolf and the duck befriended each other forever. [jo124]

- 048 atri new-ʔattʔ-a-qej newəcget ənqə
3pl.ABS woman-dog-E-DIM3sgABS woman.3sgABS there
n-a-twa-qenat / jara-k
HAB-E-be-3plS home-LOC
They were the dog and the woman there, at home. [ke255]

- 049 ənkʔam ee naly-a-kojg-a-cʔom-a-tkan atri /
and INTJ hide-E-tail-E-end-E-SURFACE.ABS 3pl.ABS
way-cʔom-a-tkan-te / pocʔa-kojg-a-cəko galʔəl
claw-and-E-SURFACE-3plABS sleeve-cup-E-INSIDE both.sides
q-a-jo-y-a-nat
INT-E-put-TH-E-3plO
And then, ah, put the end of my tail and the ends of my claws in the ends of both sleeves. [jo039]

In these examples neither noun is a superordinate of the other; the motivation for using this construction rather than conjunctive particles or a comitative case adjunct (§6.5.3) is unclear.

9.5.2 Conjunctive particles

There are two conjunctive particles which typically occur with nominals; ənkʔam and əmə (there is also discussion below of an unusual instance of nominal conjunction with cama; example 052). These conjunctive particles also join verbs and clauses, and introduce intonational phrases (see §5.5.2).

The form ənkʔam is semantically the most neutral of the conjunctive particles.

- 050 ʔamən əntuulpər=ʔm ənkʔam ənnen ʔoratceq-qaj
INTJ brother.in.law=EMPH and one youth-DIM.3sgABS
rə-yuu-w-ninet ewət cakəyet
CS-stay.behind-CS-3sgA.3plO likewise sister.3sgABS
Well he left the brother-in-law and one youth, likewise the sister. [ot114]

Note that the noun cakəyet in this example is an afterthought, not a syntactic argument of any verb.

The particle əmə *also* is a conjunctive particle used with lists of three or more nominals. It generally occurs before the last element of the list. In example 051 the last noun in the list is an afterthought (repetition in Russian to explain *kaaran*). See 001 for a further example.

- 051 iee qonay-te ləyen əməlʔo plek-a-t /
 excellent trouser-3plABS really all.3sgABS shoe-E-3plABS
irʔ-a-t ləy-ewirʔ-a-t / lara-ŋa=ʔm əmə
 kuxlanka-E-3plABS REAL-clothing-E-3plABS house-3sgABS=EMPH and
kaara-n NARTA-qa ənkə ləyen əməqe / ŋelwəl
 nursery.sled-3sgABS sled-DIM.3sgABS there really also herd.3sgABS
ləyen mec-γənunet-e ne-cwi-γʔe-n ənqen muu-lqət-γʔe-t
 really APPR-halve-VBase 3pl-cut-TH-3sg this.3sgABS caravan-set.off-TH-3plABS
*Fine trousers, everything, shoes, kuxlanka-traditional costume, a jaraja, and
 a nursery sled, a little sled, that was there too, the herd was divided in half,
 and the caravan set off.* [cy244]

The form *cama* is usually used to conjoin concurrent clauses (§5.5.2), but it is also occasionally used as a conjunction within a nominal phrase. It may be no coincidence that the only textual examples have the conjunction with derived nouns containing verb stems, and which retain meanings closely related to action, as in the following:

- 052 it ənqen mury-in yəpi-lʔ-a-n cama /
 yes this.3sgABS 1pl-POSS.3sgABS keep.house-PCPL-E-3sgABS and
winret-tumy-a-n ləyen im-a-req-a-k
 help-friend-E-3sgABS really every-E-do.something-E-INF
Yes, this is our housekeeper and our helper in everything [cy334]

10

Inflecting verbs

10.1 Introduction

Underived verb stems form INFLECTING VERBS (this chapter), and a number of non-finite forms including the INFINITIVE, CONVERBS, and VERB BASES (§13). The morphology available to inflecting verbs may indicate any or all of the categories tense, aspect, and mood, and may also show the person and number of one or two arguments. The morphological marking of inflecting verbs is subdivided into two distinct structural types, the ACTIVE and the STATIVE verbal paradigms. Choice of inflection type is dependent upon the semantics of the expression, not on the semantics of the particular verbal stem, and all stems can be inflected according to both inflection type patterns. Stative verbal inflections are morphologically identical to predicate adjective and nominal forms (§16.4, §17.4), whereas active verbal inflections do not have obvious synchronic links to non-verbal morphology (although internal and comparative reconstruction does reveal that all pronouns and pronominal affixes have cognate elements; see for example Skorik 1977, Comrie 1980). It is sufficient here to point out that the different processes of grammaticalisation that produced the stative and active types of verbal inflection have consequences for the synchronic distributional properties of morphological markers. The stative verbal paradigms are closely related to non-verbal predicate forms, and share some grammatical features with them; in particular, the stative verb paradigms do not allow an overt cross-reference to more than one argument, and are limited to only two (fused) tense-aspect-mood types. The eight active verb paradigms are much more analytic, and encode two tenses, three moods, and two aspects, and can cross-reference two different arguments.

Analytic verbs are a subtype of inflecting verbs formed by an invariant verb base (§13.5) and a copula verb auxiliary, which takes the regular markings of an inflected verb (verbal bases also occasionally appear as clause heads when the auxiliary is ellipsed). Thus analytic verbs form a transitional class between inflecting verbs and converbs.

The morphological structure of inflecting verbs is such that not all possible morphological categories are overtly marked all the time. Meaning is constructed

paradigmatically, and the absence of marking for a particular category may be as significant as its presence. In particular, 'zero-markers' occur in the active paradigms for 3rd person singular and for certain combinations of A/O with inverse markers. In the stative paradigms a single form can stand for between one and six person-number combinations of A and O. For example, the habitual *n-ine-___-turi* indicates 2plA and one of 1sgO/3sgO/3plO, whereas the perfect *y-ine-___-turi* uniquely indicates 2plA and 1sgO.

The following table shows the tense-aspect-mood combinations of an intransitive verb inflected according to all the active and the stative structural types.

FIGURE 10.1. Basic inflectional possibilities (intransitive, 3sgS).

jet- vi 'come', with approximate translations							
stative		active					
		non-fut.		future	intentional	conditional	
perfect	yeetlin 'she has come'	neutral aspect	jetyʔi 'she came'	rejetyʔe 'she will come'	najetyʔen 'let her come'	nʔajetyʔen 'she might come'	
habitual	najetqin 'she comes'	prog. aspect	jetarkən 'she is coming'	rejetarkən 'she will be coming'	najetarkən 'let her be coming'	nʔajetarkən 'she might be coming'	

Arguments are cross-referenced for number, which may be singular/unmarked or plural, and person, which may be first, second or third. These are the same person/number categories as those marked by personal pronouns. Verbs which cross-reference two arguments do not allow A and O to be both first person or both second person (i.e. there are not reflexives; see §11.7.2).

Apart from the typologically very usual fact that inflectional morphology in Chukchi occurs outside derivational morphology (see for example Anderson 1992:126), Chukchi also shows a qualitative difference between inflectional and derivational types of verbal morphology. Inflectional morphology is irregular; inflectional markers can only be interpreted according to their paradigmatic relationships with other members of the inflectional paradigm. Inflectional morphology is also accompanied by thematic consonants in certain paradigm positions (i.e. particular combinations of person-number and tense-aspect-mood marking; see §10.2.7). The presence or absence of inflectional affixes determines the value of the person-number and tense-aspect-mood categories of a verb. Some personal-number combinations have no markers which can be glossed as representing person or number categories, e.g. *ine-lʔu-yʔi* (INV-see-TH) *you* (sg.) or *he/she saw me* (see §10.2.2). Derivational morphology, in contrast, is entirely predictable. A grammatical category marked by derivational morphology is present if the morpheme is present, absent if the morpheme is absent (§14).

10.2 Active inflections

There are eight active inflectional paradigms: non-future (or 'aorist'), future, intentional, and conditional, each with progressive and neutral aspectual variants. They are presented as paradigms because there is no simple or consistent set of structural rules which may generate them without the need to list a range of arbitrary exceptions, thematic suffixes. For reference, the entire intransitive and transitive active paradigms are presented below and in the following pages. Any variation in how particular verb stems are conjugated according to these paradigms is entirely governed by phonological principles; there are no conjugation classes. Sections §§10.2.1-2 explain the formation of these paradigms.

FIGURE 10.2. Intransitive neutral aspect paradigms.

	non-future	future	intentional	conditional
1sgS	t- <i>S</i> -(yʔe)-k	t-re- <i>S</i> -(yʔe)	m- <i>S</i> -(yʔe)-k	mʔ- <i>S</i> -(yʔe)-k
1plS	mət- <i>S</i> -mæk	mət-re- <i>S</i> -(yʔe)	mən- <i>S</i> -mæk	mənʔ- <i>S</i> -mæk
2sgS	<i>S</i> -(yʔ)-i	re- <i>S</i> -(yʔe)	q- <i>S</i> -y-i	nʔ- <i>S</i> -y-i
2plS	<i>S</i> -tək	re- <i>S</i> -n-tək	q- <i>S</i> -tək	nʔ- <i>S</i> -tək
3sgS	<i>S</i> -(yʔ)-i	re- <i>S</i> -(yʔe)	n- <i>S</i> -(yʔe)-n	nʔ- <i>S</i> -(yʔe)-n
3plS	<i>S</i> -(yʔe)-t	re- <i>S</i> -ŋ-ə-t	n- <i>S</i> -net	nʔ- <i>S</i> -net

The symbol *S* represents the verbal stem. Bracketed forms are optional, and usually only occur with monosyllabic verb stems. The suffixes -yʔ/-yʔe and -i are thematic, and are discussed in §10.2.7. Verbal inflections are all -VH.

FIGURE 10.3. Intransitive progressive aspect paradigms

	non-future	future	intentional	conditional
1sgS	t- <i>S</i> -rkən	t-re- <i>S</i> -rkən	m- <i>S</i> -rkən	mʔ- <i>S</i> -rkən
1plS	mət- <i>S</i> -rkən	mət-re- <i>S</i> -rkən	mən- <i>S</i> -rkən	mənʔ- <i>S</i> -rkən
2sgS	<i>S</i> -rkən	re- <i>S</i> -rkən	q- <i>S</i> -rkən	nʔ- <i>S</i> -rkən
2plS	<i>S</i> -rkəni-tək	re- <i>S</i> -rkəni-tək	q- <i>S</i> -rkəni-tək	nʔ- <i>S</i> -rkəni-tək
3sgS	<i>S</i> -rkən	re- <i>S</i> -rkən	n- <i>S</i> -i-kən	nʔ- <i>S</i> -rkən
3plS	<i>S</i> -rkət	re- <i>S</i> -rkəne-ŋ-ə-t	n- <i>S</i> -rkəne-t	nʔ- <i>S</i> -rkəne-t

Transitive verbs have the same number of inflectional paradigms as intransitive, although each of these contains a much greater number of forms than the six-member intransitive paradigms listed above.

FIGURE 10.4. Transitive non-future neutral (aorist).

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	t- <i>S</i> -yət	t- <i>S</i> -tək	t- <i>S</i> -(yʔe)-n	t- <i>S</i> -net
1plA	-	-	mət- <i>S</i> -yət	mət- <i>S</i> -tək	mət- <i>S</i> -(yʔe)-n	mət- <i>S</i> -net
2sgA	ine- <i>S</i> -(yʔ)-i	<i>S</i> -tku-yʔ-i	-	-	<i>S</i> -(yʔe)-n	<i>S</i> -net
2plA	ine- <i>S</i> -tək	<i>S</i> -tku-tək	-	-	<i>S</i> -tkə	
3sgA	ine- <i>S</i> -(yʔ)-i	ne- <i>S</i> -mæk	ne- <i>S</i> -yət	ne- <i>S</i> -tək	<i>S</i> -nin	<i>S</i> -ninet
3plA	ne- <i>S</i> -yəm				ne- <i>S</i> -(yʔe)-n	ne- <i>S</i> -net

FIGURE 10.5. Transitive non-future progressive.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	t-S-rkani-yat	t-S-rkani-tak	t-S-rkan	t-S-rka-net
1plA	-	-	mat-S-rkani-yat	mat-S-rkani-tak	mat-S-rkan	mat-S-rka-net
2sgA	ine-S-rkan	S-tku-rkan	-	-	S-rkan	S-rka-net
2plA	ine-S-rkani-tak	S-tku-rkani-tak	-	-	S-rkani-tka	
3sgA	ine-S-rkan	ne-S-rkani-mak	ne-S-rkani-yat	ne-S-rkani-tak	S-rka-nin	S-rka-ninet
3plA	ne-S-rkani-yam	-	-	-	ne-S-rka-n	ne-S-rka-net

FIGURE 10.6. Transitive future neutral.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	t-re-S-yat	t-re-S-tak	t-re-S-η-a-n	t-re-S-η-a-net
1plA	-	-	mat-re-S-yat	mat-re-S-tak	mat-re-S-η-a-n	mat-re-S-η-a-net
2sgA	r-ine-S-y?e	re-S-tku-y?e	-	-	re-S-η-a-n	re-S-η-a-net
2plA	r-ine-S-n-tak	re-S-tku-n-tak	-	-	re-S-η-a-tka	
3sgA	r-ine-S-y?e	ne-re-S-mak	ne-re-S-yat	ne-re-S-tak	re-S-y-nin	re-S-y-ninet
3plA	ne-re-S-yam	-	-	-	ne-re-S-η-a-n	ne-re-S-η-a-net

FIGURE 10.7. Transitive future progressive.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	t-re-S-rkani-yat	t-re-S-rkani-tak	t-re-S-rkan	t-re-S-rka-net
1plA	-	-	mat-re-S-rkani-yat	mat-re-S-rkani-tak	mat-re-S-rkan	mat-re-S-rka-net
2sgA	r-ine-S-rkan	re-S-tku-rkan	-	-	re-S-rkan	re-S-rka-net
2plA	r-ine-S-rkani-tak	re-S-tku-rkani-tak	-	-	re-S-rkani-tka	
3sgA	r-ine-S-rkan	ne-re-S-rkani-mak	ne-re-S-rkani-yat	ne-re-S-rkani-tak	re-S-rka-nin	re-S-rka-ninet
3plA	ne-re-S-rkani-yam	-	-	-	ne-re-S-rka-n	ne-re-S-rka-net

FIGURE 10.8. Transitive intentional neutral.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	m-S-yat	m-S-tak	m-S-(y?e)-n	m-S-net
1plA	-	-	mən-S-yat	mən-S-tak	mən-S-(y?e)-n	mən-S-net
2sgA	q-ine-S-yi	q-S-tku-yi	-	-	q-S-y-a-n	q-S-y-a-net
2plA	q-ine-S-tak	q-S-tku-tak	-	-	q-S-y-a-tka	
3sgA	n-ine-S-(y?e)-n	?ən-S-mak	?ən-S-yat	?ən-S-tak	n-S-nin	n-S-ninet
3plA	?ən-S-yam	-	-	-	?ən-S-(y?e)-n	?ən-S-net

FIGURE 10.9. Transitive intentional progressive.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	m-S-rkani-yat	m-S-rkani-tak	m-S-rkan	m-S-rka-net
1plA	-	-	mən-S-rkani-yat	mən-S-rkani-tak	mən-S-rkan	mən-S-rka-net
2sgA	q-ine-S-rkan	q-S-tku-rkan	-	-	q-S-rkan	q-S-rka-net
2plA	q-ine-S-rkani-tak	q-S-tku-rkani-tak	-	-	q-S-rkani-tka	
3sgA	n-ine-S-rkan	?ən-S-rkani-mak	?ən-S-rkani-yat	?ən-S-rkani-tak	n-S-rka-nin	n-S-rka-ninet
3plA	?ən-ine-S-rkani-yam	-	-	-	?ən-re-S-rka-n	?ən-S-rka-net

FIGURE 10.10. Transitive conditional neutral.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	m-?-S-yat	m-?-S-tak	m-?-S-(y?e)-n	m-?-S-net
1plA	-	-	mən-?-S-yat	mən-?-S-tak	mən-?-S-(y?e)-n	mən-?-S-net
2sgA	n?-ine-S-yi	n?-S-tku-(y?e)-n	-	-	n?-S-y-a-n	n?-S-y-a-net
2plA	n?-ine-S-tak	n?-S-tku-tak	-	-	n?-S-y-a-tka	
3sgA	n?-ine-S-(y?e)-n	ne-n?-S-mak	ne-n?-S-yat	ne-n?-S-tak	n?-S-nin	n?-S-ninet
3plA	ne-n?-S-yam	-	-	-	ne-n?-S-(y?e)-n	ne-n?-S-net

FIGURE 10.11. Transitive conditional progressive.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-	m-?-S-rkani-yat	m-?-S-rkani-tak	m-?-S-rkan	m-?-S-rka-net
1plA	-	-	mən-?-S-rkani-yat	mən-?-S-rkani-tak	mən-?-S-rkan	mən-?-S-rka-net
2sgA	n?-ine-S-rkan	n?-S-tku-rkan	-	-	n?-S-rkan	n?-S-rka-net
2plA	n?-ine-S-rkani-tak	n?-S-tku-rkani-tak	-	-	n?-S-rkani-tka	
3sgA	n?-ine-S-rkan	ne-n?-S-rkani-mak	ne-n?-S-rkani-yat	ne-n?-S-rkani-tak	n?-S-rka-nin	n?-S-rka-ninet
3plA	ne-n?-S-rkani-yam	-	-	-	ne-n?-S-rka-n	ne-n?-S-rka-net

10.2.1 Pronominal cross-reference

The active inflectional paradigms may select from a set of person-number prefixes and suffixes, although not all forms do (see §10.2.2). When they occur, person-number prefixes always cross-reference A or S. These prefixes are fused with mood (but not tense) markers, as shown on the following table:

FIGURE 10.12. Pronominal prefixes A/S.

	future & non-future	intentional	conditional
1sgA/S	t-	m-	mʔ-
1plA/S	mæt-	mən-	mənʔ-
2sgA/S	Ø	q-	nʔ-
2plA/S			
3sgA/S		n-	
3plA/S			

Most person-number suffixes cross-reference O and S differently. These pronominal suffixes are not fused with markers of any other grammatical category.

FIGURE 10.13. Pronominal suffixes S/O.

	S	O
1sg	Ø (-k)	-yəm
1pl	Ø (-mək)	-mək
2sg	Ø	-yət
2pl	-tək	-tək
3sg	Ø	-n
3pl	-t	-net

The bracketed forms only appear in aspectually neutral paradigms. The 3plS suffix is -t, the same as the 3pl suffix for nouns, adjectives. However, the third person S forms of verbs show irregularities in certain TAM combinations, underlined in figure 10.14:

FIGURE 10.14. Third person S suffixes, singular and plural.

		non-future	future	intentional	conditional
neutral	(sg.)	\$-(yʔ)-i	re-\$-(yʔe)	n-\$-(yʔe)- <u>n</u>	nʔ-\$-(yʔe)- <u>n</u>
	(pl.)	\$-(yʔe)-t	re-\$-yʔə-t	n-\$- <u>net</u>	nʔ-\$- <u>net</u>
progressive	(sg.)	\$-rkən	re-\$-rkən	n-\$-rkən	nʔ-\$-rkən
	(pl.)	\$-rkət	re-\$-rkəne-yə-t	n-\$-rkəne-t	nʔ-\$-rkəne-t

In intentional and conditional neutral forms, intransitive verbs unexpectedly use the third person O suffixes instead of the S suffixes used by future/non-future and progressive verbs, i.e. -net rather than -t and -n rather than Ø. The non-future progressive form is -rkət; this is apparently a fused form of progressive and 3pl, but does not follow any regular phonological or historical process.

There are two suppletive A-O person-number affixes used with transitive verbs, shown below:

FIGURE 10.15. Suppletive person-number marking.

	3rd singular O	3rd plural O
2nd plural A	-tkə	
3rd singular A	-nin	-ninet

All forms with second person plural A acting on third person singular or plural O have the suffix -tkə. The etymological source of this suffix is difficult to determine. Generally schwa does not form part of the underlying form of a word, and this suffix is one of very few forms which has a final schwa (§3.5.4). The phonologically expected form for the underlying morpheme *-tk word finally would be -tək, which is exactly the 2plS/O form (shown above in figure 10.13). Historically this seems likely that this form should be resolved into two suffixes, *-tk indicating 2plA and another indicating 3O which has since been lost except for the syllabification. Comrie (1979:240 note 12) discusses and dismisses the possibility that this form is related to the suffix -tku (discussed §10.2.2) but also suggests that it is unlikely that -tkə is related to -tək, since this would make it the only A marking suffix in the language. Note however that in Chukchi only a few pronominal suffixes can be shown to be intrinsically associated with a particular syntactic role. See also the possible morphological breakdown of -nin and -ninet given below.

Forms with a third person singular A acting on a third person O have the suppletive suffixes -nin (3sgA.3sgO) and -ninet (3sgA.3plO). These could be further segmented if we propose a suppletive A suffix *-ni-, which then combines with the regular 3rd person O suffixes -n and -net. Although this is a viable approach, it obscures the similarities of the -nin/-ninet forms to the other -(C)in(e)-(t) suffixes in the language (such as possessive -in(e-), §8.7.1, relational -kin(e-), §8.7.2; perfect -lin(e-), §10.3.1; habitual and adjective -qin(e-), §10.3.2, §16.2).

10.2.2 Inverse alignment

A large part of the transitive verbal inflectional patterns can be accounted for through the notion of inverse alignment. Inverse alignment is a grammatical subsystem which functions to distinguish A from O by marking non-prototypical agency relationships as distinct from prototypical agency relationships (Gildea 1994).

The structure of the Chukchi verb paradigm can be accounted for by postulating a markedness hierarchy for agency:

FIGURE 10.16. Markedness hierarchy for agency.

(less marked agent) 1 < 2 < 3sg < 3pl (more marked agent)

For example, this hierarchy determines that:

- 1A → 2O is an unmarked agency relationship (i.e. DIRECT)
 2A → 1O is a marked agency relationship (INVERSE)
 3sgA → 3sgO, 3sgA → 3plO are both unmarked (DIRECT)
 3plA → 3sgO, 3plA → 3plO are both marked (INVERSE)

This hierarchy is language specific, although it conforms to observed typological norms (e.g. Silverstein 1976, Gildea 1994). Speech act participants are more likely to be unmarked agents than non-participants in the speech act. Similarly, more individuated entities are more likely to be agents than less individuated entities. For transitive verbs with arguments which are entirely speech act participants Chukchi provides an invariant and largely arbitrary solution that first person is a more likely agent than second person (other languages with inverse marking choose to rank these the other way). Similarly, third person acting on a (different) third person provides a problem to the system which Chukchi solves by defining 3sgA as grammatically unmarked and 3plA as grammatically marked whatever the number of the 3rd person O.

Chukchi has three morphological markers of inverse alignments, *ne-*, *ine-* and *-tku*. Of these, the latter two also carry out other functions which have the common functional core of *reducing transitivity* (see also §11.6). Changes in transitivity have been discussed before for Chukchi under the name *degrees of ergativity* (Comrie 1979, Nedjalkov 1979). The three inverse alignment affixes occur in the active verbal paradigm as follows:

FIGURE 10.17. Inverse markers in the Active Paradigm.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	–	–	direct			
1plA	–	–				
2sgA	<i>ine-</i>	<i>-tku</i>	–	–	suppletive (direct)	
2plA	<i>inverse</i>	<i>inverse</i>	–	–		
3sgA	<i>ne-</i>					
3plA						
	<i>inverse</i>					

The shaded area of the above figure shows the forms which are inverse. The 1A→1O and 2A→2O relationships are impossible forms within this cross-referencing system; other unshaded areas are direct. The inverse alignment markers occur whenever the O is situated higher on the agency hierarchy than A. The area marked 'suppletive' contains the forms listed in figure 10.15 in §10.2.1 where it is suggested that they are analysable as fused derivatives of once regular direct forms.

Most of the direct forms in the paradigm have cross-reference for both A and O. The inverse forms have at most one pronominal affix cross-referencing a participant. The forms with *ine-* and *-tku* inverse markers mark a 2plA by means of the pronominal suffix *-tək* (which is otherwise 2plS/O; §10.2). The other *ine-*/*-tku* forms have no pronominal cross-reference. This is illustrated by the following

fragment of the non-future neutral aspect (aorist) paradigm of the transitive verb *lʔu see*.

FIGURE 10.18. Inverse markers, *ine-* and *-tku* forms.

	1sgO	1plO
1sgA	–	–
1plA	–	–
2sgA	<i>ine-lʔu-yʔi</i> (INV-see-TH)	<i>lʔu-tku-see</i> (INV)
2plA	<i>ine-lʔu-tək</i> (INV-see-2pl)	<i>lʔu-tku-tək</i> (see-INV-2pl)
3sgA	<i>ine-lʔu-yʔi</i> (INV-see-TH)	

NOTE: the suffix *-yʔi* is underlyingly two thematic suffixes **-yʔe-i*, both of which are used to avoid having stem-final verbs (§10.2.7).

The *ne-* inverse forms have a pronominal suffix which cross-references the O (§10.2). These forms are used in all other inverse alignment areas of the paradigm. The *ne-* inverse was first reported in Comrie (1980).

FIGURE 10.19. Inverse markers, *ne-* forms.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
3sgA		<i>ne-lʔu-mək</i>	<i>ne-lʔu-yət</i>	<i>ne-lʔu-tək</i>		
3plA	<i>ne-lʔu-yəm</i>	<i>ne-lʔu-mək</i>	<i>ne-lʔu-yət</i>	<i>ne-lʔu-tək</i>	<i>ne-lʔu-yʔe-n</i>	<i>ne-lʔu-yʔe-net</i>
	(INV-see-1sg)	(INV-see-1pl)	(INV-see-2sg)	(INV-see-2pl)	(INV-see-TH-3sg)	(INV-see-TH-3pl)

The markedness hierarchy for agency provides motivation for the distribution of inverse marked versus non-inverse marked areas of the paradigm (the shaded areas in figure 10.17). It is more difficult to provide motivation for the precise distribution of the three different inverse markers within this zone. There are, however, some clues.

- In the Chukchi of the extreme southern coast and southern inland regions (around Markovo) the *-tku* suffix does not occur within the verbal paradigm. In its place the *ne-* inverse prefix is used. The resulting distribution of forms is identical to the distribution of *ine-* and *ne-* in Koryak dialects (although Koryak also has a dual, which adds further complexity to the paradigm). Figure 10.20 below shows the use of the inverse markers in Xatyrka/Vaegi Chukchi (§1.1, map 2), which can be compared to the distribution in Telqep and other more northerly varieties, shown in figure 10.17.

FIGURE 10.20. Inverse markers in Xatyrka/Vaegl Chukchi.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-				
1plA	-	-				direct
2sgA	ine-		-	-		
2plA	inverse		-	-		suppletive
3sgA		ne-inverse				(direct)
3plA						

This variety of Chukchi is mutually intelligible with other Chukchi varieties. The extension of the use of the *ne-* inverse into second-person A functions suggests that it is not strongly associated with third person, even if in other Chukchi varieties it only occurs with third person forms (note also that 2=3 person is well attested both in other areas of Chukchi grammar, and also cross-linguistically).

• Apart from its use in the verbal paradigm, where it only occurs with first person plural Os, the *-tku* suffix is used for a range of other functions linked to the notion of plurality. Thus, *-tku* acts as an iterative derivational suffix for verbs, and a collective derivational suffix for nouns. When acting as an iterative marker, *-tku* may or may not also be an antipassiviser (§11.6.2, §14.4.5).

• Where both arguments of a transitive verb are speech-act participants (SAPs), the morphological marking has the feature that plurality of SAPs is always shown:

person and number of:		pronominal cross-reference?	inverse marker
A	O		
2sg	1sg	none	ine- (inverse)
2sg	1pl	none	-tku (inverse + plural)
2pl	1sg	to A (-tək)	ine- (inverse)
2pl	1pl	to A (-tək)	-tku (inverse + plural)

The motivation for this may be markedness; plurality in SAP→SAP interactions is grammatically marked, as the prototypical SAP→SAP interaction probably consists of a single speaker addressing one person.

Compare the situation when only one of the arguments is a SAP:

number of:		pronominal cross-reference?	
A	O		
3sg	1sg	none	ine- (inverse)
3sg	1pl	to O (-mək)	ne- (inverse)
3pl	1sg	to O (-yəm)	ne- (inverse)
3pl	1pl	to O (-mək)	ne- (inverse)

The *ine-* inverse used with 3sgA→3sgO has no pronominal cross-reference. Other forms mark number and person of the O with a pronominal suffix.

10.2.3 Aspect: progressive and neutral

All tense-mood combinations of active inflecting verbs can be marked for progressive aspect. Verbs unmarked for progressive aspect are aspectually neutral. The progressive is marked by a suffix with several allomorphs, shown below in the men's dialect forms:

$$\text{PROG} \rightarrow \begin{cases} -rkə-/_{_}+n & \text{(before } n \text{ initial morphemes)} \\ -rkəni-/_{_}+[SAP] & \text{(before a pron. suffix indicating a SAP)} \\ -rkən(e-)/_{_}\text{elsewhere} & \text{(before any other suffix)} \end{cases}$$

The women's dialect forms of the progressive morphemes have *cc* corresponding to *rk* of the men's dialect:

$$\text{PROG} \rightarrow \begin{cases} -ccə-/_{_}+n \\ -ccəni-/_{_}+[SAP] \\ -ccən(e-)/_{_}\text{elsewhere} \end{cases}$$

The 'elsewhere' condition is given here with two forms, word final *-rkən/-ccən* and word internal *-rkəne/-ccəne*. Deletion of word final underlying **-e^{VH}* is a productive morpho phonological process for many different morphemes (e.g. type 1c nouns, §6.3.1).

The alternation between the forms *-rkəni/-ccəni* and *-rkəne/-ccəne*, governed by the type of subsequent morpheme, is unusual for Chukchi, but in this instance is not unprecedented as there is evidence elsewhere in the language of an *-i-* 'ligature morpheme' joining SAP pronominal elements (see *-iyəm*, *-iyət* in §10.3)

Examples of verbs with progressive:

001 *anə=qun* *anə* *r'enut* *qawratkaa-ccən*
so=INTS so what? rustle-PROG

What can that be rustling?

[ke011]

002 *qut-γ'i* *wak'o-γ'e* *iw-nin* *"q-əmr-ena-nr-aa-rkən!*
stand.up-TH sit.down-TH say-3sgA.3sgO INT-strong-AP-hold-TH-PROG
cama *γatka-t* *ənqen* *q-ə-nilu-rkə-net!"*
and leg-3plABS that.3sg'BS INT-E-wave-PROG-3plO

He stood up, he took his seat, she said to him "Hold on tight! And wave your legs!"

[cy134]

The habitual aspect can't be marked for other tenses and moods (§10.3.2), so when a future or intentional/conditional habitual meaning is required the progressive may stand in as an all round imperfective aspectual. If example 003 was put in the non-future tense, the future verbs (underlined) would be habitual rather than non-future progressive:

- 003 ənəkʔam / nenenə ra-tervaa-rkən / ne-r-iw-a-rkəni-yət
 and child FUT-cry-PROG INV-FUT-say-E-PROG-2sgO
 "waj waj q-a-nləwat-γ-a-n ana tery-a-lʔat-a-rkən" /
 DEICT DEICT INT-E-breastfeed-TH-E-3sgO so cry-E-DUR-E-PROG
 ləyen q-iw-a-rkə-net "eej waj t-a-lʔe-plətko-γgo-γʔa-k
 really INT-say-E-PROG-3plO yes DEICT 1sg-E-INTS-finish-INCH-TH-1sg
 janot waj qeme-jərʔ-a-n m-a-tejk-a-γʔe-n!"
 first DEICT dish-contents-E-ABS 1sg.INT-E-make-E-TH-3sgO
And, [if] the child will cry, they'll say to you "Hey hey, breastfeed him, he's crying", you just say to them "Yes, I [have to] finish up here, first I'll dish up the food". [cy401]

10.2.4 Tense: future and non-future

Non-future tense is morphologically unmarked; future tense is marked with the prefix *re-/ce-*. There is also a thematic suffix **-ŋ* which appears with the following person-number combinations of the aspectually neutral paradigm:

- 2plA → 1O
- all 3O
- 3plS

Furthermore, the progressive aspect future with 3plS also has the *-ŋ*, which is regularly expanded to *-rkənəŋət* (PROG-TH-E-3pl; see figure 10.14, §10.2.1). No other progressive forms have the *-ŋ* thematic suffix. In the neutral aspect paradigm of transitive verbs the suffix has an allomorph *-ŋə* before the third person plural suffix *-net*, and undergoes regular allophonic changes before other suffixes. Thus underlying **-ŋ-ninet* (the suffixal part of the future 3sgA.3plO form) is realised as *-ŋninet*, where **-ŋ* → *γ/_n* by regular phonological process; §3.3.3). In contrast, **-ŋ-net* (3plA.3plO) is realised as *-ŋənet*, which is the result of the morpheme specific allomorphy rule **-ŋ* → *ŋə/_net* (perhaps by analogy to the 3sgO forms *-ŋən*, which are formed from underlying **-ŋ-n#* with regular schwa epenthesis; §3.2.2). In the 2plA forms the suffix is realised **-ŋ-tək* (TH-2plA) → *-ntək*, which is a regular phonological change *ŋ* → *n/_t* (§3.3.3).

The markings of future tense are very similar to the *desiderative* (a modal derivation, see §14.6.1), differing only in that the *-ŋ* suffix is universal in the desiderative. These forms presumably have a common origin, although they have clearly diverged. The desiderative can be used with any verb or converb form (see example 006), including even verbs in the future tense, which are formed by cognate morphemes. The grammaticalisation pattern whereby a lexical form meaning *desire* becomes a grammatical marker of *future* is familiar (cf. Bybee and Dahl 1989). The difference in distribution is difficult to explain; however, it is typologically not unusual for an inflectional category to be less regular than a derivational category.

The following examples show the future and the desiderative. Example 004 is a future with a 3rd person O (thus marked with the thematic suffix *-ŋ*); example 005 is a future verb without 3rd person O or the *-ŋ* suffix. Example 006 is a desiderative.

- 004 wane re-γʔinre-ʔe ŋelwal ra-nm-a-tko-ŋ-a-n /
 INTJ FUT-be.greedy-TH herd.3sgABS FUT-kill-E-ITER-TH-E-3sg
 ne-re-lqeynek-wat / lʔat-qej ne-r-UBIT-yət
 INV-FUT-shoot-2sg now-DIM INV-FUT-kill-2sg
But if you get greedy, if you will wipe out the herd, they'll shoot you straight away, they'll kill you. [jo066]
- 005 ənqen tanŋ-a ne-re-piri-yət neməqej
 FUT stranger-ERG INV-FUT-lake-2sgO also
Those enemies will kidnap you too. [ot024]
- 006 cawcawa-tko-t ənqen
 reindeer.herder-COLL-3plABS that.3sgABS
n-a-ra-n-kolqocaw-ŋ-a-tko-qenat=ʔm /
 HAB-E-DESID-CS-be.in.kolxoz-DESID-E-ITER-3plO=EMPH
They wanted to put the reindeer folk into kolxozes... [he016]

Note that the desiderative here is affixed to a root with the habitual inflection; this could not happen with the future as it does not cooccur with any other inflectional paradigm.

Verbs marked in the future tense are obligatory with modal particles, such as *camʔam* *unable* and *mecənkə* *enough, possible*.

- 007 a-qora-ka t-a-re-nʔel-γʔe / camʔam t-a-re-jmit-yət
 PRIV-reindeer-PRIV 1sg-E-FUT-become-TH unable.MOD 1sg-E-FUT-slaughter-2sg
I'll be left without a reindeer, I can't slaughter you [ke108]
- 008 lʔat waj ekwew-a-nŋe-γʔi mecənkə ŋireq
 now DEICT left.harness.deer-E-acquire-TH able.MOD two
 qora-t ra-jaa-ŋ-a-nat
 reindeer-3plABS FUT-use-FUT-E-3pl
Now [you've] got a leftside harness deer, you will be able to use two deer [with your sled]. [cy166]

Negative clauses with notionally future reference are marked entirely differently. Instead of the tense affixes they use the negative particle *qərəm* with a verb in the intentional (§10.2.5). Negation is discussed in §18.

When an optional word final thematic suffix *-γʔe-VH* is omitted, a schwa is pronounced in its place:

- 009 ənqom neme jet-γʔi / pellem waj
 then again come-TH soon DEICT
 ra-gaw-a-n-rayt-at-a
 FUT-woman-E-CS-go.home-CS-E
Again he came - "Soon you'll take [your] bride home" [ke201]

In example 009 the word *ragawənraytatə* (ending with -ə) is equivalent to *ragawənraytatəʔa* (ending with *-ʔe). The truncated version occurs more commonly when the stem is polysyllabic.

10.2.5 Mood: intentional

The intentional and conditional moods are marked by prefixes fused with person and number markers (listed in figure 10.12). The intentional mood has a number of functions. It marks:

- Intended/hypothetical action (particularly 1st and 3rd person)
- Imperative/hortative modality
- negated inflecting verbs

First person intentional is used for hypothetical or intended actions:

- 010 *migka* *tang-a-t* *n-a-twa-qenat* *n-iw-qin*
 somewhere stranger-E-3plABS HAB-E-be-3plS HAB-say-3sgS
"jureq m-a-lʔu-ʔe-n migka"
 maybe 1sgA.INT-E-see-TH-3sgO somewhere
[He went off to] Where the strangers lived, he said: "Maybe I'll find her somewhere" [ot033]

The use of 1st person intentional is contrasted with 1st person future, which is used for actions not expected to be resisted in any way, utterly under the control of the agent. In the following example the evil brother-in-law challenges the hero *Cəkwəqaj* to a duel. He uses both future and intentional in his challenge:

- 011 *yəmn-in* *neməqej* *gelwəl* *waj* *ɲutku* *yəty-a-ly-ətə*
 1sg-POSS.3sgABS also herd.3sgABS DEICT here lake-E-EDGE-ALL
t-a-ra-nlʔaten-ɲ-a-n / *ɲenku* *ənqen* / *mət-ra-poɲəlʔat-a*
 1sgA-E-FUT-lead-TH-E-3sgO here this.3sgABS 1plS-FUT-spear.fight-E
əməlʔo-more *əngatal* *ənkə* *mən-a-nm-a-yət*
 all-1plABS of.course there 1pl.INT-E-kill-E-2sgO
I'll also bring my herd here to the edge of the lake; there we'll all fight with spears, and there of course we'll kill you. [ot083]

The word *təranlʔatenɲən* *I will (FUT) lead it* refers to an action completely under the control of the agent. The verb *mətrapoɲəlʔatə* *we will (FUT) have a fight* refers to the action without reference to any possible result (and, considering the bloodbath perpetrated by *Cəkwəqaj* on the brother-in-law's colleagues preceding this challenge, it is unlikely that he will avoid the fight), and contrasts with the blustering *mənənməyət* *we will (INT) kill you*, a result hoped for but which will certainly be resisted, i.e. the hypothetical result. The next sentence in this text has the threat:

- 012 *gelwəl* *yən-in* *murəy-gelwəlʔ-e*
 herd.3sgABS 2sg-POSS.3sgABS 1pl-herd-ERG
n-a-tenti-cqaw-jaw-nin
 INT-E-stamp.down-PURP-INTS-3sgA.3sgO
Our herd will stamp your herd flat. [ot084]

The intentional here again marks an intended and hypothetical outcome.

Intentionals with second person A or S most commonly have imperative meaning. Aspectually neutral forms of the intentional with all forms having a second person A or S have the thematic suffix -y. Second person imperative is frequently expressed grammatically in the world's languages even when there is no analogous marking for first or third person. This suggests that the -y thematic suffix might be a trace of an older historical imperative (see also §10.2.7).

- 013 *ewər* *q-ine-winret-y-a-tək*
 so INT-INV-help-TH-E-2pl
Help me please [na083:3]

Third person intentional with hypothetical meaning:

- 014 *kəkəl* *ipe* *ʔən-iw-ʔe-n*
 INTJ truly INV.INT-say-TH-3sgO
Oh! Could they be telling him the truth? [ot035]

Negated inflecting verbs are marked by a particle and a verb in the intentional. In negative future the particle used is *qəram*, while in negative past the particle is *wanəʔan* (see §§18.2.1-2).

10.2.6 Mood: conditional

The conditional is formally very similar to the intentional (see fig. 10.3, and figs. 10.8-11, §10.2). It is the least frequently occurring verbal inflection. It can mark both the condition and the consequent of an action/event (see Chung and Timberlake 1985:250-251). The conditional encoding consequences may overlap with the hypothetical meanings encoded by the intentional. The difference seems to be degree of unreality; hypothetical intentional could be true, or something might be expected to be done to make it true. In contrast, hypothetical conditional isn't true and isn't expected to be.

Conditional with progressive aspect:

- 015 *qejwe* *kənməl* *mənʔ-a-lejw-a-rkən* *mənʔ-ekwet* *qejwe*
 truly together 1pl.COND-E-roam-E-PROG 1pl.COND-leave truly
ceeqej *janor*
 together first
If we were going out hunting together, if we went together first... [an019]

Conditional with neutral aspect:

- 016 meŋqo mæŋʔ-ə-janŋʔan-mək=ʔm əŋqen janor winə
 thence 1pl.COND-E-separate-1pl=EMPH that first trail
 SLED JEVO
 trail his

From there we might separate, that one [the bear] first [follows] his 'tracks [not mine]. [an020]

The following is the closing section of a text about the realities of modern reindeer herding where the speaker (a retired reindeer herder) talks about how things should be, instead of how they are:

- 017 qəmel əŋqo n-əojw-ʔaw / nʔ-ə-yrʔo-rkə-nat /
 so then ADV-healthy-ADV COND-E-be.born-PROG-3pl
 əŋkʔam n-ə-mk-ə-qin qejuu-t / nʔ-ə-jaytal-ə-ŋŋo-nat əŋqofə
 and ADJ-E-many-E-3sg calf-3plABS COND-E-be.saved-E-INCH-3pl then
 awrena-tko-ytə ecwera-yəry-ə-n wa-k=ʔm
 next.year-COLL-ALL success-NMZR-E-ABS be-SEQ=EMPH

Then they would calve healthily, and many calves would be preserved for the next year successfully [he112]

- 018 qəmel / met-təle-mək-ə [#] nʔ-ə-nʔel-ə-net ŋelwəlʔ-ə-t=ʔm
 so APPR-go-big-E COND-E-become-E-3pl herd-E-3plABS=EMPH

Then the herd would become gradually bigger [he113]

- 019 qəmel=ʔm waj remk-ə-n əŋgin nʔ-ə-qaanmaa-rkə-ŋ
 so=EMPH DEICT folk-E-3sgABS thus COND-E-slaughter.reindeer-PROG
 wil-u nenʔ-ə-ly-ə-rkə-net / tekicy-ə-t=ʔm
 trade-EQU 3plA.COND-E-AUX-E-PROG-3plO meat-E-3plABS=EMPH

Then people would be able to slaughter reindeer for trade, meat [he114]

10.2.7 Thematic elements

There are four thematic suffixes which occur with active verbal inflectional paradigms. The suffixes -ŋ (future §10.2.4) and -y (intentional §10.2.5) have already been discussed. There are also the suffixes -yʔe and -i, both of which occur only in active non-progressive paradigms.

The suffix -yʔe occurs optionally in any active verb form fulfilling the following conditions:

- neutral (non-progressive) aspect and which has *əliher*:
- no person-number suffix
- or
- a person-number suffix formed by a single consonant; i.e. one of -n (3sgO), -t (3plS), or -k (1sgS)

While -yʔe is never obligatory, it is rarely omitted when the stem is a monosyllable. It can co-occur with the future thematic suffix -ŋ, but cannot co-occur with the intentional thematic suffix -y.

The suffix -i occurs only in the non-future and intentional with non-progressive aspect. It is obligatory with all forms which do not have a person-number suffix. It thus frequently co-occurs with the optional suffix -yʔe to give the form -yʔi < *-yʔe-i according to regular phonological rules.

10.3 Stative inflections

Stative inflectional paradigms are formally similar to (and most likely derived from) a class of predicate adjectives and nominals. They directly cross-reference one and only one core argument, and only have one mood, which is realis. I call the ye- prefixed forms, which mark attainment of a permanent state, the *perfect* (see Comrie 1976a) and the n- prefixed forms (which mark universal or habitual aspect) the *habitual*. The cross-reference to arguments is carried out by pronominal suffixes, which in first and second person are very similar to the oblique forms of person pronouns.

The stative inflectional paradigms use the following agreement suffixes:

FIGURE 10.21. Pronominal affixes, stative paradigms.

	Singular	Plural
1st Person	-iyəm, -jyəm	-muri
2nd Person	-iyət, -jyət	-turi
3rd Person	-lin (perfect) -qin (habitual)	-linet (perfect) -qinet (habitual)

These suffixes are all familiar from nominal morphology; the first and second person suffixes are identical to nominal person marking (§6.2) and similar to the free personal pronouns (§7.2), and the third person pronouns are reminiscent of other third person markers: -in(e-t) (possessive §8.7.1), -kin(e-t) (relational §8.7.2). Note also that the morphological form of intransitive habituals is identical to that of predicative adjectives (distinguished however by the form of their diminutive derivation (cf. §14.6.3 diminutive, and particularly §16.3.2 diminutive adjectives)).

Stative verbs are constructed according to different structural principles and with different types of morphological markers than active verbs, and the cross-referencing strategies used in one type of paradigm cannot be applied to the other. Stative verbs take a different set of pronominal affixes than active. Furthermore, the person-number affixes used by stative verbs are all suffixes and all inhabit a single morphological slot, so more than one cannot occur within a single verb. For intransitive verbs the pronominal affixation is simple and unambiguous; the pronominal suffix agrees with S, the only core argument. With transitive verbs the selection of which core argument is to be cross-referenced is more complicated. Many transitive stative verbs agree with just O, but others take the ine- and -tku affixes (§10.2.2) of inverse alignment and agree with A. Furthermore, in the habitual paradigm all the direct forms also take the ine- prefix and agree with A;

this is obviously not inversion, but it can be linked to the overall 'transitivity reducing' function of the *ine-* and *-tku* affixes.

In the perfect the pronominal suffixes of transitive verbs always cross-reference to O except in contexts where the *ine-* and *-tku* affixes are used with the active paradigms. Since the affixes *ine-* and *-tku* are derivational transitivity changers in addition to their functions in the verbal paradigm they can occur with transitive stems in all environments, including nominalisations etc. This is not so for *ne-*, which is only an inverse marker, and which does not have any other functions. In line with their similarities to predicate nominal/adjective markers, stative paradigms do not provide a morphological slot which could accommodate *ne-*. The fact that it is morphologically possible for *ine-* and *-tku* to appear in the stative paradigms is of itself not enough of a motivation for them to do so. The presence of these two inverse markers in the stative paradigms may be linked to the high discourse salience of both arguments of a verb when both arguments are SAPs (i.e. both high agency).

FIGURE 10.22. Cross-referenced arguments in the perfect.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-				
1plA	-	-				
2sgA	<i>ine-</i>	<i>-tku</i>	-	-	cross-reference to O	
2plA	(cross-reference to A)		-	-		
3sgA						
3plA						

The perfect encodes meaning of result and affectedness (§10.3.1). This is further reflected by the cross-referencing, which is overwhelmingly oriented towards the undergoer rather than agent/actor. The exceptions are the five SAP inverse forms (shaded in figure 10.22), which are so marked in all verbal paradigm irrespective of other conditions.

The habitual indicates states/events, thus encoding meanings for which the process is more salient than the endpoint (§10.3.2).

FIGURE 10.23. Cross-referenced arguments in the habitual.

	1sgO	1plO	2sgO	2plO	3sgO	3plO
1sgA	-	-				
1plA	-	-				
2sgA	<i>ine-</i>	<i>-tku</i>	-	-	<i>ine-</i> (cross-reference to A)	
2plA	(cross-reference to A)		-	-		
3sgA						
3plA						

In 'direct' contexts (shaded in figure 10.23) the pragmatic force of the habitual results in the A being very much more relevant (topical) than the O, since the

entire verb form is oriented towards the action and its controller, rather than the result and its undergoer. This orientation is reflected by the direction of cross-reference towards A rather than O. As a morphological marker of this change of cross-reference, the *ine-* prefix is again used. This function is very similar to the antipassive (i.e. verb agreement changes from O to A) but transitive argument structure is preserved.

10.3.1 Perfect

The perfect has the fewest morphological possibilities of all the inflectional paradigms. For almost all combinations of A and O in transitive verbs the O argument is selected for cross-reference. The exception is for five A/O combinations (shaded in figure 10.22 and below) with first person O, which have additional markers (an *ine-* prefix or a *-tku* suffix), and which cross-reference A. These five forms are marked aberrantly in all inflectional paradigms, and are discussed at greater length in §10.2.2. The perfect indicates the attainment of a permanent state, rather than the activity; thus they generally cross-reference the undergoer (O) of the event rather than the agent (A). In stories, perfect verbs occur most commonly at the beginning and the end of the narrative, when the initial conditions of the story are being established and the final outcome of the story is being summarised.

FIGURE 10.24. Perfect — transitive and intransitive.

	1sgO/S	1plO/S	2sgO/S	2plO/S	3sgO/S	3plO/S
1sgA	-	-	ye-\$-iyat	ye-\$-iyat		
1plA	-	-				
2sgA	y-ine-\$-iyat	ye-\$-tku-iyat	-	-	ye-\$-lin	ye-\$-line-t
2plA	y-ine-\$-turi	ye-\$-tku-turi	-	-		
3sgA	y-ine-\$-lin					
3plA	ye-\$-iyam	ye-\$-muri	ye-\$-iyat	ye-\$-turi		
Intr.						

The following text comes from the beginning of a traditional story. It sets the background for the main action, all of which occurs much later when the son and daughter have grown up. All verbs are in the perfect, and refer to situations which are put in place for a very long time to come.

- 020a: ənqena-cək remk-e ye-piri-lin /
 this-ANpl.ERG folk-ERG PF-take-3sg
uget-lʔ-a-n ya-n-rayt-at-len //
 collect.firewood-NMZR-E-3sgABS PF-CS-go.home-CS-3sg
- b: enmen ənqen Jare /
 once.upon.a.time this.3sgABS personal.name.3sgABS
ənpənacy-a-qaj-a-ry-en geekək //
 old.man-E-DIM-E-3pl-POSS.3sgABS daughter.3sgABS
- c: ya-jalyat-lenat ənp-a-gew-qey-ti ənpənacy-a-qay-te əmə
 PF-nomadise-3pl elderly-E-woman-DIM-3plABS old.man-E-DIM-3plABS and
ɣinqeɟ-qeɟ //
 boy-DIM
 (a) Those folk had kidnapped the firewood-collector and taken her home. (b) So that was [what happened to] Jare, the old people's daughter. (c) The old woman, the old man and the little boy continued being nomadic [ot006-008]

After this, the main action of the text begins, and verbs are either in the habitual form or the non-future neutral form (see Appendix for the complete transcript of this story).

The perfect is also used to refer to things which happened prior to a reference frame which is already in the past, e.g.:

- 021 Jare cakəyet=ʔm ɣenku ɣ-ʔeliket-lin
 personal.name.3sgABS sister.3sgABS=EMPH there PF-marry-3sg
 Jare, the sister, had got married there. [ot051]

10.3.2 Habitual

The habitual is marked by the prefix *n-* and a suffix like that of the perfect, differing only that it has *-qin(e)* instead of *-lin(e)* in the third person. The habitual marks actions/states without reference to their endpoints, and for most higher agency values of A has the *ine-* or *-tku* affix which changes the default cross reference from O to A (see §10.3).

FIGURE 10.25. Habitual — transitive and intransitive.

	1sgO/S	1plO/S	2sgO/S	2plO/S	3sgO/S	3plO/S
1sgA	-	-	n-ine-\$-iyəm			
1plA	-	-	n-ine-\$-muri			
2sgA	n-ine-\$-iyət	n-\$-tku-jyət	-	-	n-ine-\$-iyət	
2plA	n-ine-\$-turi	n-\$-tku-turi	-	-	n-ine-\$-turi	
3sgA	n-ine-\$-qin	n-\$-muri	n-\$-iyət	n-\$-turi	n-ine-\$-qin	n-ine-\$-qine-t
3plA	n-\$-iyəm				n-\$-qin	n-\$-qine-t
Intr.						

The habitual is common in narrative descriptions of situations, and in habitual/universal contexts. An example of the former is:

- 022 n-ilu-lʔet-qin log-katajyat-a-lʔ-a-n ləyen pojɣ-a-qaj
 HAB-shake-INTENS-3sg NEG-wind.blow-E-NMZR-E-3sgABS really spear-E-DIM.3sgABS
n-a-reg-a-lʔet-qin
 HAB-E-do.something-E-INTS-3sg
 [...he stuck the little spear in to the snowbank] It was shaking, there was no wind but the little spear was doing this. [ot039]

In the following example, the habitual describes a state in progress (tea-drinking) at the time of another event (the arrival of the racers, in the aorist).

- 023 pəkir-ɣʔe-t yekeɣalʔ-a-t ewən Cəkwaɣaqaj n-a-cajo-qen
 arrive-TH-3pl driver-E-3plABS INTS personal.name.3sgABS HAB-E-drink.tea-3sg
 The reindeer drivers arrived, Cəkwaɣaqaj was already drinking tea. [cy112]

The next example is a habitual/universal tense context, from a text describing in general terms the procedures related to childbirth:

- 024 kilk!-ti=ʔm clnit n-a-cci-qinet n-a-n-kəlw-et-qinet
 umbilicum-3plABS=EMPH self HAB-E-cut-3pl HAB-E-CS-tie-CS-3pl
kəccir-e=ʔm / ənqen n-a-cci-qinet
 hair-INST=EMPH this HAB-E-cut-3pl
 The umbilical cord they themselves cut off, they tie it with hair, they cut that off. [ch02]

The interaction of the habitual with other tense-aspect combinations is discussed in §5.5.1. The habitual is intrinsically non-future and realis; if habitual meaning is required with a future or intentional/conditional verb, the progressive is used instead (see section §10.2.3).

The following examples show the inverse (025) and direct (026) uses of the *ine-* prefix with the habitual:

Prefix *ine-*; 3sgA, 1sgO (inverse)

- 025 janot waj n-in-iw-qin kitaqun eqəlpe
 first DEICT HAB-INV-say-3sg HORT quickly
q-a-tw-a-ɣ-a-n yayl-a-wetyaw
 INT-E-recite-E-TH-E-3sg hurry-E-word
 First off she (would) say to me "You quickly recite a tongue-twister" [kr180]

Prefix *ine-*; 1plA, 3sgO (non-inverse)

- 026 ənqen qənwer t-a-ɣjulet-a-n ləye-taɣ-qonpa
 DEM.3sgABS finally 1sg-E-learn-E-3sg INTS-INTS-always
cajw-a-təla-ma ənqen n-ena-tw-a-more
 walk-E-go-SIM DEM.3sgABS HAB-TR-recite-E-1pl
 Finally I learnt it [how to recite tongue-twisters], and we repeated them all the time while walking [kr182]

The *ine-* prefix is glossed as TR ('transitive') in the habitual paradigm where it is not an inverse marker.

11

Valency

11.1 Introduction

In Chukchi the linguistic parameter of *valency* determines the number of optional and obligatory arguments of a verb, what pronominal cross-reference is present, the case marking of nominal arguments, and the semantic roles associated with these cases (see Mosel 1991). As Chukchi allows nominal arguments to be omitted where they are retrievable from context, evidence about valency is most reliably sought by looking at the number of morphological positions for obligatory pronominal cross-reference on the verb. As shown in §10, Chukchi verbs show two morphological valency values: one-place *intransitives* and two-place *transitives*. The number of these overtly coded morphosyntactic arguments a verb takes is its *syntactic valency* (e.g. Van Valin & LaPolla 1997:147). This system is further elaborated as certain verb stems, despite inflecting as transitives or intransitives, nevertheless seem to require a different number of obligatory arguments than the canonical value; these arguments are expressed by overt nominals, not by cross-reference. In many cases it is difficult to decisively prove that an oblique argument is obligatory, as even notionally obligatory arguments could be omitted where retrievable from context. Nevertheless there are a few verbs for which a reasonable argument can be made for non-canonical valency values; these include zero place intransitives (§11.2.1), extended (two-place) intransitives (§11.2.2), and extended (three-place) transitives (§11.3.1). The number of semantic arguments a verb has is its *semantic valency*. The differences between syntactic and semantic valency are summarised below:

	<i>syntactic valency</i>	<i>semantic valency</i>
<i>zero-place intransitive</i>	1	0
<i>(canonical) intransitive</i>	1	1
<i>extended intransitive</i>	1	2
<i>(canonical) transitive</i>	2	2
<i>extended transitive</i>	2	3

The terms A, S and O used in this thesis (Dixon 1979, 1994) are descriptively useful shorthand for distinguishing the arguments denoted by syntactic valency. S

is defined simply as the syntactic role of the single argument denoted by the syntactic valency of an intransitive verb. A and O are distinguished from S in that they are with reference to the syntactic valency of a transitive verb. They are distinguished from each other according to their semantic roles in a prototypically transitive verb frame; A is the semantic agent of a Primary Transitive Verb (defined in Andrews 1985:68-69) or anything else which acts morphosyntactically in the same way. Likewise, O is the semantic patient of a Primary Transitive Verb or the argument of any other verb type which has analogous morphosyntactic behaviour (Andrews 1985:98-104). Thus,

- *SAO ~ non-SAO* distinction relies on the syntactic notion of 'argument'
- *S ~ AO* distinction relies on the syntactic notion of 'valency'
- *A ~ O* distinction relies on a prototype of the semantic notion and the syntactic expression of 'agency'

It is sometimes useful to classify syntactic arguments in different ways. The syntactic role of S can be divided into two subclasses, *S_a* and *S_o*, according to their morphosyntactic behaviour. The distinction between *S_a* and *S_o* is motivated by the same sort of semantic prototype that motivates the distinction between A and O. This is clearly exemplified in Chukchi by (i) the behaviour of the *r-/n-* causative/applicative prefix, and (ii) the behaviour of labile verbs.

- (i) The *r-/n-* prefix makes an intransitive verb into a transitive verb (i.e. increases the number of syntactic arguments from 1 to 2). This is carried out according to two different patterns, the causative pattern (examples 001 and 002) and the applicative pattern (examples 003 and 004).

The intransitive verb stem *mejŋ-et* (an adjective stem + verb suffix) *grow up* has a single argument.

- 001 *ŋinqeŋ* *mejŋ-et-γʔi*
 boy.3sgABS big-VB-TH(3sgS)
 The boy grew up.

The addition of the *r-/n-* prefix produces the causative form *rə-mejŋ-ew* *bring up*:

- 002 *ŋinqeŋ* *rə-mejŋ-ew-nin* *əpəqeŋ-te*
 boy.3sgABS CS-big-VB-3sgA.3sgO granny-ERG
 Granny brought the boy up.

The causativised and non-causativised forms have a semantic role in common. The S of the underived intransitive has the same semantic role as the O of the derived transitive. Thus, *S_o* is an S which corresponds to the O of a derived transitive construction.

The intransitive verb *wetyaw-* *speak* belongs to another morphosyntactic class. With these verbs the *r-/n-* prefix derives an

applicative. The S of the intransitive verb (003) has the same semantic role as the A of the applicativised form (004), i.e. it is an *S_a* (an S which clusters morphosyntactically with A; Dixon 1994).

- 003 *geekək* *wetyak-wʔe*
 sister.3sgABS speak-TH(3sgS)
 The sister spoke.
- 004 *geekke-te* *rə-wetya-an-nen* *əpəqeŋ*
 sister-ERG APPL-speak-APPL-3sgA.3sgO granny.3sgABS
 The sister spoke with granny.

- (ii) Labile verbs (verbs which can be either intransitive or transitive) show the same morphosyntactic clusters; A and *S_a*, O and *S_o*.

The verb *kəlyət-* *to harness* is an *A=S_a* labile. The S of the intransitive form has the same semantic role as the A of the transitive; see examples 033 and 034 (§11.4.1).

The verb *mle-* *to break* is an *O=S_o* labile. The S of the intransitive form has the same semantic role as the O of the transitive; see examples 041 and 042 (§11.4.2).

The classification of syntactic arguments into two semantically motivated groups has considerable predictive power. While the precise nature of the semantic roles linked with the syntactic roles S, A and O is beyond the scope of this work, a broader division of semantic roles into two *macroroles* (Foley & Van Valin 1984, Van Valin & LaPolla 1997) is both possible and worthwhile. These macroroles are called *actor* and *undergoer*, and typically include the following semantic roles:

- typical ACTORS: *agent, experiencer, possessor, etc...*
 typical UNDERGOERS: *patient, theme, location, stimulus, etc...*

The prototypical actor is an agent, and the prototypical undergoer is a patient. Semantic experiencers are generally encoded as A or *S_a* in grammatically unmarked contexts. However, the experiencer departs enough from the semantic prototype of actor, that it can, with grammatical elaboration, be treated as an undergoer and enter into morphosyntactic phenomena usually reserved for O/*S_o*. For example, the verb *walom-* *hear* is an *A=S_a* labile, with the argument frame A/S:experiencer and O:stimulus. The experiencer can not really be interpreted as causing anything, and may not be actively doing anything; in so far as they react to a stimulus, the experience could even be thought of as an undergoer. This ambivalence in the role of experiencer has a morphosyntactic reflection in Chukchi—an *A=S_a* verb of perception can be treated as an *S_o* verb and causativised to make a transitive with the argument frame A:causer and O:experiencer(<*S_a*). This derivation is shown in example 051.

It is possible that the valency (syntactic or semantic) of a lexeme and a particular verb form may not be identical. The *basic valency* of a lexeme is an abstract

property of an underived verbal stem, which may be subject to valency changing derivations to produce concrete verb forms with various *secondary valency* values. Mosel (1991:240-241) describes three types of secondary valency, each of which occurs in Chukchi. The secondary valency of a derived form which differs from the basic valency of the lexeme may involve a change in syntactic valency, semantic valency, or both (a change in semantic valency alone, without changing the absolute number of argument positions, might more happily be termed *valency rearranging* rather than *valency changing*; Dixon & Aikhenvald 1997). The three types of secondary valency derivations are:

- Type I. *Valency changing derivations which do not alter the semantic and syntactic status of the participant/s shared by derived and underived forms.*
- Type II. *Valency changing derivations which change the syntactic and semantic status of the participant/s shared by the derived and underived forms.*
- Type III. *Valency changing derivations which do not change the absolute number of participants of the derived and underived forms, but which do change their syntactic and semantic properties.*

As discussed above for the *r-/n-* prefix, a single derivation can change valency in two different ways, transitivity an intransitive so that the S of the intransitive is equivalent to the A (applicative) or O (causative) of the transitive. The *ine-* prefix also changes valency in two different ways, but it does this in a less symmetrical manner. This prefix intransitivises some verbs in the *antipassive* derivation, but only rearranges the semantic valency of others in the *valency rearranging applicative*.

The ANTIPASSIVE (§11.6.2) is a valency reducing derivation in which the ergative case marked participant of the transitive verb refers to the same entity as the absolutive case marked participant of the intransitiv(is)e(d) verb, e.g.:

005 ?aatcek-a piri-nin roolqal
youth-ERG take-3sgA.3sgO food.3sgABS

The youth took the food

006 ?aatcek ine-piri-γ?i
youth.3sgABS AP-take-TH.3sgS

The youth took (something), the youth won the prize.

[nb065.B]

The *ine-* APPLICATIVE (§11.6.1) forms a verb with the underlying O of a transitive verb stem in a peripheral role, and with an underlying peripheral participant functioning in O role in its place. This derivation can occur with verbs of manipulation; the O of the non-applicative has the semantic role of 'patient' (thing manipulated), whereas the O of the applicativised verb has the semantic role of 'destination'

The first three parts of this chapter describe the morphosyntactic behaviour of verbs classified according to valency: intransitive (§11.2), transitive (§11.3), and labile verbs (§11.4).

The sections following this describe the main morphological valency changing derivations, as summarised in the following figure:

FIGURE 11.1. Summary of productive valency changing operations.

Primary (stem) valency	Affix	Derivation type	Secondary (derived) valency	Syntactic changes	
Intransitive (S _i)	r-/n-	Causative	Transitive	S→O	(§11.5.1)
Intransitive (S _a)	r-/n-	Applicative	Transitive	S→A obl→O	(§11.5.2)
Transitive	ine-	Applicative	Transitive	O→obl obl→O	(§11.6.1)
Transitive	ine-	Antipassive	Intransitive	A→S	(§11.6.2)
Transitive	-tku	Antipassive	Intransitive	A→S (iterative)	(§11.6.2)

Causatives and *r-/n-* applicatives are fully productive, but the *ine-* and *-tku* applicatives and antipassives seem to have low productivity (see below). There are also some unproductive valency changing devices which are rarely observed; these include reciprocals and anticausatives (§11.7).

There are significant syntactic differences between spontaneous spoken Chukchi and constructions appearing in the literary/pedagogical dialect (which has been the source of most examples of the Chukchi language used in linguistic comparison to date; §1.5). While Skorik didn't give sources of his linguistic material in his two-volume pedagogical/academic grammar of Chukchi, it is known that he didn't work in the part of Chukotka where the variety described in the present work is spoken, which may explain the frequent unacceptability of his examples to Telqep (and other southern) Chukchis. The following is given in Skorik (1960) as an example of the antipassive (see §11.6.2):

007 cawcawa-t ena-pela-γ?at qaa-ta
herder-3plABS AP-leave-3plS reindeer-INST

The (nomadic) herders left the deer

[Skorik 1960:138]

None of the texts used as the database for the present work had any examples of antipassivised verbs with oblique underlying objects. In fact, the verb *pela* leave is an applicativising verb (§11.6.1):

008 atl?a-ta ena-pela-nen gewni:ryan coqar-a
mother-ERG APPL-leave-3sgA.3sgO granny.3sgABS bread-INST

Mother left granny some bread.

[nb067.2]

This has some similarity: Underlying O (the nominal which would be O of the verb *pela-* without the *ine-* prefix) appears as an oblique in the instrumental case. An applicativising derivation in Chukchi is discussed in Kozinsky, Nedjalkov and Polinskaja 1988. Another account of Chukchi valency is found in Nedjalkov 1976.

11.2 Intransitive

Intransitive verbs cross-reference one argument. This argument may have a range of semantic roles, belonging to both the ACTOR and UNDERGOER macroroles (see Van Valin & LaPolla 1997), equivalent to those which are marked syntactically by the A and O of a transitive verb; thus there are two kinds of S, Actor S (or S_a) and Undergoer S (S_o). The actor macrorole includes agent (example 009) and experiencer (example 010). Examples 011 and 012 show undergoer roles.

ACTOR S

- 009 r?ela-yt-a-y?a-t er?atak ?era-myo-y?a-t / janot
gallop-go.to-E-TH-3pl next.day race-INCH-TH-3pl first
racwan-akwat-y?a-t
race-set.off-TH-3pl
They went to the race the next day, started racing, first they participated in the race [cy361]
- 010 kolo anə ye-yat?ew-linet ənjatal ya-qame-twa-myo-lenat
INTS so PF-be.hungry-3plS of.course PF-eat-RESULT-INCH-3plS
Well they'd all get hungry, they started eating. [cy404]

UNDERGOER S

- 011 tang-a-t n-iw-qinet ok anə jan yəmn-in
stranger-E-3plABS HAB-say-3pl INTJ so DEICT 1sg-POSS-3sg
plak-a-ly-a-n parəntet-y?i
shoe-E-SING-E-3sgABS be.ripped-TH
The strangers say "Oh, it seems my shoe has ripped" [ot075]
- 012 qəmel əŋqo n-arojw-?aw / n?-ə-yr?ə-rkə-nat /
so.then then ADV-healthy-ADV COND-E.give.birth-PROG-3pl
ənk?am n-ə-mk-a-qin qejuu-t / n?-ə-jaytal-a-no-nat əŋqorə
and ADJ-E.many-E-3sg calf-3plABS COND-E.be.preserved-E-INCH-3pl then
awrena-tko-ytə ecwera-yəry-a-n wa-k=?m
next.year-COLL-ALL succeed-NMZR-E-ABS be-SEQ=EMPH
Then they would calve healthily, and many calves would be preserved for the next year successfully [he112]

There do not seem to be any syntactic restrictions on the semantic role of the S of an intransitive verb.

The semantic (macro)role of S has further grammatical implications to the outcome of transitivity changing. Labile verbs (verbs which are both transitive and intransitive) have different syntactic behaviour depending on whether the intransitive form takes an S_a or an S_o (§11.4). Similarly, the *r-/n-* derived form of

an intransitive has two functions, determined by the status of the S; this prefix forms an applicative with an S_a verb, and a causative with an S_o verb (§11.5).

11.2.1 Zero place intransitive

Certain verbs, including natural phenomena verbs and intransitives with incorporated undergoer S, allow no nominal arguments. These verbs are declined like third person singular. Apart from being the grammatically least marked verbal inflection, in Chukchi the 3sgS form of the verb in the active inflections has no overt person-number marking whatsoever; e.g. the verb *jety?i* *she came* (< *jet-come*) is marked by two thematic suffixes **-y?e-i* which indicate respectively *neutral aspect* and either *non-future tense* or *intentional mood* (note that this is not the case for the habitual and the perfect, which both have overt 3sg suffixes; see examples 015 and 016 respectively).

Zero intransitive verbs referring to natural phenomena are often derived from nominals by the suffix *-r?u* (§14.4.2). This suffix also covers inceptive meaning, deriving verbs referring to the beginning of meteorological phenomena (e.g. *snow*) and time periods (e.g. *nightfall*).

- 013 pije-r?u-y?i
snow-INCH-TH
It started snowing [na080:1]
- 014 nəki-r?u-y?i / [...] night-INCH-TH
Night fell ... [jo090]

Other meteorological verbs (ones without the *-r?u* morpheme) are formed with the *-et^{vh}* suffix, and tend to be stative rather than inchoative.

- 015 miŋkəri qun miŋkəri=qun qonpə n-ə-jo?at-qen
how INTS how=INTS always HAB-E.wind.blow-3sg
Because the wind blew ceaselessly. [na142:2]

The other source of zero place intransitives is intransitive verbs with incorporated S, although these are unusual in texts. Example 016 is a rare spontaneous example of S-incorporation, showing the verb *gəto-l-ntə* *come out* with incorporated noun *nenene-^{vh}* *baby*.

- 016 ekke-t lw-ninet "kakomej! Cəkwəjaqaj enmec
son-3plABS say-3sgA.3plO INTJ personal.name.3sgABS already
ya-ŋawtən-len əmə ya-nanana-ntə-len
PF-wife-3sgS and PF-baby-come.out-3sg
He says to his sons, "Kakomej! Cəkwəjaqaj is already married, a child's even been born". [cy327]

Incorporated S does not necessarily make a zero intransitive: the word *tewir?əqitərkən* *my clothes freeze* (*t-ewir?-ə-qit-ə-rkən* 1sg-clothing-E-freeze-E-PROG) from example 055 is an example of possessor raising; the underlying S of

the intransitive verb *qit-* freeze is the incorporated *ewir?*- clothing, but the possessor of the clothing (1sg) functions as S in the clause (see §12.2.3).

The argument structure of verb stems with incorporated arguments is discussed in §§12.2-3.

11.2.2 Extended intransitive

An extended intransitive verb has the inflection of an intransitive, but also has another obligatory actant in an oblique case. Extended intransitives are rare in Chukchi, and it is difficult to find formal criteria to show that an argument is obligatory as even core arguments can typically be omitted where they are retrievable from context (see example 023). The verb stem *it-* be (identity) is definitely an extended intransitive, as a non-absolutive argument is always present on the surface (whereas S needs only be retrievable). The labile verb *iw-* say (to) is also like an extended intransitive/transitive, as it has an obligatory complement. This complement is, however, an entire unit of quoted speech, not a nominal argument (§11.4.3).

The copula verb *it-* be (§17.1.1) is structurally a two-place intransitive, as, apart from an S, this verb has an obligatory complement in the equative case. This forms an equational clause:

- 017 *ənqen jokwajo ipe ʔiy-u @ n-it-qin @@*
 that.3sgABS duck.3sgABS truly wolf-EQU HAB-be-3sg
That duck was actually a wolf, ha ha! [jo104]

Other copula verbs take locative complements, for instance *nʔel* become:

- 018 *rəl-ʔa-t ənqen ənjiw ewət atcaj /*
 crawl-TH-3pl this uncle.3sgABS so aunt.3sgABS
loro-cəko nʔel-ʔe-t
 sleeping.chamber-INESS become-TH-3pl
The aunt and uncle crawled in to the sleeping chamber. [cy338]

However, this locative complement is only obligatory in the locative clause construction, and the same copula appears without a complement in existential clauses. Furthermore, the locative complement may be chosen from not only the entire range of locative cases, but also from locative adverbs, as in example 019:

- 019 *ənqen=ʔm tirk-a-tir kitkit ʔe-mec-pintaqet-qeet-lin /*
 this=EMPH sun-E-REDUP.3sgABS slightly PF-APPR-show.self-DIM-3sg
SOLNYSHKA=ʔm tʔer-ʔew gan kitkit ʔəryola-ta ʔe-nʔet-lin /
 sun=EMPH so.much-ADV DEICT slightly high-ADV PF-become-3sg
The sun came up a tiny little bit, the sun just showed, became a little bit higher... [ke009]

Other verb stems may also be interpreted as extended intransitives; verbs formed from the stem *pkir-* arrive strongly imply a locative argument (which may be a nominal in the locative case or a deictic adverb). In rare instances where a locative

argument is not present, a nominal in locative case role always seems to be retrievable.

- 020 *mecicʔu ʔa-mac-ʔ-pker-a-ʔʔo-lenat kawra-nce-nwə-k*
 hardly PF-APPR-E-arrive-E-INCH-3pl around-turn-PLACE-LOC
Cəkwajaqaj enmec jara-ʔqaca-ʔtə / n-a-le-qin
 personal.name.3sgABS already house-BESIDE-ALL HAB-E-go-3sg
They had hardly even reached the turn around point, [when] Cəkwajaqaj was already heading homewards [cy141]
- 021 *genku jʔily-a-k pəkir-ʔʔi=ʔm / pəker-a-ʔʔo-ʔʔe*
 there moon-E-LOC arrive-TH=EMPH arrive-E-INCH-TH
There he arrived on the moon, he approached. [cy185]

In the preceding example *pəker-ʔʔo-ʔʔe* lit. *he began to arrive* refers to *jʔilyək* at the moon, the same as *pəkir-ʔʔi* *he arrived*. In the following examples there is no locative case complement of *pkir-* arrive, however in example 022 the target (place arrived at) is clearly the person addressed in the quoted speech. The lack of complement may just be due to the verb stem being in a converb form, as converbs rarely take any sort of overt argument (§13.4).

- 022 *ʔeqe-njiw-e pəkir-inənu n-in-iw-qin okokokoj!*
 bad-uncle-ERG approach-CONSEQ HAB-TR-say-3sg INTJ
naqam n-a-req-iyət eqeluq n-omrʔo-lʔat-eyət?
 but HAB-E-do.what?-1sg because HAB-sweat-DUR-2sg
The bad uncle having approached [him] said "Okokoj, what are you doing that you are sweating so much?" [cy011]

In example 023 no arguments are expressed. The following example comes from a section of a story presented in episodic dialogues, each of which starts with the anguished protagonist returning home from wandering the tundra to try to extract further details from his mother about the kidnapping of his sister during his babyhood.

- 023 *neme pəkir-ʔʔi*
 again approach-TH
Again he approached. [ot040]

In context this clearly means *Again the boy approached home*. This can be considered ellipsis of a retrievable argument.

11.3 Transitive

Transitive verbs paradigmatically cross-reference two arguments, although the number of explicit pronominal cross-referencing affixes may range from two down to none according to position on the verbal paradigm (§10). The A and O syntactic roles correspond to ACTOR and UNDERGOER semantic macroroles. It is uncommon for both A and O to be expressed by free nominals in a single transitive clause; see 024 for a rare example, apparently triggered by the speaker momentarily losing track of what she was talking about.

- 024 ewət ennəcəq-epə / nikəjut / wolka-ta
so pass-ABL same.as wolf-ERG

n-ine-rkəle-lʔet-qin moo-qor
HAB-TR-follow-DUR-3sg caravan-deer.3sgABS

And along the pass a wolf followed the harness deer.

[ke083]

Example 025 has three different transitive verbs indicating a range of semantic roles of O (A is an agent in each case). The verb *rəpetjəwnin* *he butchered it* has an O which has been directly acted upon by A. The verb *rəqitetjəwnin* *he froze it* is a causative which has an O indirectly acted upon, or acted upon so that a non-agentive process (freezing) could occur. The verb *jʔonen* *he went to it* has a location; O which is hardly affected by A at all. Note that the transitive motion verb *jʔo-* is exceptional in Chukchi; most motion verbs are intransitive, and goal or location is indicated by the locative adverbs or nouns in oblique locational cases.

- 025 rəpet-jəw-nin eqəlpe rə-qit-et-jəw-nin tekicy-ə-t
butcher-INTS-3sgA.3sgO quickly CS-freeze-TH-INTS-3sgA.3sgO meat-E-3plABS
uwi-kuk jʔo-nen
cook-pot.3sgABS go.to-3sgA.3sgO

He butchered it quickly, froze the meat, [and] went to the pot.

[cv255]

A causativised verb (see §11.5.1) has an O equivalent to the S of the uncausativised stem. Examples 026 and 027 show the stem *yjul* *learn* as an intransitive verb (*yjulet-*) and a transitive (*-nəyjulew-* *teach*). The semantic role of S and O in these two examples is presumably the same: it belongs to the undergoer macrorole.

- 026 ləyen cinit ləlep-e n-ə-yjul-et-qinet
really self watch-ADV HAB-E-learn-TH-3plS

All by themselves watching (others) they learn.

[ch26]

- 027 ən-in nenene-t miŋkri n-ine-n-ə-yjul-ew-qinet nəm-ə-twa-k?
3sg-3sgABS baby-3plABS how? HAB-TR-CS-E-learn-CS-3plO live-E-be-INF

How does she teach her children how to live?

[an043]

An experiencer A always has a stimulus O.

- 028 reqoka-ly-a take-cʔ-ə-n ya-jjo-len
polar.fox-SING-ERG smell-NMZR-E-ABS PF-sniff-3sgO

The polar fox sniffed the bait.

[nb045.1]

11.3.1 Extended transitive

There are perhaps only two extended transitives, *jl-* *give* and the copula *ləŋ-/lɣ-*.

The most common extended transitive is the verb *jl-* *give* with a speech act participant (i.e. 1st or 2nd person) recipient. In such cases, the morphological cross-referencing of the verb is to A:DONOR and O:RECIPIENT, but the nominals encode A:DONOR (ergative case) and O:GIFT (absolutive case). Recipients are typically not expressed as nominals within the clause, but where they are they are put in the allative case.

jl- *give*

A:DONOR 3pl

O:RECIPIENT (verbal cross-reference) 1pl

O:GIFT (absolutive case nominal) lollies

- 029 ne-jəl-mak ətrʔec kante-t
INV-give-1plO only lollies-3plABS

They just gave us lollies.

[nb029.6]

This does not occur when both the recipient and the gift are in the third person.

The following example comes from a section of a text in which a wolf is speaking to a boy. All arguments are 3sg, so it could be argued that this has the same argument frame as example 029 above, but substitution tests show it to have O agreement with the gift.

- 030 ennec waj q-ə-taqʔa-tʔol-o-ye pocʔa-qojg-epə
already DEICT INT-E-food-PART-CONSUME-TH arm-under-ABL
erʔe-mul jəlnin q-ə-taqʔ-o-ye=ʔm
boil-blood.3sgABS give-3sgA.3sgO INT-E-food-CONSUME-TH=EMPH

"In the meantime you can eat this food", from under his arm he gave him blood pudding. "Eat the food".

[jo031]

The following example shows the transitive verb *nəjəlqin* *give*, 3plA.3sgO with O agreeing with the number of the gift, not the recipient.

- 031 qut-ə-cək ənʔaq ənqen n-ə-tci-tku-jw-ə-qin /
QUANT-E-ANpl.ERG then DEM.3sgABS HAB-E-cut-ITER-COLL-E-3sg
kolpasa pcacam-ə-jg-ə-n / ləyen yamya-taqo
sausage sausage-E-AUG-E-ABS really EMPH-food.3sgABS
yamya-ramkalʔ-eto n-ə-jəl-qin
EMPH-guest-ALL HAB-E-give-3sg

Others now cut the prerem-sausage, they only gave [this] special food to special guests.

[ke279]

The three place copula *ləŋ-/lɣ-* has the syntactic structure of an extended transitive. This verb encodes a regular A and O (with cross-referencing relating to case marking in the usual manner for a transitive), and also requires an equative case complement.

- 032 qəmel=ʔm waj remk-ə-n əngin nʔ-ə-qaa-nm-aa-rkən
so=EMPH DEICT folk-E-3sgABS thus COND-E-reindeer-kill-TH-PROG
wil-u nenʔ-ə-ly-ə-rkeet / [...]
price-EQU INV.COND-E-COP-E-3plPROG

So then people would be able to slaughter reindeer, they would have them for trade ...

[he114]

This verb is also used as an auxiliary, in which function it takes two nominal arguments and requires a verb base or converb complement. The three place copula is discussed in §17.1.2.

11.4 Labile

Labile (also known as ambitransitive) verbs function as both transitives and intransitives. The argument filling the S slot in intransitive function has the same semantic role as the argument in either the A or the O syntactic role in corresponding transitives. Thus, there are two types of labile verbs, S=A labiles and S=O labiles. As established in §11.2, there are two kinds of S, Actor-S (S_a) and Undergoer-S (S_o). Labiles are formed such that S_a corresponds to A and S_o corresponds to O. These are termed S=A labiles and S=O labiles respectively.

The syntactic relationship between transitive and intransitive manifestations of labile verbs is verb similar to the syntactic relationship between intransitives and transitives derived by means of the r-/n- transitiviser; A= S_a labiles are like applicatives and O= S_o labiles are like causatives (§11.5).

11.4.1 S=A type

The S=A type of labile is most common in Chukchi.

kəlyet- harness (A/S:actor O:undergoer)

INTRANSITIVE

033 *qora-yərke-plətko-yʔa-t* / *ləyen ewat*
reindeer-catch-finish-TH-3pl really so
akwat-ə-myə-yʔa-t *kəlyat-ə-myə-yʔe*
leave-E-INCH-TH-3pl harness-E-INCH-TH

They finished catching reindeer, straight away they started leaving, he started harnessing. [cy127]

TRANSITIVE

034 *rə-winew-ə-tku-nin* *qeeqan ənrʔaq* / *kəlyen-nin*
CS-train-E-ITER-3sgA.3sgO more then harness-3sgA.3sgO
He trained it some more, and then harnessed it. [cy151]

yala- pass (S/A:actor O:undergoer=locative)

INTRANSITIVE

035 *qəlanqəlat-cəko-jpə* *ləyen yala-yʔe* *qenri*
flame-INCH-ABL really pass-TH thither
He passed through the flame [to get] there. [cy195]

TRANSITIVE

036 *qutkete* *ləyen ta-yʔe mraq-qac=ʔm* *ʔera-yala-nenat*
by.here really go-TH right-SIDE=EMPH gallop-pass-3sgA.3plO
qan ramk-eta *pecacqew-nenat*
DEICT folk-ALL leave.behind-3sgA.3plO

He came through here on the right, he quickly passed them (and came) to another encampment, he left them all behind. [cy102]

NOTE that this example has a verb compound, but that compounding is not a valency changing derivation (§12.4).

The following example has a beneficiary undergoer:

taraj- build house (for)

INTRANSITIVE

037 *rewiw-kə* *neme taraj-yʔa-t=ʔm*
make.camp-SEQ again build.house-TH-3plS=EMPH
Making camp they again built the house [cy301]

TRANSITIVE

038 *rewik-wʔe-t=ʔm* / *taraj-nenaʔ=ʔm*
make.camp-TH-3pl=EMPH build.house-3sgA.3plO=EMPH
utt-ə-n-əjmew-jəw-ə-ninet=ʔm
wood-E-CS-approach-INTS-E-3sgA.3plO=EMPH

They made camp, he put up the house for them, brought them firewood [ot090]

Verbs of directed perception, where the actor macrorole is an experiencer and the undergoer macrorole is the source, can also belong to the A=S labile type, for example:

walom- hear/understand (A/S:experiencer O:source)

INTRANSITIVE

039 *walom-yʔe?*
understand-TH

Do you understand?

[ka24]

TRANSITIVE

040 *luut na-walom-yʔa-n*
suddenly 3A-hear-TH-3sgO
Suddenly they heard it. [ke018]

11.4.2 S=O type

S=O labiles are rare. Examples include *mle break* and *yrʔo be born, give birth to*.

mle break (A:agent O/S:patient)

INTRANSITIVE

041 [...] *n-ena-ponge-qen* *pojy-ottoot* *n-ə-mle-qin* *pojy-ə-n*
HAB-TR-block-3sgO spear-wood.3sgABS HAB-E-break-3sgS spear-E-3sgABS

... he blocked the spearshaft, the spear broke.

[ot109]

TRANSITIVE

042 *m-ə-mle-yʔe-n*
1sg.INT-E-break-TH-3sgO

I want to break it.

[na122:3]

11.4.3 Extended labile

An extended labile is a verb that can function as an extended intransitive or extended transitive. The only verb of this type that I am aware of is the verb *iw-say*. It is an S=A labile, where A/S is the speaker and O is the addressee. The extra argument required by this verb is an entire direct quote. This slot can not be filled by a specially case-marked nominal.

EXTENDED INTRANSITIVE

043	ənjiw-qej	n-iw-qin	ətcaj-qaj-a-na	q-a-tkik-wi
	uncle-DIM.3sgABS	HAB-say-3sgS	aunt-DIM-E-ALL	INT-E-spend.night-TH
	eʔejl	ii	q-a-tkik-wi	ɣutku
	INTJ	yes	INT-E-spend.night-TH	here

"Uncle said 'Stay the night at your aunties'" "O-hol, yes, stay the night here"
[cy027]

EXTENDED TRANSITIVE

044	[...]	taɣ-qonpə	ənqen	ʔeqe-njiw-e	n-in-iw-qin
		INTS-always	DEM.3sgABS	bad-uncle-ERG	HAB-TR-say-3sgA
		ɣalwilʔ-etə	q-a-lqat-yi	ɣelwilʔ-a-k	q-a-twa-rkenʔ
		herd-ALL	INT-E-set.off-TH	herd-E-LOC	INT-E-be-PROG

... the bad uncle always said to that one, "Go to the herd, be at the herd!"
[cy002]

11.5 Transitivity-increasing derivations

Chukchi has a prefix *r-/n-* which serves to increase the valency from intransitive to transitive. This prefix is usually accompanied by the suffix *-ew* or *-et*, which are allomorphs with mixed grammatical and lexical conditioning (§14.3). Many other verbs have either the *-ew* or the *-et* suffix; when the *r-/n-* prefix combines with an intransitive verb stem which already has one of these suffixes, the suffix is generally changed to the other one, e.g.

INTRANSITIVE *-et* and TRANSITIVE *r-/n-* *-ew*

045	ujge	ya-lye-nm-a-tko-jw-a-lenat	əmə	ləyen	jara-ɣə
	NEG.EXI	PF-INTS-kill-E-ITER-INTS-E-3pl	and	really	house-3sgABS
		ye-lyl-cimirʔ-et-lin	əməlʔə	ləyen	ye-n-cimirʔ-ew-jaw-linet
		PF-INTS-break-TH-3sg	all.3sgABS	really	PF-CS-break-TH-INTS-3pl

They are no longer, [they] killed them all, even the house[s] broke, [they] smashed them all up.
[cy440]

This is not, however, without exception; *təmjew-* *be lost* has the causative *rətəmjew-/ntəmjew-* *lose*.

The *r- ~ n-* alternation occurs with almost exclusively with this verbal prefix (there are a handful of exceptions, all verbs; §3.5.1). In a discussion of the closely related Alutor language Koptevskaja-Tamm and Muravyova (1993:291-292) claim that this alternation in the causative prefix originates from a pair of causative prefixes used in two different grammatical environments which (coincidentally) correspond to phonological environments. Thus, one causative prefix was hypothesised to occur when the A has higher animacy than the O (what I call DIRECT ALIGNMENT; §10.2.2), and the other when the A had lower animacy (INVERSE ALIGNMENT; §10.2.2). Within the non-future active verbal paradigm the direct alignment forms tend to be unprefixes, whereas the inverse alignment forms are prefixed. Thus Koptevskaja-Tamm and Muravyova suggest that speakers reanalysed the contrast between the two causative forms to be the result of

phonological conditions rather than grammatical. This account is ingenious; the evidence of alignment marking in Koryako-Chukotian languages suggests that grammatical inversion is synchronically a less important phenomenon than it once was, so the proposed reanalysis seems to follow general tendencies of the language. Both causatives and inverse alignment are semantically linked to the construal of agency relations, so it is not typologically unlikely that a causative could be fused with markers of inverse/direct alignment in the way suggested.

It certainly seems likely that the *r-/n-* alternation did appear as the result of some morphological change rather than, say, the collapse of a phoneme (which is extremely unlikely as the alternation is attested nowhere else in the language except for in this morpheme). However, the particular account discussed here is open to queries. For instance, while it is true that in the contemporary language *r-* and *-n-* are distributed the same as non-prefixed and prefixed A forms respectively, this only occurs in the non-future indicative mood; all future and non-indicative forms are prefixed irrespective of alignment.

11.5.1 Causative *r-/n-*

The Chukchi causative functions to make a transitive verb out of an intransitive. The S of the intransitive verb corresponds to O of the transitive verb, and a new argument functions in the A role marking the *causer*. Intransitive verbs which can be causativised are always of the *S_o* type, i.e. the subject of the intransitive verb has the macrorole UNDERGOER, e.g. the causative *-npeqetaw-* *knock down* is formed from the intransitive verb *peqet-* *collapse*.

046	ləyen	əŋgin	wetca-ta	qeynew-nin=ʔm
	really	thus	stand-VBase	shoot-3sgA.3sgO=EMPH
			taɣ-a-n-peqet-aw-nen	WOLKA
			INTS-E-CS-fall-CS-3sgA.3sgO	wolf

Simply so, standing up he shot at the wolf, and knocked him right down.
[ke097]

Example 047 shows the causative *-n-təmjew* vt (caus) *lose*, which is derived from the intransitive verb *təmjew* vi *be lost, get lost*.

047	ənkʔam	[#]	qora-ɣənr-et-a-lʔ-a=ʔm	/	ləyen=ʔm	ənnen
	and		reindeer-guard-TH-E-PCPL-ERG=EMPH		really=EMPH	one
			qora-ɣə	loɣ-a-n-təmjew-a	n-a-nt-a-qin	/
			reindeer-3sgABS	NEG-E-CS-be.lost-NEG	HAB-E-AUX-E-3sg	
			n-inc-nt-a-muri=ʔm			
			HAB-TR-AUX-E-1pl=EMPH			

And the herders didn't lose a single reindeer, we didn't.
[he066]

Causative cannot be formed from transitives in Chukchi (in this Chukchi contrasts to the closely related Alutor language; Koptevskaja-Tamm and Muravyova 1993:293).

While the following example seems to be a causative of the transitive *pela-* *leave*, there is also a derived 'anticausative' form *pela-t-* *remain* (§11.7.2); the causative seems to have been formed on the basis of this intransitive stem.

- 048 *ənqorə* *neme* *jawrena* / *neme* / *Kacʔayəryən*
 then again next year again personal.name.3sgABS
 ənɾʔo *qol* *cowqoc-etə* *jəl-nin* *gelwəl* [ləm#]
 then QUANT.3sgABS sovxoZ-ALL give-3sgA.3sgO herd.3sgABS
 tʔer-kin *rə-pela-w-nen=ʔm*
 several-REL.3sgABS CS-leave-CS-3sgA.3sgO=EMPH
 ənraq *ənqen* *amjəroot-qaw* / *emelke* *nʔel-γʔi* / [...]
 then DEM.3sgABS eight-ORD furthermore become-TH
 Then in the next year again [there was] Kacʔayəryən, he then gave a herd to another SovxoZ, he left a few, then that eighth came to be ... [he041]

It is, however, unclear in this example how *rəpela-* (a causative of an anticausative) differs in meaning from underived *pela-*.

There are rare instances of causatives being formed from labile verbs. This would usually be redundant, since a labile verb can be transitive without any transitivising derivations. However, while causative is an $S_a \rightarrow O$ derivation, it occasionally can be applied to an $S_a=A$ labile. This is unusual, as it has an intransitive subject acting in derivation as an S_a , and in another as an S_a .

The one clear example I have is from the verb *walom-* *understand*. This verb is a $S=A$ labile, with an experiencer S (as in example 049) or A (example 050):

INTRANSITIVE

- 049 *qeɟwe* *walom-γʔe?*
 truly understand-TH
 Do you really understand? [or 'Do you really hear?'] [ka26]

TRANSITIVE

- 050 *t-ə-walom-γʔa-n* *kawrətk-ə-n*
 1sg-E-hear-TH-3sg footsteps-E-3sgABS
 I heard the footsteps [nb077.2]

However, a causative can also be made from this verb, in which case the stem is treated like an S_a intransitive:

CAUSATIVE

- 051 *γəmnan* *t-ə-n-walom-at-ə-nat* *ənpanacy-ə-t*
 1sg.ERG 1sgA-E-CS-understand-TH-E-3plO old.man-E-3plABS
 I informed the old men [caused the old men to hear/understand]. [nb062.1]

Semantic role assignment of verbs is generally lexical, referring to a prototypical situation, and not subject to pragmatic influences. Intentional collapsing or intentional getting lost do not change the derivational possibilities of the word (the forms shown in examples 046-047). However, the subject of *walom hear/understand* seems to be something like an actor and something like an undergoer, so that a zero-derivation transitivisation produces an $S=A$ labile, yet

causativisation (an $S=O$ process) is also possible. At present I have no further data on this, but it seems likely that other labile verbs with an experiencer S might act the same way.

11.5.2 Applicative (transitivity-increasing type)

This is another function of the transitiviser morpheme *r-/n-* which occurs with some intransitive verb stems. A causative makes a transitive verb where $S=O$ and an A is added, while an applicative has $S=A$ and adds an O . Note that there is another applicative which acts on transitive verbs to exchange an O and an oblique argument (see §11.6).

Example 052 shows the applicative derivation of the intransitive verb *miyciret work*; the O of the applicativised verb is the thing acted upon or done by the workers (A):

- 052 *ujge=ʔm* *a-doktor-ka* *teɟ-em-cinit* /
 NEG.EXI=EMPH PRIV-doctor-PRIV EMPH-REST-self
 n-ə-n-miycir-ew-qinet *jəm-ə-cʔenut*
 HAB-E-APPL-work-TH-3pl REST-E-something.3sgABS
 Without a doctor, all by themselves they did everything necessary. [ch01]

Examples 053 and 054 show the intransitive verb *wetyaw speak* applicativised to form a transitive verb *ɹwetyaat- (*rə-/n-wetyaw-at-) speak to*.

- 053 *qərəm* *ləyen* *XOROSHU* *ʔən-ə-n-wetya-at-γʔe-n*
 NEG really good 3A.INT-E-APPL-speak-TH-TH-3sgO
 They don't speak to him very nicely. [cy034]
- 054 *cama* *n-ena-lye-n-wetya-at-jəw-qen*
 and HAB-TR-INTS-APPL-speak-TH-INTS-3sg
 She also spoke to him for a long time. [jo015]

Transitivising applicatives and $S=A$ labile verbs have a very similar function, i.e. S of the intransitive verb corresponds to A of the transitive with an oblique argument from the intransitive clause corresponding to O of the transitive. The $S=A$ labiles are very common, whereas the morphological applicatives seems to occur only with a restricted set of verbs.

11.6 Transitivity-reducing derivations

The prefix *ine-* carries out applicative and antipassive transitivity-reducing functions; which function it carries out depends on the verb stem, which can thus be subclassified as ANTIPASSIVISING and APPLICATIVISING. The suffix *-tku* is another antipassive, but which also has iterative meaning (it does not make applicatives).

Some processes of incorporation in Chukchi share many syntactic features with valency changing devices such as antipassive and applicative. As discussed below, the *ine-* prefix on a transitive verb stem has one of two effects, antipassive or

applicative, and the choice of antipassive or applicative is determined lexically (i.e. by a conventional grouping into lexical classes). These lexical classes are distinguished in the same way with processes of incorporation. Verbs which become antipassive with *ine-* also become intransitive when O is incorporated. Verbs which become applicative with *ine-* remain transitive when underlying O is incorporated, but another underlying oblique argument appears in the O slot (see below, §12.2.2).

Furthermore, there are verbs in Chukchi which show a similar sort of irregular behaviour (unexpected *-et* suffix) with incorporated Os and with antipassives, or with incorporated Os and with applicatives. These verbs once again can be grouped into lexical classes wherein morphological irregularities in one domain predict morphological irregularities in another (§14.3).

A further subtype of valency changing with incorporation is possessor raising. This is similar to the applicative-type incorporation described below, in that a non-core element is promoted to core. However, possessor raising occurs with both transitive and intransitive verb stems, and the occurrence of this structure is determined semantically (by sense) rather than by lexical classification. In possessor raising the S or O of a verb is incorporated, and the possessor of the S/O becomes the new S/O; i.e. where N_i is a nominal which is the semantic possessor of the nominal N_j , and V is the verb, the following two structures are propositionally equivalent:

structure 1: free nominals N_i :POSSESSIVE N_j :ABSOLUTIVE V

structure 2: possessor raising N_i :ABSOLUTIVE N_j -V

Possessive nominals are discussed in §8.7.1. The pragmatics of possessor raising is discussed in §12.2.3. An instance of possessor raising is shown below with an intransitive verb:

055 qel'aq=ʔm t-ewirʔ-a-qit-a-rkan qetakwaa-rkan ewirʔ-a-n
because=EMPH 1sgS-clothing-E-freeze-E-PROG freeze-PROG clothing-E-3sgABS
Because my clothes freeze [lit. 'I clothing-freeze'], [my] clothes freeze... [cy281]

11.6.1 Applicative (transitivity-rearranging type)

The *r/-n-* applicatives transitive an intransitive stem, making S into A and turning an oblique argument into O. Chukchi also has an applicative formed with the *ine-* prefix (also used in person-number inflectional paradigms and for the antipassive) which occurs with transitive stems. This applicative relates to the original transitive stem so that the O of the original stem is an oblique and another oblique argument of the original stem is the O.

While both the underived stem and the applicativised form are transitive, this applicative derivation can be classified as a transitivity-reducing operation, since the resultant stem is less prototypically transitive. The applicative derivation takes a stem with an O which is semantically a patient, and replaces it with an O which is a location or recipient; locative and recipient objects are less effected than

patients, and thus the verb has lower transitivity even while retaining its basic bivalency (Hopper and Thompson 1980). Transitivity-lowering is a general feature of the morpheme *ine-* in Chukchi (see §10.2.2, §11.6.2; Comrie 1979, for other transitivity-lowering functions carried out by *ine-*). This applicative seems to be productive with any semantically appropriate verb, i.e. a verb of manipulation with a strong locational/beneficiary component in its semantics (see examples 057, 058, 060 below). The pragmatic function of the *ine-* applicative is to mark that the location or recipient arguments are more topical than the semantic patient.

The following examples show the transitive verb *jme- hang* and the transitive applicativised root *ena-jme- hang*. Applicativisation causes a switch in the semantic roles indicated by O from patient to location. The demoted patient O may be expressed as an oblique in the instrumental case (see example 058):

A:agent O:patient (NO APPLICATIVE)

056 atlʔa-ta jame-ne nat ewirʔ-a-t
mother-ERG hang-3sgA.3plO clothing-E-3plABS
Mother hung up the clothes [nb066.4]

A:agent O:location (APPLICATIVE)

057 atlʔa-ta ena-jme-nen nilʔ-a-n
mother-ERG APPL-hang-3sgA.3sgO cord-E-3sgABS
Mother hung (something) on the cord. [nb066.5]

058 atlʔa-ta ena-jme-nen tatol meniʔ-e
mother-ERG APPL-hang-3sgA.3sgO door.3sgABS cloth-INST
Mother hung the door with cloth. [nb066.6]

The applicative of the verb *pela- leave* swaps O:patient for O:recipient.

A:agent O:patient (NO APPLICATIVE)

059 na-pela-yʔa-n laʔen ankə ye-cci-tku-jw-a-lin
INV-leave-TH-3sgO really there PF-cut-ITER-INTS-E-3sg
They left him there [he was] chopped to bits. [cy370]

A:agent O:recipient (APPLICATIVE)

060 t-ena-pela-yʔa-n ɣew-mirʔən coqar-a
1sg-APPL-leave-TH-3sg FEM-grandparent.3sgABS bread-INST
I left granny some bread. [nb078.3]

When transitive verbs that can make applicatives incorporate their O, they remain transitive with the same oblique argument promoted to O function as would be if they were applicativised (see also §12.2.2).

APPLICATIVE

061 kojʔ-a-n ena-təʔo-nen uunʔ-e
cup-E-3sgABS APPL-put-3sgA.3sgO berry-INST
She filled the cup with berries. [nb076.1]

INCORPORATED U

062 *təjucy-ə-n* *taqʔa-təjo-nen*
sack-E-3sgABS supplies-put-3sgA-3sgO

She put food for the road in the sack

[nb075.4]

The stem *enarkel-/enaccele-* *smear* is an example of a stem which historically must have been an applicative. The thematic role of patient is encoded by an oblique nominal (*ənqena-ta* *this-INST*) and the role of location/target is in the absolutive (*kilkil-ti* *umbilical.cord-3plABS*), which is the pattern followed by applicatives. However, there is no word in the dialect of any of my teachers with the stem *-rkele-/ccele-*^{VH} (i.e. a transitive stem without the element that looks like an applicative marker).

063 *ənqen* *n-ə-n-ləw-et-qin* *wəlq-u* *n-ə-tejk-ə-qin=ʔm*
this-3sgABS HAB-E-CAUS-burnt-CAUS-3sg coal-ESS HAB-E-make-E-3sg-EMPH
ənqena-ta *kilkil-ti* *n-enaccele-qenat*
this-INST umbilicus-3plABS HAB-[APPL+smear]-3pl

This is burnt, made into coal, they smear the umbilical cord with this. [ch05]

11.6.2 Antipassives *ine-* and *-tku*

The antipassive is a derivation which intransitivises a transitive verbal stem, so that the S of the resultant intransitive is equivalent to the A of the transitive. There are two forms, a prefix *ine-* and a suffix *-tku*. The suffix fuses the antipassive function with the iterative (see also §14.4.5).

The following example is the antipassive of a causative.

064 *yəmo* *t-ena-n-walom-at-ə-k*
1sgABS 1sg-AP-CS-hear-TH-E-1sg

I made an announcement.

[nb062.2]

The causative makes a transitive verb from an intransitive with UNDERGOER S so as to make a transitive with S→O. The antipassive derivation makes the verb intransitive once again, converting A of the causative to S. Thus the new intransitive verb has an S in ACTOR role (see also discussion to examples 049-051)¹.

Antipassives are most commonly used in deverbal derivations such as participles and other nominalisations, and 'canonical' antipassives in inflected verbs are very rare in spontaneous texts (example 064 is from elicitation). Some speakers will intermittently produce them under elicitation conditions, but others won't. Both antipassive markers (*ine-* and *-tku*) have a number of other functions which frequently overlap. In particular, the *-tku* suffix indicates iterativity; when it functions as an antipassive the iterative meaning is also present, although it may be an iterative marker without also antipassivising.

¹ Note that the verb *walom* has an S which is usually treated as an ACTOR (see examples 39, 49).

Antipassives are common and productive with non-finite verb forms and nominalisations:

065 *qənwet* *pirq-ə-γʔi* *ecyi* *gelwəl* *jara-γqaca-γtə* *qənwet*
finally collapse-E-TH no-sooner herd-3sgABS house-BESIDE-ALL finally
pirq-ə-γʔi / *penr-ə-tko-lʔ-ə-n* *qora-jɣ-ə-n*
collapse-E-TH attack-E-AP-ITER-NMZR-E-3sgABS reindeer-AUG-E-3sgABS

Finally it collapsed, as soon as the herd was by the house, finally it collapsed, that attacking reindeer. [cy228]

066 *keli-kel* *ena-ccet-joly-ə-tkən-ə-k*
book-REDUP-3sgABS AP-put-PLACE-E-TOPSIDE-E-LOC
The book is on the shelf

[lv08]

Almost all examples of negated transitive verb stems are antipassivised:

067 *waj* *cakejl* *gotqena-jyəm* *ənge* *ena-jʔə-ka*
hey sister.VOC! here-1sg.ABS NEG.HORT AP-approach-NEG
q-ə-ra-γt-ə-γʔe!
INT-E-home-go.to-E-PERF

Hey sister! I'm here! Don't approach, go home! [ot134]

068 *ənkʔam* *n-in-iw-qin* *wetəqun* *ənge* *gaw-tomy-ətə*
and HAB-TR-say-3sg INTS NEG.HORT woman-friend-ALL
ena-tw-ə-ka
AP-tell.about-E-NEG

She said to him "Don't you tell your wife!" [ke029]

The few examples of antipassives on inflected verbs found in spontaneous (non-elicited) texts all have other unusual features. For example, the antipassivised stem *ena-wenaw-* *train, tame* in 069 occurs four times in almost adjacent sentences (see Appendix), which suggests that it might be lexicalised rather than a productive grammatical derivation:

069 *ʔire-remk-ə-k* *pəkir-γʔ-i=ʔm* *rəp-jo* *qora-γə*
race-folk-E-LOC arrive-PF-3sgS=EMPH stake-PASS.PART reindeer-ABS
piri-nin / *ena-wenaw-ə-myo-γʔe* *ənkə*
take-3sgA-3sgO AP-train-E-INCH-TH there

He arrived in the racers' encampment, took the prize reindeer - he started training there. [cy143]

In example 070 both *ine-* and *-tku* are present; this is unusual. Perhaps the *-tku* suffix is just acting as an iterative, and the *ine-* prefix is sole marker of antipassive:

070 *ena-nm-ə-tko-lʔ-ə-t* *ajwe-kena-t*
AP-kill-E-AP-ITER-NMZR-E-3pl yesterday-REL-3plABS

They were the murderers of the day before. [cy421]

11.7 Low productivity valency changing devices

Apart from the forms described above, there are a number of low productivity derivational suffixes which can change or rearrange valency, including a number of

affixes with reciprocal meaning (§11.7.1) and an anticausative derivation (§11.7.2). There are no morphological reflexives; reflexive meaning is encoded syntactically (§11.7.3).

11.7.1 Reciprocals

Chukchi doesn't have any productive reciprocal markers. There are three forms which express reciprocal-like meanings.

The prefix *pəl-*, *pəc-* derives occasional verbs indicating that something is mutual. The stem *pəcwetɣaw* is a verb stem meaning *converse* and a noun stem meaning *conversation*:

- 071 *məɪ pəc-wetɣaw-mək*
1pl.INT-MUTUAL-talk-1pl
Let's have a talk!

[jo063]

Example 075 has the form *pəl-teɣjeŋ*- *mutual desire*.

The suffix *-cit* is has a number of different lexical functions:

- Derives a large number of terms for competitions, e.g. *ɣekencit-* *complete in a race*.

- 072 *ɣeken-cit-lʔ-e* *na-tətop-ə-n* *joro-ŋə*
race-ADVERS-PCPL-ERG INV-open.door-3sg sleeping.chamber-3sgABS
The racer competitors opened the sleeping chamber.

[na140:3]

- Indicates some kind of iterative or durative meaning:

- 073 *ɣutku* *kale-ŋko-ra-k* *n-ə-keli-cit-iɣəm*
here inscribe-ITER-house-LOC HAB-inscribe-ADVERS-1sg
I wrote here in school.

[na140:5]

- 074 *ɣamɣa-ɣa-ɣpə* *ənkʔam* *pələtku-k-ʔm* *pecka-k* /
INTS-stores-ABL and finish-SEQ=EMPH sand-LOC
wey-a-ŋku-cit-ɣʔi *ɣan* *pen-jolɣ-ə-k*
claw-E-USE-ADVERS-TH DEICT ash-CONTAINER-E-LOC

[They went] all around the stores, and finishing that she started scratching in the sand, in the fireplace.

[ke240]

- Reciprocal

- 075 *əməɪʔo* *remk-ə-n* / *pəl-teɣjeŋ-cit-e* *ə-ŋ-qin* [...]
all.3ABS folk-E-3sgABS MUTUAL-desire-ADVERS-Vbase HAB-be-3sg

All the people were living the way they wanted ...

[he067]

The suffix *-wəly* has the purest reciprocal meaning, but only occurs with a few stems:

- 076 [...] *qənur* *qərʔacet-wəly-a* / *ɣa-nəm-takocɣ-a-ʔm*
like compete-RECIP-VBASE ASS-settlement-brother.in.law-ASS=EMPH

... like they were competing with their neighbours.

[he067]

It forms a lexicalised combination with *lʔu see* with the form *lʔuuly* (<* *lʔu-wəly*) with meaning *meet* or *see each other*, but also having a special meaning *meet in competition*.

11.7.2 Anticausative

The anticausative is not a systematic or productive valency changing derivation. It is formed by the *-et^{VH}* suffix, the thematic suffix used in a wide range of other derivations (§14.3).

The transitive verb *pela-* has an unusual intransitive counterpart *pelat-* (**pela^{VH}.et^{VH}*) in which the nominal in O role of the transitive becomes S of the intransitive.

- 077 a: *ətri* *ɣew-ʔattʔ-ə-qej* *ɣewəcɣet* *n-ə-twa-qenat* /
3plABS woman-dog-E-DIM.3sgABS woman.3sgABS HAB-E-be-3pl
ɣara-k //
house-LOC
b: *pəl-at-ɣʔa-t* //
leave-ANTICAUS-TH-3pl

speaker a: *There was the dog and the woman there, at home.*

speaker b: *They remained [behind].*

[ke255-256]

11.7.3 Reflexive

Reflexive meaning can be indicated using a transitive verb with a third person O indicating a part of the A, for example:

- 078 *ɣəmɪn-in* *əwik* *m-uwi-ɣʔe-n*
1sg.POSS.3sgABS body.3sgABS 1sgINT-E-cook.meat-TH-3sg
I'll cook meat for myself [lit. "my body"].

[na128:5]

There do not seem to be any S=A labiles lexically encoding reflexive meaning in the manner of English 'wash', which means either 'wash somebody' (transitive) or 'wash oneself' (intransitive). The Chukchi verb *ilyətew-* *wash* is transitive only.

12

Verbal incorporation

12.1 Introduction

In its widest sense, *incorporation* is here used to refer to morphological processes in which two or more lexical stems can be included in a single word. It is easy to determine formally where this has occurred in Chukchi as the boundaries of a word are clearly demarked by the phonological phenomenon of vowel harmony (discussed in section §3.4.1). In all forms of incorporation there can be distinguished dependency relationships between the two stems, and in all cases the dependent element (argument or modifier) precedes the head in the morphological structure of the word. Processes of incorporation can be divided functionally into syntactic processes (*syntactic incorporation*), and lexical processes (*compounding*); see also the discussion on incorporation and compounding by nouns in §§9.4-5.

The first part of this chapter will examine the functional domain of incorporation, providing an account of the syntactic and pragmatic motivations for the use of incorporation (§12.1.1-2). Following this is a description of the formal aspects of incorporation by transitive (§12.2) and intransitive (§12.3) verbs. Verbal compounding (§12.4) has not been much reported in previous grammatical description of Chukchi although it is a common phenomenon in the language. Due to their discourse functions (e.g. indicating a noteworthy event with generic object), compounds and stems with incorporation are frequently lexicalised (§12.5), and also transparently provide sources of grammaticalisation of stems into derivational morphology (§12.6).

There are four structural subtypes of syntactic noun incorporation by verbs. Syntactic incorporation leads to a rearrangement of valency; incorporation by an intransitive stem can produce a zero place (i) or one place (ii) verb, and incorporation by a transitive stem can produce one place (iii) or two place (iv) verbs.

- (i) noun (S) + intransitive verb → zero intransitive (no S argument)
- (ii) noun (S) + intransitive verb → intransitive verb (new S argument)
- (iii) noun (O) + transitive verb → intransitive verb (A → S)

(iv) noun (O) + transitive verb → transitive verb (new O argument)

The two stems in a lexical compound are tightly bound semantically to refer to a single action or entity, and there are similar semantic effects with syntactic incorporation. On the grammaticalisation cline it can be difficult to distinguish syntactic incorporation from lexical compounding (some theoretically interesting examples are discussed in §12.4).

12.1.1 Discourse function of incorporation

The widest generalisation about incorporation is that incorporation is used when the event is of greater interest than its participants. From a syntactic point of view, incorporation occurs in Chukchi as a way of resolving tensions between the syntactic functions of discourse elements and their pragmatic statuses. The absolutive case role has a privileged position in the language as the way of presenting salient/topical information. Only in the absolutive can nominal constituents be represented by syntactic phrases (and thus have the greatest grammatical possibilities for combining with modifiers; §9), and absolutive case nominals have greater grammatical specification, marking more grammatical categories than other nominals. However, the underlying undergoer nominal (O) of a transitive verb stem often has low discourse salience; there is an anthropocentric bias towards human actors (syntactic A) as protagonists in narratives. This conflicts with the pragmatic function of the absolutive case (the case for O/S), which is to refer to arguments of high discourse salience, high animacy, specificity, etc. This tension can be resolved by incorporation of the O into the verb, thus changing the syntactic role of the A nominal to S.

EXAMPLES. Low topicality can be a function of low specificity or low individuation. Generic nominals are extremely unlikely to be topics. In the following example the stem *qora-* occurs twice: once incorporated and once unincorporated with the same transitive verb stem *təm-/nm-* *kill*, which thus provides a syntactic minimal pair:

001 *taŋ-amənan* *Cəkwaŋaqaŋ* *ya-qora-nm-at-len* //
 INTS-alone personal.name.3sgABS PF-reindeer-kill-VB-3sg
qora-ŋə *təm-nen* / *ŋely-ə-n* *jən-nen*
 reindeer-3sgABS kill-3sgA.3sgO hide-E-3sgABS take.off-3sgA.3sgO
Cəkwaŋaqaŋ all by himself slaughtered reindeer. He killed a deer, took off its hide.
 [cy252-253]

In the first sentence the salient participant is the person *Cəkwaŋaqaŋ*; the objects of his killing are non-specific, non-salient. In the second phrase the word *ŋelyən* *hide* is introduced as a topic. This *hide* is very salient, as it is about to be magically transformed into *Jʔaŋalyəŋŋən* the magic Rawhide Woman. As this particular *hide* becomes topical, the original possessor of the *hide* (the particular reindeer) becomes conceptually specific, and thus salient enough to be expressed as a free absolutive case nominal *qoraŋə təmnən* *he killed the reindeer*.

Examples with the stem *qora-nm-at-* *slaughter reindeer* can be misleading, as this stem refers to something which, in Chukchi culture, is a unitary activity and is exceptionally noteworthy as a focus of ritual activity and the high point of a day. The verb is translated here as *slaughter* rather than *kill* as this incorporation is lexicalised to the extent that it only refers to reindeer-killing in its traditional Chukchi cultural context, i.e. killing of a domestic meat reindeer with a knife in the prescribed manner with all attendant ritual. The thematic suffix *-et--at* is an additional marker that this incorporation is lexicalised (§14.3).

In the following example the activity of chasing and catching is more salient than the individual reindeer chased and caught (this is generally the case in any narrative about people and what they did):

002 *eryatak* *ʔera-myo-yʔa-t* //
 next.day race-INCH-TH-3pl
ya-qora-penr-at-len *Cəkwaŋaqaŋ* *remk-ə-k* //
 PF-reindeer-chase-TH-3sgS personal.name.3sgABS folk-E-LOC
ŋelwəl *rə-pkir-en-nin* *qora-yərke-myo-yʔa-t*
 herd.3sgABS CS-arrive-CS-3sgA.3sgO reindeer-catch-INCH-TH-3pl
The next day they started racing. Cəkwaŋaqaŋ went after the reindeer in the other encampment. He brought the herd in, they started to catch the reindeer.
 [cy116-118]

Both instances of the noun *qora-* *reindeer* in example 002 are incorporated; both times the noun has generic reference, and both times the verb refers to a culturally significant activity which is more salient than the particular undergoers. In the next part of the narrative a particular reindeer becomes salient, as the human protagonist of the story gets involved in a battle of wills with an uncooperative harness animal:

003 *neme* *ənin* / *wen-qora-ŋə-n* *cinit* *kənʔu-nin*
 again 3sg-POSS.3sgABS harness-deer-AUG-E-ABS self catch-3sgA.3sgO
neme *ləyen* *ʔemet-jəw-nin* *ŋanqen* *ŋan* *ləyen*
 again really drag-COLL-3sgA.3sgO thither DEICT really
Again he caught his harness reindeer himself, again she dragged him off thither.
 [cy119]

This reindeer is specific and individuated and it is expressed as a free argument. Furthermore, *Wenqoraŋən* here is in effect a proper name; the reindeer here referred to is a specific and individuated deer with various magical properties (the augmentative suffix is commonly a formative of proper names; the notion of *big* is normally expressed by an incorporated adjective, e.g. *majŋəwenqor* *a big harness deer*).

12.2 Incorporation by transitives

Two lexical groups of transitive verbs can be established by their behaviour with the *ine-* prefix: *antipassivising* verbs and *applicativising* verbs. These two groups are also discussed in section §§11.5-6 with reference to valency changing. As

already noted, these two groups also show systematically similar behaviour with O incorporation. Antipassivising verbs form intransitives with O incorporation, whereas noun incorporation causes applicativising verbs to have a different argument structure (an oblique argument becomes O), but remain transitive:

FIGURE 12.1. Antipassivising and applicativising verbs with incorporation.

	Group 1 ANTIPASSIVISING	Group 2 APPLICATIVISING
ine- prefix	antipassive (A → S, O → ∅)	applicative (Oblique → O)
incorporated O	intransitive verb (A → S)	transitive verb (Oblique → O)

However, these groups are not immutable. Some verbs of Group 1 can form ad hoc applicatives through beneficiary raising (§12.2.2).

A further type of incorporation by transitives which retains the same absolute number of arguments with O incorporation is commonly referred to as *possessor raising*. In this structure the possessor from a POSSESSOR (GENITIVE) + POSSESSED (ABSOLUTIVE) noun phrase becomes the O when the possessed noun is incorporated. This valency rearranging phenomenon can also occur with purely intransitive stems (see §12.2.3 below).

12.2.1 Antipassivising verbs

Incorporation of an O nominal by transitive verb stems of this type makes an intransitive root. The following examples show the transitive verb *yacci/yarki* collect with a free O (004) and an incorporated nominal (005).

Transitive verb *yacci/yarki* collect, free nominal O:

004 *yamnān t-a-yacci-ccān lāy-oon?-a-ly-a-n*
1sg.ERG 1sgA-E-collect-PROG AUTH-berry-E-SING-E-3sgABS

I collected shiksha berries

[na079:2]

Incorporated

005 *qora-yärke-γ?e in?e=7m jara-γtā yekeγ-e qat-γ?i [...]*
reindeer-collect-TH morning=EMPH house-ALL drive-ADV set.off-TH

He caught the reindeer in the morning, he set off home on his team ... [cy176]

O incorporation leading to an intransitive root is very commonly used when referring to conceptually unitary and nameworthy cultural activities (see Mithun 1984, 1996). In the situation being described in 005, nomads frequently spend much of their time collecting together reindeer for harnessing or just to manage their spread across the tundra. The individual reindeer involved are not grammatically specified. In contrast, while berry-picking is also a unitary type of activity, in example 004 discourse is focussed on the particular kind of berry picking that was going on, so while the word *lāyoon?alyān* is used generically, it is salient (note that the although the superordinate term for berry is *oon?alyān*, the *lāy(i)*-prefixed form is the lexicalised name for a specific variety).

Example 006 shows another instance of a non-specific noun being incorporated.

006 *jokwa-jg-a iw-nin ir?-a-t mān-a-lpuur?et-a-net*
duck-AUG-ERG say-3sgA.3sgO clothing-E-3plABS 1plINT-E-swap-E-3pl
kateqe γām amnoγ-epā m-a-cejw-a-tku-γ?e-k=7m
temporarily 1sgABS tundra-ABL 1sgINT-E-roam-E-ITER-TH-1sg=EMPH
γāt=7m q-ānn-a-llep-γi
2sgABS=EMPH 2sgINT-fish-E-watch-TH

The duck said, "Let's swap clothes for a while, I'll roam about the tundra, you watch fish" [jo064]

The situation is from a folktale: a magical duck is proposing to a magical wolf that they exchange skins. The incorporated noun *qānnallepyi* you watch fish is a slightly poetic way of suggesting to the wolf that he join the amphibious world; there is no mention of any particular fish before or after this.

Example 007 shows incorporation motivated solely by the fact that the underlying O is non-specific/uninteresting, as there is no evidence that *closing the door* is a nameworthy activity in Chukchi culture. In the story where this sentence was used there was no previous mention of the incorporated noun *tātli* door, nor was there any mention of it subsequently.

007 *tātli-a-nnamat-γ?a-t*
door-E-close-TH-3pl

They closed the door

[cy395]

The sentence *tātli nennamatγ?an* they closed the door would imply that the door had discourse salience, and it would be expected that there was something more said about the door.

If O incorporation tends to be used to denote an action on an object as a unitary and nameworthy event, it is unsurprising that complex stems formed through O-incorporation are frequently lexicalised (further discussed §12.5). Examples 008 and 009 show the complex root *gew-a-nju-cqiw-*, which comes from the stems *gew-* woman, *rāju-/nju-* stand watch by night over [smth] and the purposive *-cqiw-*. The complex root *gew-a-nju-cqiw-* has the meaning, unpredictable from the syntactic point of view, of *be a suitor*. This word can be compared to *qaa-wjat-unharness reindeer* (example 009), which is the expected meaning for a word formed from a combination of *qaa-* reindeer and *wjat* unharness.

008 *wenqora-jg-a-na iw-nin / Cākwayaqaj /*
harness.doe-AUG-E-ERG say-3sgA.3sgO personal.name.3sgABS
eryatāk q-a-γew-a-nju-cqik-wi
tomorrow INT-E-wife-E-be.on.watch-PURP-TH

The big harness doe said to him: Cākwayaqaj, tomorrow you go off to find yourself a wife [cy162]

- 009 okkojmejl n-a-new-a-nju-cqiw-lyat e
 INTJ HAB-E-wife-E-be.on.watch-PURP-2sg INTJ
 wane q-a-gaa-wiat-ye=?m / [...]
 INTJ INTJ-reindeer-unharness-TH=EMPH
 Goodne: 'ou're looking for a wife! Well unharness your reindeer!...
 [cy190]

12.2.2 Applicativising verbs

As described above (§12.2), there are two groups of transitive verbs distinguished by their behaviour with the *ine-* transitivity reducing prefix and incorporation. The applicativising verb stems preserve absolute transitivity (i.e. number of core arguments cross-referenced) with incorporation of a nominal object. Thus only semantic transitivity is reduced; there is a change in case frames from a highly transitive one (O representing a highly affected undergoer role) to somewhat less transitive one (O representing a less affected role such as beneficiary), e.g.

- 010 rewik-w'e-t=?m / ta-ra-y-nenat=?m
 make.camp-TH-3pl=EMPH MAKE-house-MAKE-3sgA.3plO=EMPH
 utt-a-n-ejmew-jaw-a-ninet=?m
 wood-E-CAUS-approach-COLL-E-3sgA.3plO=EMPH
 They made camp, he put up the house for them, brought them wood. [ot090]

The causative *-nejmew-* *bring* has an incorporated patient, but is still syntactically transitive, with the beneficiary in the O role. This can be considered reduction in semantic transitivity, as, in the terms of Hopper and Thomson (1980), a beneficiary is a less prototypically transitive undergoer than a patient.

This is a rare process, but can be productively applied to what would otherwise be antipassivising incorporations:

- 011 ana layen n-ena-qora-nm-a-qen gew'en / e layen=?m
 so really HAB-TR-reindeer-kill-E-3sg wife.ABS INTJ really=EMPH
 ankə n-a-qame-twa-qen / cinit atlon n-uwi-qin /
 there HAB-E-eat-RESULT-3sg self 3sg.ABS HAB-cook-3sg
 kanwet epte ya-ro-ngo-len
 finally also PERF-eat-INCH-3sgO
 Well, he slaughtered reindeer for the wife, there he ate, she herself cooked it,
 finally she also started to eat the meat. [ke023]

Compare *n-ena-qora-nm-a-qen* (HAB-TR-reindeer-kill-E-3sg) *he killed reindeer for her* in the above to the intransitive *ya-qora-nm-at-len* (PF-reindeer-kill-TH-3sg) *he killed reindeer* in example 001.

The stem **təjo put* is unusual in that it only occurs with (i) the applicative prefix *ine-*^{VH}, or (ii) an incorporated nominal argument. The destination of the 'putting' is marked as O, and the object manipulated is either incorporated or (with applicatives) oblique in the instrumental (see also §11.6.1).

APPLICATIVE

- 012 kojə-a-n ena-təjo-nen uun?-e
 cup-E-3sgABS APPL-put-3sgA.3sgO berry-INST
 She filled the cup with berries. [nb076.1]

INCORPORATED O

- 013 tejucy-a-n taq'a-təjo-nen
 sack-E-3sgABS supplies-put-3sgA.3sgO
 She put food for the road in the sack [nb075.4]

The morpheme *təjo-* is a suppletive form of the verb *jo- put*; the latter is used word initially and word internally in all contexts other than those given in (i-ii) above.

The *jo-* form of the stem even occurs with the *ine-* prefix where it is part of the transitive verb paradigm (§10.2.2). The two uses are contrasted in the following example:

- 014 ana n-a-r'ejwet-qin layen ker-pətw-a-jegka
 so HAB-E-dismantle.house-3sgS really kerker-inside.layer-E-SUBLAT
 n-ena-ly-ena-təjo-jw-a-qen tekicy-e ceq-e / layen
 HAB-APPL-INTS-APPL-put-COLL-E-3sgO meat-INST something-INST really
 wala-qaj ankə n-ena-jo-qen
 knife-DIM.3sgABS there HAB-TR-put-3sgO
 Well she dismantled the house, under the inner layer of his kerker (here, 'baby suit') she filled [it] with meat, other stuff, she put a little knife there too. [jo013]

Note the two forms of *put* in the preceding example: the first instance of the verb has the applicativised stem *ena-təjo-* (the *ine-* prefix is usually doubled before the *ly-* intensifier prefix as in this example), whereas the unapplicativised form of the verb stem with *ine-* prefix (functions as a transitive marker in the habitual aspect) is *ena-jo-*. This is the only example of suppletion sensitive to the morphological parameters of applicativisation attested in the data.

12.2.3 Possessor raising

A possessed noun in the absolutive case can be incorporated without reduction of valency, with the possessor filling the S/O slot of the verb (intransitive verbs seem to have to be undergoer subject intransitives, i.e. *S_o* verbs, not *S_a*). This type of incorporation only occurs when the possessed noun is inalienably possessed. Note however that 'inalienable possession' is not otherwise indicated as a grammatical category in Chukchi; usually the inalienably possessed noun is a body part (see 019 for a possible exception). In Evans' (1996) terms raising of inalienable possessions is an instance of *syntactic apposition*; the incorporated noun and the possessor noun are in a part-whole relationship, so incorporation of the part does not change the valency. The following examples show this process occurring with transitive (examples 015-017) and intransitive (018) stems.

POSSESSOR RAISING, TRANSITIVE VERB (possessor ?inə wolf, possessed pilɣ- throat)

015 [...] təm-nen ?inə=?m / pilɣ-ə-lwi-nin=?m
kill-3sgA.3sgO wolf.3sgABS=EMPH throat-E-cut-3sgA.3sgO=EMPH

He killed the wolf, cut its throat.

[kr151]

Example 016 shows a transitive verb stem *yotka-mla-* break legs, with the O role referring to the possessor of the incorporated noun *leg* (here zero pronominal, but absolutive *qora-t* reindeer could be added). Example 017 shows the same thing: the transitive verb root *lawt-ə-male-* stroke the head has a zero pronominal O (*Cəkwajaqaj*, the name of the wife's husband and possessor of the body part in question, can be substituted).

016 *cama* *layen* *n-ena-yotka-mla-tko-jw-ə-qenat*
and really HAB-TR-leg-break-ITER-INTS-E-3plO

And simply broke their legs.

[ot136]

017 *luur* *waj* *ənqen* *neme* / [?] *pəker-ə-ɣɣo-ɣ'a-t*
suddenly DEICT DEM.3sgABS again approach-E-INCH-TH-3pl

ewən *gew'en-e* *neme* *n-ena-lawt-ə-male-tko-qen* *ɣəra-tkən-ə-k*
INTS wife-ERG again HAB-TR-head-E-stroke-ITER-3sg leg-TOP-E-LOC

And so they again approached, and there the wife [of Cəkwajaqaj] is stroking [his] head on her lap.

[cy373]

The following example shows an intransitive verb root *rənn-ə-kwa* horns get stuck which has the possessor of the horns (i.e. *qora-ɣə* reindeer) as S:

018 *rak-wəry-ə-k=?m* *ya-rənn-ə-kwa-len* *ənqen*
pierce-NMZR-E-LOC=EMPH PF-horn-E-be.stuck-3sgS this.3sgABS

ənan-jaale-ɣ *qora-ɣə*
SUPER-last-ADV reindeer-3sgABS

In the hole the very last reindeer got its horn caught

[cy419]

Occurrence of these two phenomena (syntactic apposition of incorporated PARTS with WHOLES in S/O role) is governed in texts by the same discourse conditions. A body part noun is incorporated by a transitive or intransitive verb without change of argument structure when the salient effect of the action is on the whole rather than the part. Note that this would predict that only *S_o* intransitives (i.e. where *S* is in an UNDERGOER semantic role) would be subject to part-whole apposition by incorporation, which seems to be the case with all the available data.

The following example is possessor raising from the intransitive stem *təɣe-/nɣe-* grow.

019 *okkokol* *Cəkwajaqaj* *enmec* *ɣ-ekwew-ə-nɣe-ɣət!*
INTJ personal.name.3sgABS already PF-deer.type-E-grow-2sg

Oh-ho! Cəkwajaqaj you've already acquired a leftside harness deer!

[cy155]

The possessed noun *ekwew-* leftside harness deer is the least semantically plausible example of inalienable possession in my data. However, it could be argued that is the possessive relationship in example 019 is in fact a part-whole relationship which could be treated by speakers as inalienable. This is not so far

etched—reindeer are culturally extremely important to the tundra Chukchi, and reindeer terms are grammatically singled out in other parts of the language (e.g. they can be used as address terms, making them possible recipients of the high animate class of inflectional suffixes). Alternatively, it is possible that the restriction of possessor raising to noun in a relationship of inalienable possession is a chimera; the preponderance of examples which do have inalienable possession might be motivated by the discourse conditions which lead to the use of possessor raising. When a nominal argument underlyingly includes a possessor which is very much more topical than it is itself it may also be likely that these nominals are in a part-whole relationship.

12.3 Incorporation by intransitives

Syntactic incorporation (i.e. incorporation leading to a rearrangement of valency) by intransitive stems is rare but possible, leading to derived zero-intransitive stems (§11.2.1). Although it can be freely elicited, this morphosyntactic device is almost never used in texts. Example 020 is one of the few spontaneous instances that I have observed. It occurs in some quoted speech, when a father is haranguing his three lazy sons:

020 *eqəlpe* *ra-ɣt-ə-ɣ'e* *ənqen* *?etkiɣ* *ənjiw* //
quickly home-goto-E-TH that bad uncle
ekke-t *iw-ninet* **kakomej!* *Cəkwajaqaj* *enmec*
son-3plABS say-3sgA.3plO INTJ personal.name.3sgABS already
ya-ɣawtən-len *əmə* *ya-nanana-nto-len* //
PF-be.married-3sg also PF-child-exit-3sgS
turi=?m *qonpə* *joro-cəko* *ənka*
2plABS=EMPH always sleeping.chamber-INESS there
layen *wa-l'at-ə-l'ə-tore!*
really be-DUR-E-NMZR-E-2plABS

*That bad uncle quickly went home. He says to his sons: Kakomej!
Cəkwajaqaj is already married, a child's even been born. But you lot are
always in the sleeping chamber, you're only ever there!* [cy326-328]

In this speech the father is unfavourably comparing his sons to their step-brother *Cəkwajaqaj*. The birth of *Cəkwajaqaj*'s son is one of the events which shows that *Cəkwajaqaj* has been spending his time more profitably than his step-brothers. Syntactic incorporation here is motivated by the fact that the event of childbirth is of greater interest than the participant (note that the 3sgS suffix of the verb is dummy agreement demanded by the verb form; §11.2.1).

Other authors have also reported S-incorporation in Chukchi. Muravyova (1992) gives the following contrasting examples:

021 *w'eɣ-tl* *inini-ɣ'e-t*
grass-3plABS appear-TH-2plS
The grass appeared

022 wʔej-inini-yʔi

grass-appear-TH

[It] grass-appeared. [Muravyova 1992:210, my glosses and transliteration]

As a syntactic phenomenon, S-incorporation is freely elicitable, but its near-absence from spontaneously produced texts suggests that it is a marginal functional type. Subject of an intransitive verb is a discourse prominent position, and there are relatively few possible candidates for generic S. Example 022 shows S incorporation in a word describing a natural phenomenon. Such 'cognate subjects' are extremely rare; most natural phenomena are expressed by a verb or a verbalised noun, as in the following, rather than by a noun subject and verb.

NOUN STEM

VERB STEM

ʔəlʔəl (stem ʔəl-) 'snow' n

ʔəlet- 'to snow' vi (verbalised by -et suffix)

kəʔajy- 'wind' n

kəʔajyat- 'wind to blow' vi

S-incorporation is obligatory when the entire intransitive clause is incorporated as a modifier of something else, e.g.:

023 emcʔacoka-tke-mely-ə-tanŋ-ə-t

ermine-smell-fire-E-stranger-E-3plABS

Musk-stinking westerners.

[nb045 2]

People of European origin (usually Russians or Americans) are *melyətanŋət lit.* 'fire strangers' (for reasons mentioned in §1.2), and *emcʔacoka-tke-* 'smelling of ermine/musk' refers to the typical revulsion that older Chukchis feel at the smell of musk, an ingredient in many Western perfumes. Although this word is syntactically well-formed, it would normally raise a laugh, as much for the number of lexical morphemes it contains as for its subversive sentiments (§12.5.1).

Noun incorporation by intransitives resulting in an intransitive with unchanged argument structure is not nearly so uncommon. This is part of the phenomenon of part-whole syntactic apposition discussed in §12.2.3, which is applicable to transitive verb stems as well. In a situation where a body part is affected, but the affectedness of the possessor of the body part is more salient, then the possessor-whole goes into the prominent core nominal position marked by the absolutive case, and the possessed part is incorporated. For examples, see 018 and below:

024 luit cən-təwla-rʔo-yʔe ənqen

suddenly horn-shake-COLL-TH DEM.3sgABS

jaal-ken-enaga-jarʔ-ə-ken cəŋŋa-jŋ-ə-n

first-REL-cargo-container-REL.3sgABS steer-AUG-E-3sgABS

Suddenly that last big castrated bull load carrying man: shook its horns [cy422]

Intransitive verbs can also incorporate nouns non-syntactically to form compounds (discussed in §12.4; see for example 034).

12.4 Verbal compounds

Incorporation of a verb by another verb stem makes a compound predicate with no change of valency from that of the stem verb. Only intransitive verb stems are incorporated, but they can be incorporated by both transitive and intransitive verbs. These compounded verb stems act as modifiers to the main verb. As in all other forms of morphological incorporation, the order of stems is strictly MODIFIER → HEAD.

The most common verb stems involved as the heads of verb-verb compounds are motion verbs. Motion verbs commonly incorporate verb stems indicating manner or purpose of motion. This occurs with intransitive, labile, and transitive motion verbs. The following examples use the intransitive motion verb *lqət-* 'set off'.

Example 025 shows the stem *-lqət-* without incorporation:

025 jara-ytə ye-lqət-linet ʔorawetʔa-t=ʔm / n-ʔejgew-ə-n
house-ALL PF-set.off-3pl person-3plABS=EMPH INV-call.out-E-3sgO
ŋewəcqet ʔoratceq-qaj-ə-n
woman.3sgABS youth-DIM-E-POSS.3sgABS

The people set off home, they called out to the youth's woman.

[ot119]

In 026 the stem *-lqət-* has an incorporated verb showing manner (*ʔire* gallop):

026 ekwew-u jəp-an-nen jara-ŋqaca-ytə / laʔi-ʔire-lqət-yʔi
reindeer.type-EQU dress-TH-3sgA.3sgO house-SIDE-ALL INTS-gallop-set.off-TH

He put it on as the leftside reindeer; they galloped off homewards

[cy152]

The following two examples show incorporated verbs with indicate purpose:

027 qənwet ənqen teŋ-ənjiw raju-lqət-yʔi=ʔm
finally DEM.3sgABS good-uncle.3sgABS stand.watch-set.off-TH=EMPH

Finally the good uncle went to stand watch.

[cy022]

028 eej! iwke ept-eŋəm m-ə-rʔela-ytə-rkən
INTJ INTJ INTS-1sgABS 1sg.INT-E-race-go.to-PROG

Oh! If only I too was going racing.

[cy055]

Within the semantic constraints given, this process seems very productive. It is common in narratives (despite an almost complete absence in elicited language). Other motion verb stems observed with incorporated manner and/or purpose verbs include the following:

FIGURE 12.2. Verb compounds.

ekwet-VH					
go away	kəʔənt-akwat	run away	MANNER	kəʔənt	run
vi	racwəŋ-akwat	go off to race	PURPOSE	racwəŋ	race
lqət-VH					
set off vi	rʔile-lqət	gallop off	MANNER	rʔile	gallop
	ʔire-lqət	set off to race	PURPOSE	ʔire	race
	nju-lqət	set off on watch	PURPOSE	nju	be on watch

yt [•] vh go to vt	r ⁷ ela-yt mæje-yt	gallop to go to dance	MANNER PURPOSE	r ⁷ ile mæje	gallop dance
yala go past vlab	r ⁷ ela-yala rəjo-yala	gallop past stand a whole watch period	MANNER PURPOSE	r ⁷ ile rəju	gallop be on watch

This type of compounding corresponds to the unified treatment of verb serialisation and verb compounding given by Durie (Durie 1997:291; note that Foley and Olsen state that motion verbs are far more likely to serialise; Foley and Olsen 1985). Verb-verb compounds are complex predicates which describe a single event which shares tense, aspect, modality and polarity, and which also appear to share an argument. When both stems are intransitive this shared argument is clearly in underlying S role of both verbs. When one verb is intransitive and the other is transitive, the syntactic role of the underlying argument is A and S_a (actor S, but not undergoer S). The case of the nominal representing this argument is determined by the head verb (i.e. the second verb stem of the compound). This type of compounding is similar to the 'associated motion' described by Australianists (e.g. in Arrente, Wilkins 1991, Koch and Simpson 1995; in Yidiny 'going and coming' Dixon 1977).

The following pair of examples show compounding with a labile yala- pass. In example 029 yala- is intransitive, in 030 it is transitive:

- 029 ʔera-yala-ʔe tatl-a-k qaca nəwil-ʔi Cəkwəjaqaj
gallop-pass-TH door-E-LOC NEAR stop-TH personal.name.3sgABS
He galloped past, next to the door Cəkwəjaqaj stopped [cy310]
- 030 ɟutkete lajen ta-ʔe mraɟ-qac=ʔm ʔera-yala-nenat
through.here really come-TH right-SIDE=EMPH gallop-pass-3sgA.3plO
ɟan ramk-etə pecacqew-nenat
DEICT folk-ALL leave.behind-3sgA.3plO
He came through here on the right, he quickly passed them (and came) to another encampment, he left them all behind.

Compounding is very occasionally observed with verbs that do not indicate motion or purpose. Example 031 shows compounding of a phasa! verb:

- 031 iw-nin ee waj ɣəmo m-a-myə-janot-ʔa-k=ʔm
say-3sgA.3sgO INTJ INTJ 1sg.ABS 1sg.INT-E-begin-be.first-TH-1sg=EMPH
yətə ənqen kəara-iten
2sg.ABS this.3sgABS nursery.sled-REL.3sgABS
muuril q-a-jaa-ʔ-a-n
caravan.ABS 2sg.INT-E-use-TH-E-3sgO
He said to her, "So, I'll start off first, you guide the nursery sled in the caravan" [cy272]

Apart from verb-verb compounds, verbs form compounds with modifiers from other word classes, including adjectives, adverbs and (semantically non-core) nouns:

COMPOUND WITH ADJECTIVE ʔomr strong

- 032 n-iw-qin "q-ʔomr-enanrat-a-rkanl" //
HAB-say-3sgS INT-strong-hold.on-E-PROG
orw-etə n-ʔomr-enanrai-qen
sled-ALL HAB-strong-hold.on-3sgS
She says: Hold on strongly. He held on strongly to the sled [cy99-100]

NOTE: from the adjective stem ʔomr- there is a derived adverbial ʔomr-etə *strongly* and a derived verb root ʔomr-aw- *become strong*.

COMPOUND WITH ADVERB winw-e secretly

- 033 qut-ti joro-cəko-jpə n-a-winw-a-llep-qinet
one-3plABS sleep.chamber-INESS-ABL HAB-E-secret-E-look-3pl
n-ajəlyaw-a-lʔat-qenat [...]
HAB-fear-E-INTS-3pl
The others secretly peeked out of the sleeping chamber, they were afraid. [cy420]

The noun myu- *caravan* is used with the intransitive stem təle- *go* to indicate the manner of motion:

COMPOUND WITH NOUN myu caravan

- 034 otcoj ye-myū-təle-linet qeluq=ʔm ya-pker-a-ɟgo-lenat /
long! PF-caravan-go-3pl because=EMPH PF-arrive-E-INCH-3pl
jara-k
house-LOC
They travelled by caravan for a long time, because they started approaching the house. [cy299]

The verb təle- *go* is an intransitive, but the noun joined to it is not an underlying S. Thus, this is an example of compounding, not of syntactic incorporation.

12.5 Incorporation/compounding and the lexicon

Certain collocations of words which are structurally like compounding or syntactic incorporation have also got non-systematic, unpredictable morphological or semantic features, which show that these collocations are part of the lexicon (§12.5.2).

12.5.1 Metalinguistic attitudes

Even implication that there are metalinguistic attitudes towards incorporation and compounding might seem strange, as there is no claim that Chukchi speakers have any particular special attitudes towards other grammatical phenomena. However, incorporation and compounding do have the notable feature that they can produce word of quite unusual length. There is a whole genre of humour/oral virtuosity based on this, sometimes called ɣəyləwetyaw *tongue twister* hurry-word.3sgABS (this name may be a calque of Russian *skorogovorka*). A few tongue twisters include:

- 035 γəmo ɣərʔo-wʔare-keɣu-neɣe-lʔ-iγəm¹
1sgABS three-fork-stick-TOOL-NMZR-1sgABS

I have a three-pointed walking stick.

[ɲawkəke]

- 036 qaa-jɣ-ə-n ɣacy-ə-kemce-rpʔo-corm-ə-jaal-kena-lʔ-ə-n
reindeer-AUG-E-3sgABS left-curly-[fur?]-EDGE-E-rear-REL-NMZR-E-3sgABS

Big reindeer with the leftside curly back fringe.

[Kromo]

The tradition is old, and many tongue twisters are handed down through the generations, but new ones are also created.

12.5.2 Lexicalisation

Instances of lexicalised incorporation (i.e. incorporations which existed as diachronic rather than synchronic processes) have more complex semantics than simple incorporation. Such multiple stem roots are semantically more than the sum of their parts, and need to be treated as separate lexical entries. Syntactic incorporation is no less subject to lexicalisation than compounding. Many of the common instances of syntactic incorporation (particularly those involving the stem *qora-/qaa-* reindeer, see below) are actually lexicalised.

The two basic criteria used here to determine that a complex root results from a non-productive (i.e. lexicalised) process are semantic and morphological. The semantic test is a test of predictability of meaning. If the meaning of a complex root is unpredictable on the basis of its parts then it constitutes a separate lexical entry. The morphological test refers to predictability of form: an unpredictable form is diagnostic of lexicalisation. The form of a complex root can be unpredictable in two ways. It may contain elements in addition to those lexical morphemes which constitute the complex root syntactically and semantically, such as thematic suffixes, or it may contain 'fossilised' lexical morphemes which are separable, but which do not rate their own lexical entry as they do not occur as the lone lexical head of a morphologically simple word.

In the following example, the word *owemeyletəmyəʔe* *she worked cooking* is a lexicalised compound by the morphological criterion. The word *uwi-* *cook* is a normal intransitive verb, but **miylit-* (assuming the +VH comes from the inchoative suffix *-myə*) seems to be an unusual form of *miyciret-* *work*.

¹ This tongue twister does not obey the phonological rule of the vowel harmony word prosody (ɣərʔowʔare- is +VH and -keɣunəɣelʔiγəm is -VH). Several other tongue twisters in my collection have vowel harmony violations; perhaps tongue twisters are so grammatically extreme for some speakers that they cannot apply their phonology in the regular manner.

- 037 qol=ʔm ɲan owe-meylet-ə-myə-ʔe caj-koka-t
one=EMPH DEICT cook-work-E-INCH-TH tea-pot-3plABS
γ-itit-linet n-uwi-lʔet-qin cama
PF-boil-3plS HAB-cook-DUR-3sgS and

The other started doing the cooking, the kettles boiled, and she cooked away.
[cy291]

The source of the form **miylit-* is obscure. The *c-I* alternation is common, although usually the *c* form has the more lexicalised, less general meaning, and the form in example 037 seems to show the reverse. The missing *-et* is diachronically a suffix (see §14.3 and below), so its absence is not overly remarkable, particularly since it is often omitted in the presence of the inchoative *-myə/-ɣɣo*, as well as a few other suffixes. However the final *t* where we would expect *r* is remarkable; the Chukchi language does not show such an alternation. Further research might show that it is a cross-dialect loan form.

The complex root *ɲew-ə-nju-* *to seek a wife* is a lexicalised instance of syntactic incorporation according to the semantic test. As mentioned in the discussion of examples 008 and 009, *ɲaju-/nju-* in isolation means *be on night watch over reindeer* (see example 038; there is a different word, *qora-nt-at-* *pasture reindeer*, used for standing watch over reindeer during the day). In this complex root the incorporated nominal *ɲew-* *woman* and the intransitive verb stem *ɲaju-/nju-* together have a special, unpredictable meaning of *be in search of a wife*. Compare unlexicalised use of *ɲaju-/nju-* in 038 to the lexicalised complex root in 039.

- 038 pətk-ə-nju-lqət-ʔi
repeat-E-be.on.watch-set.off-TH

He went back once again on [night] herding duty

[nb036.5]

- 039 camʔam t-ə-re-ɲew-ə-nju-ʔe
unable.MOD 1sg-E-FUT-wife-E-be.on.watch-TH

I can't go looking for a wife

[cy164]

The complex intransitive root *qora-nm-at-* *to slaughter reindeer* is formed from the two nouns *qora-* *reindeer* and the transitive verb stem *təm-/nm-* *kill*. It counts as lexicalised according to both semantic and morphological criteria. Semantically, this word only applies to the killing of domesticated reindeer for food and materials, and most likely it would be in the traditionally prescribed manner and carried out by someone who was culturally licensed to do it (i.e. someone who makes their living from reindeer husbandry). It could not apply to a wolf which killed a reindeer (except a personified wolf in a fairy tale), or to non-Chukchis shouting a reindeer which they fancied was wild.

LEXICALISED SYNTACTIC INCORPORATION

- 040 anə janot ya-qora-nm-at-ə-lʔat-lenat
so first PF-reindeer-kill-TH-E-DUR-3plS

But first they slaughtered lots of reindeer.

[ot095]

Furthermore, the root includes the thematic element *-et^{VH}*, which is characteristic of many lexicalised complex roots, and as such is a morphological diagnostic of lexicalisation. This suffix is discussed in its wider functions in §14.3. Many other complex roots with incorporation of the noun *qora-/qaa-* *reindeer* have this suffix, e.g. *qoraytat-* in the following:

- 041 *penr-ə-tko-lʔ-ə-jɣ-ə-n* *qora-jɣ-ə-n*
 go.after-E-AP-NMZR-E-AUG-E-ABS reindeer-AUG-E-ABS
ənqen *n-ə-qora-yt-at-qen*
 that HAB-E-reindeer-go.to-TH-3sgS

That attacking reindeer drove the others.

[cy247]

The verb stem here is *-yt-* *go to*, but the complex root can only mean *drive reindeer*, not *go to reindeer* as would be predicted from the individual morphemes.

Two more examples of lexical incorporation are 042 *qora-penr-at* *go after reindeer*, and 043 *qora-nt-at-* *pasture reindeer*:

- 042 *ya-qora-penr-at-len* *Cəkwaɣaɣaj* *remk-ə-k*
 PF-reindeer-go.after-TH-3sgS personal.name.3sgABS folk-E-LOC

Cəkwaɣaɣaj went after the reindeer in the other encampment

[cy117]

In isolation the stem *penr-* *go after* is usually used in the sense of *attack* (see example 041), however the meaning *attack reindeer* would be very unusual for the root with incorporated *qora-*.

- 043 *q-ə-qora-nt-aa-rkən*
 INT-E-reindeer-pasture-TH-PROG

Pasture the reindeer!

[cy003]

The stem *-nt-* in isolation means *have*, but is usually used as an auxiliary with verb bases (see §13.5 and §17.3.2).

12.5.3 Productivity

At least some instances of incorporation in Chukchi are non-productive lexicalisations, and so the productivity of incorporation as a whole could be questioned. In *Languages of the Soviet Union* Comrie gives a dim view of the future of incorporation as a productive device in Chukchi:

[...] it should be noted that while this syntactic device [noun incorporation by verbs] is very common in traditional tales, it is much less frequent in current writing, and virtually absent in translations from Russian, i.e. incorporation seems to be on the wane in the modern language. (Comrie 1981:250)

However, this is not necessarily true; in my experience modern Chukchi writing and translation from Russian is the output of tertiary educated bilingual Chukchis. These people have quite low levels of spontaneous native language use (for reasons discussed in §1.2). The language used by monolinguals and people engaged in more

traditional enterprise (e.g. associated with reindeer herding) does not give any indication that incorporation is 'on the wane'.

12.6 Grammaticalisation: stems → affixes

When Chukchi is examined from a diachronic perspective, it is apparent that processes of incorporation are the source for many derivational affixes. There is a grammaticalisation cline with incorporated stems on one extreme and derivational affixes on the other. In her typology of noun incorporation, Mithun (1984) notes that:

A number of languages have affixes which correspond to incorporating V[erb]'s in other languages. The Chukotko-Kamchatkan languages [...] also have small sets of derivational suffixes which, when added to N[oun]'s, function much like incorporating V's (Bogoras 1922). They supply meanings such as 'to fetch', 'to take off (clothing)', 'to put on (clothing)', 'to search for', and 'to consume, eat'. Suffixed to N's, they derive V stems denoting unitary activities, as in Koryak (044) and Chukchi (045):

044. *pcal-tlvái*
 boot-take.off
 'He took off his boots'

045. *kulté-llí-rkít*
 thong.seal.sole.hide-look.for-they
 'they are looking for thong-seal sole-hide.'

Bogoras never justifies his distinction between these 'derivational suffixes' and incorporating V stems. It is likely that these suffixes are simply old V roots which, in the modern language, never occur without an IN [Incorporated noun].

(Mithun 1984:887; example numbers changed)

Further investigation of the suffixes in question bears this out. For example, the suffix *-u* *CONSUME* mentioned could be related to the verb *ru-l-nu-* *eat* (vt) which has the initial alternation *r- ~ -n-* which is usually a transitiviser (§11.1).

The Inchoative and completive suffixes *-myo* and *-plətku* are formally identical to the verbs meaning 'start' and 'finish'. The *-myo* suffix is in free variation with a phonological variant *-ygo*; the verb stem can not have this form. These suffixes are similar to verb compounds (and are presumably historically derived from them), however, in the synchronic language these element can be shown to be suffixes not stems due to their behaviour when combined with other derivational morphology (see §14.4.1).

Other derivational suffixes look like they come from old intransitive verbs. As was shown in §12.4, motion verbs are commonly the heads of verbal compounds. Some grammatical suffixes look like they are the results of grammaticalisation of verb

compound heads. The purposive suffix *-cqiw* seems to be cognate with the verb *lqat-* *set off* (see examples 025-027). The verb *lqat-* can incorporate a verb indicating purpose of motion (see 027) to form a compound verb, and can also incorporate stems to do with manner. The suffix *-cqiw* is restricted to purposive function only.

046 *ik-wʔi:* *kitaqun* *q-a-yite-cqik-w-a-n* //
 say-TH HORT INT-E-look.at-PURP-TH-E-3sg
yite-cqiw-nin //
 look.at-PURP-3sgA.3sgO

He said, "How about you go have a look". She went to look.

[ka20-21]

The alternation between *c* and *l* is a common derivation, where the variant with *c* indicates a more lexicalised or grammaticalised form. In verb endings and verb derivational suffixes an alternation between *-(e)t* and *-(e)w* is common (the *e* only appears in the absence of other vowels; see §14.3). For this to be compelling we would require evidence that *lqat-* came historically from **lqi-t*.

13

Non-finite deverbal forms

13.1 Introduction

Chapters §§10-12 have dealt with the properties of inflecting (FINITE) verbs. As a word class, verbs have been defined according to their morphosyntactic properties, e.g. person-number cross-reference of arguments and systematic marking of tense, aspect and mood (§4.5). VERB STEMS are simply considered those stems which can be appropriately inflected to form verbs. However, this stem class can be morphologically marked to function in other ways, i.e. to produce words of other word classes. The other verb stem derivations include:

- (i) ACTION NOUNS
- (ii) PARTICIPLES
- (iii) INFINITIVES
- (iv) CONVERBS
- (v) DERIVED (DEVERBAL) VERB BASES

Action nouns and participles are described in §8.2, §8.4. These forms, although having some verbal features, are functionally closest to other nominals. The remaining classes are more verblike. The infinitive forms a compound predicate with a main verb; the converb forms an adverbial subordinate clause, and the derived verb base acts as the lexical head of an analytic verb. Verb bases and converbs can also act as adverbs within clauses.

There are two converb suffixes which uniquely mark converbs. Another converb suffix also marks the infinitive. The affixes for the derived verb bases are the same as certain case markers and deadjektiv al adverbialisers. Derived verb bases often appear in certain speech styles with ellipsis of their auxiliaries; in such cases they can be difficult to distinguish distributionally from converbs.

13.2 Definitions

Chukchi converbs are a verbal subclass derived from verb stems, encoding tense/aspect, but not inflecting for person and number. Converbs either function to modify a clause in the same way as an adverb does, or to act as the heads of adverbial subordinate clauses (Nedjalkov 1995; Haspelmath 1995). While

arguments may be shared between main clause and converb clause, it is not obligatory, and identity relationships can only be determined pragmatically.

The infinitive is syntactically dependent on a main verb and has one or two obligatory shared core arguments. The Chukchi infinitive is homophonous with a converb, i.e. the suffix *-k* is a bifunctional converb/infinitive marker (Nedjalkov 1995:104).

The deverbal verb bases function as the lexical heads of analytic verb complexes. Within the analytic verb complex the verb base marks polarity and (to a limited extent) tense-aspect properties. All the regular tense-aspect-mood and person-number cross reference categories are marked by the auxiliary verb (§17.1.3).

The formal criteria for distinguishing infinitives, converbs, and verb bases in Chukchi are:

INFINITIVE:

- non-inflecting (no argument cross-reference)
- no tense or aspect specification
- obligatory shared argument/s with matrix verb

CONVERB:

- non-inflecting (no argument cross-reference)
- dependent but distinct tense and aspect (i.e. relative tense-aspect)
- no obligatory shared argument/s

VERB BASE:

- non-inflecting (no argument cross-reference)
- independent tense, aspect and mood (marked by auxiliary)
- no obligatory shared argument/s

Thus, verb bases form (at least part of) the head of a main clause, converbs form a separate predicate which is subordinate to a main clause, and infinitives form part of a lexically compound predicate. Converbs and verb bases each have distinctive morphological marking; the infinitive is marked by the same suffix as one of the converb functions. Stems forming converbs and infinitives combine with verb derivational affixes.

The converbs distinguish a number of relative tense categories, which are marked by means of suffixes:

- k* anterior clause (simple temporal sequence)
- (i)negu* anterior clause (causally connected; consequence)
- ma* simultaneous clause

The derived verb base forms can be divided into those showing positive and negative polarity. The negative polarity forms are frequent in the language, as they are one of the main ways of forming a negative clause (§§18.2.3-4):

e-___-ke negative universal/habitual

luŋ-___-(t)e negative perfect

The non-negative forms use the suffix *-ytə* for forms which indicate something which is semantically a property (note that this suffix is also used to form de-adjectival adverbs/verb bases). All other non-negative verb bases are derived by means of the suffix *-(t)e*, which is frequently combined with prefixes which mark further aspectual specification:

ye-___-(t)e comitative

em-___-(t)e restrictive

telwe-___-(t)e intensifier (counter to expectation)

mec-___-(t)e approximative

Conspicuously absent from this corpus are converbs of cause and purpose, which appear in the literature (e.g. supine *-nwə*, causal *-jpə*; Skorik 1977:138, 153) but did not occur spontaneously in any texts. Skorik's causal and purposive converb examples were not recognised in elicitation sessions with native speakers, suggesting that these forms are not used in the Telqep variety. In the texts which make up the database for this description clauses of reason and purpose are introduced by conjunctive particles (cf. *qelūq*; §5.5.2). Other conjunctive particles (with finite clauses) also have functional overlap with converb clauses, particularly coordinating conjunctions like *ənkʔam* *and*, *əŋqorə* *then* which provide the temporal organisation of the text (§5.5.2).

13.3 Infinitive

The infinitive is a verb form which is syntactically dependent on a main verb in the same clause, forming a compound predicate with a single valency. The infinitive combines with main verbs with phasal meaning ('start, stop') and with predicates enabling or inhibiting the action of the verb in the infinitive.

The most common compound predicate with an infinitive has an intransitive main verb and an intransitive infinitive, which share an S. If the transitivity of the main verb and the infinitive is different, the common argument is in the S=O absolutive case role, i.e. the argument which can be represented by a nominal in the absolutive case. If both main verb and infinitive are transitive the shared argument is the A. Thus, the four possibilities are:

(i) $S_{main}=S_{infinitive}$

(ii) $S_{main}=O_{infinitive}$

(iii) $O_{main}=S_{infinitive}$

(iv) $A_{main}=A_{infinitive}$

Example 001 shows an inflecting phasal verb *qəpaaye* *finish* (2sgS) with an intransitive infinitive complement *lejwəlʔetək* *wander* sharing its subject:

- 001 "anou ɣinqeɟl" / ətɬʰa-ta n-in-lw-qin "anou ɣinqeɟl
INTJ boy3sgABS mother-ERG HAB-TR.say-3sg INTJ boy.3sgABS

q-a-paa-ye leɟw-a-lʰet-a-kl"
INT-E-finish-TH wander-E-DUR-E-INF

"Hey boy!", mother says to him, "Hey boy, stop wandering!" [ot041]

The relative order of the main verb and the infinitive is determined pragmatically (§19), and there is no syntactic difference between $V_{\text{infinitive}} + V_{\text{main}}$ constituent order and the converse; compare 002 and 003:

- 002 qaa-nm-at-a-lʰat-a-k re-yʰinre-ʔe-ʔm /
reindeer-kill-TH-E-DUR-E-INF FUT-be.greedy-TH=EMPH
na-ra-nm-a-yət petle ne-re-lqeynek-wət
3A-FUT-kill-E-2sgO quickly 3A-FUT-shoot-2sgO

If you get greedy killing the reindeer they'll kill you quick, they'll shoot you [jo033]

- 003 qeeqən t-a-re-ninʰe-jw-a-yət / anə ɣan /
...ther 1sg-E-FUT-explain-AUG-E-2sg so DEICT
re-ly-inʰ-a-twɪ-yʰe / ʔamən=ʔm re-yʰinre-ʔe
FUT-INTS-fast-E-run-TH INTJ=EMPH FUT-be.greedy-TH
ɣelwəlʰ-a-kə qaa-nm-at-a-lʰat-a-k
herd-E-LOC reindeer-kill-TH-E-DUR-E-INF

Further on I'll explain it all to you: [how] you will run so quickly, and [how] you'll have your fill in the herd slaughter: reindeer [jo032]

Less commonly the infinitive and main verb are both transitive, sharing an A, as in example 004. The labile verb *nəlyitwemetewqin* can be determined to be 3plA.3sgO from context (the 3sgS form is identical; §10.3.2).

- 004 ləyen n-a-lyi-tewmetew-qin taɣ-əməlʰo-ɣet rə-ra-yt-at-a-k
really HAB-E-INTS-be.unable-3sgO EMPH.all-?? CS-house-go.to-TH-E-INF
qeluq uɟge ənqen MJASO n-a-nʰel-qin
because NEG.EXI DEM.3sgABS meat HAB-E-become-3sg

Only they were unable to take all of them home, because the meat ran out. [ke179]

Likewise, in example 005 the main verb *nəlwawqen* could either be 3plA.3sgO or 3sgS, but from context it is clear that the plural A reading is to be preferred.

- 005 n-a-lwaw-qen ɣelwəl rə-rayt-at-a-k
HAB-E-be.unable-3sgO herd.3sgABS CS-go.home-TH-E-INF

They couldn't bring the herd home. [ke176]

With an intransitive main verb and a transitive infinitive, the S of the intransitive is the same as the O of the transitive. Example 006 shows a very rare example of this with an overt nominal in A role of the infinitive (in ergative case, as would be expected):

- 006 ik-wʰe-t / yat / moryənan ləɣ-kə nʰ-enqet-a-nʰ
say-TH-3pl 2sg.ABS 1pl.ERG take.as-INF 2sg.COND-desire-E-2sg

ya-ɣalwəlʰ-a-ma ya-jara-ma mənʰ-a-n-raytat-yət
ASS-herd-E-ASS ASS-house-ASS 1plA.COND-E-CS-go.home-2sgO

They said, "Do you desire us to take you [in]? We would bring you home along with house and herd" [jo008]

In example 007 the identity of the shared argument is ambiguous. Semantically the subject of the intransitive infinitive *qorayənretək* could be thought to be both the A and the O of the transitive verb *ninewinretqin*. The verb *ninewinretqin* *she helped him* is unambiguously transitive because of the *ine-* prefix, and the verb stem *qorayənret-* is unambiguously intransitive, because of *O-*incorporation of the noun stem *qora-* *reindeer* by the transitive verb stem *yənret-* *guard*.

- 007 ləyen n-ine-winret-qin qora-yənret-a-k
really HAB-TR-help-3sgO reindeer-guard-E-INF

She helped him herding the reindeer [be025]

This ambiguity is of course not incompatible with the generalisation that $Q=S$ when the transitivity of a main verb and an infinitive doesn't match. Example 008 shows another infinitive with similarly ambiguous argument coreference:

- 008 ee qarəm wətku / rə-lw-a-tko-yʰa poɟy-a-lʰat-a-k
INTJ NEG.FUT only.then FUT-defeat-E-INV-TH spear-E-DUR-E-INF
wətku ənka rə-n-rayt-an-ɣ-a-n
only.then here FUT-CS-go.home-CS-TH-E-3sgO

No, only once you defeat us in spear duelling, only then will you take her home. [ot071]

The subject of *poɟyəlʰatək* *duel with spears* could be any or all of the participants.

Infinitives can take verbal derivational morphology, such as the duratives in examples 001 and 002, and the desiderative in 009:

- 009 əc-ena-cemyʰo-ta ɣ-ugel-c orw-a-qaj-a-tkən-a ləyen /
3pl-TH-think-VBase CONV-collect.firewood-CONV sled-E-DIM-E-TOP-INST really
cinit n-a-yjulet-qinet qənut / ewən ce-miyciren-ɣ-a-k
self HAB-E-learn-3plS like INTS DESID-work-DESID-E-INF

On their own, relative collecting firewood on top of little sleds, by themselves they learn (they want) to work. [ch23]

They usually occur adjacent to their head verbs (examples 001-002, 004-008) or only separated by one or two words (examples 004-005, 009). The occasional instance of an infinitive occurring in isolation or widely separated from its head usually appear to be cases of ellipsis of the main verb. For example, in 010 the infinitive *makatək* *to make nappy* is part of a compound predicate with *najaaqen* *they use [it]*; however, the equative complement *makaɟʰərʰo* *as a nappy filling* between the main verb and the infinitive seems to complete the main clause, leaving *makatək* looking like an afterthought or rephrasing:

- 010 teg-em-wit?-a-wit n-a-jaa-qen ənqen əmə
 INTS-REST-moss-E-REDUP.3sgABS HAB-E-use-3sgO this.3sgABS only
 maka-jʔər?-ə ceq-u leen makat-a-k /
 nappy-filling-EQU something-EQU really make.nappy-E-INF
 ujge e-kəmli-ke / teg-em-wit?-e
 NEG.EXI PRIV-fluff-PRIV INTS-REST-moss-INST

They only use moss as nappy filling, to make nappies, not cottonwool, [they do it] with moss only. [ch09]

13.4 Converbs

Telqep Chukchi has three converb affixes. The form *-ma* indicates a clause concurrent with the main clause, and the forms *-k* and *-inegu* indicate a clause which temporally precedes the main clause. The distinction between the latter two forms is that *-k* indicates simple precedence in temporal sequence, whereas *-inegu* is resultative, indicating a prior action/state which has relevance to the main clause. These types are illustrated in examples 011-014.

SIMULTANEOUS CONVERB CLAUSE: *-ma*

- 011 ənkʔam / kolqocat-a-ko-yʔe remk-a-n qanur / [...]
 and join.kolxoz-E-ITER-TH folk-E-ABS like
 qanur ləmalja-n=ʔm / ənqorə=ʔm ɣan kolqocat-a-k
 like obedient-ABS=EMPH then=EMPH DEICT kolxoz-E-LOC
 ʔel-yʔi remk-a-n=ʔm remk-a-n=ʔm ɣan / aʔrʔec=ʔm ɣan
 become-TH folk-E-ABS folk-E-ABS=EMPH DEICT finally=EMPH DEICT
 malj-a-maraw=ʔm ɣan wa-ma / remk-a-n / kolqocat-yʔe
 big-E-light.3sgABS=EMPH DEICT be-SIM folk-E-3sgABS join.kolxoz-TH

And, the people entered the collective farm [kolxoz] like.. like they were obedient. Then people began to be in the collective farm, only during the big war [lit. while the big war was being] the people entered the collective farm. [he023]

ANTERIOR CONVERB CLAUSE (TEMPORAL SEQUENCE): *-k*

- 012 caj-o-ɣo-k ne-nəyjuw-ʔe-n mal-ʔataw
 tea-CONSUME-INCH-SEQ INV-wake-TH-3sgO APPR-ʔ
 iyat-qej atcʔat-yʔe
 now-DIM.3sgABS sleep-TH

After starting to drink tea they woke him, several times, he'd only just gone to sleep. [ot058]

ANTERIOR CONVERB CLAUSE (CONSEQUENCE): *-inegu*

- 013 ləyen ʔire-platku-negu y-ekwet-lin jara-ɣta
 really race-FINISH-CONSEQ PF-leave-3sg home-ALL

Since [he] finished racing he set off homewards. [cy154]

- 014 [...] / ewar inʔetw-inegu ləyen-ewar n-ena-pecacqew-qen
 so manage-CONSEQ really-so HAB-TR-leave-3sg
 cenet-wann-a n-a-nʔel-qin cinit n-a-qame-twa-ɣgo-qen
 self-tooth-VBase HAB-E-become-3sg self HAB-E-eat-RESULT-INCH-3sg

... once they can manage they leave them, [when] they've got their own teeth, [and] they begin to eat by themselves. [aa4.04]

In example 012 the attempt to wake the sleeper follows without any necessary causal connection to the prior event of 'beginning to drink tea'. Example 014 is from a description of how a reindeer weans her calf; once the calf can manage by itself then she leaves it. Thus, the *-inegu* converb form marks an event which is a precondition for the event of the main verb. Likewise, in example 013 'finishing the race' was a necessary condition for the racers to set off home.

There is no requirement that arguments of converbs be coreferent with those of the main predicate. In the example 015 the converb *eryatak the next day* [lit. after it dawned] is formed from a zero-intransitive. The converb *rewiwka after making camp* has no syntactically unambiguous S, but from context the S is clearly 3pl 'they' (all the people of the encampment)

- 015 rewiw-ka=ʔm / eryat-a-k ɣinqej-qej ənqen
 make.camp-SEQ(-EMPH) dawn-E-SEQ boy-DIM.3sgABS DEM.3sgABS
 enaralʔ-a-ɣawacqat-etə / n-a-lewlicet-qin n-a-rʔe-qin
 neighbour-E-girl-ALL HAB-E-tease-3sg HAB-E-do.something-3sg

The next day after they made camp that little boy teased one of the neighbouring girls, did something or other. [ot009]

It is unusual for there to be two converbs in a sentence; if there are two they seem to be limited to the *-k* converb; the causal/implicational relationship implied by *-inegu* may make this form semantically inappropriate for use in series. Converbs of anteriority usually precede the main verb (iconicity in constituent ordering); however, the other order does also occur:

- 016 n-iw-qin "itək-ewən ləyen cəmqaq əməlʔo t-a-tku-net" /
 HAB-say-3sg so-INTS really remainder all 1sgA-E-annihilate-3plO
 jara-k pəkir-a-k
 house-LOC arrive-E-SEQ

He said "As it happens I simply wiped out all the rest", [he said] after arriving home. [ot123]

Subordinate clauses do not seem to occur in the middle of the main clause.

While there is no syntactic pivot (Foley and Van Valin 1984:108), there is a strong tendency for an argument of the subordinate verb to be coreferent with an argument of the main verb. There is however no particular preference for these coreferent arguments to mark fixed syntactic roles. The following examples show some of the patterns observed:

COREFERENCE: $S_{sub} = S_{main}$

- 017 n-iw-qinet tala-ma "mət-ra-rʔela-myo-yʔa=ʔm mən-racwəy-mək"
 HAB-say-3pl walk-SIM 1plA-FUT-race-start-TH=EMPH 1pl.INT-be.in.race-1pl

They said while they were walking "We'll start racing, we'll be in the race" [cy357]

Note that out of context it would also be possible to interpret this as *...while I/we/you/he/she/it was walking...*

COREFERENCE: $S_{sub} = A_{main}$

In the following example S of the subordinate clause is coreferent with A of the main clause. The coreferent argument ?eqenjiw *bad uncle* is explicitly mentioned once, and even though it fills two syntactic roles it is only marked for its role with respect to the main verb (in the ergative case, A function of a transitive verb). Thus, a converb seems to be less likely to govern case agreement than a main verb.

- 018 ?eqenjiw-e pakir-inegu n-in-iw-qin "okoko koj!
 HAB-TR-ERG approach-CONSEQ HAB-TR-say-3sg INTJ INTJ
 ɔ̃nɔ̃nɔ̃ n-ə-rɔ̃q-iyət eqelug n-omrʔo-lʔat-eyətʔ"
 001 HAB-E-do.what?1sg because HAB-sweat-DUR-2sg
The bad uncle having approached said to him "Okoko, what are you doing that you are sweating so much?" [cy011]

Taken out of context this example could also be interpreted as not having coreferent arguments: *He approached then the bad uncle said...*

COREFERENCE: $A_{sub} = S_{main}$

In this example S of the main verb is coreferent with A of the subordinate verb.

- 019 piri-negu əplaa-n q-ə-rayt-ə-ye
 take-CONSEQ flour-3sgABS INT-E-go.home-E-TH
Once you've got the flour come (straight) home. [nb035.3]

COREFERENCE: $S_{sub} = O_{main}$

- 020 luur emice / ənqen jəlq-ə-ma ejwel-qe-e
 suddenly quietly that.3sgABS sleep-E-SIM orphan-DIM-ERG
 n-in-iw-qinet: ənqe / e-tengətku-lʔet-ke
 HAB-TR-say-3plO NEG.HORT NEG-laugh-DUR-NEG
Suddenly quietly while they are sleeping the orphan says to them, "Don't laugh". [ke010]

COREFERENCE: $O_{main} = A_{sub}$

- 021 ?inə t-ə-lqəynew-ə-n qorə-ḡə ənən pere-ma
 wolf.ABS 1sg-E-shoot-E-3sg reindeer-3sgABS 3sg.ERG grasp-SIM
I shot the wolf while it was grasping the reindeer. [nb035.2]

13.5 Verb bases derived from verb stems

The distinctive grammatical feature of verb bases is the ability to combine with auxiliaries to form analytic verb heads. While like converbs these forms are structurally a kind of 'deverbal adverb', they do not form heads of adverbial clauses, and thus they must be distinguished from converbs. There are three basic suffixes, the - $\gamma t\alpha^{*VH}$ suffix (which is formally identical to the allative case; this suffix also derives verb bases from adjectives, §16.5), the - η adverbialiser suffix, and the -(t)e *VH suffix (which is formally identical to the ergative/instrumental case). The -(t)e suffix occurs both in isolation, and also along with various prefixes, including ye-, telwe-, mec-.

There also exist underived verb bases (e.g. ləyi *know*); this word class is discussed in §4.6; combination with auxiliaries is discussed in §17.3.2.

•MORPHOLOGICAL FORM. The adverbialiser suffix - η^{*VH} makes a deverbal verb base in combination with the prefix ?eqe- (otherwise an adjective stem meaning *bad*) to form the IMPOSSIBILITIVE CIRCUMFIX ?aqa-___- η^{*VH} , which encodes the notion of impossibility. It often occurs with auxiliaries:

- 022 ?aqa-no- η t-ə-re-nʔel-ə
 IMPOSS-eat-VBase 1SG-E-FUT-become-E
[Later] I'll become inedible [ke110]
 023 qəram-ewən itək ənqena-t ?aqa-tam|en-ə- η wa-lʔ-ə-t
 NEG-INTS so this-3plABS IMPOSS-deceive-E-VBase be-NMZR-E-3plABS
No way, they're untickable [an021]

The following example shows the impossibilitive without an auxiliary:

- 024 ɣeekke-qej=ʔm qelug=ʔm taḡ-ə-nm-ə-nen qelug=ʔm
 girl-DIM.3sgABS=FMPH because=EMPH INTS-E-kill-E-3sgA.3sgO because=EMPH
 ?aqa-n-malaw-at-ə- η
 IMPOSS-CS-recover-CS-E-VBase
The girl though he killed alas, because [she] was impossible to cure. [kr152]

However, the auxiliary is here retrievable (i.e. wa-lʔ-ə-n, as in 023).

Nedjalkov (1994) reports that there is also an ABILITIVE CIRCUMFIX taḡ-___- η , but this is not attested in my data. This form is morphologically analogous to the impossibilitive (the prefix taḡ- apparently comes from the stem teḡ *good*), but it should be noted that the functional load of forms of teḡ- *VH in Telqep Chukchi is already very high; in its intensifier function it even occurs with the impossibilitive, e.g. taḡ-?aqa-tw-ə- η *really impossible to translate* (INTS-IMPOSS-say-E-VBase, [kr057]). The suffix - η^{*VH} also occurs with deäjectival adverbs in comparative constructions (§16.6).

The verb base suffixes -(t)e *VH and -etə *VH share morphological irregularities with case suffixes. The suffix -(t)e has the same allophony as the ergative and instrumental cases (compare §6.2):

$$\{\text{VERB BASE}\} \rightarrow \begin{cases} -te^{*VH} / V_ \\ -e^{*VH} \text{ elsewhere} \end{cases}$$

The suffix - $\gamma t\alpha$ shares the same allophony as the allative case (compare §15.2.2):

$$\{\text{VERB BASE}\} \rightarrow \begin{cases} -et\alpha^{*VH} / C_ \\ -\gamma t\alpha^{*VH} \text{ elsewhere} \end{cases}$$

This suffix forms adverbs from adjective stems; these deäjectival adverbs also combine with auxiliaries to make predicative adjective constructions with tense-aspect-mood different from the grammatically unmarked predicate adjective forms with n-___-qin(et) (see also §16.4). Example 025 shows identical constructions with a deäjectival verb base (arojwetə yenʔellin *become healthy* < arojw- ADJ

healthy) and a deverbal verb base (*qetpetə yənʔellin* become determined < *qetp-vi. be determined*):

025	gan	ənqora	gan	kimitʔ-ə-n	qənwer	/
	DEICT	then	DEICT	trade.goods-E-3sgABS	finally	
	qənwer	wa-ɣɣo-ɣʔe	/	ɣalwəlʔ-ətə	remk-ə-n	/
	finally	be-INCH-TH		herd-ALL	folk-E-3sgABS	really=EMPH
	ya-taɣacʔ-ə-ɣɣo-len	remk-ə-n	lāyən=ʔm	/	arojw-ətə	ye-nʔel-lin
	PF-live.well-E-INCH-3sg	folk-E-3sgABS	really=EMPH		healthy-VBase	PF-become-3sg
	qora-yənret-ə-k	emto	qetp-ətə	ye-nʔel-lin=ʔm		
	reindeer-guard-E-INF	further	determined-Vbase	PF-become-3sg=EMPH		

Then trade goods finally started appearing at the herds, so people began living well, the people became fitter in reindeer herding, became more determined.

[he056]

The -(t)e verb base suffix frequently occurs with verbal and adverbial stem derivational affixes. The verbal derivational prefixes found in the data are *em-RESTRICTIVE* and *mec- APPROXIMATIVE*; these do not function with verb bases in any way differently than they do with other deverbal word classes (§14.5.3). A wide range of aspectual and other verb stem derivational suffixes also occur (e.g. -lʔet *DURATIVE* in example 026 below).

There are also two special derivational prefixes which only occur with adverbs and verb bases. These are *telwe- INTENSIFIER* (always translated by bilinguals as the Russian counter-expectation/exclamatory particle *až!*) and *ye-*. The *ye-* prefix seems to be a historical comitative (it occurs with the homophonous *ye-___-(t)e* comitative case and with the associative case *ya-___-ma*). As a verb base it is used as an alternative universal/habitual aspect form, and is generally not accompanied by an auxiliary. Example 026 shows two forms, with the intensifier prefix *telwemejgete* (< *mejget* grow up) and with the 'comitative' prefix *yelejwəlʔete* (< the durative derivation of the stem *lejw* roam).

026	ənʔam	leen	gan	telwe-mejget-e	leen	qonpə	ənɣin	/
	and	really	DEICT	INTS-grow.up-Vbase	really	always	thus	
	[ɣaryən...]	ɣaryəno-jpə	ye-lejw-ə-lʔet-e	ɣinɣey-ti				
		outside-ABL	COM-roam-E-DUR-Vbase	child-PL				

And so right up to adulthood children are always thus going about outdoors.

[ch21]

There is also evidence of a verb base form *ya-___-ma*, which seems to be functionally identical to the verb base *ye-___-(t)e*. These are also the forms for the associative and the comitative cases, which are functionally extremely similar (§§6.5.1-2); the verb base function of *ya-___-ma* is very rare, and may be the result of grammatical interference from the nominal case marking subsystem.

CONTRASTING *ye-___-(t)e* AND *ya-___-ma*

027	ewat	ye-rewiw-e=ʔm	mec-mejget-ə-lʔ-ə-t=ʔm	ewat
	so	COM-make.camp-VBase=EMPH	APPR-be.big-E-PCPL-E-3plABS=EMPH	so
	ye-wey-ə-tku-lʔet-e	ralqaj-ə-nwə-k	/	ya-wəlpə-tko-ma
	COM-claw-E-UTIL-DUR-VBase	camp-E-PLACE-LOC		COM-shovel-UTIL-VBase?

While making camp the somewhat grown up ones clean the snow away (lit. scratch) at the campsite, using a shovel.

[ch24]

•MODIFIER FUNCTION. There are very few examples of the -etə form without auxiliaries; all involve simultaneous associated motion, coreferent with A/S (semantic agent) of the main clause. These act as clause modifier adverbs.

028	lāyən	na-taɣ-ə-nm-ə-ɣʔa-n	katyant-akwat-ətə	n-iw-qinet
	really	INV-INTS-E-kill-E-TH-3sgO	run-leave-ADV	HAB-say-3pl

"lik lāyi-mik-ə-ne re-piri-ɣ-nin

INTJ EMPH-who-E-ERG FUT-take-TH-3sgA-3sgO

Cəkwəɣaqaj-ə-n ɣewʔən?

personal.name-E-POSS.3sgABS wife

They just cruelly killed him, running away they said "Well then, who'll it be who'll take Cəkwəɣaqaj's wife?"

[cy363]

Example 029 shows an adverb *mecyənunete* by halves formed from the verb *yənunet- split into two* and the -(t)e suffix:

029	iee	qonay-te	lāyən	əməlʔo	plek-ə-t	/	irʔ-ə-t
	excellent	trouser-3plABS	really	all.3sgABS	shoe-E-3plABS		clothing-E-3plABS
	lāy-ewirʔ-ə-t	/	jara-ɣə=ʔm	əmə	kaara-n		
	AUTH-kuxlanka-E-3plABS		house-ABS=EMPH	also	nursery.sled-ABS		
	narta-qaj	ənka	lāyən	neməqej	/	ɣelwəl	lāyən
	sled-DIM.3sgABS	here	really	also	herd.3sgABS		really
	mec-yənunet-e	ne-cwi-ɣʔe-n	ənqen	muu-lqat-ɣʔe-t			
	APPR-halve-VBase	3A-cut-TH-3sgO	this	caravan-set.off-TH-PL			

[There were] fine trousers, everything, shoes, kuxlanka- traditional costume, a jarajə, even a nursery sled, a little sled, that was there too, the herd was divided in half, and the caravan set off.

[cy244]

The -(t)e form also occurs as an adverb modifier. The morphological similarity of this form to the instrumental case is closely paralleled by its semantic similarities:

030	lāyən	cinit	ɣilep-e	n-ə-ɣjulet-qinet
	really	self	watch-VBase	HAB-E-learn-3plS

All by themselves [by] watching they learn.

[ch26]

The stem *cimʔu* can be a verb *think* or a noun *thought*; in the following example *əccenacemyʔota* could be interpreted as instrumental case noun or as a deverbal verb base. If this word is a noun the pronoun is an incorporated possessor, but if analysed as a verb it would be an incorporated actant in the experiencer role (syntactic subjects are not usually incorporated, but incorporation of semantic experiencer is much less unlikely than incorporation of semantic agent; §12.3).

- 031 gan galwəlʔ-etə cinit ewən n-a-lajw-a-ggo-qenat=?m cinit
 DEICT herd-ALL self INTJ HAB-E-roam-E-INCH-3pl=EMPH self
 leen n-a-lqat-qenat galwəlʔ-etə acc-ena-cemyʔo-ta leen
 really HAB-E-set.off-3pl herd-ALL 3pl-TH-think-VBase really

They themselves begin to go to the herd, themselves go off to the herd on their own initiative. [ch22]

•TRANSITIVITY. It is most usual for the deverbal verb base form to occur with an auxiliary verb, such as in 032-035. This inflectional affixation of this auxiliary carries the overt marking of transitivity. The -etə verb base is always intransitive, and combines with the wa- and -nʔel auxiliaries (*be* and *become* respectively; see §17.3.1). There are no examples of the -etə verb base occurring with transitive or intransitivised stems.

Example 025 above shows an analytic verb with the auxiliary nʔel-; example 032 shows a participle form of the analytic verb formed with the auxiliary wa-:

- 032 ənqen n-a-tejk-a-qin [ənkəkwa..] ləyen=?m
 this.3sgABS HAB-E-make-E-3sg ... really=EMPH
kəkwat-etə ewən wa-lʔ-a-n n-a-mitʔenumkew-qin
 dry.out-ADV INTJ be-PCPL-E-3sgABS HAB-E-hide-3sg
 kəmniget-kin jaa-jo-lqəl
 birth-REL.3sgABS use-PASS.PCPL-NMZR.3sgABS

That is done with a really dry one, a dried out one put aside [hidden] earlier to use for births. [ch04]

The -(t)e verb base suffix can be added to a transitive or intransitive stem. The transitivity of the auxiliary agrees with the transitivity of the stem:

INTRANSITIVE pelqete ityʔi he died (of neglect/exposure)

- 033 ne-n-pelq-ew-a-n pelqet-e it-yʔi ne-n-jalyat-at-a-n ganqen
 INV-CS-die-TH-E-3sg die-VBase be-TH INV-CS-move.camp-TH-E-3sg DEM.3sgABS
They left him to die, he died, they drove him away. [jo122]

TRANSITIVE təwa qəntəyʔen tell it out loud

- 034 təw-a q-a-nt-a-yʔe-n
 tell.about-VBase INT-E-AUX-E-TH-3sgO
Tell it out loud. [nb030.6]

TRANSITIVE waloma nəntəqin they've heard about it

- 035 taq-yemo wʔe-ko-yəry-a-n ganqen gan /
 EMPH-not.know.VBase die-ITER-NMZR-E-3sgABS that.3sgABS DEICT
 atrʔec walom-a etʔam n-a-nt-a-qin
 finish hear-VBase apparently HAB-E-AUX-E-3sgS
...[they] don't know a thing about death, they've only heard about it apparently. [he006]

The different auxiliary verbs are discussed in §17.3.

13.6 Negative verb bases

There are two deverbal negative derivations which differ aspectually. According to formal criteria (§13.2) they are verb bases, since they combine with auxiliaries to form the lexical heads of analytic verb heads. The verb base formed by luq--(t)e has perfect aspect (example 037) and the verb base formed by e--ke has habitual/universal aspect (example 036). The habitual/universal converb is also used for negative imperatives.

In the following example the imperfective is used with the auxiliary nʔel *become* to show inception of a state:

- 036 ana waj ləyen jʔa-naly-a-jg-a-n ləyen qonpa
 so DEICT really raw-hide-E-AUG-E-ABS really always
 n-a-gatwa-qen / qənwet a-qetəkwat-ka ye-nʔel-lin
 HAB-E-sit.on.sled-3sg finally NEG-freeze-REVERS PF-become-3sg
 naly-a-jg-a-n ya-kəkwat-len
 hide-E-AUG-E-ABS PF-dry.out-3sg

Well that Rawhide simply sat on the sled the whole time. Finally the Rawhide stopped freezing, she dried out [cy300]

As with other verb bases, there can be ellipsis of the auxiliary where it is retrievable:

- 037 luq-iw-e "waj eryatak ənan m-a-lqat-yʔe-k"
 NEG-say-NEG DEICT tomorrow FUT 1sg.INT-E-set.off-TH-1sg
[He] didn't say [to himself, i.e. 'he didn't think']: *Well tomorrow I'll set off.* [cy302]

Example 038 shows the negative imperfective form used as an imperative:

- 038 "ana e-lejw-a-tku-lʔet-ke" atlʔa-ta n-in-iw-qin
 so NEG-roam-E-ITER-DUR-NEG mother-ERG HAB-TP say-3sg
 "ana e-lejw-a-tku-lʔet-ke::"
 so NEG-roam-E-ITER-DUR-NEG
"Don't wander off all the time", his mother said to him, "Don't wander off..." [ot023]

See §§18.2.3-4 for details.

14

Verbal derivation

14.1 Introduction

This chapter describes the residue of stem derivational morphology not already covered in the discussion of valency changing and converb/verb base derivation. These markers include word-class changing affixes and non-word class changing affixes. Derived verb stems can be used to form words of a number of other classes, particularly converbs (§13.4) and participles (§8.2). Derived verb stems do not act differently to underived stems for the purposes of nominalisation (for examples, see 008-011 and 034 below; §8.5).

Chukchi stem derivational morphology can be classified according to a number of different functional types. A description of the rules for morphological combination is given in §14.2.

- **VERB DERIVER** (§14.0). The suffixes *-et^{VH}* and *-ew^{VH}* (which mostly act like allomorphs; see below) perform a range of generally unpredictable morphological functions, including derivation of verbs from other word classes, acting as thematic suffixes with other derivational prefixes, and marking certain forms as having unpredictable semantic or syntactic features.

- **ASPECTUAL** (§14.4). These include affixes concerned with the endpoints of verbal actions/events (the inchoative *-ŋgo/-myo*, the completive *-płatku*, the resultative *-twa*) and their duration (the durative *-lʔet*, iterative *-tku*, punctual *-cqacet*).

- **VERBAL QUANTIFIERS** (§14.5). There are two verbal quantifiers which indicate that the verbal action is by or on a collective entity: *-jw* indicates collective O and *-rʔu* indicates collective S. There are also verbal intensifiers (*tej-*, *lyi-*) and approximative (*mec-*) which quantify the event as a whole.

- **MODAL** (§14.6). Includes desiderative *re-___-ŋ-* and purposive *-cqiw*. Diminutive *-qeet* and augmentative *-əyat* are also considered with the modal suffixes as their main function is expressing something about the relation of the attitude of the speaker to reality.

- **MISCELLANEOUS DERIVATION** (§14.7). The suffix *-u* derives a verb with the meaning 'consume' or 'process' (for example, 'processing animal hides to make clothing'). The

suffix *-tku* derives a verb from a noun meaning 'to use [noun] as a tool, to work with [noun]' (for the possible relation of this to other instances of the *-tku* suffix see §14.7.2). The reversative *-tw* derives a verb from another verb meaning 'to reverse the process of [verb]'.

14.2 Morphological behaviour

Derived verb stems occur in most word class changing derivations that underived verb stems can enter into. Derived verb stems do form converbs, but do not seem to form verb bases (§4.6, §13.5).

Most verbal derivational suffixes can combine with most others, and it is quite usual for a verb stem to have several derivational prefixes and suffixes:

- 001 *m-ə-lye-taŋ-ketʔo-jw-ə-nat*
1sg.INT-E-INTS-INTS-remember-COLL-E-3pl
I remember them well [kr075]
- 002 *ənkʔam waj ənqen wʔi-tku-lʔet-γʔi remk-ə-n=ʔm* /
and DEICT DEM.3sgABS die-ITER-DUR-TH folk-E-3sgABS=EMPH
qənut neməqeʃ ɣelwəlʔ-ə-t / [...]
like also herd-E-3plABS
And folk all died off, and the herds too... [he075]

In multiple derivations morpheme order is constrained as shown in figure 14.1.

FIGURE 14.1 Morpheme order for derivational affixes.

teŋ	lyi	re	ine	n	---	-et -ew	-tku	-ɣ	-tku	-rʔu -jw	-lʔet	-myo -ɣgo -plətku
INTS	INTS	DESID	AP	CS	stem	TH	AP	DESID	ITER	COLL	DUR	INCH COMPL

The verb deriving suffixes *-et* and *-ew* are multifunctional in a very unsystematic, lexicalised way (§14.0). They occur inside all other derivational suffixes. The forms *-cəqəcə* (punctual), *mec-* (approximative), *-qeet* (diminutive) and *-cyat* (augmentative) are not attested with other derivational suffixes (possibly due to their rarity, possibly due to semantic incompatibility; see §14.4.4, §§14.5.3-6). The resultative *-twa*, the reversative *-tw* and the purposive *-cqi*w are attached directly to the underlying verb stem, as are the lexical verb deriving suffixes *-u* (consume) and *-tku* (utilitive). The *ine-* prefix (antipassive/applicative), the antipassive function of the *-tku* suffix, and the causative/applicative circumfix *-n-...-et/-ew* (word initial form *r-...-et/-ew*) are discussed in §§11.5-6.

In verb compounds derivational morphology is added to the compound as a whole; there are no derivational suffixes added to the first verb of a compound, nor derivational prefixes added to the second verb. That is, the position of derivational suffixes on verbal compounds is always [stem₁]-[stem₂]-[DER], and never [stem₁]-[DER]-[stem₂]. The inchoative (*-myo/-ɣgo*) and completive (*-plətku*) derivational suffixes (§14.4.1) are formally identical to verbs with the same meaning (i.e. *start*,

finish), and it might be possible to analyse them as verb stem heads of compounds rather than derivations. However, since all other derivational morphology is conveniently ordered before these forms (see figure 14.1), it is possible to show that these are distinct derivational suffixes, and are not just compounded verb stems. This is a good example of grammaticalisation. Compare the behaviour of the derived verb stem *rʔela-myō- start to gallop* with the verb compound *rʔile-lqət- set off galloping* when each is combined with the collective suffix *-rʔu*:

- rʔela-rʔo-myō-* (gallop-COLL-INCH) *start to gallop as a group*
rʔile-lqət-rʔu- (gallop-set.off-COLL) *set off galloping as a group*

If *-myō* was to be considered an example of the verb stem *start*, the predicted form would be **rʔela-myō-rʔo-* (i.e. [stem₁]-[stem₂]-[DER]), which is ungrammatical.

Derivational morphology occurs closer to the stem than inflectional morphology; this is in agreement with general typological norms (Payne 1990, Anderson 1992; see also §10). In example 003 verbal inflectional morphology has a single underline and verbal derivational morphology has a double underline:

- 003 *cake-qaj t-ə-re-piri-cqi-w-ɣ-ə-n* / *gelwəl*
sister-DIM.3sgABS 1sg-E-FUT-take-PURP-FUT-E-3sg herd.3sgABS
əmə t-ə-ra-ɣ-lʔat-ɣ-ɣ-ə-n
also 1sg-E-FUT-CS-go-CS-FUT-E-3sg
I'll go to take back [my] sister; I'll lead off a herd too. [ot087]

14.3 Verb deriver *-et* and *-ew*

The semi-allomorphic (see below) forms *-(e)t^{-vH}* and *-(e)w^{-vH}* are ubiquitous verb derivational suffixes (the vowel in the suffix only appears after a consonant). They have a number of functions, first among which is to derive verbs from stems of other word classes. The derived verb can be transitive, intransitive or labile. There is no rule determining which of the two suffixes is used for derivation of verbs from other parts of speech.

VERB	SOURCE
<i>cawcəwa-w</i> (vi) <i>become a rich herder</i>	<i>cawcəwa-</i> (n) <i>rich reindeer herder</i>
<i>jərʔ-et</i> (vt) <i>fill</i>	<i>jərʔ-</i> ^{-vH} (n) <i>contents</i>
<i>kətəjy-at</i> (vi) <i>be windy</i>	<i>kətəjy-</i> ^{-vH} (n) <i>wind</i>
<i>tumy-ew</i> (vt) <i>befriend</i>	<i>tumy-</i> (n) <i>friend</i>
<i>utʔəm-et</i> (vi) <i>erect tentpoles</i>	<i>utʔəm</i> (n) <i>tentpole</i>
<i>wiŋ-ew</i> (vt) <i>train, break (to harness)</i>	<i>win-</i> (adj) <i>tame, broken (to harness)</i>
<i>ənp-ew</i> (vi) <i>be(come) old</i>	<i>ənp-</i> ^{-vH} (adj) <i>elderly</i>
<i>ʔəl-et</i> (vi) <i>snow</i>	<i>ʔəl-</i> ^{-vH} (n) <i>snow</i>

Other verbs exist which can be shown to have one of these suffixes which can't be shown to be derived, at least in the contemporary language, for example:

VERB	RELATED FORM (without -et/-ew)
kəly-et (vlab) <i>harness</i>	kəly-ə-tw- (vt) <i>unharness</i>
təmje-w ^{VH} (vi) <i>get lost</i>	təmje-twa- <i>be lost (RESULTATIVE)</i>

Although *kəly-* and *təmje-* do occur without the *-et/-ew* suffix (example forms shown in the second column, above), the bare stems do not occur without some sort of derivation.

There are extremely rare instances of these two forms distinguishing different words, e.g. ?ur-et- (vi) *be born* and ?ur-ew- (vi) *poke head out* (e.g. person peeking out of the sleeping chamber, seal poking head out of breathing hole in the ice). While this ought to be enough to declare the two suffixes different morphemes, there are other factors make them look like lexically conditioned (irregular) allomorphs.

The main evidence that these forms are allomorphs occurs with addition of the transitivity *r/-n-* prefix (causative §11.5.1, applicative §11.6.1); in most (but not all) instances, addition of the causative prefix to a root with *-et* is accompanied by replacement of *-et* by *-ew*, e.g.:

INTRANSITIVE FORM	TRANSITIVISED FORM
cimir?-et <i>break, tear</i>	-n-cimir?-ew <i>break, tear</i>
tomy-at- <i>come into being</i>	-n-tomy-aw- <i>create</i>
mej- ^{et} - <i>grow up</i>	-n-mej-ew- <i>bring up</i>

An exception to the above rule is:

kəlw-et- <i>be tied up</i>	n-kəlw-et- <i>tie up</i>
----------------------------	--------------------------

This alternation between *-et* and *-ew* does not seem to occur in the direction *-ew* → *-et*.

INTRANSITIVE FORM	TRANSITIVISED FORM
tenm-aw- <i>be ready</i>	-n-tenm-aw- <i>prepare</i>
ny-ew- <i>wake</i>	-n-ə-ny-ew- <i>wake</i>
ajəly-aw- <i>be afraid</i>	m-ajəly-aw- <i>frighten</i>

Forms without either *-et* or *-ew* when intransitive almost always add one or the other when transitivity is added by the *r/-n-* prefix:

INTRANSITIVE FORM	TRANSITIVISED FORM
təlw-/lw- <i>burn</i>	-n-ə-lw-et- <i>burn smth.</i>
ynu- <i>be left over</i>	-n-ynu-w- <i>leave over</i>
cajo- <i>drink tea</i>	-n-cajo-w- <i>give tea to</i>

There are occasional verbs which have the *-et* or *-ew* suffixes apparently just to indicate that the verb is somehow derived. It indicates a number of non-systematic valency changes, e.g.

- *pela-t-* (vi) *remain* < *pela-* (vt) *leave* (anticausative: S of *pelat-* corresponds to O of *pela-*, but *pelat-* has no underlying A)

- *lw-aw-* (vlab) *be unable* < *lw-* (vt) *defeat, be victorious over* (S/A of *lwaw-* corresponds to O of *lw-*; the argument structure of *lwaw-* does not have an element corresponding to A of *lw-*; O of *lwaw-* corresponds with O of a transitive infinitive complement)

Likewise, certain verbs with an incorporated argument must take the *-et* suffix (apparently never *-ew*). The verbs which do this are all verbs referring to traditional activities, and the suffix seems to show that they have special, unpredictable meanings. For example, when the transitive verb *təm/-nm-* *kill* incorporates the O function noun stem *qora-* *reindeer*, the resultant complex stem has the form *qoranmat-* (with *-et^{VH}*), and refers to the slaughtering of a domestic reindeer in the traditional manner for domestic purposes; if discourse required an incorporated verb referring to *moose-killing* (an elaborate context would have to be set up, since moose are killed on an ad hoc basis without particular cultural/ritual significance), the verb would be *wopqanm-* (<*wopqa-* *moose*) and never **wopqanmat-* (this phenomenon is discussed further in §12.5.2).

Note that not all instances of the phonemes *et* or *ew* at the end of verbs are necessarily separable morphemes; the verb *ekwet-* (vi) *set off* forms the causative as *-n-ekwet-ew-* (vt) *drive off*, which shows that in the intransitive stem the *et* is part of the underlying stem.

The suffixes *-et* and *-ew* can sometimes be deleted without any change in meaning when combined with other derivational suffixes; however, even where it can occur this deletion is not obligatory. The following example shows two forms of the inchoative of *miycir-et-* *work*:

004	n-ə-meycer-ə-myo-qen	n-ə-meycer-et-ə-myo-qen
	HAB-E-work-E-INCH-3sg	HAB E-work-VB-E-INCH-3sg
	Both: 'S/he began working'	

[nb024.1]

14.4 Aspectual derivations

Chukchi has a large number of aspectual derivations which occur in addition to inflection for tense-aspect.

14.4.1 Inchoative -*nggo/-myo* and completive -*plətku*

The inchoative has two forms, *-nggo* and *-myo*, which are in free variation. Examples 005 and 006 show both forms used with the same verb by the same speaker at different times in a single narrative.

005	qeylananyet	er-yat-ə-k=ʔm	qora-yərke-nggo-yʔa-t
	truly	sunrise-E-SEQ=EMPH	reindeer-collect-INCH-PF-3pl
	Truly the next day they started collecting together the reindeer		
	[cy081]		
006	gelwəl	rə-pkir-ən-nin	qora-yərke-myo-yʔa-t
	herd.3sgABS	CS-return-CS-3sgA.3sgO	reindeer-collect-INCH-PF-3pl
	He brought the herd in, they started to collect together the reindeer.		
	[cy118]		

The *-myo* suffix is formally identical to the verb *myo-* *begin*, shown in the following example:

007 internat-a-k t-a-myō-ʔa-k keli-tku-k
boarding.school-E-LOC 1sg-E-begin-TH-1sg write-ITER-INF

In the internat I began to study.

[na086:1]

In Standard Literary Chukchi (Skorik 1977:193) only the *-ŋgo* form of the Inchoative suffix is attested. Formal criteria showing that *-myo* is a derivational suffix as well as a word stem are discussed §14.2. The free variation between the *-myo* and *-ŋgo* allomorphs of the derivational suffix (as opposed to the invariant *myo-* verb stem) is additional evidence that the derivational suffix and verb stem are distinct morphemes.

Inchoatives and completives occur with inflecting verbs and with all other deverbal word classes, e.g.:

INFLECTING VERB

008 ecyi qora-nm-at-a-platko-yʔa-t anrʔa ɣalwəlʔ-eta ʔn-in
no.sooner reindeer-kill-TH-E-COMPL-TH-3pl then herd-ALL 3sg-POSS.3sgABS

ɣelwəlʔ-a-qej r-ɛjmew-nin ewət tanɣ-en
herd-DIM.3sgABS CS-approach-3sgA.3sgO so stranger-POSS.3sgABS

ɣalwəlʔ-a-jɣ-ʔ-n
herd-E-AUG-E-3sgABS

As soon as they finished reindeer slaughtering now off to the herd, he drove his little herd, likewise the strangers' big herd.

[ot097]

CONVERB

009 ɕaj-o-platko-k-ʔm ɣato-yʔe ʔnpənacɣ-a iw-nin / [...]
tea-CONS-COMPL-SEQ=EMPH exit-TH old.man-ERG say-3sgA.3sgO

He finished drinking tea and went outside, the old man said to him, "...."

[cy201]

VERB BASE

010 ewət [ɣat...] ya-tew-a-tko-ŋgo-ta ɣan jalyət-ken
so COM-beat.snow-E-ITER-INCH-VBASE DEICT nomadise-REL.3sgABS

inege-t ye-tiw-e ewət cinit leen
cargo.sled-3plABS COM-beat.snow-VBASE so self really

ya-tew-a-tko-myō-ta ye-wincet-e ʔməlʔo leen remk-a-n
COM-beat.snow-E-ITER-INCH-VBASE COM-help-VBASE all.3ABS really folk-E-3sgABS

ewət ɣeekke-qey-ti ɣa-ra-tew-a-lʔat-a
so girl-DIM-3plABS COM-house-beat.snow-E-DUR-VBASE

Then (they) begin beating off snow, from the cargo sleds used in nomadising they beat off snow, themselves beginning to beat off snow, helping the whole camp, the girls beating snow from the houses.

[ch25]

PARTICIPLE

011 ʔəməŋ ʔemi a-pecqajo-ŋgo-kə-lʔ-ena-t
and INTER NEG-have.diarrhoea-INCH-NEG-PCPL-TH-3plABS

And they don't get diarrhoea

[ch19]

The completive suffix has exactly the same type of grammaticalisation as the inchoative discussed above. The completive suffix *-plətku* is formally identical to the verb *plətku-/plətku-* *finish*. They can be distinguished morphologically; if a sequence VERB STEM + *plətku* was to be considered the head of a compound verb, it would be expected that the compounded verb stem could not have any derivational suffixes, i.e. there could be no verb derivational affixes between the compounded verb stem and *plətku*. This is, however, not the case, as example 012 shows:

012 kawratl-a-lʔat-yʔe kawratl-a-lʔat-a-platko-yʔe
roll-E-DUR-TH roll-E-DUR-E-COMPL-TH

He rolled, he finished rolling.

[jo044]

This can be contrasted to the inchoative marked verb *plətku-* in example 013, which is clearly a verb stem, since in addition to the inchoative suffix it is marked with the verb derivational prefix *lyi-*.

Derivational suffixes with phasal meaning are not incompatible with phasal verbs expressing seemingly contradictory meanings. There are a number of examples in the texts of inchoatives suffixed to the verb *plətku-* *finish*, as in the following:

013 ʔnkʔam / nenənə ɣə-ɣə-ryaa-rkən / ne-r-lyi-a-rkən-lyət
and baby.3sgABS cry-PROG 3A-FUT-say-E-PROG-2sgO

"waj waj q-a-n-ləwat-y-a-n anə tery-a-lʔat-a-rkən " /
INTJ INTJ INT-E-CS-breastfeed-TH-E-3sgO and cry-E-INTS-E-PROG

ləyən q-iw-a-rkə-net "eej waj t-a-lye-platko-ŋgo-yʔa-k
really INT-say-E-PROG-3plO yes DEICT 1sgS-E-INTS-finish-INCH-PF-1sgS

janot waj qeme-jərʔ-a-n m-a-tejk-a-yʔe-n!
first DEICT dish-contents-E-3sgABS INT.1sgA-E-make-E-PF-3sgO

And, [if] the child will cry, they'll say to you "Hey hey, breastfeed him, he's crying", you just say to them "Yes, I've just started doing [lit. finishing] this, first I'll dish up the food [lit. make the dish contents]!"

[cy40:1]

14.4.2 Lexically specific inchoatives -rʔu and -twi

The meteorological inchoative *-rʔu* derives zero-intransitive verbs from nouns referring to meteorological phenomena (discussed in §11.2.1). This suffix might be cognate with the formally identical collective suffix *-rʔu* (§14.5.1) although there is only a tenuous semantic link. It is impossible to show that there are distributional differences between the two functions of the form. While the meteorological inchoative only ever occurs immediately adjacent to the stem, this does not show that it is in a different morphological slot than the collective. The only morphemes which could intervene between the verb stem and the collective suffix, and which therefore could be diagnostic, do not occur for semantic reasons: the desiderative and purposive are incompatible with meteorological verbs (since meteorological verbs are agentless), and the iterative is a semantically unlikely aspectual combination (since meteorological verbs with *-rʔu* refer to the inception of states).

The deadjectival inchoative *-twi* (see also §16.5.1) derives an intransitive verb from an adjective meaning 'to become [adjective]', e.g. from the adjective *inʔ-* *fast*:

- 014 naqam ləyen ʔe-qupqet-lin y-inʔ-a-twi-lin
but INTS PF-starve-3sg PF-fast-E-INCH-3sg

But [the bear] was starved and had become very fast

[an080]

The temporal adverb *wulqətwik* in the evening is morphologically a converb formed with this derivation of the adjective stem *wulq-* dark, i.e. *wulq-a-twi-k* (dark-E-INCH-SEQ), literally *after it became dark*.

14.4.3 Durative -lʔet

The durative aspect indicates an intensively prolonged action/event within the tense-aspect frame of the verbal inflection.

- 015 [...] / muu-te qit-ənnən Qəryopely-epə muu-te
caravan-ADV freeze-fish.3sgABS place.name-ABL caravan-ADV
n-a-riwl-a-lʔet-qin / n-a-myut-ə-lʔet-qinet ʔaʔwəlʔ-etəʔm [...]
HAB-E-transport-E-DUR-3sg HAB-E-caravan-go-DUR-3pl herd-ALL=EMPH

... by caravan they transported frozen fish from Qyrgopelgyn, they [always] went in caravan to the herd [he058]

The category of durative aspect occurs in addition to any aspectual inflection; it is common with the statively inflected verbs, which overlap semantically (duratives focus on the length of a process, stative verbs indicate permanent or unbounded processes), but it also occurs with the non-stative verbs in any tense-aspect-mood combination. Examples 016 and 017 show the habitual and perfect forms of the stative paradigms; examples 018 and 019 show non-future and future declarative forms of the non-stative paradigms:

- 016 ʔanqen neme ekwet-ʔʔi ləyen n-a-lejw-a-lʔet-qin meŋqo
there.3sgABS again set.off-TH really HAB-E-walk-E-DUR-3sg why?
Once again he went off there, wandered off for some reason. [ot032]

- 017 ləyen ənkə y-uwintet-a-lʔet-linet
really there ADV PF-make.fire-E-DUR-3pl
So there they made a big cooking fire... [ot094]

- 018 ee ee ʔan ənqena-t=ʔm ra-ʔt-a-ʔa-t
INTJ INTJ DEICT DEM-3plABS=EMPH home-go.to-E-TH-3pl
qora-nm-at-a-lʔat-ʔa-t=ʔm qeluq
reindeer-kill-TH-E-DUR-TH-3pl=EMPH because
So anyway, they went home, and slaughtered a lot of reindeer of course. [ke244]

- 019 ik-wʔi / ʔutkete mət-re-rʔile-mjet-a wolka-ta
say-TH along.here 1pl-FUT-run-gallop-E wolf-ERG
r-ine-rkəle-lʔet-ʔe
FUT-INV-follow-DUR-TH
He said, "We'll run away along here, the wolf will follow me" [ke094]

14.4.4 Punctual -cqəcet

The punctual aspect suffix *-cqəcet*^{VI} indicates an action which occurs in an instant.

- 020 ʔire-piri-cqəcen-nin ʔal-a-tkən-a-k wa-lʔ-a-n ti-na
race-take-PUNCT-3sgA.3sgO snow-E-TOPI-E-LOC be-PCPL-E-3sgABS goad-3sgABS
He grabbed the goad lying on the snow while racing by [nb035.5]

It never occurs with the progressive, but can occur with habitual stative forms to indicate a punctual event repeated several times:

- 021 ana ʔelwəl n-ine-rkəceciw-a-qin qut-ti
so herd.3sgABS HAB-TR-chase-E-3sg other-3plABS
n-ine-piri-cqəcet-qinet ʔalʔal-a-k n-ine-np-a-qinet ʔalʔal-a-k
HAB-TR-take-PUNCT-3pl snow-E-LOC HAB-TR-knock-E-3pl snow-E-LOC
rənn-a-t ənkə ləyen n-a-kamayra-rʔo-qenat
horn-E-3plABS there really HAB-E-struggled-COLL-3pl
Well he chased the herd, quickly took some, knocked [their] horns down onto the snow, there they simply struggled/kicked. [ot053-54]

14.4.5 Iterative -tku

The suffix *-tku* has a number of different functions. It acts as an inverse marker for speech act participants acting on each other when there is a first person plural O (§10.2.2). It also forms an antipassive fused with iterative (antipassive function described in §11.6.2). It can also act as a derivational suffix forming the iterative without antipassive (below). There is also a nominal suffix *-tku* which forms a collective noun (§8.10.1; although not *wʔetkojʔan* a terrible plague in example 023, which is a nominalisation of the iterative-derived verb stem by the augmentative suffix; §8.9.2). There is also a word class changing suffix *-tku* which makes a denominal verb with the meaning 'use [noun] as a tool' (§14.7.2).

Iterative suffix on intransitive verb stems:

- 022 ənqen=ʔm ənqin n-a-ʔu-tku-lʔet-qin ʔan
DEM.3sgABS=EMPH thus HAB-E-say.ʔu-ITER-DUR-3sg DEICT
"ʔu ʔu ʔu"
INTJ INTJ INTJ
He [laughed] like this: "ʔu ʔu ʔu" [ke007]

- 023 ənkʔam / ənqora ʔan wʔi-tku-ʔʔi remk-a-n
and then DEICT die-ITER-TH folk-E-3sgABS
wʔe-tko-ʔn-a-n wa-ʔe=ʔm
die-ITER-AUG-E-3sgABS be-TH=EMPH
And... then many people died, there was a terrible plague. [he011]

Non-antipassivising iterative suffix on a transitive verb:

- 024 jily-a-n tʔer ʔala-ʔe=ʔm / kamlelə ʔara-k
moon-E-3sgABS many pass-TH=EMPH around.ADV house-LOC
cənce-qej kamlelə-ʔ / OLENʔ qora-ʔa ʔa-lye-nm-a-tko-len
close-DIM around-ADV reindeer reindeer-3sgABS PF-INTS-kill-E-ITER-3sg
So many months passed, all around the house close up they killed reindeer. [ka07]

- 025 *caj-o-y'e=ʔm* *qame-twa-y'e=ʔm* *ekwet-yʔi* *neme* *galwəlʔ-eta*
 tea-CONSUME-TH=EMPH eat-RESULT-TH=EMPH set.off-TH again herd-ALL
pocʔa-ka-yəry-ə-t *ye-nni-tku-jw-ə-linet* *ləyen* *əməlʔo*
 sleeve-pierce-NMZR-E-3plABS PF-sew-ITER-COLL-E-3plO really all.3ABS
ka-yəry-ə-t / *əməlʔo* *ləyen* *ye-nni-jw-ə-linet* /
 pierce-NMZR-E-3plABS all.3ABS really PF-sew-COLL-E-3plO
ekwet-yʔi *galwəlʔ-eta*
 set.off-TH herd-ALL

He had tea, ate, and again set off to the herd. She had mended all the sleeve holes, all the holes. She had mended them all. He set off to the herd. [cy040]

14.4.6 Resultative -twa

The resultative derivation forms a stem which indicates a state which is the result of an action (Nedjalkov & Jaxontov 1988:6). Resultative-derived stems most often occur with verbs in the stative inflections, but can also occur with other forms to indicate non-current or superceded states (see example 029).

Nedjalkov, Inenlikej and Raxtilin (1988:152-166) contains a detailed account of the behaviour of the resultative in Chukchi. The resultative is marked by the suffix -twa, which is the same form as the existential copula (§17.2.1). Combinations of verbs plus this form could be analysed as verb compounding. This issue is addressed by Nedjalkov et al., who consider that the best evidence for the distinction between verb head and suffix is the functional-semantic separation, and that morphosyntactic evidence is in itself inconclusive (Nedjalkov, Inenlikej & Raxtilin 1988:157). However, a better reason for considering this form to be a suffix rather than the head of a compound is found in its morphosyntactic structure. There are two issues: (i) the transitivity of a compound is determined by the compound head (the second stem of the compound; see §12.4), and (ii) the compound modifier (the first verb stem of the compound) has a restriction that it must be intransitive. The forms which we will want to call 'transitive resultatives' violate both these conditions. A transitive resultative has the morphological form [stem_{transitive}]-twa-, which shows that the transitivity of the derived verb is determined by the first element, not the second, and that the first element can be transitive. Transitive resultatives are much less common than intransitive resultatives in Chukchi, but examples are still found (see below, 030-031). The relative rarity of transitive resultatives itself may reflect the grammaticalisation path of the resultative from a verb compound with the intransitive existential verb -twa as the head.

The following examples show the use of the resultative derivation with the verb *wakʔo- sit*. Without the resultative the verb *wakʔo-* refers to the action of sitting down (examples 026, 027), while *wakʔo-twa-*, the form with the resultative, refers to the state of being seated (example 028):

- 026 *cot-ə-tkən-ə-k* *wakʔo-yʔe*
 cushion-E-TOP-E-LOC sit-TH
He sat down on the cushion [cy196]

From a narrative about how a mother bear weans her cubs:

- 027 *ənqʔom* *mel-wətku* *n-ə-lyi-peŋʔiwet-qinet* *n-ə-wakʔo-qenat*
 then APPR-only.when HAB-E-INTS-get.tired-3pl HAB-E-sit-3pl
anə *əlon* *n-ə-yəntew-qin*
 so 3sgABS HAB-E-run.away-3sg
And then it's like only when they get completely tired, they sit down, then she runs away. [an050]

- 028 *waj* *ŋotqen* *enmec* *cot-ə-tkən-ə-k* *n-ə-wakʔo-twa-qen*
 DEICT DEM.3sgABS already cushion-E-TOP-E-LOC HAB-E-sit-RESULT-3sg
There he is, he's already seated on the cushion. [cy199]

The verb *wakʔo- sit* is common both with and without the resultative derivation. With the intransitive verb *qame- eat* the resultative is so common as to be virtually a lexicalised part of the stem; the derived verb stem *qame-twa- have something to eat* (the transitive verb *ru-/nu- eat* is formed from a completely different stem):

- 029 *n-iw-ʔe-n* *e* *q-ə-jet-yi* *ewət* / *waj* /
 INV-say-TH-3sg INTJ INT-E-come-TH so DEICT
mət-ra-qame-twa-yʔa=m / *mət-ra-maraw-yʔa*
 1pl-FUT-eat-RESULT-TH=EMPH 1pl-FUT-fight-TH
They said to him, "Oh, come in, so now we'll have something to eat, [then] we'll fight" [ot100]

Transitive resultatives are somewhat less common:

- 030 *ŋewʔen-e* *n-en-ommacajpa-twa-qen* [...]
 wife-ERG HAB-TR-embrace-RESULT-3sg
His wife was embracing him ... [cy385]
- 031 [...] / *ənqen=ʔni* *qora-ŋə* *ənka* *n-ə-twa-qen* *cama*
 DEM.3sgABS=EMPH reindeer-3sgABS there HAB-E-be-3sg and
janot *n-ə-n-ewl-aw-ə-twa-qen*
 first HAB-E-CS-be.tied-CS-E-RESULT-3sg
... that reindeer was there, but first she was tied on a long rope. [ke102]

Resultatives are most common with verbs referring to posture (e.g. 032). This suggests a semantic link to the formally identical existential copula verb -twa-, which is used in locational clauses.

- 032 *ənka=ʔm* *wolka-t* *panra-t* *n-ə-nməlu-qinet* *n-apagatl-ə-twa-qenat*
 there=EMPH wolf-3plABS paw-3plABS HAB-E-lick-3pl HAB-lie.down-RESULT-3pl
And there the wolves were licking their paws, lying prone. [ka23]

There are further examples of -twa in the data. The verb *nəmətwa- live, reside* looks like an irregular resultative; *nəm-* is a noun stem meaning *settlement*, but there is no corresponding verb, so this would be better analysed as S-incorporation:

- 033 *lee* *lāyen* *nām-ə-twa-yʔa-t* *ənqen* *əngin* /
 excellent really settle-TH-3pl DEM.3sgABS thus
ənpənacy-ə-qay-te / *cakəyet* *ewət* *əntuulpər* *ətlon*
 old.man-E-DIM-3plABS sister.3sgABS so wife's.husband DEM.3sgABS
So they all lived well; the old people, the sister, and her husband as well.
 [ot146]

Resultative-derived verb stems can be nominalised. The following example shows derived nominals formed on the basis of the resultatives *atc-ə-twa- be hiding* and *perq-ə-twa- be in ambush*:

- 034 *ənqen=ʔm* *atc-ə-twa-nwə-t* / *qəcaməna-t* *jara-t*
 DEM.3sgABS=EMPH hide-E-RESULT-PLACE-3plABS NEG.ID-3pl house-3plABS
atc-ə-twa-nwə-t *perq-ə-twa-nwə-t*
 hide-E-RESULT-PLACE-3plABS ambush-E-RESULT-PLACE-3plABS
They were hiding places, there weren't houses, [they were] places for hiding, places for ambushes.
 [kr119]

14.5 Verbal quantifiers

The verbal quantifiers are a group of derivations which specify the scope of the action/event represented by the verb over its argument. The collective suffixes mark an argument as affected in notable quantity; the intensifier prefixes emphasise more the activity of the verb. The approximative prefix is the reverse of the intensifier prefixes, indicating that the action of the verb is carried out to a less intensively or less completely.

14.5.1 Collective suffixes -jw and -rʔu

There are two collective suffixes, -jw, which only occurs with transitive verbs and indicates collective O, and -rʔu, which only occurs with intransitives and indicates collective S. Note that there is no verbal derivation for collective A.

The collective suffix -jw has the allomorph -jəw produced according to regular schwa epenthesis rules.

- 035 *ənqen* *n-ine-lyi-ninʔejw-ə-jw-ə-qen* *n-ena-n-rasskazəw-aw-jəw-qen*
 DEM.3sgABS HAB-TR-INTS-teach-E-COLL-E-3sg HAB-TR-CS-explain-CS-COLL-3sg
He taught and explained everything to her.
 [ke174]
- 036 *ewət* *pipik-ə-t* *n-ine-cci-tku-jw-ə-qinet*
 so ankle-E-3plABS HAB-TR-cut-ITER-COLL-E-3pl
Likewise he cut all their ankles apart.
 [ot079]
- 037 *taq-əməlʔo* *t-ə-nm-ə-tko-jw-ə-nat* *iʔam* *yəmn-in*
 INTS-ILL.3ABS 1sg-E-kill-E-ITER-COLL-E-3p why? 1sg-POSS.3sgABS
cakəyet *ye-piri-linʔ*
 sister.3sgABS PF-take-3sg
I've killed them all. Why did they take my sister?
 [ot144]

The -rʔu suffix indicates that the intransitive subject refers to a mass of entities. There don't seem to be any limitations on the semantic role of the S; examples 038-041 show actor S, and examples 039-040 show undergoer S:

- 038 *qora-yərke-platko-yʔa-t=ʔm* *kəlyet-yʔe-t*
 reindeer-catch-COMPL-TH-3pl=EMPH harness-TH-3plABS
yekeq-ə-lʔ-ə-yiniw=ʔm / *ekwet-rʔu-yʔe-t*
 drive-E-NMZR-E-COLL.3sgABS=EMPH set.off-COLL-TH-3pl
They finished catching the reindeer, all the drivers harnessed up and they all set off.
 [cy093]
- 039 *jaalat-rʔo-yʔa-t*
 follow-COLL-TH-3pl
Everybody else followed.
 [ke226]
- 040 *qupqet-rʔu-yʔe-t* / *UMIRET¹-yʔe-t* *OlENI*
 die-COLL-TH-3pl die-TH-3pl reindeer.3pl
They all died of starvation/exposure, the reindeer died.
 [ka11]
- 041 *ənqen=ʔm* *BABAjka²* *kelə* *ye-et-lin*
 DEM.3sgABS=EMPH ghost spirit.3sgABS PF-come-3sg
jəlqet-rʔu-yʔe-t=ʔm *n-ena-lwaw-eyəm* *iw-kə* *TIXO* / *e-quli-ke!*
 sleep-COLL-TH-3pl=EMPH HAB-TR-unable-1sgA say-INF quiet NEG-shake-NEG
There was a ghost, a spirit had come [when] they were all asleep; I couldn't tell them "Quiet! Shut up!"
 [ke055]

14.5.2 Intensifier prefixes

Chukchi has only a small set of verbal derivational prefixes. The prefixes which do occur are all more common as prefixes to adjectives (§16.3.3) or nominals (§8.10.2), rather than verbs.

The prefixes *lyi-* (example 042) and *tey-* (043, 044) are both intensifiers. It is unclear how they differ, and they frequently occur together (045).

- 042 *gelwəl* *kəceciw-ə-nin* *lāyen* *ten-ləmənkəri* *ənqen*
 herd.3sgABS follow-E-3sgA.3sgO really INTS-E-thence DEM.3sgABS
gan *n-ə-lyi-lqeynew-qin* *ʔiy-ə-qej* *ənqen* *ʔorawetlʔa-n*
 DEICT HAB-E-INTS-shoot-3sg wolf-E-DIM.3sgABS DEM.3sgABS person-3sgABS
He simply followed the herd, from all sides far off, they shot at that little wolf, that [one who was actually a] person.
 [ot052]

¹ The stem of the verb *UMIRET-yʔe-t* is Chukchi pronunciation of the Russian infinitive *umeret* 'die'. In standard Russian this has approximate phonetic form [umjə'rev] or [unvə'rev], which is closest to the Chukchi phonemic sequence /umjə'rev/, realised by regular processes as [umiret].

² The word *babajka* is non-standard Russian used by Chukchis; its origin and currency in Chukotka are both somewhat of a mystery (Aikhenvald *pers. comm.*).

- 043 *ʔeekke-qej=ʔm* *qeluq=ʔm* *tan-a-nm-a-nen*
 daughter-DIM.3sgABS=EMPH because=EMPH INTS-E-kill-E-3sgA.3sgO

qeluq=ʔm *ʔaqa-n-malaw-at-a-ŋ*
 because=EMPH IMPOSS-E-CS-recover-TH-E-ADV

But he killed the [horribly injured] girl, because it was impossible to cure her.
 [kr152]

- 044 *layen* *əŋgin* *wetca-ta* *qeynew-nin=ʔm*
 really thus stand-ADV shoot-3sgA.3sgO=EMPH

tan-a-n-peget-aw-nen *WOLKA*
 INTS-E-CS-collapse-TH-3sgA.3sgO wolf.ABS

Just like that, standing up he shot at the wolf, and made him fall right down..
 [ke097]

- 045 [...] *n-iw-qin* *"ooojl* *m-a-lye-tan-panʔew-ŋato-ʔa-k"*
 HAB-say-3sg INTJ 1sg.INT-E-EMPH-INTS-rest-exit-TH-1sg

... she says "Ooh! I'm going to go have a really good rest" [cy344]

The intensifier *lyi-* is apparently related to the noun prefix *lyi-* *real, proper* (a grammaticalisation path also attested in English 'really'; Bybee & Dahl 1989), and *teŋ-vh* likewise is the same as the adjective stem *t-ŋ-vh* *good*.

14.5.3 Approximative *mec-*

The prefix *mec-* indicates that the action/event of the verb occurs slightly or incompletely.

- 046 *ye-mec-ejmew-linet* *jara-k=ʔm* *neme* *ŋewʔen-a-k*
 PF-APPR-approach-3pl house-LOC=EMPH again wife-E-LOC

qaca *wakʔo-ʔe*
 near.PP sit-TH

They got a bit closer to the house, again [they saw] he was sitting next to his wife. [cy384]

A similar meaning can be encoded by the diminutive (§14.6.3); approximative and diminutive cooccur in the following example:

- 047 *əŋqen=ʔm* *tirkatir* *kitkit* *ye-mec-pintəget-qeet-lin* /
 DEM.3sgABS=EMPH sun.3sgABS slightly PF-APPR-show.self-DIM-3sg

SOLNUSHKA=ʔm *t'er-ʔew* *ŋan* *kitkit* *ʔəryola-ta*
 sun=EMPH so.much-ADV DEICT slightly high-ADV

ye-nʔet-lin [...] *PF-become-3sg*

The sun came up a tiny wee bit, the sun just showed, became a little bit higher... [ke009]

The approximative prefix also occurs with nouns (§8.10.3) and adjectives (§16.3.3).

14.6 Modal derivation

The modal derivations are a group of affixes which express notions to do with human attitudes towards the action of the verb. These include derivations

indicating desirability (desiderative, §14.6.1), the purpose of the action (purposive, §14.6.2), and general evaluation of whether the action is good or bad (combined with a size evaluation; diminutive and augmentative, §14.6.3).

14.6.1 Desiderative *re-...-ŋ-*

The desiderative is the regular way to express the notion of wanting for non-first person (first-person wanting is expressed by a verb in the intentional mood). It is formed by a prefix *re-/ce-* and a suffix *-ŋ*. This is very similar to the future tense marker, but the future tense only has the suffix for certain person-number combinations (§10.2.5).

- 048 *cawcawa-tko-t* *əŋqen*
 reindeer.herder-COLL-3plABS DEM.3sgABS

n-a-ra-n-kolqoc-aw-ŋ-a-tko-qenat=ʔm / [...]
 HAB-E-DESID-CS-kolxoz-TH-DESID-E-ITER-3pl=EMPH

They wanted to put the reindeer folk into kolxozes ... [he016]

The following example shows the desiderative on a verb base (describing hilltop fortresses of ancient times):

- 049 *ənkʔam* *cama* *qaletlə* *em-ce-llem-ŋ-e*
 and and downwards REST-DESID-look-DESID-Vbase

And also [they could] look down when [they] wanted. [kr101]

Under elicitation conditions some speakers will allow desiderative derivation on verb stems inflected with the future tense, but this never occurs spontaneously, and it seems possible that this is another instance of overproductive use of morphology by literate speakers.

14.6.2 Purposive *-cqiw*

The suffix *-cqiw* derives a form from verb X indicating 'going in order to X'. It rarely occurs with modal or aspectual derivational suffixes (i.e. except for derivational suffixes which derive verb from stems of other classes). In the following example the verb stem *koralatko-* is derived from the noun *koral* *corral*:

- 050 [...] / *gutrillə* [#] *n-a-koral-a-tko-cqew-qenat* / *layen* [#]
 hither HAB-E-corral-E-U1L-PURP-3pl really

n-a-qaa-ŋt-at-qen *renk-a-n* *n-a-qaa-jonr-at-qen* [...]
 HAB-E-reindeer-go.to-TH-3sg folk-E-3sgABS HAB-E-reindeer-separate-TH-3sg

... the people drove the deer hither to corral them, weaned off the trade herd ... [he058]

- 051 [...] *n-iw-qinet* *Cʔomawaam-eto* *ra-yrolʔ-a-cqew-ŋ-a-t*
 HAB-say-3pl place.name-ALL FUT-calve-E-PURP-FUT-E-3pl

... they said they will go towards Cʔomawaam for the calving season [kr211]

- 052 *iw-nin* *eqəlpe* *q-a-lqut-yi* *layen* *q-ine-kwut-cəqlk-wi* *ŋan*
 say-3sgA.3sgO quickly INT-E-get.up-TH really INT-INV-harness-PURP-TH DEICT

He said to him, "Get up quickly and harness me" [cy086]

- 053 [...] / q-ə-cəj-ə-cqek-we q-ə-recqik-wi
INT-E-tea-CONSUME-PURP-TH INT-E-enter-TH

... come have tea, come in!

[cy190]

While *cəj-ə-cqew-* in order to drink tea from example 053 is a regular purposive, in the variety of Chukchi treated here the verb *recqiw-* enter cannot be synchronically resolved into a verb stem and a purposive. This is not the case for northern varieties of Chukchi, which have the verb *re-* meaning enter, but not *recqiw-*.

- 054 wəne q-ə-jet-yi q-ə-re-yi
INTJ INT-E-come-TH INT-E-enter-TH

Oh come! Enter!

[Bellkov 1961:151]

This shows that *recqiw-* enter of Telqep Chukchi is a lexicalised purposive on an independent verb stem **re-* which no longer occurs in that dialect.

14.6.3 Diminutive and augmentative

The diminutive and augmentative suffixes for verbs are very similar to those of nominals (§8.9). The diminutive *-qeet^{VH}* comes from underlying **-qej-et* (diminutive + verb derivational suffix) and *-cyat* from **-cy^{VH}-et^{VH}* (augmentative + verb derivational suffix). There is no augmentative based on *-jŋ*, the other augmentative suffix which occurs with nouns (§8.9.2). Verbal augmentatives and diminutives are both used to show both fondness and disparagement; these functions are distinguished contextually:

Augmentative showing disparagement:

- 055 rcq-u ja' ə-cyat-y'e?
what-EQU come-E-AUG-TH

Why on earth did you come?

[nb034.7]

Diminutive showing disparagement:

- 056 enaral?ə-ŋawəcqa-ta iw-nin "ilu-ke q-ə-twa-q jat-ə-rkan
neighbour-E-woman-ERG say-3sgA.3sgO move-NEG INT-E-be-DIM-E-PROG

The neighbour girl said to him, "Stop it you little [idiot]! ..."

[ot010]

Diminutive showing affection:

- 057 qeylənanyet jalqet-qeet-y'i puc'e-t
truly sleep-DIM-TH sleeve-3plABS
təni-tku-jw-ə-nine-t cimir'et-ə-l'ə-t ləyen
mend-ITER-COLL-E-3sgA.3plO tear-E-PCPL-E-3plABS really

(And) truly, he fell asleep the poor little thing, she mended the sleeves which were torn.

[cy035]

In more emotionally neutral contexts augmentative is an emphatic/intensifier and diminutive indicates small amount.

Emotionally neutral augmentative - intensifier/emphatic:

- 058 ya-cawcawaw-ə-cyat-len kolo!
PF-be.rich.herder-E-AUG-3sg INTS

Oh and they'd become rich herders!

[ke145]

The emotionally neutral diminutive in this limiting function occurs with *ye-mec-pintəqet-qeet-lin* (PF-APPR-show.itself-DIM-3sg) *it showed itself slightly*, which is used in example 047.

14.7 Miscellaneous lexical derivations

These derivational affixes indicate meanings which are similar to the meanings indicated by lexical stems, and unlike the grammatical type of meanings indicated by the other affixes described above.

14.7.1 Consume -u

The suffix *-u* derives intransitive verbs from nouns referring to comestibles meaning to eat/drink/otherwise consume the item in question.

- 059 eej q-ə-caj-ə-ye waj q-ə-qame-twa-ye q-ə-caj-ə-ye
INTJ INT-E-tea-CONSUME-TH DEICT INT-E-eat-RESULT-TH INT-E-tea-CONSUME-TH
Oh, drink your tea, have something to eat, drink your tea

[cy039]

- 060 ləyen ənkə=ʔm a-taaq-ə-ka t-ə-n'el-ə-k
really there=EMPH NEG-tobacco-CONSUME-NEG 1sg-E-become-E-1sg

cit=ʔm n-ə-taaq-ə-jyəm
first=EMPH HAB-E-tobacco-CONSUME-1sg

It's there I stopped smoking, previously I smoked.

[kr172]

- 061 ya-yt-ə-relq-ə-lenat
PF-hard-E-porridge-CONSUME-3pl

They'd eaten lots of porridge

[ke135]

While the form of this suffix is homophonous with the equative case, there do not seem to be any grounds for considering them cognate.

14.7.2 Utilitive -tku and constructive te-___-ŋ

The suffix *-tku* derives a verb from a noun referring to a tool with the meaning 'use [noun] as a tool', 'work with [noun]'. This affix seems to be productive with any semantically appropriate noun. The derived verbs are usually intransitive, but some are transitive (see 064; the conditioning seems to be lexical).

- 062 gote-nqac ta-y'e ewən ənpənacy-ə-n j'ily-ə-kin
there-SIDE pass-TH INTS old.man-E-3sgABS moon-E-REL.3sgABS
orw-ə-taraq-rajwacə n-ə-yatya-tko-qen /
sled-E-build.house-lee.side HAB-E-adze-UTIL-3sg

He came out of there, an old man of the moon was working in the lee of a sled-house with an adze ...

[cy187]

- 063 aŋqa-corm-ə-k n-ə-nying-tku-qinet
sea-SIDE-E-LOC HAB-E-net-UTIL-3pl

They are net-fishing beside the sea.

[na107:3]

Working with tools necessarily involves iterated motions, and thus it might be the case that this suffix is just a special case of the -tku iterative being used as a word-class changer (noun → verb); §14.4.5.

The verb weyətku- *scratch* is a transitive:

- 064 [...] / wey-ə-tku-nin təm-nen
claw-E-UTIL-3sgA.3sgO kill-3sgA.3sgO

... he scratched him, killed him.

[ot138]

The circumfix te-___-ŋ^{VH} derives an intransitive verb from a noun with the meaning 'make a [noun]':

- 065 əmə ənkə n-ə-ta-ra-ŋ-qen?
and there HAB-E-MAKE-house-MAKE-3sg

And does it build its house there?

[aa4.13]

- 066 ənkʔam mʔemi-lʔ-ə-n qənwer cinit te-mʔemi-ŋ-yʔi [...]
and bullet-NMZR-E-3sgABS finally self MAKE-bullet-MAKE-TH

And the Bullet Folk eventually made bullets themselves ...

[kr051]

14.7.3 Reversative -tw

The reversative derives a verb meaning to reverse the process referred to by the verb stem, thus from *ineŋe- load* the reversative suffix -tw derives a verb *ineŋetw-* meaning *unload* (compare 067 and 068 below). The reversative derivation does not seem to be used productively.

- 067 mən-ineŋe-tw-ə-yʔe-n
1pl.INT-load-REVERS-E-TH-3sg

Let's unload it.

[nb064.7]

- 068 orw-ə-jŋ-ə-n t-in-ineŋe-n utt-e=ʔm ra-yt-ə-yʔe
sled-E-AUG-E-3sgABS 1sg-TR-load-3sg wood-INST=EMPH home-go.to-E-TH

He loaded the sled with wood, went home.

[cy215]

- 069 neme qol kaly-ə-tw-ə-nin neme tən-p-ə-nen
again QUANT.3sgABS harness-E-REVERS-E-3sgA.3sgO again stab-E-3sgA.3sgO
neme təm-nen
again kill-3sgA.3sgO

Again he unharnessed one, again he stabbed it, again he killed it.

[cy434]

There are a few instances of this suffix deriving a verb from a noun; in the following example *ləmy-ə-tw-* (vi) *remove hood* is derived from the noun *ləmy- hood*.

- 070 ewət ŋanqo jokwa-jŋ-ə-n ləyen ləmy-ə-tw-ə-yʔi
so thither duck-AUG-E-3sgABS really hood-E-REVERS-E-TH
cakett-ə-k @@ pəcwetɣaw-ə-lʔat-yʔə-t
sister-E-LOC converse-E-DUR-TH-3pl

And the duck straight away thither, just removed his hood near the sister ...

hal hal ... they had a talk.

[jo095]

15

Spatial relationships

15.1 Introduction

Chukchi spatial relationships are expressed by case affixation or phrasally. These morphological and syntactic strategies for indicating spatial relationships to a certain extent interlock; for example, the spatial relation *below* is indicated by a case marker -jigka, but the corresponding relationship *above* is indicated phrasally with the adverb yaryoca. Some spatial adverbs appear to be partially grammaticalised as postpositions (e.g. qaca *near*); arguments for and against positing the postpositional phrase as a syntactic unit are presented in §15.5 (see also discussion of the postposition reën *with/accompanying*; §4.9). Deictic adverbs (and certain demonstrative pronouns in locational cases) indicate spatial meanings referring to entire clauses (§15.6).

Apart from the case markings, there are a number of derivational suffixes (DER) and postpositions (PP) / adverbs (ADV) which indicate spatial relationships. These are outlined in figures 15.1 and 15.2.

FIGURE 15.1. Spatial relationships to a bounded entity (e.g. a person, house, hill).

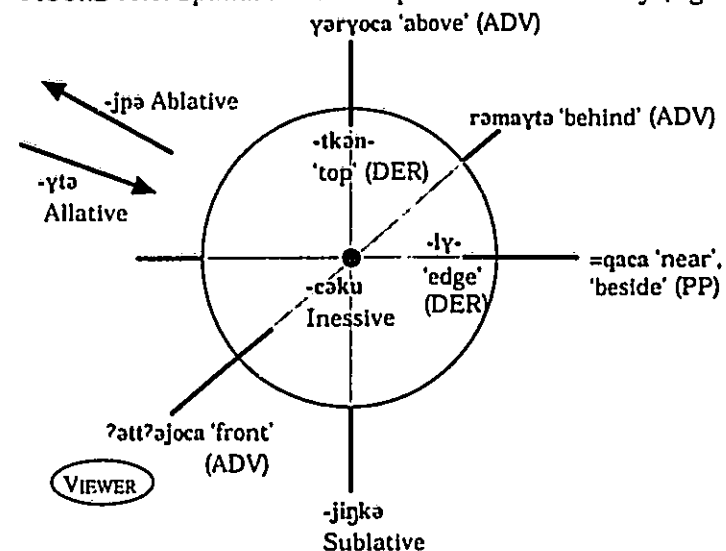
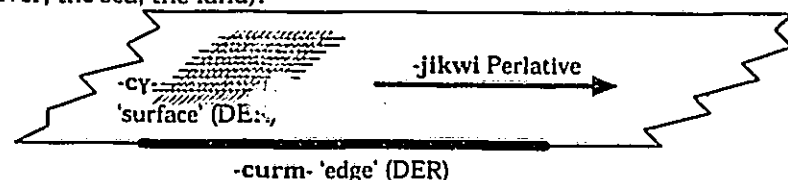


FIGURE 15.2. Spatial relationships with an unbounded or elongated entity (e.g. a road, river, the sea, the land).



Spatial derivational affixes are discussed in §15.3, spatial adverbs are discussed in §15.4.

There are a small set of transitive verbs which have an object which is semantically a location. These semantically locational objects of transitive verbs are marked by the absolutive case, like any other transitive object.

- 001 ewan ɔngot / na-jʔo-ʔa-n STARIK / ɔnpənaɣy-ə-qaj
 INTS at.that.time INV-go.to-TH-3sg old.man.3sgABS old.man-E-DIM.3sgABS
At that time they visited the old man. [ka03]

I am grateful to Steven Levinson, Eric Pederson and David Wilkins from the Max Plank Institute for Psycholinguistics, Nijmegen for generously sharing with me the research materials developed by the Cognitive Anthropology Research Group (Wilkins ed. 1995).

15.2 Locational cases

The different morphological classes of nominals and their marking of the locational cases is discussed in §6.2. What follows focuses on the semantics of spatial relationships expressed by these markers.

15.2.1 Locative -k-VH

The locative has the widest range of application of all the spatial cases. Apart from general location (002, 003) it is also the case used when there is a word in the clause (spatial adverb or postposition; §4.9, §§15.4-5) further specifying location.

- 002 remk-ə-k pakir-ʔʔi / ɔnqo wenqora-jɣ-ə-n wəjan-nen
 folk-E-LOC arrive-TH from.there trained.doe-AUG-E-3sgABS untie-3sgA.3sgO
He arrived in the other encampment, then unharnessed the doe. [cy103]
- 003 rak-wəry-ə-k-ʔm ya-rənn-ə-kwa-len ɔnqen ɔnan-jaale-ɣ [#]
 pierce-NMZ-E-LOC=EMPH PF-horn-E-catch-3sgS that SUPER-last-VBase
 qora-ɣə
 reindeer-3sgABS
In the hole the very last reindeer got its horn caught [cy419]

15.2.2 Allative -ytə-VH

The allative case marks movement towards a referent. It has two allomorphs in the common noun declension:

$$\{\text{allative}\} \rightarrow \begin{cases} -\text{etə}^{\text{VH}} / \text{C_} \\ -\text{ytə}^{\text{VH}} / \text{elsewhere} \end{cases}$$

These allomorphs are illustrated by examples 004 and 005:

- 004 ɔtlʔa-ytə "okkoj ɔnrʔaq rʔenut ɣotqen?"
 mother-ALL INTJ then what?3sgABS this.3sgABS
[He went] to his mother; [she said] "Oh my, what is this then?" [ot142]
- 005 ləyen caj-o-ko-ʔe ʔemi ekwet-ʔʔi naɪwəlʔ-ctə yekeɣ-e
 really tea-CONSUME-ITER-TH and set.off-TH herd-ALL drive-VBase
He drank a little tea, and then went off to the herd on his team. [cy159]

The allative sometimes functions in such a way that it could be interpreted as a dative. Skorik 1961:164 lists this case as 'dative/allative'. The verb 'give' is the prototypical verb to have an argument in a recipient role, and while the Chukchi verb *jl- give* is indeed a three-place transitive marking both the recipient of the giving and the object given, a 1st or 2nd person pronoun in the allative only appears with this verb in translation from Russian (clearly a gloss of the Russian dative case). In spontaneous Chukchi the verb *jl- give* has a special argument structure, with the recipient appearing as pronominal cross-reference on the verb in O role and the gift appearing as an un-cross-referenced absolutive case nominal in apposition (see example below and §11.3.1). The allative is not used.

- 006 ne-ʔl-ə-tku-jw-ə-nək ɔccʔet kante-t
 3plA-give-E-ITER-COLL-E-1plO only lolly-3plABS
They just gave us lollies [nb029.5]

With a third person recipient the argument structure is more difficult to determine, since number marking usually only occurs on absolutive nominals and the unmarked singular is frequently used in place of plural anyway. However, it seems that with 3rd person arguments the verb *jl- give* agrees with the absolutive case 'gift' nominal and the recipient is indeed marked in the allative.

- 007 ɔnqorə neme jawrena / neme / Kacʔayəry-ə-n
 then again next.year again personal.name-E-3sgABS
 ɔnrʔo qol / cowqoc-ctə ʔəl-nin ɣelwəl [#]
 then one.3sgABS collective.farm-ALL give-3sgA.3sgO herd.3sgABS
Then in the next year again [it was] Kacʔayəryən, again [he] gave a herd to another collective farm ... [he041]

Likewise, in the following example the addressee of the intransitivised (antipassive) verb *tw tell about* is also given in the allative case (note that the O of this transitive stem is the thing told, not the addressee, and that the specification of the addressee is optional and indeed unusual).

- 008 wetaqun ɔnɣe ɣaw-tomy-ctə ɛna-tw-ə-ka
 HORT NEG.HORT woman.friend-ALL AP-tell.about-E-NEG
Don't you tell your wife! [ke029]

When the ablative marks a nominal in a clause with a verb of manipulation, the nominal refers to the part of the manipulated person/object upon which force is applied.

- 016 *ənqen* *ʔorawetlʔa-t* *ejmew-a-lʔ-a-t* *ləyen*
 that.3sgABS person-3plABS arrive-E-NMZR-E-3plABS really
n-ine-piri-qine-t / *yətka-jpə* *n-ine-piri-qine-t* / *ənqen*
 HAB-TR-take-3plO leg-ABL HAB-TR-take-3plO that.3sgABS
ʔiy-a-nely-a-cəku *aləmə* / *yətka-jpə* *n-ine-piri-qine-t* /
 wolf-E-skin-E-INESS INTJ leg-ABL HAB-TR-take-3plO
n-ena-yətka-mla-qenat *jaale-jpə*
 HAB-TR-leg-break-3plO behind-ABL
Those people coming to the herd, he simply took them by the legs he took them... that is he in the wolf skin... took them by the legs and broke them from behind. [ot137]
- 017 *ənpənacʔ-a-qaj* *jʔo-nen* *pely-epə* / *wey-a-tku-nin*
 old.man-E-DIM.3sgABS approach-3sgA.3sgO throat-ABL claw-E-UTIL-3sgA.3sgO
təm-nen
 kill-3sgA.3sgO
He approached the old man, clawed him by the throat, killed him. [ot138]

In example 016 the third instance of the ablative, *nənayətkamləqenat jaalejpə* he broke their legs from behind, is another example of 'motion/action directed away from a source'.

15.2.4 Perlative -jekwe^{VH}

The perlative case marks a nominal as a path followed:

- 018 *wəne* *wanewan* *wanewan* *n-a-pəŋge-ʔa-n*
 INTJ NEG.NFUT NEG.NFUT INV-E-turn.around-TII-3sg
ənəy-ʔet-jekwe *ləyen* *mət-kawra-mək* *gan* *neməqej* *gan*
 3sg-path-PERL really 1pl-circle-1pl DEICT also DEICT
Oh no, he didn't turn around halfway, we too did the circle following his tracks. [cy149]
- 019 *təle-neg-ʔetwʔet* *waam-jekwe* *təle-rkən*
 go-TOOL-boat river-PERL go-PROG
The sailboat is going along the river [ja11]

It is very rare as a case marker. Historically it is derived from the derivational suffix -jikwi (see §15.3.4) and the manner adverb suffix -j^{VH} (Skorik 1961:317); in Telqep Chukchi the -j is usually lost, leaving the vowel harmony prosody as the only evidence that it was there. In a synchronic analysis of Telqep Chukchi the suffix -jekwe is an unsegmentable case affix.

15.2.5 Orientative -yjit

The orientative is very uncommon. It marks a nominal as a landmark or model by which the action of the verb is carried out. Example 020 shows the orientative

suffix on a physical landmark, whereas example 021 shows it on a deictic stem also indicating a physical landmark. Example 022 shows it in a less concrete function, marking a nominal representing a model or ideal which guides behaviour.

- 020 *jara-yjet* *q-a-le-rkən*
 house-ORIENT INT-E-go-PROG
Go guided by the house/ Go using the house as a landmark. [nb59]
- The orientative is not inherently directional. In example 020 the noun *jarayjet* indicates a direction which can be calculated according to the position of the house; this may not be in the direction of the house itself.
- 021 *mec-n-erm-ʔew* *nʔ-a-twa-ʔa-n* *waj* *tekem* *gutke-yjit* *linliq*
 APPR-ADV-strong-ADV COND-E-be-TH-3sg DEICT ?? here-ORIENT heart
wa-rkən / *nʔ-ena-nm-a-ʔa-n=ʔm* / *yəmnin* *əweke-jg-a-n*
 be-PROG COND-TR-kill-E-TH-3sg=EMPH 1sg-POSS.3sgABS body-AUG-E-ABS
yənan *ʔən-cəʔiw-a-n*
 2sgERG COND-ʔ-ʔ-E-3sg
If he were only a bit stronger, right through here is my heart / you could kill me / you could [skin?] my body. [jo029]
- 022 *ənqorə* *gan* *[inutkuyʔiʔ]* *remk-a-n* *[taŋ#]* *emelke*
 then DEICT [...] folk-E-ABS [...] as.if
cimʔu-yjit *n-ʔ-a-twa-ʔa-n* / *ənqen* *kolqocat-a-tko-ʔe*
 thought-ORIENT INV-COND-E-be-TH-COND that.3sgABS collectivise-E-ITER-TH
əməlʔo=ʔm
 all.3ABS=EMPH
Then the people would live as if according to their thoughts [i.e. the way they wanted], they all had joined the collective farm. [he018]

15.2.6 Inessive -cəku

The inessive marks location inside a nominal. This may be static (as in 023) or dynamic (024).

- 023 *ənka-tkən-a-k* *n-a-wakʔo-twa-qen* *rənn-a-cəko*
 there-TOP-E-LOC HAB-E-sit-RESULT-3sg horn-E-INESS
He was sitting there on top amongst the horns. [cy226]
- 024 *qənwet* *qit-a-wʔi-lʔet-a-lʔ-a-n* *n-in-iw-qin* *“opopə*
 finally freeze-E-die-INTS-E-NMZR-E-ABS HAB-TR-say-3sgO must
yəm-a-ke-cəku *wlin* *q-a-nʔel-yiʔ*
 1sg-E-TH-INESS awhile INT-E-become-TH
Finally to the one who was always freezing she said “(You'd better) come inside me for the moment” [cy005]

There is also a formally identical inessive derivation, which forms stems which can be marked with all cases except the locative (§15.3.5).

15.2.7 Sublative -jinkə

The sublative case -jinkə expresses the notion *underneath*:

- 025 [...] lāyen ker-pətw-ə-jenkə n-ena-ly-enatəjə-jw-ə-qen tekicy-e
 really kerker-inner.layer-E-SUBLAT HAB-TR-INTS-put-3sg-E-3sg meat-INST
ceq-e [...] something-INST
... she put meat, other stuff under the inner layer of his kerker... [jo013]
- 026 qepəl wakʔə-cq-ə-joly-ə-jenkə
 ball sit-SURF-E-CONTAIN-E-SUBLAT
The ball is under the chair. [lv16]

15.3 Spatial derivations

Chukchi has a number of derivational suffixes which form nouns with spatial meanings from other noun stems. Forms with these derivations generally indicate a particular part of the nominal (top, side etc), rather than a spatial relationship that some separate object could enter into. However, spatially derived nominals frequently occur in locational cases. The derivations *-tkən-^{VH}* TOP and *-ḡqac(a-)* SIDE have a zero-derived absolutive form (see example 031, §15.3.2), which can make them look superficially like case markers.

15.3.1 'To' *-tkən-^{VH}*

The derivational suffix *-tkən-^{VH}* derives a word meaning 'the top of [noun]'. The absolutive case of nouns formed by this derivation has no additional suffix, e.g. *orw-ə-tkən* (sled-E-TOP.3sgABS) *the top of a sled*. Other case forms are added to *-tkən-* in the regular manner. Example 027 shows *-tkən-* with the instrumental case, example 028 with the locative:

- 027 acc-ena-cemʔə-ta y-ugel-e orw-ə-qaj-ə-tkən-a [...] ...
 3pl-TH-think-VBase COM-collect.firewood-VBase sled-E-DIM-TOP-INST
On their own initiative collecting firewood on top of little sleds... [ch23]
- 028 ḡaryən ʔəlm-ə-tkən-ə-k rəm-nen ənka
 outside heaped.snow-E-TOP-E-LOC stick-3sgA.3sgO there
Outside he stuck it into the top of some heaped snow. [ot038]

15.3.2 'Side' *-ḡqac(a-)*

Nouns with the derivational suffix *-ḡqac(a-)* have the meaning 'the side of [noun]'. Example 029

- 029 ən-in ḡel:wəlʔ-ə-qej jara-ḡqaca-yta ənqen /
 3sg-POSS.3sgABS herd-E-DIM.3sgABS house-SIDE-ALL DEM.3sgABS
qanwer piri-nin=ʔm jara-ḡqaca-yta aytan-nen
 like take-3sgA.3sgO=EMPH house-SIDE-ALL drive-3sgA.3sgO
His little herd just up to the house... finally he took it, and drove it up to the house. [ot099]

Although the terms are clearly related, the derivational suffix *-ḡqac(a-)* differs from the spatial relationship postposition *=qaca* (§15.5). The postposition indicates a location with respect to an entity, whereas the derivational suffix indicates a part

of that entity. Thus, *jara-ḡqac* indicates the side part of a house, and *jarak qaca* means *beside the house*.

Example 030 shows a relational nominal derived from the same stem as above:

- 030 itək=ʔm uliv-ti jara-ḡqaca-kena-t lāyen n-ena-yto-qenat
 so=EMPH buried.thing-3plABS house-SIDE-REL-3plABS really HAB-TR-drag.out-3pl
And [the bear] drags out the buried things from beside the house [i.e. frozen food stores] [an036]

In the absolutive case a form derived with this suffix can be used like an adverb, as in example 031.

- 031 qora-nm-at-yʔe / jaale-ḡqac / ənkaʔam cajətraw-nen
 reindeer-kill-TH-TH back-SIDE.3sgABS and smear-3sgA.3sgO
ḡew-ʔəʔ-ə-qej-e ḡewəcqet n-ena-jʔə-twa-qen
 female-dog-E-DIM-ERG woman.3sgABS HAB-TR-go.to-RESULT-3sg
They slaughtered reindeer out back, and she smeared her with blood—the dog looked after the woman. [ke228]

15.3.3 'Edge' *-lāḡ/-ly-* and 'edge' *-curm-*

The suffix *-lāḡ/-ly-* forms a word meaning the edge of something generally flat but bounded, and *-curm-* indicates the edge of something elongated or unbounded (see §15.1 fig. 15.2).

weem-curm-ə-n the side of a river (elongated entity)

aḡka-corm-ə-n the side of the sea (unbounded entity)

yəty-ə-ly-ə-n the side of a lake (bounded entity)

The allomorphy of *-lāḡ/-ly-* is regular (an underlying form **lḡ* with the realisation determined by syllable structure and phonological alternations) but not always predicable:

$$\{\text{SIDE}\} \rightarrow \begin{cases} -lāḡ / _CV & (\text{e.g. example 032}) \\ -ly \text{ elsewhere} & (\text{e.g. example 033}) \end{cases}$$

The unpredictability arises when it combines with case markers which themselves have syllable-structure changing allomorphs. Example 033 has the *-lāḡ-* allomorph with the locative suffix *-kə-^{VH}*, rather than the *-ly-* allomorph with *-k* allomorph of the locative; it is unclear why the combination of suffixes is realised *-lāḡ-kə* rather than *-ly-ə-k*. Likewise example 032 has *-ly-ətə*, when *-lāḡ-ətə* seems an equally grammatical realisation of the underlying form.

- 032 ḡalwəlʔ-ə-jḡ-ə-n ənqen təḡ-ə-ḡalwəlʔ-ə-jḡ-ə-n ənka
 herd-E-AUG-E-3sgABS this.3sgABS strange-E-herd-E-AUG-E-3sgABS here
 / nemeqej yəty-ə-lāḡ-kə
 also lake-E-EDGE-LOC
That big herd, that big stranger-herd there, [was] also on the edge of the lake. [ot093]

- 033 yəmn-in nəmɔqej ɟelwəl waj ɟutku
1sg.POSS.3sgABS also herd.ABS DEICT here
yətɣ-ə-ly-eta t-ə-ra-n-lʔat-en-ɣ-ə-n / [...]
lake-E-EDGE-ALL 1sg-E-FUT-CS-go-TH-TH-E-3sg

I'll also bring my herd here to the edge of the lake... [ot083]

The derivation -*curm*- on the demonstrative stem *ən*- forms a compound stem *ənkecurm*- that edge (with a thematic ligature affix -*ke*). Example 034 has the relational derivation of this compound stem; *ənkecurmakin(e)* one/s from that edge, which in context means *those from the other shore*.

- 034 ləyi=ʔm elyuleq cama əccənan
know.VBase=EMPH simply and 3pl.ERG
ən-ke-curm-ə-kine-t=ʔm
DEM-TH-EDGE-E-REL-3plABS=EMPH

And they just know those from the far shore. [kr123]

15.3.4 Perlative -jikwi-

The -*jikwi* derivational suffix always occurs with some other case marking, usually absolutive (035) or locative (036):

- 035 ləyen=ʔm ɟan remk-ə-n wʔi-tiku-rʔu-yʔi kolo
really=EMPH DEICT folk-E-ABS die-ITER-COLL-TH INTS
ra-jekwe-ɟə-ə-t ləyen taɟ-əməlʔetə uɟe n-ə-nʔel-qinet
house-PERL-AUG-E-3plABS really INTS-all.ADV NEG.EXI HAB-E-become-3pl
So then masses of people died, encampments (rows of jarajəs) entirely passed away. [he012]

- 036 n-in-iw-qin ləyen taɟ-qonpə moo-rʔet-jekwe-k q-ə-le-rkən
HAB-TR-saw-3sg really INTS-always caravan-path-PERL-LOC INT-E-go-PROG
She says to him, "Just always follow along the caravan tracks." [jo018]

The perlative case suffix -*jekwe*^{VH} is clearly related in form (historically derived from the same source *-*jikwi*^{VH}-*ɟ*^{VH}), but is synchronically a distinct morphological class (case suffix, not derivation; §15.2.4).

15.3.5 Inessive -cəku-

The inessive derivational suffix forms a noun derived from a noun stem with the meaning 'the inside of [noun]'. In the following example the noun *retem* roof has this suffix to form a complex noun *retem-cəku-t* (here inflected with the absolutive plural) meaning *insides of roofs*:

- 037 ənqena-t ləyen taɟ-wetyərə n-ena-yto-qenat
DEM-3plABS really INTS-directly HAB-TR-pull.out-3pl
ənqen n-inc-new-qin ləyen retem-cəku-t
DEM-3sgABS HAB-TR-pierce-3sg really roof-INESS-3plABS
They pull them out directly, they pierce the insides of roofs [aa6.21]

Inessive derivations frequently occur with directional cases, such as the allative (038-039) and the ablative (040-041) cases. The inessive derivation cannot combine

with the locative case; this meaning is already expressed by the inessive case (see §15.2.6, example 023). The inessive derivation does combine with the allative (see below), despite the fact that the inessive case can also be used to indicate motion toward the goal (§15.2.6, example 024).

INESSIVE DERIVATION + ALLATIVE CASE

- 039 anə waj ləyen qanwer omk-ə-ca-ə-yta ekwet-yʔi [...]
so DEICT really finally bush-E-INESS-ALL go-TH
Well then, simply, finally she went into the bushes [ot133]

- 039 ɟewʔen-e n-in-iw-qin / "iyat=ʔm waj yəmo /
wife-ERG HAB-TR-say-3sg now=EMPH DEICT 1sgABS
rəyɔly-ə-cəko-yta ne-r-upənʔəli-ɟyəm
hole-E-INESS-ALL 3pl-FUT-knock-1sg
The wife says to him: "Now they'll knock me into the hole." [cy397]

INESSIVE DERIVATION + ABLATIVE CASE

- 040 cə-tayr-at-ə-nw-epə t-ə-pkir-yʔe-k ənɟe ɟan
CS-edge-CS-E-PLACE-ABL 1sg-E-arrive-TH-1sg NEG.HORT DEICT
wengora-ɟə-cəko-ɟə ya-yto-len
doe-AUG-E-INESS-ABL PF-emerge-3sg
"I have arrived from place where (the reindeer) are brought down" - In fact, he had come out from inside the doe. [cy012]

In the following example the inessive + ablative occurs with *look*, a verb which indicates directed perception:

- 041 qut-ti joro-cəko-ɟə n-ə-winw-ə-llep-qinet
one-3plABS sleep.chamber-INESS-ABL HAB-E-secret-E-look-3pl
n-ajəlyaw-ə-lʔat-qenat [...]
HAB-fear-E-INTS-3pl
The others secretly looked out of the sleeping chamber, they were afraid... [cy420]

The inessive case suffix -*cəku* is discussed in §15.2.6.

15.4 Spatial relationship adverbs

Chukchi spatial relationship adverbs encode many similar meanings to those encoded by locational case markers. When a spatial adverb modifies a nominal, the nominal is marked in the locative case, as in examples 042 and 043:

- 042 ləyen wenwə-jekwe winwə-k yaryoca ləyen
really trail-PERL trail-LOC above really
[They smell their way] along the trail, above the trail. [ab3.05]
- 043 ən-ka-tkən-ə-k cek-yaryol qanut ɟoot cʔenut / [...]
DEICT-TH-TOP-E-LOC INTS-above like DEICT something.3sgABS
Right on the top of that yonder there's something... [kr097]

The most usual position for a spatial adverb in this function is immediately following the locative case nominal (see comments on the grammaticalisation of

- 033 yəmn-in neməqej gelwəl wāj ɣutku
 1sg-POSS.3sgABS also herd.ABS DEICT here
 yəy-ə-lɣ-ətə t-ə-ra-n-lʔat-en-ɣ-ə-n / [...]
 lake-E-EDGE-ALL 1sg-E-FUT-CS-go-TH-TH-E-3sg

I'll also bring my herd here to the edge of the lake....

[ot083]

The derivation *-curm-* on the demonstrative stem *ən-* forms a compound stem *ənkecurm-* *that edge* (with a thematic ligature affix *-ke*). Example 034 has the relational derivation of this compound stem; *ənkecurmakin(e-)* *one/s from that edge*, which in context means *those from the other shore*.

- 034 ləyi=ʔm elyuleq cama əccənan
 know.VBase=EMPH simply and 3pl.ERG
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And they just know those from the far shore.

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 really=EMPH DEICT folk-E-ABS die-ITER-COLL-TH INTS
 ra-jekwe-jɣ-ə-t ləyen taɣ-əməlʔetə ujge n-ə-nʔel-qinet
 house-PERL-AUG-E-3plABS really INTS-all.ADV NEG.EXI HAB-E-become-3pl
So then masses of people died, encampments (rows of jarajəs) entirely passed away.

[he012]

- 036 n-in-iw-qin ləyen taɣ-qonpə moo-rʔet-jekwe-k q-ə-le-rkən
 HAB-TR-saw-3sg really INTS-always caravan-path-PERL-LOC INT-E-go-PROG

She says to him, "Just always follow along the caravan tracks".

[je018]

The perlative case suffix *-jekwe^{VH}* is clearly related in form (historically derived from the same source **-jikwi-VH-ɣ^{VH}*), but is synchronically a distinct morphological class (case suffix, not derivation; §15.2.4).

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with the locative case; this meaning is already expressed by the inessive case (see §15.2.6, example 023). The inessive derivation does combine with the allative (see below), despite the fact that the inessive case can also be used to indicate motion toward the goal (§15.2.6, example 024).

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- 038 anə wāj ləyen qənwer omk-ə-cəko-ytə ekwet-ɣʔi [...]
 so DEICT really finally bush-E-INESS-ALL go-TH

Well then, simply, finally she went into the bushes....

[ot133]

- 039 ɣewʔen-e n-in-iw-qin / "iyət=ʔm wāj yəmo /
 wife-ERG HAB-TR-say-3sg now=EMPH DEICT 1sg.ABS
 rəyɣoly-ə-cəko-ytə ne-r-upənʔəli-jyəm
 hole-E-INESS-ALL 3pl-FUT-knock-1sg

The wife says to him: "Now they'll knock me into the hole".

[cy397]

INESSIVE DERIVATION + ABLATIVE CASE

- 040 cə-tayr-at-ə-nw-epə t-ə-pkir-ɣʔe-k ənge ɣan
 CS-edge-CS-E-PLACE-ABL 1sg-E-arrive-TH-1sg NEG.HORT DEICT
 wenqora-jɣ-ə-cəko-jpə ya-yto-len
 doe-AUG-E-INESS-ABL PF-emerge-3sg

"I have arrived from place where (the reindeer) are brought down"- In fact, he had come out from inside the doe.

[cy012]

In the following example the inessive + ablative occurs with *look*, a verb which indicates directed perception:

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 n-ajəlyaw-ə-lʔat-qenat [...]
 HAB-fear-E-INTS-3pl

The others secretly looked out of the sleeping chamber, they were afraid...

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The inessive case suffix *-cəku* is discussed in §15.2.6.

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 really trail-PERL trail-LOC above really

[They smell their way] along the trail, above the trail.

[ab3.05]

- 043 ən-ka-tkən-ə-k cek-yaryol qənut ɣoot cʔenut / [...]
 DEICT-TH-TOP-E-LOC INTS-above like DEICT something.3sgABS

Right on the top of that yonder there's something...

[kr097]

The most usual position for a spatial adverb in this function is immediately following the locative case nominal (see comments on the grammaticalisation of

postpositions, §15.5). Example 044 shows a cluster of spatial adverbs modifying a locative case nominal, both preceding and following it:

- 044 [...] / kamlela jara-k cənce-qej kamlela-ŋ /
 around house-LOC close-DIM around-ADV
 oleni qora-ŋa ya-lye-nm-a-tko-len
 reindeer reindeer-3sgABS PF-INTS-kill-E-ITER-3sg
 ... all around the house close up they killed reindeer [ka07]

Spatial adverbs are not always modifiers of nominals; they can modify entire clauses (045), or act as locative complements (046, 047).

- 045 ewar yamyā-ralqag-a-nwə-k ten-em-cənce
 so DIST-campsite-E-PLACE-LOC INTS-REST-close
 t-a-re-rewik-w?e laŋen t-a-r-iw-a-rkən-et ee mən-rewiw
 1sg-E-FUT-make.camp.TH really 1sg-E-FUT-say-E-PROG-3pl INTJ 1pl.INT-make.camp
 And at every campsite I'll make camp near by, I'll just say to them, "Hey, let's make camp" [jo019]

- 046 ewən qelwəl kamlela / n-a-twa-qen STADO
 INTS herd.3sgABS around HAB-E-be-3sg herd
 It turned out the herd was all around them. [ka22]

- 047 [...] / laŋen laŋe-taŋ-kowlökə kamlela wəkw-a-lq-a-l?-a-n
 really INTS-INTS-circularly around stone-E-EDGE-E-NMZR-E-3sgABS
 ... [there were] stones all around the edge. [kr097]

Adverbs encoding spatial relationships include *yəryol*, *yəryoca* above, *?ətt?əjoca* in front of, *rəmaytə* behind, beyond, *kamlela(ŋ)* around, and *cənce(qej)* close to.

The forms *yəryol* and *yəryoca* seem to be used interchangeably. The form *yəryol* also has a final *a* when the form is suffixed, which suggests that the two forms are a lexical pair formed by the *c-l* alternation, and not words formed by two different suffixes. Both these forms can take ablative and allative suffixes to derive the adverbs *yəryola-jpə/yəryoca-jpə* from above and *yəryola-ŋtə/yəryoca-ŋtə* upwards.

Spatial adverbs can take various case markers as derivational suffixes; most common are the ablative suffix *-jpə* and allative suffix *-ŋtə*, indicating direction of motion. Spatial adverbs can be nominalised, usually by the relational suffix *-kin(e-)*, or by a nominal spatial derivational suffix (§15.3). The following example shows these strategies combined:

- 048 ənkə rəmaytə-ŋqat-ken r?enut janr-omk-oom ənkə
 there BEYOND-SIDE-REL.3sgABS something separate-forest-REDUP.3sgABS there
 ənqen ya-taran-len ?inə
 DEM.3sgABS PF-build.house.3:1 wolf.3sgABS
 There on the opposite shore in the scrub there a wolf built its house. [an136]

The word *rəmaytəŋqatken* has the morphological source *rəmaytə* beyond, *-ŋqac* SIDE (nominal derivational suffix), and *-kin(e)* relational suffix.

15.5 Postposition qaca 'near'

The postposition *qaca* beside is problematic for analysis. It usually occurs as a free word immediately preceded by a locative case nominal: this is the behaviour of a postposition. There is also a derivational suffix *-ŋqac(a-)*, which has a very similar meaning (see §15.3.2). Words with this derivational suffix occasionally seems to act like a clause adjunct with locational meaning, i.e. it sometimes seems to be a locational adverb.

Examples 049 and 050 show the pure postpositional form of *qaca*:

- 049 ?era-yala-ŋ?e tətl-a-k qaca nəwil-ŋ?i Cəkwəŋaqaj
 gallop-pass-TH door-E-LOC beside.PP stop-TH personal.name.3sgABS
 He galloped past, next to the door Cəkwəŋaqaj stopped [cy310]
 050 ye-mec-əjmew-linet jara-k=ʔm
 PF-APPROX-approach-3pl house-LOC=EMPH
 neme ŋew?en-a-k qaca wak?o-ŋ?e
 again wife-E-LOC beside.PP sit-TH
 They started getting close to the house, again he was sitting next to his wife. [cy384]

In example 051 the postpositional phrase occurs with a nominalised form of the existential copula/auxiliary verb to form the complex nominal *kantorak qaca wal?ət* the ones beside the office.

- 051 Kejŋ-a-wilu=ʔm wəkw-a-t iŋat-kine-t ɣan kantora-k
 bear-E-ear=EMPH stone-E-3pl now-REL-3pl DEICT office-LOC
qaca wa-l?-a-t wəkw-a-jŋ-a-t ənɣin mejŋ-a-l?-a-t
 beside.PP be-PCPL-E-3plABS stone-E-AUG-E-3pl thus big-E-NMZR-E-3pl
 Bear Ears, the stones, like the big ones now which are beside the office [of Sovxoz Kanchalan], they're that big [be035]

The postposition can sometime be marked with a nominal case marker like a spatial adverb, particularly the allative ending *-ŋtə*. The lexical complement of the postposition must still occur in the locative case², e.g.:

² The relational-derived form *qacaken* in the following example seems to be functioning as a nominal. It is unusual in that it does not have an associated locative nominal.

- 056 ənɣatal ?amən qel?u waj uŋe qetew rəly-a-ly-a-n
 INTJ INTJ because DEICT NEG.EXI ?? toe-E-SING-E-ABS
qaca-ken / cəwi-tku-jw-a-k rint-a-tku-jw-a-k
 beside-REL.3sgABS cut-ITER-INTS-E-SEQ throw-E-ITER-INTS-E-CONV
 So that's how it was, because one was missing, one toe from one side, because of the chopping up and scattering. [cy442]

The intention here seems to be 'because when they disposed of the rest of his remains they missed the toe, Cəkwəŋaqaj was able to return from the dead'. It seems that *qacaken* one from beside and *rəlyəlyən* finger/toe are both independent nominals in a noun phrase, rather than together forming a postpositional phrase.

052 orw-a-t əməlʔo wajənrelə aɪmak-ə-k qaca-ytə
 sled-E-3plABS all.3ABS thither carcass-E-LOC beside-ALL
 rə-lʔat-en-nenat
 CS-steer-TH-3sgA.3plO

He dragged all the sleds there to the carcasses.

[cy437]

15.6 Deictic adverbs

As well as the demonstrative pronouns, there are two indeclinable groups of deictic words. The deictic adverbs are formed from the same stems as the demonstrative pronouns, but are derived with non-nominal derivational suffixes and function as sentence adjuncts. The deictic clitic-particles are also invariant, but have no morphological structure and usually have syntactic scope over a single word only.

The morphological structure of deictic adverbs is partially regular, but there is no evidence that these forms are productive. Most of the deictic adverbs are formed on the basis of the same stems as the demonstrative pronouns (§7.4); the one exception is the interrogative/indefinite (pronoun stem is *mik-*, deictic adverb stem is *miŋ-*). The roots of the deictic adverbs are:

- *ɣut-* near
- *ɣen-*^{VH} far
- *ɣaan-*, *ɣoon-* very far
- *miŋ-* where?, somewhere (interrogative/indefinite)

There are also deictic adverbs derived from the root *ən-*^{VH}, which is also root of 3rd person singular personal pronouns and of the discourse-specialised, non-distance graded demonstrative. Deictic adverbs formed from *ən-* are partially interchangeable with the *ɣut-* here adverbs, but *ən-* forms are also used in organising discourse, acting as conjunctions, etc.

The least morphological regular of the deictic adverbs indicate the same spatial relationships as the non-locational cases LOCATIVE, ALLATIVE and ABLATIVE.

FIGURE 15.3. Deictic adverbs — locative, allative, ablative.

	<i>ən-</i> ^{VH} unspec.	<i>ɣut-</i> near	<i>ɣen-</i> ^{VH} far	<i>ɣaan-</i> , <i>ɣoon-</i> very far	<i>miŋ-</i> (some)where?
Locative -kə, -ku	<i>ən-kə</i>	<i>ɣut-ku</i>	<i>ɣen-ku</i>	<i>ɣaan-kə</i> <i>ɣoon-kə</i>	<i>miŋ-kə</i>
Allative -kəri, -ri(lə)	(<i>waj-ən-re</i> , <i>waj-ən-relə</i>) ³	<i>ɣut-kəri</i> <i>ɣut-ri</i>	<i>ɣen-kəri</i> <i>ɣen-ri</i>	<i>ɣaan-kəri</i> <i>ɣaan-re</i> <i>naan-relə</i>	<i>miŋ-kəri</i>
Ablative -qo(rə)	<i>ən-qo(rə)</i>	<i>ɣut-qo(rə)</i>	<i>ɣen-qo(rə)</i>	<i>ɣaan-qo(rə)</i> <i>ɣoon-qo</i>	<i>miŋ-qo(rə)</i>

³ These two forms only occur with *waj*, otherwise a deictic particle. The vowel harmony on the final morpheme shows that these are entire words, not phrases.

The various alternative forms (for example *ɣutkəri-ɣutri-ɣutrilə* *hither*) seem to be in free variation. The gaps in the paradigm have been thoroughly checked and seem to be real gaps in the language, not just in the data.

The locatives *ɣutku* *here* and *ɣenku* *there* have a suffix unique to these deictic adverbs. The other locative types *ən-kə* *here/there*, *ɣaankə/ɣoonkə* *yonder* and *miŋkə* *where?/somewhere* have endings which are formally identical to one of the allomorphs of the locative case (but note that the locative case form of the 3sg personal pronoun is *ənək*, not *ən-kə*; §7.2).

The allative and ablative adverbs are formed by suffixes which are completely unrelated to the case forms with these meanings. Interestingly, the ablative deictic adverb forms have the same polysemy as the ablative case; apart from (i) 'motion from a source', ablative also indicates (ii) 'motion around inside an area', and also (iii) 'attachment from a point', e.g.

- qatɣʔi* (*ɣarajpə/ɣotqorə*) *he set off (from the house/from there)*.
- nəlejwəqin* (*notajpə/ɣotqorə*) *he roamed (around the land/around there)*
- pirinin* (*ɣatkajpə/ɣotqorə*) *he grabbed it (by the legs/there)*

Example 053 shows a deictic adverb with the *-qo(rə)* indicating 'motion around an area'. The collapse of this meaning with meaning 'motion from a source' is a characteristic feature of Chukchi.

053 *apaapay-ləŋ-ə-n ənqorə n-ə-lejw-ə-qin*
 spider-SING-E-3sgABS ABL.DEICT.ADV HAB-E-roam-E-3sg
There was a spider walking there.

[cy208]

See also the discussion of the ablative case, §15.2.3.

The demonstrative pronouns *ɣanqen* *that there* and *ɣaanqen* *that yonder* are also used as directional adverbs indicating 'motion towards':

054 [...] / *ɣanqen* *ɣan kalʔa-ytə ɣe-lqən-muri*
 thither DEICT spirit-ALL PF-set.off-1pl
... we went there to the spirits ...

[cy426]

Other deictic adverbs are formed by a thematic suffix *-ke* (which also occurs with personal pronouns) and a derivational suffix; INESSIVE *-cəku*, e.g. *ɣankacəko* *inside there*, ORIENTATIVE *-ɣjit*, e.g. *ɣutkeyjit* *according to this*, and PERLATIVE *-te*, e.g. *ɣoonkata* *along there yonder*.

FIGURE 15.4. Deictic adverbs — inessive, perlative, orientative.

	<i>ən-</i> unspec.	<i>ɣut-</i> near	<i>ɣen-</i> far	<i>ɣaan-</i> , <i>ɣoon-</i> very far	<i>miŋ-</i> (some)where?
INESS	(<i>ən-ke-cəku</i>)	<i>ɣut-ke-cəku</i>	<i>ɣan-ke-cəko</i>		
PERL	<i>ən-ke-te</i>	<i>ɣut-ke-te</i>		<i>ɣoon-ke-te</i>	<i>miŋ-ke-te</i>
ORIENT	(<i>ən-ke-ɣjit</i>)	<i>ɣut-ke-ɣjit</i>			

Note that the inessive and orientative suffixes are the same as the case suffixes (and therefore the predicted adverb forms *ənkecəku* and *ənkeyjit* are

indistinguishable from third person singular personal pronouns). The *-te* suffix of the perlativ is not a nominal suffix. It is formally identical to the postvocalic allomorph of the ergative/instrumental, but does not have any functional link to this. Nominals have a perlativ case indicated by the suffix *-jekwe^{VH}* (§15.2.4).

There is also a form *miŋkemil* *how many?*, *how much?*, which would seem to be a derivation from the indefinite/interrogative locational stem with the manner adverb suffix *-mil*. However, the meaning *how many?*, *how much?* for *miŋkemil* is not what would be predicted from this morphological source.

Adverbs may form the heads of compounds, but in such a function are difficult to distinguish from locational case suffixes and locational derivational suffixes. The following example shows a deictic adverbial *ŋenri* *thither* with an incorporated adjective *ure* *long distance, long time*.

- 055 *ŋaanre* *n-in-ʔemet-qinet* *ŋenku* *ləyen* *n-ine-tril-qinet* *ure-ŋenri*
 yonder HAB-TR-drag-3pl there really HAB-TR-put-3pl far-thither
He dragged them far away, put them there over that way [cy436]

There are three deictic particles, *ŋan*, *ŋoot* and *waj/raj*. These have deictic meanings, usually with scope over an adjacent word. They can be phonologically joined to an adjacent particle, with word internal phonological processes attested at the juncture (e.g. *cin-ŋan* < *cit ŋan*). The conditions for determining the ordering of the particles are unclear (see example 058, which has both orders, *ŋanqəyite* and *qəyiteŋan*).

The clitic/particle *ŋan* is also clearly related to the deictic adverb stem *ŋen-* *there*.

- 056 *keŋŋ-ə-t* *ŋan* *jalqat-a-ŋpo-k* *rʔenut* *ŋan* *n-ə-nu-jw-ə-qin*
 bear-E-3plABS DEICT sleep-E-INCH-SEQ something DEICT HAB-E-eat-COLL-E-3sg
Bears on starting to hibernate eat something [an056]

In spontaneous texts *ŋan* is very frequently used with deictic adverbs, where it seems to be emphatic:

- 057 *ŋanqen* *ŋan* *ʔire-lqət-ʔʔi*
 DEM.3sgABS DEICT gallop-set.off-TH
So that one there raced off. [cy140]

The word *ŋan* can cliticise to any word. Examples 056 and 057 show it with nouns and pronouns, example 058 shows it with verbs, and example 059 shows it with a temporal adverb and an intensifier particle.

- 058 *Iuut* *Cəkwaŋaqaj* *qolento-ʔʔe* *ʔokkakoŋi* *ŋan-qəyite*
 suddenly personal.name.3sgABS speak.up-TH INTJ DEICT-look!
Ateŋi //
 grandfather.VOC
qəyite-ŋan *enmec* *ŋewʔen-qej* *n-ə-le-qin!*
 look!-DEICT already wife-DIM.3sgABS HAB-E-go-3sg
Suddenly Cəkwaŋaqaj spoke up "Goodness! Look at that! Grandfather! Look there comes my dear wife!" [cy411-412]

- 059 *ənkʔam* *ləyen* *ŋan-cit* *taŋ-kolo-ŋan*
 and really DEICT-first INTS-INTS-DEICT
nəmnəm-ə-mk-ə-cy-ə-n [...] settlement-E-COLL-E-AUG-E-3sgABS
And well at first there were lots and lots of settlements [there]... [he009]

Waj combines with the unspecified deictic stem *ən-* to form an extra deictic adverb (*wajənre-wajənrelə* *thither*; 060) and demonstrative (*wajənqena-* *that*; 061).

- 060 [...] *mən-jalyən-mək* *eryatak* *eryatak* *qeeqən* *wajənre*
 1pl.INT-move.camp-1pl tomorrow tomorrow slightly thither
mən-jalyən-mək *ənqora* *mən-rʔile-mək*
 1pl.INT-move.camp-1pl thence 1pl.INT-race-1pl
... Tomorrow we'll move camp, tomorrow we'll move camp a little over that way, and then we'll hold a race [cy346]

Note that there isn't any corresponding deictic adverb **ənre* or **ənrelə* (i.e. without *waj*), but there is a demonstrative *ənqen*.

- 061 *waj-ənqen* *waj*
 DEICT-DEM.3sgABS DEICT
Here [there] it is. [ot043]

The particle *waj* is also an emphatic interjection, which seems to express surprise or that something is counter to expectation:

- 062 *n-iw-qin* *Cəkwaŋaqaj* *n-iw-qin* *ətcaj-qaj*
 HAB-say-3sg personal.name HAB-say-3sg aunt-DIM
waj-waj *muri* *waj!* *mət-jen-mək* *waj* / [...] EMPH-EMPH 1plABS EMPH 1pl-come-1pl EMPH
He says, Cəkwaŋaqaj says: "Aunty, hey, it's us! We're coming back now ..." [cy426]

There is also a deictic particle *ŋoot* *this here*, which has the same sort of locative meaning as the *-kə/-ku* suffix adverbs. This form is frequently used in place of the demonstrative *ŋotqen* *this* in absolute noun phrases, and seems to have the same modifier-head relationship with it that *ŋotqen* would:

- 063 *li* *itək-ewən* *ŋoot* *milyer* *t-ə-piri-ʔʔe-n*
 yes so-INTS DEICT gun.3sgABS 1sg-E-take-TH-3sg
Yes, well it's like I've taken the gun here. [ke093]

Apart from the interrogative/indefinite stem *miŋ-* *where?*, *somewhere*, there exists a spatial interrogative particle *ʔemi* *where?*.

- 064 *əmmemeŋi* *ʔemi* *ŋely-ə-n?*
 Mummy.VOC! where hide-E-3sgABS
Mummy, where's the hide? [ot042]

Unusually for an interrogative, this word does not also have indefinite meaning (but see *ʔemitri/ʔemicci* *somewhere*, below). There also exist several forms of *ʔemi* fused with 3sg personal pronouns. The form *ʔemitlon* (< **ʔemi-atlon*; the use of

atlon 3sgABS as an emphatic particle is discussed in §7.2) makes an emphatic question:

065 iw-nin "naqam ?emitlon qol ginqej?"
 say-3sgA.3sgO but where? QUANT.3sgABS boy.3sgABS
He said to him "Where-on-earth's the other boy?" [ke045]

The form ?emitri/?emicci (<atri/acci 3plABS) *somewhere* is an indefinite spatial adverb.

066 ?emitri yekeŋ-a-lʔ-a-t y-amecat-lenat
 somewhere race-E-PCPL-E-3plABS PF-disappear-3pl
The sled drivers disappeared from view somewhere [cy097]

Unlike the other words formed with ?emi, ?emitri/?emicci cannot be used interrogatively.

16

Adjectives & numerals

16.1 Introduction

Adjectives and numerals are two minor word classes which occur as free words in the same syntactic contexts as absolutive case nominals; they can act as S/O arguments of verbs, and can appear in absolutive NPs as modifiers. They do not however take any other cases. The class of numerals is closed: new words representing numerical concepts enter the nominal class. The adjective class is large (perhaps several hundred stems), but probably also closed; there is no evidence of adjectives being borrowed, whereas nouns and verbs are borrowed freely.

16.2 Adjectives

Adjective stems are an intermediate class between nouns and verbs indicating nominal properties. Adjective stems can be incorporated into nouns as modifiers, or may be marked as one of several different word classes in different functions, as summarised below:

FIGURE 16.1. Adjective functions.

	Attributive function	Predicative function
Incorporated Adjective	yes	no
Free Adjective	absolutive NP only	unmarked TAM only
Deadjectival Verb Base	no	marked TAM only

• **Incorporated Adjectives.** Adjective stems must be incorporated when functioning as modifiers of non-absolutive case nouns. They are also incorporated by absolutive nouns when referring to entities of low discourse salience. Incorporation of adjectives is discussed in §9.4.

• **Free Adjectives.** Free adjectives have distinctive morphological marking, consisting of the prefix *n-*^{VH} and a person-number suffix (§16.3). Free adjectives can function attributively in absolutive case NPs, and function predicatively with unmarked tense-aspect-mood reference (reals, positive polarity, universal stative

type tense-aspect). Only deäadjectival verb bases can function predicatively with marked TAM (§16.4).

•Deäadjectival Verb Base. Deäadjectival verb bases are marked with the circumfix *n-___-?ew^{vh}* or the suffix *-ytə*. They form the lexical heads of analytic verbs, with an auxiliary encoding TAM categories. Like other members of the verb base class, deäadjectival verb bases can also act as sentence adverbs (§13.5, §16.5).

Apart from these three main derivatives of adjective stems there are also the following types:

•Negative Verb Base. Adjective stems can be negated by the negative circumfix *e-___-ke* to make negative verb bases. Deäadjectival negative verb bases form analytic verbs with the auxiliary *-twa-* (see §17.3.1). Negated attributive adjectives are nominalised by the affixes *e-___-kə-lʔ-in(e-)* (§18.7.2).

•Comparative Verb Base. Adjective stems can form comparative predicates. The adjective stem forms a verb base with the suffix *-ŋ* (§16.6).

The adjective stem class is large (hundreds of members), but may not be open. I have never observed a borrowing being used as an adjective, even though Russian words are frequently used as nouns and verbs with full Chukchi inflectional and derivational affixation (§1.2.2).

16.3 Free adjectives

The Chukchi *adjective* is a word class distinguished by a distinctive set of morphological markings which occur in a limited syntactic environment. These morphological markings are similar, but not identical, to the habitual verb markings, and both adjective and habitual verb markings encode habitual or universal tense.

The free (habitual/universal tense) person-number paradigm for adjectives (compare §10.3.2) is shown in fig. 16.2:

FIGURE 16.2. Free adjective paradigm: *mejŋ- big*

	singular	plural
1st person	<i>n-ə-mejŋ-iyəm</i>	<i>n-ə-mejŋ-ə-muri</i>
2nd person	<i>n-ə-mejŋ-iyət</i>	<i>n-ə-mejŋ-ə-turi</i>
3rd person	<i>n-ə-mejŋ-qin</i>	<i>n-ə-mejŋ-qine-t</i>

Free adjectives function as attributes in absolutive case noun phrases (001), and as TAM-unmarked predicates (002):

001 *cakəyet=ʔm* *ətlenju-qej* *n-ə-ppəlu-qin*
 sister=EMPH younger.brother-DIM.3sgABS ADJ-E-small-3sg
[There was] a sister and a small younger brother. [ot002]

002 *wacaq* *ləyen* *ok* *kako* *aləmə=ʔm* *ʔinə* *n-ə-ml-ə-qen*
 INTJ really INTJ INTS INTJ=but wolf.3sgABS ADJ-E-agile-E-3sg
Oh look, oh, but the wolf is agile! [kr155]

In short sentences it can be difficult to distinguish attribution from predication, since a lone noun phrase can be used in a zero-copula existential construction (see also §17.2.4):

003 *n-ə-mejŋ-qin* *pcecem*
 ADJ-E-big-3sg sausage.3sgABS
[They were] big sausages or The sausages [were] big [ke268]

Free adjectives very occasionally seem to function as absolutive case nominals (substantive adjectives), as in the following example, where the adjective *nəmkəqin many* is in the O role of the verb *anməka don't kill*:

004 *ə:qen=ʔm* *qənur* / *ratəŋgawŋən* / *ənje*
 this=EMPH like enough NEG.HORT
ləmje *n-ə-mk-ə-qin* *a-nm-ə-ka*
 repeat ADJ-E-many-E-3sg NEG-kill-E-NEG
That's like, enough, don't repeat it, don't kill lots. [jo070]

However, it is not possible to show that this is true substantivisation. It is impossible to produce non-absolutive adjectives, which better supports a hypothesis that examples like 004 are just ellipsis of a noun head.

Adjectives do not occur as the heads of compounds (§12.3). However, the nominal collective suffix *-mk* COLL (§8.10.1) is formally identical to the adjective stem *mk-* *many*.

NOMINAL DERIVATIONAL SUFFIX *-mk* COLL

005 *cin=ŋan* *gotqen* *jara-mk-ə-qaj* /
 first=DEICT DEM.3sgABS house-COLL-E-DIM.3sgABS
ətrʔec *am-aŋqa-corm-ə-k* *wa-lʔ-ə-t* / *jara-tko-qay-te*
 only REST-sea-EDGE-E-LOC be-NMZR-E-PL house-COLL-DIM-3plABS
tʔer-kine-qey-ti *jara-t=ʔm*
 few-GEN-DIM-3plABS house-3plABS=EMPH
In the beginning there was only that little group of houses on the seashore, a little bunch of houses, a few little houses. [he048]

The word *jara-mk group of houses* cannot be considered to be a compound with an adjective head because the *-qej^{vh}* diminutive suffix shows that this word is morphologically a noun (word class and other syntactic features are determined by the head of the compound).

16.3.1 Derivation

Verbs and adjectives share a number of superficially identical derivational affixes. However, derivational affixes attach directly to verb stems, whereas derivational affixes on adjectives attach *outside* the adjective markers. This is illustrated with adjectival and verbal diminutives and augmentatives in fig. 16.3 below. The derivational affixes follow the person number agreement suffix of an adjective, but they precede the agreement suffix of a verb (verbal diminutives and augmentatives also have the thematic verbal suffix *-et* attached to the morpheme). If adjective

markers are considered to be inflections then this would be an instance of derivational morphology ordered outside inflectional morphology, which would be typologically very unusual. The forms are tabulated below. See also the examples: 006 for diminutive adjective and 007 augmentative adjective.

FIGURE 16.3. Adjectives and habitual verbs with derivational suffixes.

	PREDICATE ADJECTIVE	HABITUAL INTRANSITIVE
DIM	n-___-qine-qej	n-___-qeet-qin (-qeet < *-qej-et)
AUG	n-___-qena-cy-a-n n-___-qena-jy-a-n	n-___-cyat-qen (-cyat < *-cy ^{VH} -et)

006 [...] qelug=ʔm n-a-ppalu-qine-qej pojy-a-qaj
because=EMPH ADJ-E-little-3sg-DIM spear-E-DIM-3sgABS

...because of his spear is a tiny little one.

[ot108]

007 utʔam-ʔetjiw-et-a-lʔet-yʔi eqalpe=ʔm tay-n-a-qewre-qena-jy-a-n layen
tentpole-bundle-TH-E-DUR-TH quickly=EMPH INTS-ADJ-E-agile-3sg-AUG-E-3sg really

She bundled up the tentpoles quickly, she was pretty agile.

[cy271]

My text corpus contains no spontaneous examples of non-third person free adjectives with derivational morphology, and it is unclear how derivational morphology might interact with the pronominal suffixes.

16.3.2 Diminutives and augmentatives

The diminutive and augmentative derivational suffixes are the same as nominal diminutives (-qej^{VH}) and augmentatives (-cy^{VH} and -jy^{VH}). These affixes attach to the adjective after the suffix -qin(e-). As with nominals, the diminutive can be a word final affix, but the augmentatives can not. With the augmentative suffixes adjectives take nominal-type endings, -n for 3sg and -t for 3pl. While these word-final affixes are all formally identical with absolutive case forms of nominals, they cannot be considered so, as no other case forms can occur with adjectives¹.

ADJECTIVES WITH DIMINUTIVE DERIVATION

008 pojy-ott-a-ly-a-qaj layen n-a-ciwm-a-qine-qej
spear-wood-E-SING-E-DIM really ADJ-E-short-E-3-DIM

The spearshaft was a short little one.

[ot037]

¹ Such forms are exist in closely related languages, e.g. Zhukova (1980:65) reports 'extremely rare' occurrences of case-marked adjectives in Palana Koryak. These only occur in the locative, instrumental and dative cases, and have special pragmatic effect (possibly 'contrast', but the description is unclear), e.g.:

n-tor-lag-k rara-k janet-a-tkon
ADJ-new-ADJ-LOC house-LOC live-E-PROG

He lives in a new house [or It's a new house he lives in] [Zhukova 1980:65].

009 nalyi-n-erne-qine-qej
INTS-ADJ-strong-3-DIM-3sg

It's really pretty strong

[aa4.18]

ADJECTIVES WITH AUGMENTATIVE DERIVATIONS

010 n-a-lye-n-ekw-a-qena-jy-a-n [...] tay-n-ekw-a-qena-cy-a-n
ADJ-E-INTS-ADJ-high-E-3-AUG-E-3sg INTS-ADJ-high-E-3-AUG-E-3sg

It's really very high ... It's extremely high

[ab2.10]

011 neme rʔejwet-yʔe-t layen kolo n-utʔam-ʔat-et-a-lʔet-qin
also dismantle-TH-3pl really INTS HAB-tentpole-ʔ-TH-3sg

tay-n-a-qewre-qena-jy-a-n orw-a-k n-ine-tʔiwju-qinet utʔam-a-t
INTS-E-ADJ-E-skilful-ADJ-AUG-E-3sg sled-E-LOC HAB-TR-tie-3pl tentpole-E-3plABS

They once again dismantled [the camp], and she took down all the poles of the jaraya as easily as that - she was really very skilful - and tied the poles on the sled.

[cy296]

Derivational prefixes also occur outside the adjective marking prefix; see §16.3.3.

16.3.3 Intensifier prefixes

The intensifier prefixes tey- and nalyi- attach to the beginning of the entire adjective, i.e. prior to the n- prefix. This is different to the behaviour of the formally identical intensifier prefixes which occur with verbs, where they are attached directly to the stem, inside the verbal inflections. Thus, even though adjectives and verbs in the habitual form may be formally identical when they are underived, with derivations they are distinguishable:

FIGURE 16.4. Adjectives and habitual verbs with derivational prefixes.

	ADJECTIVE (-mk- many)	HABITUAL VERB (-lejuw- roam)
underived:	n-a-mk-a-qin (ADJ-E-many-E-3sg)	n-a-lejuw-a-qin (HAB-E-roam-E-3sg)
tey- intensifier:	tey-n-a-mk-a-qin (INTS-ADJ-E-many-E-3sg)	n-a-tey-lejuw-a-qin (HAB-E-INTS-roam-E-3sg)
lyi- intensifier:	nalyi-n-a-mk-a-qin (INTS-ADJ-E-many-E-3sg)	n-a-lyi-lejuw-a-qin (HAB-E-INTS-roam-E-3sg)
mel- approximative:	mel-n-a-mk-a-qin (APPR-ADJ-E-many-E-3sg)	n-a-mec-lejuw-a-qin (HAB-E-APPR-roam-E-3sg)

• Intensifier tey-

012 layen tey-n-a-mk-a-qin atrʔec yamnan camqak [...]
really INTS-ADJ-E-many-E-3sg all 1sgABS partially

There's a real lot, but I [know them] partially

[kr088]

The intensifier tey- also occurs with words from a wide range of word classes, e.g. nouns (§8.10.2) and verbs (§14.5.2).

•Intensifier *nəlyi-*

- 013 [...] / nəlyi-n-ə-mk-ə-qin new-ə-nju-lʔ-ə-n n-in-iw-qin
 INTS-ADJ-E-many-E-3sg woman-E-see-PCPL-E-3sgABS HAB-TR-say-3sg
 e q-ə-ra-ʔt-ə-tək / DOMOJ
 INTJ INT-E-house-go.to-E-2pl homewards
 ... to many potential husbands she said, "Go home, go home" [ke175]

The intensifier prefix *nəlyi-* seems to be derived historically from the intensifier prefix *lyi-*, which occurs with nouns and verbs, and repetition of the adjective prefix. With habitual verbs the *lyi-* prefix attaches directly to the stem, e.g. *n-ə-lyi-lejw-ə-qin* (HAB-E-INTS-walk-E-3sg) *he walked a lot* (see §14.5.2). Deadjectival adverbs formed by *n-___-ʔew* also take the *nəlyi-* form of the intensifier prefix, not *lyi-*. Note that other deadjectival adverbs do not; see example 023, which has the form *ləye-təg-ə-ŋ* INTS-good-E-ADV.

•Approximative. The approximative prefix *mel-* is formally identical to the nominal approximative (§8.10.3). This prefix can have evidential meaning ('apparently') or can show that the property indicated by the adjective is incompletely evident:

- 014 VIDNO ČTO mal-n-ʔomr-ə-qen
 one.can.see that APPR-ADJ-strong-E-3sg
 You can see that it's rather strong [kr247]

The related *mec-* form of the approximative is not attested with free adjectives.

16.4 Free adjective predication

Most adjectival predications in texts refer to a property which exists concurrently to the reference frame. Such modally and aspectually unmarked adjectives occur in the special free adjective form. Adjective stems in the free form have morphology which is formally very similar to the morphological markers of the habitual tense aspect, as noted above (§16.3).

Most predicate adjectives in narrative texts are third person. Exceptions are either from quoted speech or incidental conversation. Example 015 comes from conversation between several speakers at a story-telling session discussing what they have already told and what more they will tell.

NON-THIRD PERSON ADJECTIVE

- 015 n-in-ʔ-lyat itək ʔət ek-wəry-a-ʔm wenləyi
 ADJ-quick-2sg so 2sg.ABS say-NMZR-INST=EMPH nevertheless
 n-ə-telepkine-tku-ʔət
 HAB-E-tell.about.older.days-ITER-2sgS
 You were quick, but nevertheless remembered tales of the older days. [ka31]

16.5 Deadjectival verb bases

When a predicate adjective is marked for aspectual or modal categories an analytic construction with deadjectival verb base and intransitive auxiliary verb (*-twa-* or *nʔel-*) is used. The usual deadjectival verb base derivation has the circumfix *n-___-ʔew*^{vi}, as illustrated by the following two examples:

- 016 mec-n-erm-ʔew n-ə-twa-ʔa-n [...]
 slightly-ADV-strong-ADV INT-E-AUX-TH-2/3sg
 If you were only a bit stronger... [jo029]
- 017 [...] / əŋqorə ecwera-ʔəry-ə-n wa-k-ʔm ləyen n-ə-mel-ʔew
 then succeed-NMZR-E-3sgABS be-INF=EMPH really ADV-E-well-ADV
 [#] nʔ-ə-twa-rkanat wecʔəm awrena-ʔtə gelwəlʔ-ə-t-ʔm
 COND-E-be-3pl.PROG maybe near-ear-ALL herd-E-3plABS=EMPH
 ... and if all is successful, all goes well, there would be herds in the next year. [he110]

Deadjectival verb bases can also act as sentence adverbs:

- 018 əŋqen ləyen / əŋgin [nəŋqen] ləyen
 DEM.3sgABS really thus really
 əŋgin nəlyi-n-ə-cʔuw-ʔew lʔu-lqəl-mic ləle-mic
 thus INTS-ADV-narrow-VBase look-UTL-ADV eye-ADV
 wətaçy-ə-n n-ine-kəmyənnu-qin
 tunic-E-3sgABS HAB-TR-draw.together-3sg
 He just drew his overtunic together narrowly for his eyes like this. [kr139]
- 019 ənkʔam əŋqorə etʔoləm qeeqən [#] n-ltc-ʔew /
 and then ? more MOD-determined-VBase
 n-ə-miyciret-qin remkən
 ADJ-E-work-3sg folk-E-3sgABS
 And then the people started to work even more determinedly [he057]

The suffix *-ʔtə* can also form deadjectival verb bases. This suffix has the same allomorphy as the allative case, and also forms verb bases from verb stems (see §13.5). The semantic difference is unclear.

16.5.1 Deadjectival verbs

Certain predicated properties indicated by adjective stems require word-class changing derivation to make the adjective stem into a verb. The most common of these is the suffix *-twi*, which derives an intransitive verb with inchoative meaning from an adjective (see also §14.4.2):

- 020 ii q-ə-jʔo-ʔ-ə-n qənwer re-wulq-ə-twi-ʔe əncʔaq
 yes INT-E-go.to-TH-E-3sg finally FUT-dark-E-INCH-TH and
 caj-əŋqen
 DEICT-DEM.3sgASS
 Yes, visit her now, for it will get dark soon [kr235]

- 021 jury-a-twi-lʔ-iy-a-t [...] [kr137]
 crazy-E-INCH-PCPL-wolf-E-3plABS
Rabid wolves [lit. wolves which had become crazy]...

16.6 Comparative construction

The comparative construction is another deäjectival analytic verb construction using the auxiliaries *-twa-* (stative) and *nʔel-* (inchoative). The verb base in a comparative construction is marked by the suffix *-ŋ^{VH}* (§13.5). The standard of comparison is not stated where it is clear from context:

- 022 caj-aŋqen nemaqej aŋp-a-ŋew arʔala n-a-pəcwetɣaw-qen
 DEICT-DEM.3sgS also old-E-woman quite HAB-E-converse-3sgS
aŋlon=ʔm kitkit aŋp-a-ŋ wa-lʔ-a-ŋ
 3sgABS=EMPH slightly old-E-ADV be-PCPL-E-3sgABS
There's that old woman over there too, she's quite talkative. She's a little bit older [than me]. [kr177]

When an overt standard of comparison is given it is marked in the locative case, as in the following example (from a discussion of the culinary merits of ground squirrel meat compared to dog):

- 023 ZHIRNEN'KIE ʔattʔ-a-kine-k ləve-taŋ-a-ŋ wa-lʔ-a-t
 fat dog-E-REL-LOC INTS-good-E-ADV be-NMZR-E-PL
They're fat. They're very good compared to dog. [kr160]

Example 023 also shows that adjectival/adverbial derivational prefixes can occur with comparative verb bases. Verb bases formed with *-ŋ* do not take derivational suffixes.

16.7 Numerals

The indigenous Chukchi numerical system is a base 20 system with elements of base 5. The numeral system includes *simple numerals* (single morphemes), *compound numerals* (numerals formed by compounding two simple numerals), and *analytic numerals* (numerals formed by phrasal combinations of simple and compound numerals). With numerals above 20 the system quickly becomes unwieldy, and the Russian decimal system is today widely used in its place; none of my texts include spontaneous usages of compound or analytic numerals².

² In the 1920s, and possibly earlier, there was a base 10 tallying system used by Chukchis and Koryaks (Stebnickij 1994:107). This may be an innovation from after Russian contact. The symbols are:

	units
x	tens
o	hundreds
⊗	thousands

Cardinal and collective numerals are similar to absolutive case nominals. They frequently act as modifiers in absolutive noun phrases, but can also act as absolutive case arguments. They cannot however be marked with any other cases or other nominal inflectional categories, and so are not nominals. The Chukchi cardinal numerals are used for counting and for general enumeration of entities. There are also derived series of words (numerals, denumeric nouns, and denumeric adverbs) which indicate number in particular functions:

- COLLECTIVE (number of entities in a group; divided into 'human' and 'non-human' types, §16.11.1)
- ORDINAL (position in a sequence; §16.11.2)
- MULTIPLICATIVE (number of instances; §16.11.3)
- DISTRIBUTIVE (number of entities at a time; §16.11.4)

The collective derivations are numerals (they can function as absolutive case nominals, but not as other cases). The ordinal series are regular nominals, and the multiplicative and distributive series are denumeric adverbs.

16.8 Simple numerals

The simple numerals are shown in fig. 16.5:

FIGURE 16.5. Simple numerals.

<u>aŋnen^{VH}</u>	<i>one</i>
<u>ŋireq/ŋiceq</u>	<i>two</i>
<u>ŋəroq</u>	<i>three</i>
<u>ŋəraq</u>	<i>four</i>
<u>mətləŋ^{VH}(-en)</u>	<i>five</i>
<u>mənyət^{VH}(-ken)</u>	<i>ten</i>
<u>kəlyən^{VH}(-ken)</u>	<i>fifteen</i>
<u>qlik^{VH}(-kin)</u>	<i>twenty</i>
<u>tʔer^{VH}</u>	<i>how many?/so many</i>

The numeral *two* has the *r-c* alternation between men's and women's forms, but the numerals *three* and *four* and the interrogative/indefinite do not. The bracketed endings only appear in the free cardinal numeral form, and disappear under incorporation of suffixal derivation. The forms for *ten*, *fifteen* and *twenty* have the ending *-kin--ken*, which is formally identical to the absolutive singular form of the nominal relational suffix (§8.7.2). The numeral *five* has the ending *-en*, which is formally identical to the absolutive singular forms of the possessive suffix (§8.7.1). While the numerals themselves are not nominals (they don't have case forms or number marking) they presumably are etymologically related to nominals³.

³ The numeral *qlik-kin twenty* is related to a stem **qlik* meaning *man, male* (cf. *qliket-marry a man*). Skorik relates both numeral stems *mətləŋ- five* and *mənyət- ten* to the stem *məny^{VH}* which means *hand* (Skorik 1961:387). This is unquestionably the case for

16.8.1 Loan numerals

Loan words with numeric meaning are all simple numerals or nominals. The most common is *ticəc(u)* *thousand* (< Russian 'tis'āčā'):

- 024 ewar [#] n-ə-qaa-nm-at-qenat ənqen ɣalwəlʔ-ə-cy-ə-n /
 so HAB-E-reindeer-kill-TH-3pl DEM.3sgABS herd-E-AUG-E-3sgABS
 n-ə-tku-qin əməlʔetə ticəcu ɣa-parol-len=ʔm
 HAB-E-destroy-3sg all.ADV thousand POSS.PRED-extra-3sg=EMPH
If they slaughtered reindeer, that huge herd, they wiped out all thousand and more. [he050]

Compare the absolutive plural form in example 036. Northern variants of Chukchi use *tawcən* *thousand*, which is an old loan from the period of English-language contact (§1.2).

In my experience numerals were most commonly used by Chukchi speakers with reference to sums of money. During the period of research the rouble had suffered so much from inflation that it was necessary on a daily basis to talk of sums of money in the thousands and millions—this is only possible with borrowing of the Russian terms.

According to Soviet naming practices many entities were named with (Russian) ordinal numerals (especially herding brigades, settlements, schools). These terms are commonly used as unanalysed names. Russian gender agreement is usually ignored, and the form is used in the masculine, as in the following (Rus. 'pervij' first, 'vto'roj' second, 'tretij' third):

- 025 emelke [#] / PERWEJ-ə-lʔ-ə-n=ʔm VTOROJ-ə-lʔ-ə-n=ʔm
 seems first-E-NMZR-E-3sgABS=EMPH second-E-NMZR-E-3sgABS=EMPH
 Teyronkeew=ʔm // ʔEgerult-ə-n TRETE-lʔ-ə-n
 personal.name.3sgABS=EMPH personal.name-E-3sgABS third-NMZR-E-3sgABS
 ənqen ɣəroq ɣelwəlʔ-ə-t=ʔm
 DEM.3sgABS three herd-E-3plABS=EMPH
It seems [ʔ] had 'The First', Teyronkeew had 'The Second'. ʔEgerultən had 'The Third', those were the three herds. [he031&032]

the numeral *ten*, although the details of the derivation are unclear. The numeral stem is *mənyət-*, which looks like the plural form, but 'plural' is an inflection, and cannot act as part of a stem for the purposes of derivation. Probably the stem is synchronically unanalysable (and may be related to the dual number found in most Koryak dialects). There is no suggestion made of why the stem *mətləɣ-^{vh}* should be considered cognate to this same stem, although Skorik makes a lot of the semantic basis of the lexical elements of numerical system, which are frequently related to counting on the fingers (Skorik 1961:386-388, esp. notes 273, 275, 276). It is conceivable that the *ləɣ* element of the stem is related to the singulative (§6.3.3). The numeral *kəlyənken* *fifteen* is also a relational form, but the stem *kəlyən-* has no obvious etymological relationship to other stems, nominal or otherwise.

16.8.2 Pronumeral tʔer

The pronominal *tʔer* has interrogative (example 026) and indefinite (027) functions:

- 026 tʔer ʔəloget jaa-yʔa-n?
 how.many? day.ABS use-TH-3sgO
How many days did it take (lit. "use")? [na081:9]
 027 lʔeleɣit ənglɪn / əm-lʔalaɣet tʔer MESJAC jily-ə-n
 winter.ABS thus REST-winter so.much month month-E-3sgABS
Thus [in the] winter, all winter, so many months... [ka06]

Interrogative/indefinite pronominal *tʔer* can take normal numeral derivation, for example, the ordinal numeral deriving suffix *-qew* (see example 037, §16.11.2).

16.9 Compound numerals

Compound numerals are formed by a combination of simple numerals and/or other derivational morphology. *Six* and *seven* are formed by compounding the simple numerals *one-five* and *two-five*:

FIGURE 16.6. Compound numerals, 6 – 9.

ənnan-mətləɣ-en	six
ɣerʔa-mətləɣ-en	seven
amɣəroot-ken	eight
qonʔacyən-ken	nine

The numeral *amɣərootken* *eight* (*em-ɣəro-jut-kin) is formed from the numeral *ɣəro-* *three* with the restrictive prefix *em-*, numeral distributive derivation *-jut* (§17.0) and the relational suffix *-kin*, indicating 'only the third', i.e. five plus three, a hand and three more fingers.

The numeral *qonʔacyənken* *nine* is also morphologically complex. It includes the pronominal element *qun-/qon-* which indicates *one* (§7.5). Skorik (1961:388 note 276) states that middle element of *qonʔacyən-ken* means *in a row, next to*, related to the noun *acyət* *line, row* (plural *əlyət-te*) and thus the entire word could be glossed *one beside [the others]*, i.e. all the fingers except one. This would be a sensible semantic source for the word, but it is unclear why the word *acyət* should gain an initial glottal stop and exchange the final *t* for an *n*.

- 028 wanewan layen / layen miŋkemil ɣa-nanq-ə-twa-len=ʔm
 NEG.NFUT really really how.much PF-stomach-E-RESULT-3sg=EMPH
 əry-in qonʔacyən-ken jʔily-ə-n=ʔm ewar qonʔacyən-ken
 3pl-POSS.3sgABS nine-NUM month-E-3sgABS if nine-NUM
 layen=ʔm ele-ɣ n-ena-yto-qen=ʔm / [...]
 really=EMPH summer-LOC HAB-TR-bear-3sg=EMPH
No, when they've been pregnant so long, when their nine months, if [they've had] nine months then in the summer they bear them [aa4.04]

Multiples of twenty are also formed by compounding:

FIGURE 16.7. Compound numerals, 40 – 400.

ɣireq-qlik-kin	40
ɣəroq-qlek-ken	60
ɣəraq-qlek-ken	80
mətləŋ-qəlek-ken	100
ənnan-mətləŋ-qəlek-ken	120
ɣəraq-mətləŋ-qəlek-ken	140
amɣeroot-qəlek-ken	160
qonʔacyən-qəlek-ken	180
mənyət-qəlek-ken	200
kəlyən-qəlek-ken	300
qliq-qəlik-kin	400

It is possible that higher multiples of twenty can also be formed, but speakers disagree on the details of the system, particularly with respect to multiples of twenty by numbers represented by analytic numerals (see below, §16.10).

16.10 Analytic numerals

Numerals from 11 to 14 and 16 to 19 are formed analytically, with a phrase consisting of (i) either *mənyətken* *ten* or *kəlyənken* *fifteen*, (ii) a numeral from one to five representing the remainder, and (iii) the noun *parol/pacol* *extra*, *remainder*.

FIGURE 16.8. Analytic numerals.

mənyətken ənnen parol	eleven (<i>ten, one remaining</i>)
mənyətken ɣireq parol	twelve
mənyətken ɣəroq parol	thirteen
mənyətken ɣəraq parol	fourteen
kəlyənken ənnen parol	sixteen
kəlyənken ɣireq parol	seventeen
kəlyənken ɣəroq parol	eighteen
kəlyənken ɣəraq parol	nineteen

Likewise the factors of twenty from 220-280 and 320-380 are broken down into analytic complexes made up of (i) the numeral *mənyətqlekken* *200* or *kəlyənqlekken* *300*, (ii) a compound numeral 20, 40, 60 or 80, and (iii) the noun *parol*.

All other numerals are formed by giving a factor of twenty and then the remainder (a simple, compound or analytic numeral from 1 to 19) as above. For example:

029	ɣərʔa-qlek-ken	kəlyən-ken	ɣireq	parol
	four-twenty-NUM	fifteen-NUM	two-NUM	extra
	<i>Ninety seven</i>			

030	kətlən-qlek-ken	qlik-kin	amɣeroot-ken	parol
	fifteen-twenty-NUM	twenty-NUM	eight-NUM	extra
	<i>Three hundred and twenty eight</i>			

16.11 Numeral-specific derivation

There are a number of derivational affixes which only combine with numerals (including *tʔer* *how much?/so much*). These forms are all suffixes; if they combine with an analytic numeral they go on the last word in the complex (usually *parol/pacol*).

16.11.1 Collectives: *inanimate -jono* and *animate -ryeri/-ryeci*

There are two derivational suffixes which form collective numerals, the suffix *-jono* which indicates a non-human collective, and *-ryeri/-ryeci*, which indicates a human collective. The collective numerals can act as absolutive case verbal arguments, but cannot take other case markings.

Non-human collective suffix *-jono*

031	ləyən	amɣərʔoot-jono	qəmey-luut	mənyət-jono	ʔamən
	really	eight-COLL	even-suddenly	ten-COLL	INTJ
	qənūt	muu-lʔ-ə-t	ləmənəkəri		
	like	caravan-NMZR-E-3plABS	everywhere		
	<i>They [mooses] go in eights or even tens, like caravans back and forth</i> [kr026]				

Human collective suffix *-ryeri/-ryeci*

032	panena	neme	ətrʔec	ɣərʔo-ryace	/	ɣiceq	rə-ɣnu-w-ninet
	still	also	all	three-COLL		two-NUM	CS-remain-TH-3sgA.3plO
	<i>Once again he only left a trio, two.</i> [ot139]						

033	leɣw-ə-lʔ-ə-t	jet-ɣʔe-t	ənqen	ɣərʔo-ryace	ʔeqe-njiw-in
	walk-E-PCPL-E-3plABS	come-TH-3pl	DEM.3sgABS	three-COLL	bad-uncle-POSS.3ABS
	ekke-t				
	son-3plABS				
	<i>Those walkers came, the trio, the bad uncle's sons</i> [cy353]				

034	cot-tayən	ləyən	ləyi-cimirʔet-ɣʔi	ənkə	ləyən
	cushion-EDGE.3sgABS	really	INTS-be.knocked.about-TH	there	really
	taŋ-əməlʔ-etə	/	mətləŋ-ə-ryace	əməlʔo	ləyən
	INTS-all-ADV		five-E-COLL	all	really
	ci:mirʔet-ɣʔe-t	ləyən			ənkə
	be.knocked.about-TH-3pl	really			there
	<i>The outer chamber was all knocked about, there all the fivesome were all beaten up there.</i> [cy423]				

16.11.2 Ordinal *-qew*

Ordinals are formed by the suffix *-qew*^{VH}. The ordinal form of the numeral is a noun; examples include forms in the absolutive plural (036) and the locative case (037). In example 035 an ordinal numeral appears in an absolutive noun phrase:

- 035 *ənraq* / [*ʔuri*] *ipe* [*ʔaat*] *ənqen* CETWERT-ə-lʔ-ə-n /
and in.fact DEM.3sgABS founh-E-NMZR-E-3sgABS
ʔaa *wa-γʔe* *emelke* *qənur* /
INTER be-TH seems like
ɣərʔa-qaw *ɣelwəl* *tomyat-ə-k*
four-ORD herd.3sgABS be.created-E-SEQ
Then this -aah, that's right- there was The Fourth, It seems like, the fourth one
formed. [he036]

Note that the Chukchi phrase *ɣərʔaqaw ɣelwəl* *fourth herd* is a Chukchi language gloss of the meaning of the nativised Russian name CETWERTəlʔən (from Russian 'čet'vertaja bri'gada' *Fourth Brigade*).

Example 036 shows a plural marked ordinal in a noun phrase with plural noun *ticəcti* *thousands*:

- 036 *qənur* *ənqorə* / *etʔo* *remk-ə-n* / *ɣelwəlʔ-ə-t*
like then somewhat folk-E-3sgABS herd-E-3plABS
n-ə-mket-təle-qinet / *qənwer=ʔm* *ɣalwəlʔ-ə-cy-ə-t* *ɣərʔo-ot* /
HAB-E.become.big-go-3pl like=EMPH herd-E-AUG-E-3plABS three-DIST
ɣərʔa-qaw-ə-t *ticəc-ti* *cəwipət-ti* *qənwet* *nʔel-γʔe-t* [#]
four-ORD-E-3plABS thousand-3plABS half-3plABS like become-TH-3pl
γemʔe-n-ə-mk-ee-net *ɣelwəlʔ-ə-t=ʔm*
INTS-E-INV-CS.become.big-TH-3pl herd-E-3plABS=EMPH
Then it's like, people, the herds went on growing, [they were] huge herds, by
threes, [when their numbers reached] the fourth thousand they became halves
[i.e. the herds were split into two], they really increased the herds. [he070]

Example 037 shows two ordinal numerals, both in the locative case: *ɣirʔeqewək* *upon the second* and *tʔerqewək* *upon some number of times* (<tʔer, the indefinite/interrogative pronomeral).

- 037 *qənwet* *tʔer-qew-ə-k* *jalʔət-ə-k* *ɣireq-qew-ə-k*
finally how.many-ORD-E-LOC nomadise-E-SEQ two-ORD-E-LOC
jalʔət-ə-k *qənwer* *luut* / *ɣinqeɟ* *jəto-nen*
nomadise-E-SEQ finally suddenly boy.3sgABS pull.out-3sgA.3sgO
Finally several moves later, on the second move, finally she suddenly gave
birth to a boy. [cy250]

16.11.3 Multiplicative -ce

The multiplicative -ce^{VH} forms a series of denumeric adverbs indicating the number of iterations of an event, e.g. *ɣire-ce* *twice*, *mətlən-ca* *five times*, *mənyət-ca* *ten times*.

- 038 *ənʔam* *ənqorə=ʔm* *leen* / *tʔec-ce*
and then=EMPH really how.many-MULT
n-ə-tkiw-qin=ʔm / *ɣərʔa-ca* *n-ə-tkiw-qin* *ewət*
HAB-E.spend.night-3sg=EMPH four-MULT HAB-E.spend.night-3sg=EMPH so
n-ə-meycer-ə-myo-qen *ɣewəcqet*
HAB-E.work-E-INCH-3sg woman.3sgABS
And then she spends the night a couple of times [i.e. rests in bed after
childbirth], four times she spends the night, then the woman begins to work.
[ch12]

Analytic numerals take the derivational suffix on the final element, e.g. *qlikken* *annen* *pacol-ca* *twenty one times* (this type of thing does not occur very frequently).

The word *qunece* *once* also seems to be derived from this suffix, although it is not a regular formation (the stem is apparently the quantifier pronoun stem *qut-* *one, other*).

- 039 *ləyen* *qunece* *ʔera-kawra-nce-γʔe=ʔm* *rʔile-lqət-γʔi* *ɣenri*
really once gallop-circle-run-TH=EMPH race-set.off-TH there
Only once she galloped in a circle, (and then) she quickly raced off thither.
[cy098]

16.11.4 Distributive -jut

The distributive suffix -jut forms an adverb indicating the size of group that an action takes place over:

- 040 *em-cəmcə* *cəmc-epə* *ɣelwəlʔ-ə-t* *ɣala-lʔ-ə-t* /
REST-close close-ABL herd-E-3plABS pass-PCPL-E-3plABS
ewər *n-ə-penrə-tko-qenat* *ənʔam* *ənqorə* *annen-jut*
if HAB-E.attack-ITER-3pl and then one-DIST
təm-ə-platko-k=ʔm / [...] *kill-E-COMPL-SEQ=EMPH*
Only close up, from close around the passing herd if it attacks them, and then
finishes killing [them] one-at-a-time ... [aa8.04]
- 041 *ənqorə* *ɣan* *ənqen* / *remk-ə-n* /
then DEICT DEM.3sgABS folk-E-3sgABS
n-ə-tamyonqaaɣ-ə-lʔat-qen=ʔm *annen-ʔorawetlʔa-ta* *mənyət-jot* /
HAB-E.train.harness.deer-E-DUR-3sg=EMPH one-person-ERG ten-DIST
DECJAT OLENI *enmec* *n-ə-n-win-ew-qin* *mooqor-o*
ten reindeer already HAB-E-CS.be.tame-TH-3sg harness.deer-EQU
n-ə-tejk-ə-qin=ʔm / *annen-ʔorawetlʔa-ta=ʔm*
HAB-E.make-E-3sg=EMPH one-person-ERG=EMPH
Then the people gradually got the harness reindeer ready, one person trained
harness reindeer in tens [i.e. each person trained ten deer], one person made
harness deer. [he061]

16.12 General derivation of numerals

Most derivational affixes which combine with nominals and adjectives can also combine with numerals, e.g. the diminutive (042), the intensifier (043) and the approximative (044) (§§8.9-10, §16.3).

• **DIMINUTIVE -qej**. The diminutive attaches to the numeral after the suffix *-ine*, which is a thematic 'ligature' suffix. The diminutive suffix also acts as a nominaliser; in the following example the diminutive form appears in the plural absolutive:

- 042 *luur waj qeper gəto-γʔe wəkw-ə-cəko-jpə /*
 suddenly DEICT wolverine.3sgABS appear-TH stone-E-INESS-ALL
qətələyi ənqen ənkə caj-o-ma=ʔm luur
 seems DEM.3sgABS there tea-CONSUME-SIM=EMPH suddenly
gireq-ine-qey-ti pintaqet-γʔe-t
 two-TH-DIM-3plABS show.self-TH-3pl
Suddenly a wolverine appeared from inside some rocks, right there while we were drinking tea, suddenly two little ones showed themselves. [aa4.10]

• **INTENSIFIER teŋ-**

- 043 [...] *teŋ-annen* *qora-ŋə* *q-ə-nəntəŋet-ə-rkən=ʔm* [...] *[...]*
 INTS-one reindeer-3sgABS INT-E-separate-E-PROG
... separate out only one reindeer... [jo034]

• **APPROXIMATIVE mel-**

- 044 *wanewan mal-amŋəroot-ken jep e-jəl-ke*
 NEG.NFUT APPR-eight-NUM first NEG-give-NEG
jara-k n-ə-twa-qenat
 house-LOC HAB-E-be-3pl
No, it was more like eight, they haven't been given yet they're at home [kr004]

Numerals are occasionally observed with other nominal markings such as this person-number-affixed form:

- 045 *n-in-iw-qin cakəyet "iyət=ʔm waj /*
 HAB-TR-say-3sg sister.3sgABS now=EMPH EMPH
mət-ra-ra-γt-ə-γʔa ɲirʔe-muri
 1pl-FUT-house-go.to-E-TH two-1plABS
He said to his sister "Now the two of us will go home" [ot104]

Example 045 might also be considered a nominalisation, or even an incorporation of a numeral by a personal pronoun.

17

Copulas & Auxiliaries

17.1 Introduction

Chukchi has a verbal subclass which combines (for most of its members) both copula and auxiliary functions. The copula verbs are the main way of forming nominal predicates. The auxiliaries form analytic verbs with the addition of some kind of invariant lexical head (verb base), which may be of verbal, adverb/particle, or adjectival origin.

From a syntactic point of view the copula/auxiliary functions to mark verbal inflectional categories in predicates containing no other element which marks these categories.

	subject	predicate		
copula function:	ABS nominal	copula	+	copula complement
auxiliary function:	ABS nominal	auxiliary	+	invariant lexical head

The prototypical copula clause has a nominal subject and a complement. These complements can be inflected forms (e.g. nominals in particular oblique cases) or an underived form, such as an adverb. Existential clauses are made with the same verbs as used in copula clauses, but without any kind of complement. Existential clauses will be classified as a peripheral type of copula clause because of this formal similarity, even though there are no morphosyntactic grounds for otherwise distinguishing them from intransitive verbal clauses. An argument can be made for classifying one of the functions of the transitive auxiliary verbs as that of a copula. This is discussed below in §17.1.2.

Adjectival predicates form a class on their own, which has significant structural differences to the copula/auxiliary clause. They have their own special non-verbal predicate morphology (formally identical to verbs with habitual tense-aspect) in forms unmarked for tense-aspect-mood, but formally converging with copula/auxiliary clauses in more marked TAM categories.

The subject of copula and non-verbal predicates is always in the absolutive case. There are some transitive auxiliaries which show normal ergative-absolutive case agreement for transitives, but these do not normally have copula functions. Copula complements are marked in various ways: locational copula clauses have complements in any of the locational cases, and equative copula clauses have a special equative case for the complement. Copula complements are never in the absolutive case of the (copula) subject except in appositional (zero-copula) constructions (discussed in §17.2.4). Aspectually neutral identity and locational clauses can sometimes be made appositionally, but these constructions are difficult if not impossible to distinguish from appositional noun phrases.

17.1.1 Copulas

From a typological perspective, to say that a word is a copula it should be a member of a formally distinguishable word-class which fulfils most or all of the typical copula functions, such as forming a nominal predicate and forming existential clauses; which of these functions are realised by copulas and how the other functions are carried out is discussed in §17.2. It would be expected to have minimal lexical and grammatical meanings apart from this, although this would have to be determined on a language by language basis. In the languages of the world copulas may or may not be a subclass of verbs, although in Chukchi all candidates definitely are. The three clear candidates for copulthood in Chukchi are:

it- 'be something' (identity complement)

twā- 'be in a place, exist' (locative complement or one-place existential)

nʔel- 'become'

These copula verbs are distinguished by the following language specific criteria:

- (i) a copula verb requires a complement which is different from a transitive object,
- (ii) a copula has the possibility of alternation with zero in some contexts.

Condition (i) holds for all copulas except the one-place existential. Identity copulas *it-* have a complement in the equative case, which is not an obligatory argument of any other sort of verb (cf. functions of the equative case §6.3.6). The locational copula *twā-* has a complement in any of a number of spatial forms. The copulas *it-* and *twā-* can be omitted in unmarked tense-aspect-mood contexts (condition ii). The verb *nʔel-* has the functions of identity, locative and existential copulas, but with additional aspectual meaning: 'become something', 'come to be in a place', 'come to exist'. Unlike the other two copulas, the form *nʔel-* cannot be omitted. The basic function of a copula is to form some kind of stative predicate, but *nʔel-* also indicates achievement/beginning of the state, and so must always be present when these more complex semantics are intended.

These copula verbs have the additional features:

- (iii) Chukchi copula verbs also function as verbal auxiliaries (this is typologically common correlate function of copulas; Hengeveld 1992:257-290),
- (iv) Chukchi copula verbs are *morphologically defective*, which suggests that they are something more like a grammatical function word (e.g. no causative, limited derivation—note problems with *tomyat-*, below).

There is another verb which shows a number of copula-like features:

tomyat- 'come to be' (existential only)

The verb *tomyat-* is difficult to classify, since it only has the existential copula function (examples 014 and 015 are possible exceptions, the first has a privative complement and the second has an equative complement; see §17.2.1). In the scheme used here *tomyat-* can at most be a marginal copula since it (i) does not allow the possibility of a complement and (ii) can't be omitted. The best grounds for considering it a copula are distributional; it seems to be the inchoative correlate of the existential copula *-twā-*. In such a function it is much more common than *nʔel-*, which does however also occur. However *tomyat-* differs from the copulas discussed above in that it does not also function as an auxiliary, and is not morphologically defective. It participates in grammatical derivations that are impossible with the other copulas. For instance, unlike with the other copulas, it is possible to make a causative from *tomyat-*:

001 *ii* *ənan* *ya-n-tomy-aw-len* *ənqen* *wa-yəry-ə-n*
 yes 3sg.ERG PF-CS-become-TH-3sgO DEM.3sgABS be-NMZR-E-3sg.ABS
Yes, she created that life[style] [ke235]

This is not strong evidence, as there is etymological evidence that the verb *rətwat-/ntəwat-* is also a causative; the locative copula *be (in a place)* has the form *-twā-*.

002 *yige-nyij* *mən-ə-ntəwat-ə-n*
 net-REDUP.3sgABS 1ptA.INT-E-put.in.place-E-3sgO
We'll set nets. [na107:4]

However, this is lexicalised to mean putting some kind of culturally relevant object in its appropriate place, e.g. setting a net or a trap. Note that it does not require a locative complement (unlike the copula *-twā-* in locational function), as part of the lexicalised meaning of this word is the assumption that the O is something which is supposed to be put in a particular sort of place. Thus I would argue that *rətwat-/ntəwat-* is not the causative of *-twā-* in the contemporary language, even though (for historical reasons) it has the morphological form which would be expected for such a causative (§11.5.1).

Derivation of copulas seems to be quite restricted. Nominalisation is common, and (verbal) diminutives and augmentatives do occur, but otherwise the copulas *it-* and *nʔel-* do not seem to have any derived forms. Apart from the marginal examples of

-twa- and tomyat- forming causatives (examples 001 and 002), nominalisations (001) and nominalisation/relativisation (003) are the most usual derivations.

- 003 Kejg-a-wilu=?m wakw-a-t iyat-kine-t gan kantora-k
 bear-E-ear=EMPH stone-E-3plABS now-REL-3plABS DEICT office-LOC
 qaca wa-l?-a-t wakw-a-jg-a-t anjin mejg-a-l?-a-t
 beside.PP be-NMZR-E-3plABS stone-E-AUG-E-3plABS thus big-E-NMZR-E-3plABS
Bear Ears, [he was able to lift] the stones, like the big ones now which are beside the administration building, they were big ones like that. [be035]

17.1.2 A transitive copula?

The transitive auxiliary verb *laj-/ly-* (discussed §17.3.2) has a second function which, if the criterion of intransitivity for copulas was relaxed, could be analysed as a type of transitive copula. As discussed above, one of the key functions of copulas is that they provide a method for making predicates from nominals (or other less verb-like classes). The verb *laj-/ly-* has a similar function. It can act as an extended (three place) transitive with the following argument structure:

Verb agreement type	Case marking of nominal	Function
A	ERGative	'dative'
O	ABSolutive	copula subject
	EQUative	copula complement

To paraphrase this: *In its relation to A, O is an OBL.*

This is a kind of secondary predication with the copula-like function of equating the C argument with the equative case OBL argument. The oblique argument is marked in the equative case, which is the case used for equational copula complements.

Examples 004-006 show how this occurs in texts:

SECONDARY EQUATIONAL PREDICATION WITH *laj-/ly*

- 004 anr?aq anqen antuulpore-n-u / laj-nin anqen /
 then DEM.3sgABS brother.in.law-TH-EQU TR.COP-3sgA.3sgO DEM.3sgABS
 ra-yno-w-jo ?oratceq-qaj
 CS-remain-1'S-PASS.PCPL.3sgABS youth-DIM.3sgABS
Now then he took that remaining youth as a brother-in-law. [ot116]
- 005 qam=le=?m waj remk-a-n anjin n?-a-qaanmaa-rkan
 so.then=EMPH DEICT folk-E-3sgABS thus COND-E-slaughter.reindeer-PROG
 wil-u nen?-a-ly-a-rkeet / tekicy-a-t=?m naqam
 tradegood-EQU INV.COND-E-TR.COP-E-PROG-3plO meat-E-3plABS=EMPH but
 ceget ewan [#] wilwil-ti tekicy-a-t=?m [...]
 all.the.same so tradegood-3plABS meat-E-3plABS=EMPH
So then people would be able to slaughter reindeer for trade, they would have meat as the tradegood, all the same meat is the tradegood... [he114]

Example 005 shows both transitive and intransitive copula structures: *wilu* (OBL:EQU) *nen?alyarkeet tekicyat* (O:ABS) *they would have meat as a tradegood*,

for them meat would be the tradegood contrasts with the zero copula clause *wilwilti tekicyat meat is the tradegood*. Example 006 also has the transitive copula *laj-/ly-*, but here the O is indicated only by the verbal cross-reference.

- 006 anqom iw-nin / caket-tomy-a n-ik-w?e-n / oo
 then say-3sgA.3sgO sister.friend-ERG 3A-say-TH-3sgO INTJ
 anqen morya?an man-a-ly-a-?e-n qlawal-o
 this 1pl.ERG 1pl.INT-E-COP-E-TH-3sgO man-EQU
Then she said, the sister(s?) said to her, "Oh, we'll take that one as a man [i.e. as a husband]" [ke208]

The main argument against considering the verb *laj-/ly-* to be functioning as a copula in this type of construction is that the equative case can also mark secondary predicates in other types of clauses as well, e.g.

- 007 e waj q-a-myu-lqat-y-a-tak q-a-jalyat-y-a-tak
 INTJ DEICT INT-E-caravan-set.off-TH-E-2pl INT-nomadise-E-TH-E-2pl
 qora-yt-at-a-l?-o q-a-piri-y-a-tka anqen /
 reindeer-drive-TH-E-NMZR-EQU INT-E-take-TH-E-2plA.3O DET.3sgABS
 yan-in / ?atkeg-a-jg-a-n qora-qa
 2sg.POSS.3sgABS bad-E-AUG-E-ABS reindeer-ABS
Make a caravan, start nomadising, take that bad reindeer of yours as a driver [to goad the others]. [cy235]

Here the equative case marked nominal *qoraytatə?o* as a reindeer-driver makes a secondary predication with the clause *you take your bad reindeer*. This is similar to the function of the equative marked nominal in examples 004-006, but in these examples the equative nominal in an obligatory argument of the three place verb *laj-/ly-*, whereas in example 007 the verb *piri- take* does not usually have an equative nominal argument.

17.1.3 Auxiliaries

Auxiliaries combine with uninflecting derived or underived verb bases to form analytic verbs. The derived verb bases can come from a number of word classes, including verb bases proper and various adverbialised stems (particularly adjectives, see §16.5). The transitivity of an analytic verb, along with all other obligatory verbal categories, is shown by the auxiliary. There is a class of labile mental verbs in which the intransitive form is a full inflecting verb and the transitive form is an analytic verb.

The intransitive auxiliaries are the same verbs as the copula verbs. The form of the non-inchoative auxiliary (*it-* or *wa-/twa-*) is selected according to the morphological origin of the verb base.

it- AUX (stative, deverbal verb bases)

wa-/twa- AUX (stative, deadjectival verb bases)

n?el- AUX (inchoative)

The transitive auxiliaries are:

lɔŋ-/lɔ- AUX (non-resultative mental predicates)

rɔtc-/tc- AUX (resultative mental predicates)

rɔt-/nt- AUX (non-mental predicates)

As discussed in §17.1.2, the verb lɔŋ-/lɔ- also has a copula-like function. The auxiliary function of these verbs is discussed in §17.3.2.

17.1.4 Other non-verbal predicates

Copula auxiliary verbs are the main syntactic means for making predicates of less verb-like stems (of course, copula auxiliaries are themselves fully verb-like), such as converbs, adverbs, and oblique nominals. There are also a few kinds of non-verbal predicates which are marked without copula/auxiliary verbs, such as universal/habitual aspect adjectives (§16.3), and possessed predicates (§17.4).

Predicates with equational and locative function can enter into zero-copula clauses in certain circumstances. These are discussed in §17.2.4.

17.2 Copula clauses

Copula clauses consist of a SUBJECT and a COPULA PREDICATE. The copula predicate has a COPULA VERB (obligatory for existence clauses) and a COPULA COMPLEMENT (obligatory for location and identity clauses). Note that there do not seem to be any formal grounds for treating the copula subject differently to any other S. Dixon and Aikhenvald (RCLT internal document) list ten typical copula meanings:

1. Attribution, e.g. he is tall
2. Identity, e.g. he is a doctor
3. Equation, e.g. that man/John is my father
4. Naming (including citation and pointing)
5. Similarity
6. Possession, e.g. the car is to me (=the car is mine)
7. Location, e.g. the baby/table is in the garden
8. Existence, e.g. God is (=exists)
9. Happening, e.g. many accidents are (=happen)
10. Becoming

Most of these meanings are usually expressed by copula constructions in Chukchi, with the exception of *similarity*, and the partial exceptions of *attribution* and *possession*. These different meanings cluster together into the following syntactic types:

Attribution and *possession* have special (non-copula) non-verbal predicate forms in unmarked TAM contexts, and form copula/auxiliary constructions with -*twā*- in marked TAM contexts (such as imperatives, negatives).

Identity, *equation* and *naming* are marked with the copula *it-* and a complement in the equative case. Occasionally these constructions are made appositionally (zero-copula) with the complement in the equative or in the absolutive.

Location is marked with the copula -*twā*- and a complement in any locational case form or locational adverbial. Occasionally these constructions are made appositionally.

Existence and *happening* are marked by -*twā*- without a complement.

Becoming needs to be considered an inchoative subtype of all the above. The complement remains the same as the non-inchoative construction but the copula *nʔel-* is used instead. Inchoative *existence* clauses (i.e. 'come to exist') can also be made with the verb *tomyat-*, which may or may not be a copula (see below)

Similarity is not marked by a particular type of copula clause. Instead an identity/equation clause is formed with a nominal derived by the suffix *mel-* *apparently an X* (§8.10.3) or -*lqəl* *acts like an X* (§8.11)

The typical copula meanings listed above are encoded by the Chukchi copula verbs in the following types of copula constructions:

FIGURE 17.1. Copula construction types.

CLAUSE TYPE	stative	inchoative
existence "exist, start to exist"	- <i>twā</i> -	<i>tomyat-</i> <i>nʔel-</i>
location "be in a place, come to be in a place"	- <i>twā</i> - + locational (Ø + locational)	<i>nʔel-</i> + locational
identity, equation "be X, start to be X"	<i>it-</i> + EQU (Ø + ABS, EQU)	<i>nʔel-</i> + EQU

17.2.1 Existential clauses

Existential copulas are the only one-place copulas (see below for various two-place copulas). Like all copulas there are forms for stative ('to exist') and inchoative ('to come into existence') meanings.

The stative existential copula is -*twā*- (word initial form *wa-*; see 009)

008 [...] qelɔq=ʔm ɔnqen tejget n-ɔ-twā-qen=ʔm
 because=EMPH that.3sgABS food.3sgABS HAB-E-exist-3sg=EMPH

... because there was that food.

[he065]

- 009 wʔe-tko-ja-n ya-twa-len ɣanqen //
 die-ITER-NMZR ABS PF-exist-3sg there.3sgABS
 ʔnkə rəna-γtə qənur ɣɪnqeɟ-i-γəm / tʔeɕe
 there across-ALL like boy-1sg.ABS a.few
 yiwi-kine-k ləyən=ʔm mal-kəlyən-ken yiwiɟi-t /
 year-REL-LOC really=EMPH PERHAPS-fifteen-NUM year-3plABS
 t-ʔjaa-ʔa-n / qənur / ɣenqay-tayn-epə ʔnqen /
 1sgA-E-use-3sgO like boy-EDGE-ABL this.3sgABS
 wʔe-tko-ja-n wa-yʔe
 die-ITER-ʔʔ-3sgABS exist-TH
*There was [a time of] death. When I was a boy, a few years- well- perhaps I
 had gone 15 years in my childhood, there was an epidemic.* [he007-008]

The stative verb inflections occur more frequently with existential copulas than active inflections. In existential copula function non-declarative TAM inflectional forms are rare. This is probably not a syntactic restriction: states of existence are not generally subject to commands/desires (but see the copula -twa- in locational function; §17.2.2). Example 010 is a rare example of an existential copula in conditional mood (the conditional occurs rarely in general; cf. §10.2.7).

- 010 ləyən taɣ-a-pʔa-ka n-ʔ-twa-qenat=ʔm ləmɣ-ewə=ʔm ləyən=ʔm
 really INTS-NEG-dry-NEG HAB-E-be-3plS further-so=EMPH really=EMPH
 atqaw-ka [nənʔe...] n-ʔ-twa-qenat=ʔm qəmel / ʔnqorə
 lame-NEG HAB-E-be-3plS so.then then
 ecwera-γəry-ʔ-n wa-k=ʔm ləyən n-ʔ-mel-ʔew [n-ʔ-twa-qenat]
 succeed-NMZR-E-ABS be-INF=EMPH really ADV-E-good-ADV HAB-E-be-3plS
 nʔ-ʔ-twa-rkənət wecʔəm awrena-γtə ɣelwəlʔ-ʔ-t=ʔm
 COND-E-be-3plS probably next.year-ALL herd-E-3plABS=EMPH
*They are never thirsty, they don't go lame, and if all is successful, all goes well,
 there would be herds in the next year.* [he110]

The irrealis copula predicate in the example above is nʔatwarkənət ɣelwəlʔat there would be herds.

There are two stems which function as inchoative existential copulas. The stem tomyat- is rarely used in any other function than the existential (two exceptions; example 014, tomyat- + PRIV, and example 015, tomyat- + EQU), whereas nʔel can function as any form of inchoative copula, locational and identity as well as existential.

- 011 neme qol / ʔəlet-ʔ-k jawren-a=ʔm neme
 also one.3sgABS snow.fall-E-SEQ next.year-INST=EMPH also
 ʔnnan-mətləɣ-qaw nʔel-γʔi=ʔm
 one-five-ORD become-TH=EMPH
Also another, when the snow fell, the next year again a sixth [herd] came to be.
 [he038]

- 012 ʔnqorə ɣan remk-ʔ-n qənwer-ewə ɣelwəlʔ-ʔ-t
 then DEICT folk-E-3sgABS finally-so herd-E-3plABS
 məkat-ʔ-myə-γʔa-t=ʔm qənwer /
 multiply-E-INCH-TH-3plS=EMPH finally
 ɣəra-qaw tomyat-yʔe ɣelwəl=ʔm
 four-ORD become-TH herd.3sgABS=EMPH
*Then gradually people, the herds started to increase like, a fourth herd came to
 be.* [he033]
 013 ɣewʔen n-in-lw-qin "iyət=ʔm waj ɣenku
 woman.3sgABS HAB-TR-say-3sgO now=EMPH DEICT there
 na-ra-nm-ʔ-γəm=ʔm e-re-cci-tku-jw-ʔ-γəm ləyən /
 3pl-FUT-kill-E-1sg=EMPH 3pl-FUT-cut-ITER-COLL-E-1sg really
 t-ʔ-re-mec-kiməltet-γʔe tomyan-ma
 1sg-E-FUT-DIM-be.later-TH become-SIM
*He says to his wife "They'll kill me now there, chop me up into bits, but I'll
 [come back] a little later, restored/recreated"* [cy366]

The following two examples show tomyat- in non-existential functions with privative (014) and equative (015) complements.

- 014 ujge a-jaat-rəly-ʔ-ka t-ʔ-ra-tomyat-ʔ
 NEG.EXI PRIV-rear-digit-E-PRIV 1sg-E-FUT-become-E
I'll be restored without any toes. [cy378]
 015 ʔnkʔam ʔnqo peecway-jonr-at-ʔ-k ʔnrʔaq mətləɣ-qaw /
 and then young.bull-separate-TH-E-SEQ then five-ORD
 PRIKATA nʔel-γʔi=ʔm ʔnrʔa /
 brigade become-TH=EMPH then
 Puqet prikatir-o tomyat-yʔe
 personal.name.3sgABS brigade.leader-EQU become-TH
 mətləɣen ɣelwəlʔ-ʔ-t nʔel-γʔe-t=ʔm neme ʔnqorə=ʔm
 five herd-E-3plABS become-TH-PL=EMPH also then=EMPH
*And then at weaning time then a fifth brigade came to be, then Puqet came to
 be brigade leader, five herds came to be also then.* [he037]

These examples are very unusual; the inchoative copula nʔel- would be more likely in both the above contexts.

17.2.2 Location clauses

Locative copula predicates are formed with the copula verb stems twa- (stative) and nʔel- (inchoative) and a locative complement. Locative complements are a semantically rather than morphologically determined group. They include:

- locative case nominal -k
- nominal in another spatial case, including:
 - INESSIVE -cəku
 - SUBLATIVE -jɪɣkə
- spatial adverb, e.g. miɣkə 'where?', ɣenku 'here', wajənqac 'nearby'

LOCATIVE -k

016 enmec jara-k wa-rkan nenenə=ʔm MAMA
already house-LOC be-PROG child.ABS=EMPH mother

At home there's already a child and mother

[cy316]

017 anqora qanwer / kracnena-lʔ-a-t mur-a-k
then finally place.name-NMZR-E-3plABS 1pl-E-LOC

SOVXOZ-a-k nʔel-yʔe-t=ʔm
state.farm-E-LOC become-TH-3pl=EMPH

Then finally Krasneno people came to be with us in our state farm.

[he042]

INESSIVE -caku

018 watku anqen ɲewʔen-qej ɲape-yʔe ik-wʔi / atcaj-qaj
only.when DEM.3sgABS wife-DIM.3sgABS dismount-TH say-TH aunt-DIM.3sgABS

waj nenenə kaara-cako wa-rkan q-a-piri-y-a-n
DEICT baby.3sgABS nursery.sled-INCESS be-PROG INT-E-take-TH-E-3sg

Then the wife dismounted, she said: "Aunty, baby's in the nursery sled, take him"

[cy430]

SPATIAL ADVERB

019 minka n-a-twa-qen yan-in jara-ɲəʔ
where? HAB-E-be-3sgS 2sg-POSS.3sgABS house-3sgABS

Where is your house?

[na081:2]

Locative copula clauses have quite a high functional load, and are frequently used in imperative and well as referential functions.

IMPERATIVE COPULA

020 tag-qonpa layen ʔeqe-njiw-a-k n-a-twa-qen=ʔm / tag-qonpa
INTS-always really bad-uncle-E-LOC HAB-E-be-3sg=EMPH INTS-always

anqen ʔeqe-njiw-e n-in-iw-qin ɲalwalʔ-eta q-a-lqat-y-i
that.3sgABS bad-uncle-ERG HAB-TR-say-3sg herd-ALL INT-E-set.off-TH-TH

nelwalʔ-a-k q-a-twa-rken
herd-E-LOC INT-E-be-PROG

He always lived with the bad uncle; the bad uncle always said to him, "Go to the herd, be at the herd!"

[cy002]

17.2.3 Identity/equation clauses

Chukchi identity and equation copula clauses form a single syntactic class. The stative Identity/equation copula is *it-*, and the inchoative (becoming) copula is *nʔel-*. The complements of identity/equation copulas are usually in the equative case (but see 024 below). In some restricted syntactic contexts, identity/equation clauses can also be formed by a zero-copula construction (§17.2.4).

EXAMPLES OF STATIVE AND INCHOATIVE *it-*, *nʔel-*

021 anqen emelke / anqen mejn-a-wil-u n-it-qin=ʔm
that.3sgABS additionally that.3sgABS big-E-price-EQU HAB-be-3sgS=EMPH

That, I might add, was a lot of money.

[he047]

022 anqen jokwajo ipe ʔiy-u @ n-it-qin @@
DEM.3sgABS eider.duck.3sgABS truly wolf-EQU HAB-be-3sgS

That duck was actually a wolf, ha ha!

[jo104]

023 [...] / SEDMOJ-a-lʔ-a-n qanwet nʔel-yʔi=ʔm /
seventh-E-NMZR-E-3sgABS eventually become-TH=EMPH

Tayan nʔel-yʔi briyadir-o=ʔm
personal.name.3sgABS become-TH brigade.leader-EQU=EMPH

... the Seventh [brigade] eventually came to be, Tayan became the brigadier.

[he046]

A privative case nominal can also be the complement of an identity/equation copula:

024 naki-rʔu-yʔi / enmec waj layi-teg-ujge t-a-nʔel-a-k
night-INCH-TH already DEICT INTS-EMPH-NEG.EXI 1sg-E-become-E-1sg

iml-a-ke / m-ajm-a-yʔa-k
water-E-PRIV 1sg.INT-get.water-E-TH-1sg

Night fell. "I've already completely run out of water, I'll go for some more"

[lit. I'm already become waterless]

[jo090]

Identity/equation copulas are not limited to stative/realis non-future forms. The following example shows an imperative copula:

025 iw-nin "eryatak waj muri mat-ra-rʔela-yt-a-yʔa
say-3sgA.3sgO next.day DEICT 1pl.ABS 1pl-FUT-race-go.to-E-TH

turi atcaj-qaj jara-lʔ-o q-it-y-a-tak
2pl.ABS aunt-DIM house-NMZR-EQU INT-be-TH-E-2plS

He said to him: Tomorrow we are going racing. You and aunty remain at home.

[cy062]

17.2.4 Zero-copula

Equational and locational copula functions are also expressed by apposition of the two nominal arguments. This construction coexists with verbal means of expressing copula meanings, but is usually used in unemphatic and intonation group final contexts. It is usually very difficult to distinguish zero-copula clauses from noun phrases, which are also appositional in their structure (§9). There are occasional exceptions, such as in example 026 where a zero-copula complement appears once in the absolutive (*ʔeqenjiw ʔattʔajotralʔan the bad uncle was the first house-holder*) and once in the equative (*jaatralʔo teɲanjiw the last house-holder was the good uncle*).

026 layen jara-k ɲenku pakir-yʔi teɲ-anjiw-a-k /
really house-LOC there arrive-TH good-uncle-E-LOC

ʔeqe-njiw ʔattʔajot-ra-lʔ-a-n nutku
bad-uncle first-house-NMZR-E-3sgABS here

jaat-ra-lʔ-o teɲ-anjiw
last-house-NMZR-EQU good-uncle.3sgABS

So there he approached the good uncle's house, the bad uncle had the first house, here in the last house was the good uncle.

[cy309]

This shows us (i) that there are zero-copula clauses as distinct from appositional noun phrases, and (ii) that apposition of two absolute nominals can be semantically equivalent to a copula clause. This zero-copula construction is an alternative to the verbal copula construction. It is used occasionally by all speakers, including elderly monolinguals, which suggests that it is not simply a result of structural interference from Russian (which has zero-copula constructions in the present tense).

The only instance where there is no verbal copula alternative to the zero-copula construction occurs in the NAMING PREDICATE construction. Copula verbs never occur in naming clauses with a first or second person predicate. Predicate nominals with first or second person referent have special pronominal endings which fuse absolute case marking with person-number marking, see below and §6.2).

These person-marked nominal forms are usually only used as predicates; in the non-predicative vocative function the person-marked nominal endings are not used. Example 027 shows a minimal pair. The speaker names the addressee in the non-person marked, non-predicative form, but refers to himself, predicatively, with the pronominal suffix. This contrasts to the use of the second person predicative form in 028.

- 027 "atcaj-qaj waj Cəkwəjaqaj-eyəmi!"
uncle-DIM.3sgABS DEICT personal.name-1sg.ABS
Uncle, it's me Cəkwəjaqaj! [cy312]

The following quoted exchange is part of the polite introduction routine. Person-number marked nominals are used throughout.

- 028 qun=waj enmen Cəkwəjaqaj-eyəm //
DEICT=DEICT so personal.name-1sg.ABS
cej Cəkwəjaqaj-eyət //
INTJ personal.name-2sg.ABS
[Cəkwəjaqaj:] *Well then, I'm Cəkwəjaqaj.*
[The women:] *Ooh, you're Cəkwəjaqaj.* [cy109-110]

These zero-copula existentials are structurally distinctive in examples 027-028 due to the person-marking suffixes. Third person nominals cannot be morphologically distinguished in this way; however, it does seem that third person nominals can be used in zero-copula existential constructions too, as in 029-030:

- 029 yatə-ə-j::ə-n
lake-E-AUG-E-3sgABS
It was a huuge lake. [ot092]
- 030 qətləyi kələ BAB-UKA
actually spirit.3sgABS ghost
It was actually a spirit, a ghost [ke017]

17.3 Clauses with auxiliaries

Auxiliaries serve to add verbal agreement and TAM categories to verbs of the invariant *verbal base* class, as well as to allow certain adverbs and converbs to act as verbal bases. Auxiliaries are also used to allow forms derived from adjective stems to be predicates outside non-future neutral/habitual aspect. Auxiliaries can be transitive or intransitive.

Sometimes there are pairs of verbs which have inflecting and analytic variants. The meaning difference is not always clear, such as in the following example, where the verb nəqər'acetqen *they [the folk SG] are competing* occurs alongside qəra'aceta nitqin, which apparently has the same meaning.

- 031 ləyen remk-ə-n qənur ləyen=?m rəpet remk-ə-n
really folk-E-3sgABS like really=EMPH even folk-E-3sgABS
ləyen ?uri n-ə-qər'acet-qen ləyen qər'acet-a n-it-qin
really ?? HAB-E-compete-3sgS really compete-VBase HAB-be-3sgS
n-ə-miyciret-qin=?m
HAB-E-work-3sgS=EMPH

So it's like people, people tried really hard, competing as they work. [he028]

There is one lexical-grammatical domain where the meaning difference between inflecting and analytic verb pairs is clear. There is a class of mental predicates which have intransitive variants as inflecting intransitive verbs (usually with the thematic -et suffix) and transitive analytic variants with the -ly- auxiliary.

17.3.1 Intransitive

The intransitive auxiliary verbs are *it*, -*twa*- and *n?el*-, the same as the copulas. These auxiliaries cooccur with an invariant lexical head to make an analytic verb. The lexical heads of intransitive analytic verbs can be words of many different classes intermediate between core nominals and inflecting verbs on the nominal-verbal cline. They include deverbal verb bases, oblique nominals (e.g. privative, comitative), adverbs/particles (neither verb nor noun), and deadjectival verb bases (for adjectives in marked tense-aspect configurations; see §16.5).

VERB BASE: -(t)e^{VH} (with auxiliary *it*-)

- 032 əməl'ə remk-ə-n / pəl-teyjen-cit-e n-it-qin
all.3ABS folk-E-3sgABS mutual-desire-ADVER-VBase HAB-AUX-3sgS
qənur qər'acet-wəly-a / ya-nəm-takocy-a=?m
like compete-RECIP-VBase ASS-settlement-pair-ASS=EMPH

All the people were living the way they wanted [?], like they were competing with their neighbours. [he067]

VERB BASE: IMPOSSIBILITATIVE: ?aqa-___-ŋ (with auxiliary *n?el*-)

- 033 ?aqa-no-ŋ t-ə-re-n?el-a
IMPOSS-eat-VBase 1sg-E-FUT-become-E
"[Later] I'll become inedible" [ke110]

NEGATIVE VERB BASE: *luŋ*-(t)e (with auxiliary *it*-)

- 034 [...] *ənqen* *gəw-ə-nju-lʔ-ə-n* *qeluq*
 DEM.3sgABS wife-E-look.out.for-NMZR-E-ABS because
ott-ə-ly-ə-n *rə-cimirʔ-ew-nin* *lənge* /
 wood-E-SING-E-ABS CS-chop-CS-3sgA.3sgO further
luŋ-ə-lw-e *it-yʔi* *recqik-wʔi*
 NEG-E-be.defeated-NEG be-TH enter-TH

... *This is the suitor [for you], because he's chopped up the tree, he wasn't defeated, he's come in.* [cy218]

- 035 [...] *ənkʔam* *remk-ə-n=ʔm* *qəmel*
 and folk-E-ABS=EMPH so.then
loŋ-ə-cye-qaanmat-a *n-it-qin=ʔm* [...]
 NEG-E-INTS-slaughter.reindeer-NEG HAB-be-3sg=EMPH
 ... *and so then the people hardly slaughtered reindeer...* [he065]

OBLIQUE NOMINAL—PRIVATIVE

- 036 *a-qora-ka* *t-ə-re-nʔel-yʔe* / *camʔam* *t-ə-re-jmit-yət*
 PRIV-reindeer-PRIV 1sg-E-become-TH unable.MOD 1sg-E-FUT-slaughter-2sg
I'll be left without a reindeer, I can't slaughter you [ke108]

OBLIQUE NOMINAL—COMITATIVE

- 037 *ənqora* / *gotqen* *Roclow-ə-na* *ləye-taŋ-əməlʔo* *qənūt*
 then that.3sgABS personal.name-E-ERG INTS-EMPH-all.3sgABS like
gelwəlʔ-ə-kin *ʔorawetlʔa-n* / [#] *r-ə-ra-nŋa-w-jəw-nen*
 herd-E-REL.3sgABS person-3sgABS CS-E-house-acquire-CS-COLL-3sgA.3sgO
əməlʔo / *jara-ŋə* / *ya-ppəlo-ra-ta* *nʔel-yʔi*
 all.3ABS house-3sgABS COM-little-house-COM become-TH
remk-ə-n *taŋ-əməlʔ-ətə=ʔm*
 folk-ABS INTS-all-ADV=EMPH
Then that Roslov resettled absolutely all the herding people into houses, all houses, the people came to be entirely with little houses. [he055]

SPATIAL ADVERB

- 038 *ənqen=ʔm* *tirk-ə-tir* *kitkit* *ye-mec-pintəqet-qeet-lin* /
 DEM.3sgABS=EMPH sun-E-REDUP.3sgABS slightly PF-APPR-show.itself-DIM-3sgS
SOLNYŠKA=ʔm *tʔer-ʔew* *ŋan* *kitkit* *yəryola-ta*
 sun=EMPH so.much-ADV DEICT slightly high-ADV
ye-nʔet-lin / *n-ə-jʔu-tku-lʔet-qinet*
 PF-become-3sgS HAB-E-laugh-ITER-DUR-3plS
The sun came up a little bit, the sun just showed, became a little bit higher. They laughed. [ke009]

DEADJECTIVAL/DEVERBAL VERB BASE: *-yʔə/-etə*^{VH}

- 039 [...] *ləyen=ʔm* *ya-taŋəʔ-ə-ŋgo-len* *remk-ə-n* *ləyen=ʔm* /
 really=EMPH PF-live.well-E-INCH-3sg folk-E-3sgABS really=EMPH
arojw-etə *ye-nʔel-lin* *qora-yanret-ə-k*
 healthy-VBase PF-become-3sg reindeer-guard-E-INF
emto *getp-etə* *ye-nʔel-lin=ʔm*
 further determined-VBase PF-become-3sg=EMPH
 ... *people began living alright, the people became fitter in reindeer herding, became more determined.* [he056]

ADJECTIVE

- 040 *ənraq* *ləyen=ʔm* *am-qən-jawren-a*
 then really=EMPH DIST-??-year-ADV
maka *n-ə-nʔel-qinet* *gelwəlʔ-ə-t=ʔm* [...]
 many-E HAB-E-become-3plS herd-E-3plABS=EMPH
And then with every year the herds became bigger... [he040]

17.3.2 Transitive

The transitive auxiliaries are distinguished distributionally and functionally. The auxiliaries *ləŋ/ly-* and *rətc/-tc-* form a semantically distinguished pair which occur with underived verbal bases indicating mental predicates (such as *ləyi know*) and verb bases derived with the *-u* suffix (e.g. *yem-o be unaware of*), and also occurs with equative case (*-u* ending) nominals (§17.1.2). The other auxiliary, *rət/-nt-* occurs with underived adverbial heads (such as *miŋkəri how*; see 041, and *əŋgin thus*; see 042), with verb bases formed with the *-(t)e* suffix (043-044), and with negative verb bases (045 and §18.2.5).

- 041 *ko:lo* *mejl* *ləyi-miŋkəri* *mən-ə-nt-ə-yʔe-n*
 INTJ INTJ INTS-how 1pl-E-AUX-E-TH-3sg
əŋgatal *mən-ə-nm-ə-yʔa-n* *iwke*
 INTJ 1pl-E-kill-E-TH-3sg then
Oh my! what are we to do with him? How can we kill him? [cy374]
- 042 *əŋgin* *q-ə-nt-ə-yʔe-n*
 thus INT-E-AUX-E-TH-3sgO
Do it like that. [nb030.7]
- 043 *taw-a* *q-ə-nt-ə-yʔe-n*
 tell-VBase INT-E-AUX-E-TH-3sgO
Tell it out loud. [nb030.6]
- 044 [...] / *ətrʔec* *walom-a* *etʔəm* *n-ə-nt-ə-qin*
 all hear-VBase apparently HAB-E-AUX-3sgO
 ... *apparently they've only heard about it.* [he006]
- 045 *awn-a-jgo-ka* *ənʔ-ə-nt-ə-n* *ʔəttʔ-e* *tejkəcy-ə-n*
 just-NEG-sniff-NEG 3A.INT-E-AUX-E-3O dog-ERG meat-E-ABS
Don't let the dogs sniff the meat [Let the dogs not sniff the meat] [nb045.3]

The auxiliary *rət/-nt-* also functions as a lexical verb with the meaning 'have, use' (note that the grammatical function of possession is usually morphologically

marked in other ways, such as with the *-lʔ-* suffix). The following example shows a typical instance of this verb in its non-auxiliary function:

- 046 *ganqen gan ate-rəkə t-ə-re-lqət-γʔe gutku*
 DEM.3sgABS DEICT grandfather-ANpl.ALL 1sg-E-FUT-set.off-TH here
t-ə-re-nt-ə-ŋ-ə-n reluurʔ-ə-qej neme qol
 1sg-E-FUT-have-E-TH-Ē-3sgO chewing.tobacco-E-DIM.3sgABS again one.3sgABS
[reluurʔəqej] neme qol neme qol
[chewing.tobacco] again one.3sgABS again one.3sgABS
I'll set off there to my grandfathers, here I'll have some chewing tobacco, again
some more chewing tobacco, and again more and more! [cy398]

The auxiliaries *lən-/lɣ-* and *rətc-/tc-* occur with verbal bases belonging to the semantic domain of emotions and other transitive mental states. The auxiliary *rətc-/tc-* indicates a resultative meaning, whereas *lən-/lɣ-* indicates a non-resultative, stative meaning, e.g. *γemo lən- not know smth.* and *γemo rətc- forget smth.*, *ləyi lən- know smth.* (047) and *ləyi rətc- learn* (048). These verb bases may be underived (047 and 048), or derived with the *-u* verb base deriver (049).

- 017 *wecʔəm neməqej rʔenute-tku-t γənan*
 probably also something-COLL-3plABS 2sgERG
ləyi lən-ə-rkənet [...]
 know.VBase AUX-E-3plPROG
... you probably also know lots of things ... [ab5.11]
- 048 *əγənan ten-ləyi ye-tc-ə-linet ɣelwəlʔ-ə-t /*
 3plERG INTS-know.VBASE PF-AUX-E-3pl herd-E-3plABS
ləyi qənur ye-tc-ə-leet
 know really PF-AUX-E-3pl
... they learnt [the habits of] the herds well, they really learnt them ... [he115]
- 049 *ten-emkumʔ-u q-ə-ly-ə-rkən ajmak*
 INTS-look.after.VBase INT-E-AUX-E-PROG carcass.3sgABS
Really look after [my] carcass! [jo036]

Other verbal bases of this type include *ajəly-o fear*, *wenn-u envy*, *cimʔ-u think*, *ɣiciw-u enjoy*, *γem-o not know*, *kory-o delight in*, *lewleu-u tease/trick*, *ləmal-o believe*, *peyciŋ-u be curious about*, *teyjen-u desire*, *tənɣə laugh at*. All the forms ending in *-u* or *-o* (the two vowel harmony variants of the *-u* suffix) also have intransitive forms which act as fully inflecting roots, which are derived with the addition of the derivational suffix *-et^{VH}*; *ajəly-o* – *ajəly-at-*, *wenn-u* – *wenn-et-*, *cimʔ-u* – *cimʔ-et-* etc. The underived form *tənɣə laugh at* can make a derived intransitive root *tənɣə-tku- laugh*. The underived verbal base *ləyi know* seems to have no intransitive counterpart, although some speakers link it to the discourse particle *ləyen* (which is sometimes glossed as the tag question *y'know*, Rus. *znacš*)

¹ In this example of quoted speech the speaker is giving an indication of the distance he has to go, measured in rest breaks.

17.4 Possessed predicate

This form allows a nominal to function as a possessed predicate. It is structurally identical to the form of intransitive verbs in the perfect, i.e. the *ye-* prefix and a pronominal suffix. The *ye-* prefix in this form recollects the *ye-* in the associative and comitative case forms *ye-___(t)e^{VH}* and *ya-___-ma*, all of which can function in the same way (§6.2).

FIGURE 17.2. Possessed predicate.

	Singular	Plural
1st person	<i>ye-___-iyəm</i>	<i>ye-___-niuri</i>
2nd person	<i>ye-___-iyət</i>	<i>ye-___-turi</i>
3rd person	<i>ye-___-lin</i>	<i>ye-___-linet</i>

The possessed predicate is extremely rare in my texts, although speakers do understand and produce them quite easily in elicitation. The following spontaneous examples almost exhaust my corpus:

- 050 *ʔamən anə kolo ya-wopqa-len ənqen umku-um*
 INTS so INTS POSS.PRED-moose-3sg DET.3sgABS forest-REDUP.3sgABS
So... that forest has moose in it [kr029]
- 051 *DOCTOR-a n-ik-wəm yʔettʔ-iyətʔ? / ii*
 doctor-ERG HAB-say-1sgO POSS.PRED.dog-2sg yəs
The doctor said to me "Do you have a dog?" - "Yes" [kr164]
- 052 *əɣqora / ləyen=ʔm ɣan ɣalwəlʔ-ə-cy-ə-t n-ə-mk-ə-qinet=ʔm*
 then really=EMPH DEICT herd-E-AUG-E-3plABS ADJ-E-many-E-3pl=EMPH
ɣan ləyen=ʔm ticəcu ya-parol-lenat towarne
 DEICT really=EMPH thousand POSS.PRED-extra-3pl trade.herd
gutku / n-ə-capoj-qen=ʔm
 here HAB-E-slaughter-3sgS=EMPH
So then the great herds increased, a thousand and more [lit. with extras] here
were slaughtered. [he046]

People don't seem to use the possessed predicate form with diminutives and augmentatives, so I can't say whether speakers would normally produce, for example, *γawopqajɣəlen* (augmentative suffixed directly to the stem) or *γawopqalenajɣən* (augmentative suffixed to the whole form, in the same way that it does with predicate adjective form). They accept either as meaningful.

² The form *yʔettʔiyət (do) you have a dog* is morphologically *ye-ʔattʔ-iyət*.

18

Negation

18.1 Introduction

The functional domain of negation in Chukchi is represented by a well elaborated set of grammatical subsystems. These divide broadly into two main structural types:

- i) negated clauses with inflecting verb (formed by a negative particle + verb in the intentional mood);
- ii) uninflecting negative derivations (formed with the circumfixes *lug-___-(t)e* and *e-___-ke^{-vH}*; these include verb bases, participles, privative case nominals and predicative adjectives.

Some of the negative forms in (ii) can be combined with an auxiliary to produce inflected verb forms. These forms differ aspectually from negated inflecting verbs (§18.2). There also exist several negated copula structures, although these make a formally less coherent group than either of the two above (§§18.3-5).

There are a number of negative particles corresponding to a range of TAM distinctions, such as future/non-future and declarative/imperative (§18.8; modal marking of negative particles is typologically not uncommon). Each type of negation has a corresponding negative particle. In the inflecting verb construction and some of the negated copula constructions this particle is obligatory; in other forms it is optional.

In Chukchi only predicates and clause adjuncts can be negated directly. Nominalisations of negated forms can occur in modifier or (rarely) argument roles, but these have special semantics (see §§18.7.2-3). Negative adjuncts are discussed in §18.9.

18.2 Stative and non-stative negatives

There are two structural types of negated verb which can form independent clauses. These types have similar semantic distinctions to those shown by the stative-non-stative verbal inflections of positive polarity verbs (discussed in §10). Note that with both positive and negative polarity the stative-non-stative

distinction is one which is made pragmatically, so that any verb stem can be inflected according to either pattern.

The non-stative negatives are formed by a particle, which encodes tense and negative polarity, and a verb in the intentional inflection, which marks the person and number of core participant/s. The stative negatives are formed by a negative verb base which specifies some aspectual information, and can optionally be accompanied by an auxiliary (see §17.3 for discussion of auxiliary verbs). Negative polarity verbs in general mark fewer tense-aspect-mood categories than positive polarity verbs. For both positive and negative verbs, the stative verbs mark fewer categories than the non-stative. Negative non-stative verbs have obligatory markings for the same person, number and syntactic role categories that are marked by non-stative positives. In contrast, stative negatives do not themselves mark any of these categories, although they can optionally be expressed by an auxiliary.

The semantics of the stative-non-stative distinction in Chukchi is not always very clear: many occurrences of the stative perfect can be substituted by the non-stative non-future (aorist) form, and vice versa. Likewise the stative universal/habitual aspect is often interchangeable with the non-stative progressive form. There is further discussion of functional similarities and differences of the stative and non-stative for positive polarity verbs in §10.3.

18.2.1 Non-future negative (non-stative)

Non-stative negated verbs are formed with a verb in the intentional mood form (§10.2.6) and a particle marking tense (non-future or future; see below and §18.2.2). The non-future negative particle is *wanewan*. The particle usually precedes the verb, often with intervening words (as in 002) or clitics/particles (003). Examples 001 and 002 are intransitive, example 003 is transitive.

- 001 *ʔeqe-njiw y-iw-lin ʔee ənqen ʔa-ponje-len wanewan*
 bad-uncle PF-say-3sg INTJ that PF-take.shortcut-3sg NEG.NFUT
n-a-janot-yʔa-n
 3.INT-E-be.first-TH-3sg
The bad uncle said "Ha, that one took a shortcut, he didn't come first" [cy147]
- 002 *wanewan miŋkəri m-a-lqət-a-k ʔutku n-a-jəlqet-iyəm*
 NEG.NFUT anywhere 1sg.INT-E-set.off-E-1sg here HAB-E-sleep-1sg
No, I didn't go anywhere, I was here sleeping. [ot060]
- 003 *okkoj wanewan=ʔm m-a-ra-rkəpl-a-n-yət*
 EXCL NEG.NFUT=EMPH 1sg.INT-E-DESID-hit-E-TH-2sg
Oh, I didn't mean to hit you [lit. 'didn't want to hit you'] [nb074.1]

The particle *etlə* is occasionally used where *wanewan* would be expected.

- 004 *etlə qejuu mən-junr-a-yʔe-n=ʔm /*
 NEG call 1pl.INT-select-E-TH-3sg=EMPH
tag-am-majg-a-ja-n n-ine-junr-a-muri [...]
 INTS-REST-big-E-77-ABS HAB-TR-select-E-1pl
We didn't select calves, we only selected full grown ones.... [he097]

This particle is usually used without a complement (§18.8) as the negative answer to polar questions, in which context it doesn't show any tense information. Presumably *etlə* is only interchangeable with *wanewan* in the context of example 004 since *wanewan* and *etlə* are the least grammatically marked forms (*wanewan* is non-stative, non-future, and *etlə* does not normally indicate any such categories at all).

18.2.2 Future negative (non-stative)

Similarly to the non-future, the negative future is formed with a verb in the intentional accompanied (usually preceded) by a negative particle encoding tense and negation. The negative future particle is *qərəm-qəcəm* (men's and women's variants). Example 005 is intransitive, example 006 is transitive.

- 005 *qərəm m-ekwet-yʔe-k t-a-re-jəlqet-yʔi*
 NEG.FUT 1sg.INT-go.out-TH-1sg 1sg-E-FUT-sleep-TH
I'm not going out, I'm going to sleep [ot045]
- 006 *qərəm ʔən-a-nm-a-yəm*
 NEG.FUT 3plA.INT-E-kill-E-1sgO
They won't kill me. [ot106]

The negative identity construction uses a marker which is transparently related to the *qərəm-qəcəm* particle, but which marks certain agreement categories as well (§18.3).

18.2.3 Perfect negative (stative)

Stative negatives are formed by verb bases (see also §13.5). Stative verbs (negative and positive) show two aspectual distinctions, perfect and universal/habitual. The perfect negative verb base is *luŋ-___-(t)e*. This form is often accompanied by an auxiliary verb to make a full analytic verb which overtly marks its participants (§17.3.1), for example:

- 007 *ləyen=ʔm luŋ-keli-iku-te t-it-yʔe-k teg-em-gelwəlʔ-a-k /*
 really=EMPH NEG-write-ITER-NEG 1sg-be-TH-1sg INTS-REST-herd-E-LOC
t-a-miyciret-yʔe-k
 1sg-E-work-TH-1sg
But I didn't go to school, I was only at the herd, I worked. [he004]

The following example shows a general, common-sense statement, expressed impersonally. In such a function it is unnecessary to have an auxiliary showing verbal TAM categories or cross-reference to a particular argument.

- 008 em-ʔeqe-yjulet-ke-te lom-wetyaw-joly-a-ko-ta
 REST-IMPOSS-know-NEG-VBase NEG-speak-CONTAINER-UTIL-NEG
[People who] don't know how shouldn't use the two-way radio [nb25.6]

There is a nominalised/participle form *luŋ-___-lʔ-* related to this form; see §18.7.1

18.2.4 Universal/habitual negative (stative)

The universal habitual aspect negative verb base is *e-___-ke*^{VH}, for example:

- 009 qəmel ənqorə=ʔm / remk-a-n ləyən=ʔm / a-ŋʔo-ka
 so.then then=EMPH folk-E-3sgABS really=EMPH NEG-be.hungry-NEG
 ye-nʔel-lin tajgat-ʔəpə=ʔm [...]
 PF-become-3sgS food-ABL=EMPH
And then from the food the people came to live without hunger... [he065]

In texts this verb base often occurs along with the special negative emphatic prefix *ewn-^{VH}*. The *ewn-^{VH}* prefix does not cooccur with any other forms, negative or otherwise, although is presumably cognate with the intensifier particle *ewən*.

- 010 neme qənwer "anə wajl ʔetki opopə
 again finally so DEICT bad must
 anow ewn-e-rʔile-ke"
 INTJ EMPH-NEG-race-NEG
Once again it ended up, "Oh dear! This is terrible, not racing" [cy131]
- 011 qənur ənqorə n-a-teŋ-ʔew ʔarʔo-ik=ʔm / ənqorə
 like then ADV-E-good-ADV calve-INF=EMPH then
 ʔan / qənur / ləmj-ewar ʔaron-ʔewe-ʔtə / qejwe
 DEICT like further-so three-year-ALL truly
 remk-a-n / awn-a-qanmat-ka it-a-k=ʔm / [...]
 folk-E-ABS EMPH-NEG-slaughter.reindeer-NEG be-E-INF=EMPH
Then, so that they calved well, they like, until the third year folk didn't slaughter reindeer... [he086]

Transitive negative forms behave somewhat erratically, and so are discussed separately in §18.2.5. See §18.7 for discussion of the negative participles *e-___-ka-lʔ-^{VH}*.

The universal/habitual negative is also the form used to make imperatives. It is usually accompanied by the negative imperative particle *əŋge*, as in 012, but also occurs without it.

- 012 iʔat əŋge ekwet-ke
 now NEG.HORT go.out-NEG
Now don't go out. [ot044]

Like the other negative particles, the particle *əŋge* can also be used proclausally (§18.8). Where there is no overt imperative marking, as in 013 and 014, the imperative sense of the utterance is determined by intonation and context.

- 013 ənqen=ʔm BABAJKA kelə ʔe-et-lin ʔəlqet-rʔu-ʔe-t=ʔm
 that=EMPH ghost spirit.3sgABS PF-come-3sg sleep-COLL-TH-3pl=EMPH
 n-ena-lway-eyəm iw-ka "TIXO / e-quli-ke!"
 HAB-TR-unable-1sg say-INF quiet NEG-make.noise-NEG
There was a ghost, a spirit had come [when] they were all asleep; I couldn't tell them "Quiet! Don't make a noise!" [ke055]
- 014 "anə e-lejw-a-tku-lʔet-ke" ətlʔa-ta n-in-iw-qin
 so NEG-walk-E-ITER-DUR-NEG mother-ERG HAB-say-3sg
 "anə e-lejw-a-tku-lʔet-ke:"
 so NEG-walk-E-ITER-DUR-NEG
"Don't wander off all the time", his mother said to him, "Don't wander off..." [ot023]

The phrase *anə elejwətkulʔetke* from example 014 could also be read without the imperative sense, as 'he doesn't wander off all the time'.

When there is no negative imperative particle, an imperative reading of an utterance can also be forced by using an imperative auxiliary. In example 015 the auxiliary expresses the imperative with the intentional mood marker, and also allows expression of derision with the derisory verbal diminutive (prior to this retort by the neighbour the boy had been teasing or annoying her somehow).

- 015 enaralʔ-a-ŋawəqat-a iw-nin "ilu-ke q-a-twa-qaat-a-rkən
 neighbour-E-woman-ERG say-3sgA.3sgO shake-NEG INT-E-be-DIM-E-PROG
 anə! ənqen ʔənin plewət / cakəyet ʔan
 so DEM.3sgABS 2sg-POSS.3sgABS ?? sister.3sgABS DEICT
 tanŋ-a ne-piri-ʔe-n"
 stranger-ERG 3A-take-TH-3sgO
The neighbour girl said to him "Don't do it you little so-and-so; you've a sister who the strangers kidnapped!" [ot010]

In this example the negative imperative is expressed without the auxiliary:

18.2.5 Transitivity

Non-stative negative verbs (those formed by a negative particle and intentional verb) do not differ in their argument-taking behaviour from the positive verb forms; see 003, 006 and the following (the verb *-iw-* say has an obligatory clause of quoted speech as a complement):

- 016 əŋge ik-we "camʔam" wajənre jʔely-əta q-a-lqət-ʔi
 NEG.HORT say-NEG unable.MOD yonder moon-ALL 2sg.INT-E-set.off-TH
 ʔenku nəlyi-n-a-teŋ-qinet ʔewəqet-ti wa-rkat
 there INTS-ADJ-E-good-3pl woman-3plABS be-PROG.3pl
Don't say "I can't"; you set off yonder to the moon, there are really good women there. [cy165]

This is unsurprising, as these verb forms are based on normal intentional inflecting verbal morphology. Non-inflecting deverbal forms, however, typically act somewhat erratically with transitive stems; this is apparently related to their less-than-fully-

verbal nature. There is a preference for negative verb bases (like non-finite deverbal adverbs in general, see §13) to have no more than one overt core argument. There is a tendency for transitive stems in negative verb bases to be antipassivised, as in 017 and 018.

- 017 waj cakejl ɣotqena-jyɔml ɔnɔ ɛna-jʔo-ka
DEICT sister.VOC there-1sgABS NEG.HORT AP-approach-NEG

q-a-rayi-a-yʔel
INT-E-go.home-TH

Hey sister! I'm here! Don't approach, go home!

[ot134]

- 018 tɔnp-a-nen ləyɛn / ɔnɔ janot tɛy-nʔine-jw-a-nin
sɔb-F-3sgA.3sgO really so first EMPH-explain-COLL-E-3sgA.3sgO

iw-iin tɛn-ɔnɔ / ɛna-nekwatʔolyat-ka ləyɛn
say-3sgA.3sgO EMPH-NEG.HORT AP-spread.sheet-NEG really

ʔɔl-a-tkan-a-k q-ine-n-qit-et-yʔi [...]
snow-E-SURF-E-LOC INT-INV-CS-freeze-CS-TH

He just stabbed him, but first he explained to him, he said to him, "You absolutely mustn't spread out a groundsheet for me; freeze me on the snow...."
[ke130]

This is no more than a tendency—spontaneous examples of wholly transitive negative verb bases do also occur freely; see 019 to 021.

- 019 ɔnkʔam [#] qora-yɔnret-a-lʔ-a=ʔm / ləyɛn=ʔm ɔnnen
and reindeer-herd-E-NMZR-ERG really=EMPH one
qora-ɣə lɔɔ-a-n-tɔmpew-a n-a-nt-a-qin / n-ine-nt-a-muri=ʔm
reindeer-3sgABS NEG-E-CS-be.lost-NEG HAB-E-AUX-E-3sg HAB-E-AUX-E-1pl=EMPH

And the herders didn't lose a single reindeer, we didn't.

[he066]

- 020 piri-nin nenena lɔɔ-a-nlɔwat-a ləyɛn /
lake-3sgA.3sgO child.ABS NEG-E-breastfeed-NEG really

ɔnka-cəko-ytə kuwlətku-yʔe-t
there-INESS-ALL fall-TH-3pl

She took the child, without breastfeeding him, and simply fell inside (the hole)
[cy406]

- 021 ɔnɔ ɔnɔ a-nm-a-ka ɔnan ce-qupqet-a
so NEG.HORT NEG-kill-E-NEG FUT FUT-starve-E

"Don't kill him, he'll starve [by himself]!"

[jo011]

In spontaneous examples antipassivised negatives occur when there is a first person O (e.g. 017 and 018), whereas when there is a third person O (e.g. 019 to 021) there is no antipassivisation. However, in elicitation sessions speakers will happily produce both the third person O forms (with and without antipassive), as in the following examples:

- 022 ɛna-n-caj-o-w-ka ye-n-ekwet-ew-lin
AP-CS-tea-CONSUME-TH-NEG PF-CS-depart-1!-3sg

They took him away without giving him (a chance to drink) tea. [nb040.9]

- 023 iʔam a-n-caj-o-w-ka ɣewəcɔqet
why? NEG-CS-tea-CONSUME-TH-NEG girl

Why [do you/they etc.] not give the girl tea?

[nb071.3]

Note that this data may not be very reliable. The educated speakers who assisted as consultants in elicitation sessions were unable to report the uses of the ineprefix in a way that corresponded with spontaneous usage by non-formally-educated monolingual and near monolingual speakers.

18.3 Negation of identity

Relationships of non-identity are marked using a particle which agrees for number and person. The stem is qəramena-^{·VH} - qəcamena-^{·VH} (men's and women's varieties; compare 025 and 026), which occurs as qəramen - qəcamen in the third person singular; see 024 and 027. This is the same morphological alternation as the possessive ending (and which also occurs with negative participles/nominalisations, §18.7, and with demonstratives, §7.4). Note that the absolutive complement of this form is a predicate nominal and that qəcamen(a-) + ABS is not an NP, and cannot act as an argument of a verb.

Third person plural:

- 024 ɔnkʔam mʔemi-lʔ-a-n qənwer cinit te-mʔemi-ɣ-yʔi
and bullet-NMZR-E-ABS finally self MAKE-bullet-MAKE-TH
qəcamen cit mʔemi-lʔ-a-n / te-tigur-mʔemi-ɣ-a-lʔet-yʔi [...]
NEG.ID.3sg first bullet-NMZR-E-ABS MAKE-bow-bullet-MAKE-E-DUR-TH

And the Bullet Folk eventually made bullets themselves, at the beginning they did not have bullets, they made bullets for bows (i.e. arrows). [kr051]

Many examples in the text are contrastive:

- 025 ɔnqen=ʔm atc-a-twa-nwə-t / qəcamena-t jara-t
DEM.3sgABS=EMPH hide-E-RESULT-PLACE-3plABS NEG.ID.3pl house-3plABS
atc-a-twa-nwə-t perq-a-twa-nwə-t
hide-E-RESULT-PLACE-3plABS ambush-E-RESULT-PLACE-3plABS
They were hiding places, they weren't houses, [they were] places for hiding, places for ambushes. [kr119]

- 026 ləy-ʔorawetlʔa-tang-a-t qəramena-t ɔrucilʔ-a-t
AUTH-person-stranger-E-3plABS NEG.ID.3pl Russian-E-3plABS
[They were] ordinary-people strangers (i.e. Koryaks), not Russians. [ot049]

Third person singular:

- 027 Kromo Qaa-ramk-a-ɣaw qəcamen Ləy-ʔorawetlʔa-n
person?!name.3sgABS reindeer-folk-E-woman.3sgABS NEG.ID.3sg AUTH-person-3sgABS
Kromo is a Lamut woman [name], not a Chukchi [kr032a]

Examples of negative identity which are not in the third person are rarer, but do occur. These have the same pronominal endings that are found on person marked nominal forms, stative verbs, and free adjectives (§6.2, §10.3, §16.3). Example 028 shows this in the second person singular.

Second person singular:

- 028 *ana ləyen ənnatal ʔa-kʔale-ma kələle-kʔeli-te /*
 so really of.course ASS-hat-ASS bead-hat-INST
rəpet n-iw-qinet "qərəmena-jyət Cəkwaqaj-eyət!"
 even HAB-say-3pl NEG.ID-2sg personal.name-2sgABS
Well well, [it was Cəkwaqaj.] and with a hat sewn over with beads. They
even say: You're not Cəkwaqaj! [cy314]

The full set of negative identity forms are (in the pronunciation of the woman's variety—for men's variety substitute *qəcəm* with *qərəm*):

FIGURE 18.1. Negative identity particles.

	singular	plural
1st person	qəcəmena-jyəm	qəcəmena-more
2nd person	qəcəmena-jyət	qəcəmena-tore
3rd person	qəcəmen	qəcəmena-t

If *qərəm-qəcəm^{VH}* is taken as the stem, the endings are the same as those of demonstratives (e.g. *ɟotqen^{VH} / ɟotqena^{VH}*; §7.4) and negative O-focus participles (e-___-kəlʔin^{VH} / e-___-kəlʔine^{VH}; §8.2).

This agreeing negative 'particle' belongs to a word class all of its own (§4.8.5). The closest morphological similarities are to demonstratives (which also have endings with the -in# ~ -ine- alternation), but the syntactic distribution differs in many ways; most importantly, *qəcəmen(a-) + ABS* forms a predicate, not a noun phrase, and cannot act as an argument.

18.4 Negative existential

Negative existentials ('there is no...', 'there aren't any...') are usually formed by the particle *ujje* with a complement in the privative case (§6.5.3), as in examples 029 and 030. The privative case has the form e-___-ke^{VH}, which is the same as the stative negative verb base (§18.2.4).

- 029 *ujje=ʔm a-doktor-ka teɟ-em-cinit-ti*
 NEG.EXI=EMPH PRIV-doctor-PRIV INTS-INTS-self-3pl
n-ə-n-miyəcir-ew-qinet im-ə-cʔenut
 HAB-E-CS-work-CS-3pl REST-E-something
There was no doctor, they did everything all by themselves. [ch01]
- 030 *ənqo iw-nin "naqam ujje e-milyer-ke"*
 then say-3sgA.3sgO but NEG.EXI PRIV-gun-PRIV
ləyen=ʔm moo-qor / qora-ɟə n-iw-qin
 really=EMPH caravan-deer.3sgABS reindeer-3sgABS HAB-say-3sg
"ɟəmo q-ine-piri-yi"
 1sgABS INT-INV-take-TH
Then she said to him, "But there's no gun", and the harness deer said, "Take me" [ke084]

The particle *ujje* with an auxiliary also occurs without a complement. In this construction the particle functions as a verbal base (§17.3.1).

- 031 *ləyen=ʔm ɟan remk-a-n wʔi-tku-rʔu-ɟʔi kolo*
 really=EMPH DEICT folk-E-ABS die-ITER-COLL-TH INTS
ra-jekwe-ɟɟ-a-t ləyen taɟ-əməlʔ-eta ujje n-ə-nʔel-qinet
 house-ROW-AUG-E-3plABS really EMPH-all-ADV NEG.EXIST HAB-E-become-3pl
So then masses of people died, households in their entirety passed away [lit. became non-existent]. [he012]

The negative existential is structurally related to a negative possession construction discussed in §18.5. Nominals in the privative case with negative existential meaning can also be nominalised with the -lʔ- suffix to make an argument rather than a predicate (§18.7.3).

18.5 Non-possession ('lacking')

There are two constructions which express negative (non-)possession. The first of these is a nominalised, person-marked form of the negative existential particle with a privative case complement, as in 032 and 033.

- 032 *ujɟəlʔ-iyəm orw-a-ka ujɟəlʔ-iyəm a-qora-ka*
 NEG.POSS-1sg sled-E-PRIV NEG.POSS-1sg PRIV-reindeer-PRIV
I don't have a sled, I don't have reindeer [cy048]
- 033 *ʔə-lyi-req-a-ʔe-n! ənnatal teɟ-ujɟəlʔ-iyət a-qora-ka*
 2/3.COND-INTS-do.what-E-TH-2/3sg of.course EMPH-NEG.POSS-2sg PRIV-reindeer-PRIV
ujɟəlʔ-iyət əmə orw-a-ka ləyen / req-a-rkən=ʔm
 NEG.POSS-2sg and sled-E-PRIV really do.what-E-PROG=EMPH
req-e q-a-rʔela-ɟə-ye?
 what-INST INT-E-race-go.to-TH
What would you do there? You don't even have a reindeer, you don't even have a sled either. What will you do? How will you race? [cy056]

This construction is usually only used with first or second person. The construction is syntactically a type of copula clause, and cannot function as an argument of a verb. The form *ujɟəlʔ-* seems like a -lʔ- nominalisation of the particle *ujje*. It is, however, formed irregularly (with *ə* instead of *e*), which can be taken as evidence that this form is synchronically distinct from the negative existential.

The second construction showing negative possession is made by a nominalisation of a negative property; see for example 034. Nominalisations of privatives and negative verb bases have wider functions than just showing non-possession; these functions are discussed in §18.7. Unlike the construction above, the nominalised negative possessive can function as a modifier within an appositional noun phrase, and thus as an argument of a verb. The reason for this apparent exception is semantic; a nominalised negative possessive argument is actually a positive/existent referent, e.g.:

- 034 anə qənwet teŋ-u:jaŋe: a-rənn-a-kə-lʔ-en
 so finally EMPH-NEG.EXI PRIV-tooth-E-PRIV-NMZR-3sgABS
 ʔeŋ-a-jŋ-a-n ənnən ʔaləp-rətan
 wolf-E-AUG-E-3sgABS one.NUM hack-tooth.3sgABS

And once [there appeared] a toothless wolf, with one fang... [Jo022]

A negated argument would be something like *no tooth was out of place*; in this example the referent is *the toothless one*.

18.6 Negative adjectives

Adjective stems are negated using the circumfix *e-...-ke*^{VH}. This represents yet another function of the circumfix which marks the privative case and one of the kinds of negative verb base. When predicative, negative adjective stems are accompanied by the auxiliary *-twa-*. This is the same analytic structure that non-negative adjectives have in contexts with marked tense-aspect-mood. Note that negative adjectives have no equivalent to the TAM-unmarked free adjective structure; the closest semantic equivalent would be an auxiliary in the stative habitual inflection, as in the following example:

- 035 ləyen taŋ-a-pʔa-ka n-a-twa-qenat=ʔm ləmj-ewar=ʔm
 really EMPH-NEG-thirsty-NEG HAB-E-be-3pl=EMPH further-so=EMPH
 ləyen=ʔm atqaw-ka [#] n-a-twa-qenat=ʔm [...]
 really=EMPH lame-NEG HAB-E-be-3pl=EMPH

They are never thirsty, they don't go lame... [he110]

The aspectually marked and unmarked predicative adjective forms are discussed in §§16.4-5.

Negated adjectives can also occur in a nominalised form; see §18.7.2.

There is no evidence in spontaneous data for incorporated negative adjectives, that is, for negative adjective in attributive function. These most likely do not occur productively, as adjectival attribution in general is quite rare in oblique cases. In the absolutive case nominalisations of negated adjectives can enter into a noun-phrase to make what is in effect negative adjectival attribution.

18.7 Nominalisations

Nominalisations of negative forms are all made with the nominalising suffix *-lʔ-* (§§8.2-3). These nominalisations can be deverbal, in which case they constitute negative participles. Negative participles have at least the possibility of syntactically dependent nominals. There are also nominalisations formed from negated adjectives and from nominals in the privative case.

Nominalisations of negative forms act as TAM-unmarked predicates, or are arguments of other verbs. They frequently occur in the absolutive case in apposition with other absolutive nouns (§9.2). Nominalised and non-nominalised

forms are, to some extent interchangeable, as the following example shows (from a text on traditional childraising practices):

- 036 cʔacag-a-jŋ-a-n // leen ʔemi loŋ-tʔal-a-ŋŋo-ta // əmən
 cold-E-AUG-E-3sgABS really INTER NEG-be.ill-E-INCH-NEG and
 ʔemi a-pecqəjo-ŋŋo-ka-lʔ-ena-t
 INTER NEG-diarrhoea-INCH-NEG-NMZR-TH-3pl

When there is extreme cold they didn't fall ill, and they don't get diarrhoea [ch17-19]

In this example the negative form of one intransitive verb (*loŋ-tʔal-a-ŋŋo-ta* *didn't fall ill*) and the negative participle form of another intransitive verb (*apecqəjoŋŋokəlʔenat* *don't get diarrhoea*) occur in much the same syntactic environment in adjacent clauses.

18.7.1 Deverbal (participle)

There are two negative participle forms, *e-...-ka-lʔ-*^{VH} and *luŋ-...-lʔ-*^{VH}, which are clearly related to the negative verb bases *e-...-ke*^{VH} and *luŋ-...-(t)e*^{VH} respectively. Negative participles are most commonly formed from intransitive verb stems, as in the following:

- 037 n-llu-lʔet-qin loŋ-katəjat-a-lʔ-a-n ləyen
 HAB-move-DUR-3sg NEG-wind.blow-E-NMZR-E-ABS really
 poŋy-a-qaj n-a-req-a-lʔet-qin
 spear-E-DIM HAB-E.do.something-E-DUR-3sgS

It shook, there was no wind but the little spear was doing this. [ot039]

- 038 ɣan ləyen atrʔet-teŋən remk-a-n rewə-nwə-k=ʔm
 DEICT really end-LIMIT folk-E-3sgABS night.herd-PLACE-LOC=EMPH
 ləyen luŋ-ulwew-a-lʔ-a-n remk-a-n ləye-ceq-qonpa
 really NEG-rest-E-NMZR-E-3sgABS folk-E-3sgABS INTS-??-always
 n-a-cejw-a-təle-qin
 HAB-E.roam-E-walk-3sgS

And in those days the people on night duty didn't rest in one place, the people always walked about. [he026]

There are occasional examples of a negative participle of a transitive, such as the following:

- 039 ənʔa ləyen a-pat-ka-lʔ-en rilq-a-ril
 then really NEG-cook-NEG-PCPL-3sgABS gut.contents-E-REDUP.3sgABS
 ɣarən-ken / qora-nm-at-a-nwə-k təq-a-nwə-k
 outside-REL.3sgABS reindeer-kill-TH-E-PLACE-LOC pour-E-PLACE-LOC
 wa-lʔ-a-n [...] n-ik-wʔe-n / ʔwaj ɣotqen
 be-PCPL-E-3sgABS 3sg.INT-say-TH-3sg DEICT DEM.3sgABS
 q-a-nu-y-a-n q-a-qut-a-rilq-u-yi
 2.INT-E-eat-TH-E-3sg 2.INT-E-frozen-E-gut.contents-CONSUME-TH

And so [there was] only raw [reindeer] gut contents poured out on the reindeer-slaughtering place, on the pouring-out place. They would say, "Eat this, eat frozen gut contents!" [cy016]

Unambivalently transitive examples like this are very rare. In example 040 the verb *-wjat-* *untie* is transitive, as it is in all verbal examples in the corpus. However, the existence of a form *wajat-qora-t* *unharnessed reindeers* [cy052] strongly suggests that the stem is actually labile, since transitive verb stems never form compounds with noun heads.

040 *lāyen qora-t ye-kwut-linet əngin lāyen*
really reindeer-3plABS PF-harness-3plO thus really
loŋ-a-wjat-a-lʔ-a-t
NEG-E-untie-E-NMZR-E-3plABS

He harnessed the reindeer, as they weren't completely untied. [cy267]

Example 041 shows a participle of the labile verb *-llep-* *look*. The suffix *-tku* is either an iterative marker, or iterative fused with antipassive. However, it is clear that in this example the verbal stem complex *-llepətku-* is intransitive, since the argument *rʔetətə* *at the road* (the object/source of perception) is in an oblique case.

041 *e-llep-a-tku-kə-lʔ-a-turi rʔet-ətə rəpet /*
NEG-look-ITER-NEG-NMZR-E-2plABS road-ALL even
em-ʔeqe-r-inʔeten-ŋ-e yekeŋ-a-lʔet-a-k
REST-bad-DESID-win-DESID-VBase race-E-DUR-E-INF

You (pl) don't even look at all at the road, you're all out to win in the race [and nothing more] [cy150]

Third person negative participles formed from *e-___-kə-lʔ-* have an additional ending *-in(e-)*, giving an overall form of *e-___-kə-lʔ-ine-*. The *-ine* ending suggests the possessive suffix (which is not itself a case, but which cooccurs with other cases; §8.7.1). However participles in the *luŋ-___-lʔ-* form do not share this morphological behaviour, which suggests that this suffix isn't a semantically motivated possessive marker. Interestingly, when a negative participle is lexicalised it loses this suffix. Thus, *aalomkəlʔen* is a participle meaning '(the one) who didn't listen' (plural is *aalomkəlʔenat*; underlying morphological composition **a-walom-k-əlʔ-ena-t*). The corresponding personal name is *Aalomkəlʔən* (plural *Aalomkəlʔət*), which does not have the suffix.

042 *okkoj meŋ / ləyi-req-ʔinə əngatal taŋ-wenʔəm*
EXCL EXCL INTS-what?-wolf of.course INTS-INTS
ənan a-alom-kə-lʔ-en naqam rəpətkew-kə
FUT NEG-listen-NEG-NMZR-3sgABS but hit.target-INF

Oh, what kind of wolf is this? It's too much! But what a disobedient [lit. not-listening] target! [ot056]

The *-in(e-)* ending also has something in common with the demonstrative (§7.4) endings and the ending of the negative identity particle (see §18.3), in that the absolutive singular form is made by truncation (to *-in*), while all other forms are made with suffixes attached to *-ine-*.

18.7.2 Deädfectival

Nominalised negative forms from adjective stems are morphologically identical to participles in *e-___-kəlʔin(e-)*. There are very few examples in the corpus.

043 [...] *ənqen neməqej e-walt-a-kə-lʔ-in*
this.3sgABS also NEG-peaceful-E-NEG-NMZR-3sgABS

... Those ones were also not peaceful. [kr051]

These forms are no longer in the adjective word class, and they act syntactically like other *-lʔ-* nominalisations (§8.3).

18.7.3 Denominal (privative)

Nominalisations of the privative case are morphologically identical to participles of the form *e-___-kəlʔ-*, including the mysterious *-in(e-)*^{VI} suffix which occurs in the third person (§8.2).

044 *wəne / naqam uŋge e-nənnə-kə-lʔ-in*
INTJ but NEG.EXI PRIV-name-PRIV-NMZR-3sgABS
ətrek Nəylo-lʔ-a-qaj
only work.kuxlanka-NMZR-E-DIM.3sgABS

"Well..." [she says,] but she doesn't even have a name, only "Work Kuxlanka" [ke159]

045 *ənqen n-ommacajpat-qen lāyen pojy-a / cit=ʔm*
this HAB-embrace-3sg really spear-INST first=EMPH
uŋge e-milyer-kə-lʔ-inet tigur-e
NEG.EXI PRIV-gun-PRIV-NMZR-3plABS bow-INST

He just embraced a spear, there weren't guns yet, bows only. [jo:01]

18.8 Negative particles without complement

Negative particles also occur in a 'proclausal' function, that is, without any syntactic dependency relationships with other elements. Proclausal negatives can be the answers to polar questions (046) or independent propositions (e.g. 047). Note that almost all the following are quoted speech, and the exception (047) is from conversation rather than narrative.

046 *wəne wəŋ qejwe qol meŋin ya-yto-lenʔ*
INTJ DEICT truly one.3sgABS someone.3sgABS PF-give.birth.to-3sg
"wanewan uŋge"
NEG.NFUT NEG.EX

"Is that really true, you bore no-one else?"
"No I don't, there's no-one" [ot016]

047 *ii ətrʔec-teyən ɣəroq=ʔm waj t-a-tw-a-nat / uŋge ətrʔec*
yes all-LIMIT three=EMPH DEICT 1sg-E-tell-E-3pl NEG.EXI all
Yes, that's the end, I've told three [stories], no more [ka29]

All the negative particles can occur in proclausal function. Each particle retains its basic tense-mood meaning, roughly translated as follows:

wanewan *no, I/it didn't* (negative non-future)
 qərām-qəcām *no, I/it won't* (negative future)
 əŋge *don't!* (negative imperative)
 uŋge *there isn't any* (negative existential)
 qərāmen(at)-qəcāmen(at) *It isn't, there're not* (negative identity)
 etlə (general negative; polar questions and imperative)

While the general negative particle *etlə* can be used as the answer to any information question, it is far more normal to use one of the other semantically more specified forms.

Negative non-future particle *wanewan*:

048 *ik-wʔi n-ə-req-iyətʔ* // *wanewan*
 say-TH HAB-E-do.what?-2sg NEG.NFUT
He said, "What are you doing?" — "Nothing" [ke165]

Negative future particle *qərām-qəcām*:

049 *anə qərām petle-qej t-ə-re-jet-ə*
 so NEG.FUT soon-DIM 1sg-E-FUT-come-E
"No I won't, I'll be back soon" [cy182]

Negative imperative particle *əŋge*:

050 *əŋge / macānan ənkə / orw-ə-tkən-ə-k n-ə-twa-rkən*
 NEG.HORT enough here sled-E-SURFACE-E-LOC 3.INT-E-be-PROG
"Don't [bring her in], it'd be better to let her stay on the sled" [ke223]

Negative existential use of a bare particle can be seen in example 046 *uŋge*.

Negative identity particles *qərāmen(a)-qəcāmen(a)*:

051 *"kəke wəne! ətlon meŋqorəʔ" qora-γtə n-ajə! aw-qen*
 INTJ INTJ INTER whence reindeer-ALL HAB-fear-3sg
"okkoj qora-γə / ʔetki ʔaqa-leŋ-γəry-ə-jŋ-ə-n" //
 INTJ reindeer-3sgABS bad bad-heart-NMZR-E-AUG-E-ABS
n-iw-qin "anə qərāmena-t"
 HAB-say-3sg so NEG.ID-3pl
"Oh dear me! Where are they from?" - She feared the reindeer - "Oh what reindeer, it's [they're] terrifying!"
He says "No they're not" [cy431-432]

Sometimes it is unclear which negative particle would be appropriate. Example 052 shows an exclamation made by a boy who is traumatised by the rumour that once he had a sister. The mother claims that there was never a sister, except for one who died. The narrator points out that she is lying, and then quotes the boy's exclamation:

052 *n-iw-qin "wəne wanewan! qərām wajl cakəyet*
 HAB-say-3sg INTJ NEG.NFUT NEG.FUT DEICT sister-3sgABS
γəmn-in ʔemitlonʔ"
 1sg-POSS.3sgABS INTER.EMPH
He said "Oh no! No! Where is my sister?" [ot019]

The negative particle *etlə* is sometimes used to answer yes-no questions instead of *wanewan* or *qərām-qəcām*. Unlike these, it doesn't encode any tense information, and rarely occurs in analytic constructions with inflecting verbs. See the following:

053 *iw-nin qejwe atcaj-qaj ik-wʔe-n əŋgen /*
 say-3sgA.3sgO truly aunt-DIM.3sgABS say-TH-3sgO this.3sgABS
raj-ənkə atcaj-qaj-ə-na t-ə-re-kiw-ə-cqək-wʔeʔ //
 DEICT-there aunt-DIM-E-AN.ALL 1sg-E-FUT-stay.night-E-PURP-TH
etlə //
 no
a q-iw-ə-cqik-w-ə-n //
 INTJ INTJ say-E-PURP-TH-E-3sg
He said to him, "Did you truly tell your aunty I'm going to stay there at my (other) auntie's?"
"No"
"Well go and tell her" [cy028-30]

The *etlə* particle also intermittently occurs in the function of the negative imperative particle *əŋge* (054).

18.9 Negative adjuncts

The most common negative adjunct is an oblique nominal in the privative case or a negative verb base. There are very occasional sentences which could be analysed as having an adjunct which is negated by a particle. Example 054 shows what might be analysed as a negated locative adjunct:

054 *etlə gutku etlə lewt-ə-k etlə e-lqeynew-ke*
 NEG here NEG head-E-LOC NEG NEG-shoot-NEG
[You] don't shoot it here in the head. [an002]

However, this may be better treated as multiple marking of clausal negation rather than negation of the individual constituent. It does not seem to be possible to have negation of a peripheral constituent alone, such as **etlə lewtək qəlqeynewən* 'shoot it not in the head [but rather somewhere else]'.

18.10 Lexical negatives

There is also an assortment of inherently negative stems. These do not have any systematic relationship with each other. The four listed below are representative. They include a modal particle, a 'transitive particle', an inflecting verb stem, and a verb base.

The form *camʔam* is an inherently negative modal particle with impossibilitive meaning (§4.8.9). It always combines with a verb in the future tense (as does its opposite *mecənkə*, which indicates ability or possibility).

055 *camʔam gutku ra-twa-γʔa / ɣaanre racyəly-ətə q-ə-lqət-γʔi*
 unable.MOD here FUT-be-TH there valley-ALL 2.INT-E-set.off-TH
You can't be here, go there to the valley! [ke070]

The form **qoo** *I don't know* is a 'transitive particle'. It has an understood first person singular subject and optionally governs an argument in the absolutive case. It cannot take an auxiliary or in any other way mark further verbal categories. This is one of only two argument-taking particles in Chukchi (the other is **qoro gimme**; §4.8.7).

056 **qoo** / **etʔəm** **anə** **r-ile-rʔu-yʔi**
 I.don't.know probably so FUT-rain-INCH-TH

I don't know, probably it will rain.

[na087:6]

The inflecting labile verb stem **-lwaw-** means *be unable*. It combines with another verb in the infinitive (agreeing in transitivity). There is no corresponding verb stem meaning *be able*.

057 **n-ə-lwaw-qen** **gelwəl** **r-ə-rayt-at-ə-k**
 HAB-E-be.unable-3sg herd.3sgABS CS-E-go.home-TH-E-INF

They couldn't bring the herd home.

[ke176]

See example 013 for a further example.

The form **yemo** *not know* is a transitive verb base, which combines with a transitive auxiliary to make an auxiliary verb (§17.3.2). The corresponding positive verb is **ləyi** *know*; neither form is derived from the other.

19

Pragmatics of sentence form

19.1 Introduction

This chapter contains a sketch of some of the larger principles of Chukchi linguistic organisation, which demonstrate the central position of discourse pragmatics in grammatical structure. The main areas to be dealt with here are the principles underlying selection of (i) word order, and (ii) type of specification of discourse referents (noun, free pronoun, bound pronoun/verbal cross-reference). These grammatical features of sentence form are motivated by pragmatic factors involving the notions of focus (§19.1.1) and topic (§19.1.2).

Temporally sequential clauses are generally ordered iconically into sentences; the linear production of a narrative follows the same temporal sequence as the events being represented. Violation of this principle is very rare, and instances can usually be shown to have exceptional pragmatic force or to be simply afterthoughts, e.g.:

001 **ləyen** **ənka=ʔm** **a-taaq-o-ka** **t-ə-nʔe¹-ə-k**
 really there=EMPH NEG-tobacco-CONSUME-NEG 1sg-E-become-E-1sg
cit=ʔm **n-ə-taaq-o-jyām**
 first=EMPH HAB-E-tobacco-CONSUME-1sg

It's there I stopped smoking, previously I smoked.

[kr172]

This account of word order and anaphora is based on narrative texts, which are the richest and most coherent genre represented in my corpus. I have not attempted an account of conversational structure—due to the difficulty of collecting data, the sociolinguistic situation of Chukchi speakers (see §1.2, §1.4), and limitations of time and space, I could not do justice to this huge topic. However, I do occasionally make reference to conversational data when it sheds light on significant features of the narrative (for example, in comparing the use of personal pronouns in quoted speech to conversation, and information structure in question and answer pairs, e.g. 002a-d). While narrative conventionally also contains conversational interaction, this interaction is limited, and the roles of the speech act participants within storytelling genres are clearly delineated between narrator and audience.

This description uses the framework for discussing the relationship between information structure and the form of sentences set out by Lambrecht (1994). This

framework (or elements thereof) has been adopted by many linguists studying the syntax-pragmatics interface with a broadly functional approach (e.g. Van Valin & LaPolla 1997).

The final section of this chapter (§19.5) consists of a comparison of two versions of the same episode of a folktale as told by two different (unacquainted) storytellers.

19.1.1 Definition of 'focus'

For the purpose of description I define 'focus' as the pragmatic category indicating the newly asserted information of a sentence, as opposed to information which is presupposed by virtue of already being known or by being taken for granted (Lambrecht 1994:213). This definition is descriptively useful since it provides a set of canonical examples of focus which can be shown to correlate with Chukchi word order properties. Focussed elements appear earlier in the sentence than non-focussed elements. The focus of a sentence may be a verb or peripheral element, or a nominal.

Two canonical instances of focus are found in (i) information questions and their answers, and (ii) contrastive sentences. In both these types of utterance the new and important information is easily distinguished from presupposed information.

•EXAMPLE: INFORMATION QUESTIONS

The 'information-seeking' element of a question is focussed, as is the 'information-carrying' element of the answer. Sentences 002a-d below are a short, episodically self-contained, section of a conversation, and in each sentence the element which would be predicted to be focussed is structurally indicated through word order. In the initial question (002a) the personal name *Nina* is focussed; as this name hasn't been mentioned before it is introduced as a new topic (discussed §19.1.2). In the second question of the insertion pair (002b) the interrogative particle *?emi* (here *which*) is focussed, providing a new sentence element which has to be responded to. This response is forthcoming in 002c with the possessive pronoun *yanin* *your*; this personal pronoun is focussed because it is the main information-bearing element of the sentence. Likewise, the delayed answer to 002a given in 002d focuses on the negative particle, once again the new information-bearing element.

002a *Nina* wanewan n-a-jet-y'e-n
personal.name.3sgABS NEG.NFUT 3sg.INT-E-come-TH-3sg

SPEAKER 1—*Nina hasn't come [, has she]?*

002b *?emi* Nina?
INTER personal.name.3sgABS

SPEAKER 2—*What Nina?*

002c *yanin* Nina
2sg-POSS.3sgABS personal.name.3sgABS

SPEAKER 1—*Your Nina.*

002d *wanewan* SEJČAS EJ NIKOGDA¹
NEG.NFUT now to.her never

SPEAKER 2—*No, she doesn't have time.*

[kr225-228]

•EXAMPLE: CONTRAST

The following exclamation illustrates nominals used contrastively; a father is castigating his three sons, whose work ethic contrasts unfavourably with their cousin *Cakwagaqaj*'s:

003 [...] *kakomej!* *Cakwagaqaj* enmec ya-gawtan-len
INTJ personal.name.3sgABS already PF-many-3sg

ama ya-nanana-nto-len! //
and PF-child-bear-3sg

turi=?m qonpa joro-cako anka layen
2plABS=EMPH always sleeping.chamber-INESS there really

wa-l?at-a-l?-a-torel //
be-DUR-E-PCPL-E-2plABS

... *Oh my! Cakwagaqaj is already married, a child's even been born! You lot are always in the sleeping chamber, you're only ever there!* [cy327-328]

Apart from focussed information presented in questions and answers, and contrastive focus, there are also other pragmatic functions which occur in sentence-initial position. These include new topics (see §19.1.2) and important new information. Taken together, all these pragmatic functions correspond to the parameter of 'newsworthiness', as defined by Mithun 1992 in her account of the principles for determining word order in pragmatic word order languages (Chukchi will be shown to be one of these, §19.2). For Chukchi descriptive purposes 'locality' (according to Lambrecht 1994) and 'newsworthiness' (according to Mithun 1992) should be taken to be synonymous, as the pragmatic category which determines sentence or clause initial word position.

Lambrecht distinguishes three different types of focus structure

- (i) argument focus—focus on a nominal, see example 003 and §19.2.1
- (ii) predicate focus—arguments understood (presupposed), focus on predicate (usually a verb and its bound pronominal affixes), see §19.2.2
- (iii) sentence focus—no presupposition, argument/s and predicate all focussed, see §19.2.3

19.1.2 Definition of 'topic'

A 'topic' is an argument which the discourse is construed to be 'about' (the notion of the 'aboutness' of a topic is discussed in Chafe 1976, Lambrecht 1994). The grammatical corollary of this from the Chukchi perspective is that a topic is an

¹ The switch to Russian in 002d is ironic, and refers to Nina's preference for the attractions of (Russian language) social life in the village over Chukchi traditional craft activities with her mother in the tundra.

element already established in the discourse in such a way that it is retrievable without overt nominal specification; the presence of the topical argument is evident from the bound pronominals of the verbal cross-reference.

A 'new topic' is something of a contradiction in terms; a 'new topic' is really a focussed noun which will become a topic. New topics occur sentence-initially, along with other 'information-heavy' focal elements.

The following polar question establishes a new topic *nenenə* *baby/s* in the sentence initial position:

004a *nenenə=ʔm* *ary-in* *ətɪʔa-y* *reen* *n-a-twa-qen?*
 baby.3sgABS=EMPH 3pl-POSS.3sgABS mother-LOC with.PP HAB-E-be-3sg
INTERVIEWER — Does the baby remain with their mother? [aa2.26]

It is not in fact possible to answer this particular question with a simple 'yes' or 'no' (the speaker shows himself willing to use single yes/no answers in other sections of the text), and so instead it invokes a certain amount of explanation. This has two contrasting parts; (i) *ətɪʔay reen nətwaqen* *it's [they're] with the mother* and (ii) *ʔenqu ninetəqinet* *she rejects them*. The argument *nenenə* *the baby/s* is now the topic, and so is only ever indicated by verb agreement (S of *nətwaqen* and O of *ninetəqinet* and *nenəlyerkəpcewəqen*):

004b *ətɪʔa-y* *reen* *n-a-twa-qen* *ənnen* *yiik* *ewər* *jawrena=ʔm*
 mother-LOC with.PP HAB-E-be-3sg one year then next.year=EMPH
ʔenq-u *n-inc-tc-a-qinet* *ləyen* *n-ena-lye-rkəpcew-a-qen* [...]
 reject-VBase HAB-TR-AUX-E-3pl really HAB-TR-INTS-beat-E-3sg
INTERVIEWEE — They remain with their mother one year, then after one year she rejects them, she beats them up ... [aa2.27]

The orienting elements *ewər jawrena* *then next year* occur in between the two clauses, iconically marking the juncture of the two different time periods being discussed (see §19.2.4).

Note that topicality is a pragmatic category which applies to arguments, whereas focus can apply to any element. Narratives are generally about a relatively small and stable set of referents (e.g. people) in a series of actions and events. While an event can recur with a series of different arguments/referents, this is pragmatically marked. An event construed without any of its arguments is highly abstract, and is not the sort of thing that people typically talk about. Thus 'aboutness', and hence topicality, is more naturally a property of a nominal argument/referent, not a verb. This does not apply to focus—new important information is as happily an action or event as it is a referential entity.

19.2 Pragmatic word order

Chukchi is typologically a pragmatic word order language. Words are ranked so that the focussed (or newsworthy) element comes first. An element may be focussed

due to a variety of pragmatic factors: it may represent significant new information, introduce a new topic, or it may be contrasted with something else.

It probably doesn't make descriptive sense to claim that Chukchi has some kind of basic, syntactically defined word order (i.e. a word order typology as discussed by Greenberg 1963 and many others). As shown in figure 5.1 of §5.2, Chukchi does have a statistical preference for certain word orders; however, a much stronger conclusion which can be made from a statistical investigation of relative placement of verbs and nominal arguments is that overt nominal arguments of verbs are in fact slightly dispreferred, and that verb agreement affixial pronominals are frequently the only exponents of an argument. Single overt arguments occur only slightly less frequently, but it is particularly unusual to have two overt nominal arguments in a clause—this happens so rarely that it is impossible to make any statistical claims about preferred order. The frequent use of pronominals bound to the verb in preference to free pronominals is typologically common in pragmatic word-ordering languages. Mithun (1992) discusses a genetically divergent selection of such languages and finds this feature to be the norm:

A crucial feature of purely pragmatically ordering languages may be the nature of the grammatical relationships between the verb and associated constituents. In languages like Cayuga, Ngandi, and Coos, the pronouns bear the primary case relations to the verb. The associated noun phrases function grammatically more as appositives to the pronominal affixes, rather than directly as verbal arguments themselves. (Mithun 1992:58)

Thus the term 'anaphora' is probably inappropriate to refer to an argument of a clause not represented by an overt nominal, since it suggests that nominals are in some way 'left out' or 'deleted', when in fact the argument is always represented pronominally by (explicit or implicit/paradigmatic) cross-reference on the verb.

19.2.1 Argument focus

A focussed argument is placed at the beginning of the sentence. The different pragmatic functions of argument focus are illustrated in the following examples.

Note that discourse particles and conjunctions providing wider contextualisation can precede the syntactically linked elements of the sentence (§19.2.4), for example:

005 *qənwer* *ʔinə* *piri-nin*
 finally wolf.3sgABS take-3sgA.3sgO
Finally, he caught a wolf. [ot027]

Examples 006b-c, 007b show contrast and new topics. Examples 006a and 007a show argument focus in information questions.

In the context of an informal interview the interviewer asked the following multipart question:

- 006a ʔnkʔam qora-ŋə ʔənnik-e miŋkri n-ə-nm-ə-qen
 and reindeer-3sgABS animal-ERG how? HAB-E-kill-E-3sg
 amalwaŋ ʔiy-e=ʔm ʔnkʔam keŋŋ-e=ʔm ʔnkʔam qeper-e?
 variously wolf-ERG=EMPH and bear-ERG=EMPH and wolverine-ERG

INTERVIEWER — *And in what different ways do beasts kill reindeer; wolves and bears and wolverines?* [an022]

The focus of this question is the argument *qoraŋə reindeer*, which appears initially, provides the new topic; this referent is not overtly referred to in the subsequent discourse.

The answer to the question in 006a has several parts, which involves listing a series of contrasting elements (006b-c and later 007b). Each of these contrasting elements is also a reactivated topic.

- 006b qeper-e itək ləyən cama ɣotqo ləyən
 wolverine-ERG so really and from.here really

waj ɣotqo renrely-epə //
 DEICT from.here neck-ABL

- 006c ʔiy-ə-t itək jaal-ʔətkə-t junor n-ə-piri-qinet //
 wolf-E-3pl so back-leg-3pABS first HAB-E-take-3plO

INTERVIEWEE — *The wolverine also grabs on from here, from the back of the neck. And wolves, they first take the back legs.* [an023-024]

Sentence 006b was accompanied by gestures illustrating the motion of a wolverine (his hand demonstrating the jaws) seizing a reindeer by the neck (the speaker's own neck). The pragmatic relationships of the different nominals are clearer in 006c, which is more difficult to physically demonstrate. The most newsworthy item is the new/renewed topic, followed by the new information (where the animal attacks), followed by a verb indicating the event. The fact that the event is an attack upon a reindeer is given; the reindeer itself is not mentioned at all apart from the reference to the body part, and the mode of attack (grabbing/biting/seizing) is fairly obvious from real-world knowledge of wolves. After 006c the speaker goes into further detail about wolves, and then the questioner nudges him back to the remainder of the initial question (007a):

- 007a ʔnraq keŋŋ-ə-n miŋkri?
 and bear-E-3sgABS how?

INTERVIEWER — *And how about the bear?* [lit. *And the bear how?*] [an027]

- 007b keŋŋ-ə-n=ʔm itək ləyən LJUBOE MESTO ləmŋe
 bear-E-3sg=EMPH so really any place further

ɣan ɣəŋŋ-epə ləyən n-inc-piri-qin
 DEICT tail-ABL really HAB-TR-take-3sg

INTERVIEWEE — *The bear, like any place, perhaps by the tail it takes it.* [an028]

Once again, the reactivated topic takes the first place in the sentence (*keŋŋən bear*), followed by new information which follows logically on from it (*ɣəŋŋepə by the tail*), then a minimum of already given information to specify what kind of event (*ninepiriqin it seizes it*).

In the next example a magical deer is instructing a boy in the correct manner of slaughtering; the deer and the boy have already been talking, and the fact that a knife should be used (rather than, for instance, an axe) has already been established. The noun *rənnəlyən antler* is used for the first and only time at the beginning of 008c. Although this noun is not a new topic (it is never again referred to) and it is not contrastive, it is newsworthy information, as it the key piece of information required to get across the correct slaughtering method.

- 008a wen-cəŋga-jŋ-ə-n aləmə
 tamed-steer-AUG-E-3sg apparently

STORYTELLER — *It was a harness steer it seems.* [ke127]

- 008b il ləyən=ʔm wen-cəŋga
 yes really=EMPH tamed-steer.3sgABS

LISTENER 1 — *Yes, [it was] simply a harness steer.* [ke128]

- 008c rənn-ə-ly-ə-n ɣotqo q-ə-piri-ʔ-ə-n q-inc-piri-yi
 antler-E-SING-E-3sgABS from.here 2.INT-E-take-TH-E-3sg 2.INT-INV-take=TH

ʔnkʔam NOZHIK qəram m-ə-lʔu-ʔe-n
 and knife NEG.FUT 1sg.INT-5-see-TH-3sg

STORYTELLER — *Grab [my] antler here, grab me and I won't see the knife* [ke129]

19.2.2 Predicate focus

After 008a-c, the storyteller says:

- 008d tənp-ə-nen ləyən / [...]
 stab-E-3sgA.3sgO really

He just stabbed it ... [ke130]

Here the focus is on the action of stabbing; the identity of the one stabbed is presupposed, since the entire episode is a description of how to slaughter a reindeer.

Predicate focus can occur when the identity of the arguments is already established.

Example 009 shows predicate focus and argument focus in adjacent clauses with the verb *atcʔat- go to bed*. In this story the boy is roaming the tundra at night disguised as a wolf. His parents are suspicious, and forbid him to go out, but he tricks them, and will get up again as soon as they are asleep. The boy is an already established topic, and so is referred to by verbal cross-reference. Because there is a contrast being made between the behaviour of the boy and his parents, an overt personal pronoun (§7.2) is used rather than just the implicit 3sg agreement of the verb *atcʔatʔe*:

009	neme	lāyen	wulqətwi-k	neme	lāyen	atcʔat-yʔa-t	ətʔa-t
	also	really	evening-SEQ	also	really	go.to.bed-TH-3pl	mother-PL
	ewə	ətʔlon	neməqej	ewə	atcʔat-yʔe		
	then	3sg.ABS	also	then	go.to.bed-TH		

Again it was evening, again his parents went to bed, and he too went to bed.
[ot062]

The first clause (atcʔat-yʔa-t ətʔa-t *the parents went to bed*) is setting the scene for the event of interest in the second clause. The important information that this clause has to impart is that a particular event occurred; the identity of the participants is not as important as the fact that it was bedtime. Thus the first clause has predicate focus. In the second clause (ətʔlon atcʔat-yʔe *he went to bed*) the argument (he/the boy) is focussed. The fact that the boy also went to bed is counter to what the audience might expect, since we know the boy spends his nights roaming the tundra. Note that the adverb neməqej *also, too* occurs adjacent to the pronoun, not the verb, i.e. *He too went to bed*, not *He went to bed too*.

19.2.3 Sentence focus

Some sentences and clauses contain no formal presupposition. Overt arguments of the predicate are present as well as the verb itself, and all elements are pragmatically focussed; it is not clear what determines word order within focussed sentences.

The beginnings of stories generally have sentence focus, since there can be no presupposition. It is very rare to have two overt core nominals in a clause, since in discourse at least one argument (and often both) of a transitive verb is usually zero-pronominalised. Example 010a-d starts with a discussion of what story to tell next; there is argument focus on neme qol *that one again* (010a), and penin *the previous [one]* (010b-c). However, when the storyteller actually begins the story there is no presupposition, and so there is sentence focus.

010a	ənkʔam	neme	qol	t-ra-tw-a-ŋ-a-n	ewə	//
	and	again	one.3sgABS	1sg-FUT-tell-E-TH-E-3sg	then	

SPEAKER 1 — And then I'll tell that one again. [ke285]

010b	ej	penin	//
	yes	previous	

SPEAKER 2 — Yes, [the one you told] previously? [ke286]

010c	penin	lāyen	lāmijəl	//
	previous	really	story.3sgABS	

010d	enmen	/	ʔeqe-lʔ-e	[...]	ya-nm-a-lenat
	once.upon.a.time		bad-NMZR-ERG		PF-kill-E-3pl

	ətʔlāy-a-t	əmmemə	
	father-E-3plABS	mother.3sgABS	

SPEAKER 1 — The story [I told] previously ... Once upon a time, evil-doers killed the father and mother. [ke287-jo001]

The word order in example 010d is less significant than the fact that there are two overt nominal arguments (this is very rare for Chukchi, see §19.3).

Example 011a-b comes from an episode of a story where the hero makes a magical helper out of an untreated reindeer hide. He finishes his spell with the words *Hey, work around the house, you are a woman!*

011a	[...]	naly-a-jg-a-n	ənqen	qut-yʔi	lāyen
		hide-E-AUG-E-3sgABS	DEM.3sgABS	stand.up-TH	really
		γəpe-lʔat-a-myə-yʔe	//		
		do.housework-DUR-E-INCH-TH			

The [magical] hide got up and started working around the house. [cy264]

The whole clause in 011a is focussed; this magical event is all so surprising that nothing is treated as a presupposition. A English speaking storyteller would say *the HIDE got UP and started WORKING!* (the capitals indicate the intonation peaks that show focus in English).

The following sentence (011b) also has sentence focus, and for the same reasons.

011b	n-a-lyi-yʔi-lʔet-qin	ənqen	jʔa-naly-a-jg-a-n	//
	HAB-E-INTS-do.housework-DUR-3sg	DEM.3sgABS	raw-hide-E-AUG-E-3sgABS	

She worked hard around the house, that [magical] raw hide! [cy265]

The overt nominal in 011b could be omitted, since it is clearly retrievable, but this would result in predicate focus instead. It is probably present due to the importance of the referent in the discourse and unusualness of having a raw animal hide doing housework. These pragmatic factors suggest that the nominal too is somewhat newsworthy. In both 011a and 011b the noun phrases could have been left out to give sentences would have had predicate focus instead. There would be no loss of (propositional) meaning, but this would result in a dry and matter-of-fact rendition of events².

19.2.4 Spatial and temporal orientation

Words indicating the spatial and temporal orientation of clauses are also ordered pragmatically, with more newsworthy elements earlier and less newsworthy elements later.

² The following is an attempt to capture this difference in emotional involvement with an English free translation:

(sentence focus, example 011a-b) *The man said to the hide, "Hey! Work around the house! You are a woman!". The HIDE got UP and started WORKING. She worked HARD around the house, that RAWHIDE.*

(predicate focus; 011a-b with overt nominals omitted) *The man said to the hide, "Hey! Work around the house! You are a woman!". She got UP and started WORKING. She worked HARD around the house.*

Example 012 shows temporal orientation which is newsworthy by virtue of its importance to the discourse; the adverb *layitelenjep* *very long ago* indicates the temporal setting for the facts in all the subsequent discourse.

012 *layi-telenjep* *qun* *erme-qin* *cit* *warat*
INTS-long.ago once ADJ-strong-3sg first tribe.3sgABS

Long long ago the tribe was strong at first

[kr116]

Compare non-newsworthy spatial orientation in 013. Prior to this question the other speaker has been describing a stone fortification built on top of a mountain.

013 *atlon* *n-a-req-qinet* *ankə?*
INTER HAB-E-do.what?-3sg there

So what is it they did there?

[kr124]

The location referred to by *ankə* *there* is already established, and thus is non-newsworthy.

Temporal adverbs which advance the flow of the narrative are high in newsworthiness, e.g. *luut/luur* *suddenly* in the following:

014 *luut=ʔm* *waj* *gewʔen* *neməqej* *pintəqet-ʔi* *neməqej*
suddenly=EMPH DEICT wife.3sgABS also appear-TH also
tətl-epə *gəto-ʔe*
door-ABL exit-TH

Suddenly the wife also appeared, she also came out from the door

[cy113]

Note that sentence and clause joining elements occur either at the beginning of sentences or at the juncture of clauses. Conjunctions (*ənkʔam* *and* etc.) are most commonly used to introduce new sentences, situating them within the wider discourse, and so more often occur sentence-initially.

Discourse-orienting elements can also occur as sentences on their own, as in the following:

015 *lawren-rʔo-ʔe* //
next.year-INCH-TH

e *wəne* *t-a-re-winret-ʔət=ʔm* / *cakəyet* / *mən-tʔəm-fer-ʔa-n*
INTJ INTJ 1sg-E-FUT-help-2sg=EMPH sister.3sgABS 1pl.INT-bone-seek-TH-3sg

It was the next year. "Well I'll help you, we'll seek your sister's bones" [jo073-074]

19.3 Overt nominals and zero-pronominals

The basic principles governing the use of free and bound forms to indicate referents have already been established:

(i) Focussed arguments are indicated by overt nominals (§19.1.1)

(ii) Topical arguments are indicated solely by the verb's pronominal cross-reference affixes (§19.1.2)

These two principles account for the absence of overt nominals, and for the presence of overt nominals in sentence-initial (focussed) position. Principle (i) also

accounts for non-sentence-initial overt nominals where there is sentence focus (§19.2.3). The majority of other instances are accounted for by (iii-iv):

(iii) Non-core (or syntactically non-obligatory) nominals must be represented by an overt nominal for the simple reason that there is no other way of knowing that they are there;

(iv) Core arguments which are non-newsworthy (not focussed) can be represented by an overt nominal for the purposes of disambiguation.

These two principles are illustrated in examples 016a-d, extracted from an episode of a story which follows the actions of a boy, who is represented throughout by verbal cross reference only. The sentence preceding 016a is from a distinct episode (this sentence is used as example 009, above).

016a *qeluq=ʔm* *lʔu-ninet* *genku* *təng-ə-warat*
because=EMPH see-3sgA.3plO there stranger-E-tribe.3sgABS
jara-mk-ə-jg-ə-t //
house-COLL-E-AUG-E-3plABS

016b *anə* *ənʔaq* *genrilə* *cejw-e* *ənqen* *ott-ə-pojoy-ə-qaj*
so then thither walk-ADV DEM.3sgABS wood-E-spear-E-DIM.3sgABS
rənʔ-ə-nin //
take-E-3sgA.3sgO

Because he saw there the stranger-folk, the group of big houses ... so thus he took that little wooden spear there on foot. [ot063-064]

Examples 016a-b are sentences which provide background information for the subsequent episode. The nouns *təngəwarat* *stranger folk* and *jaramkəjgət* *group of big houses* are not focussed; they are being proposed as the reason for further actions carried out by the boy and as explanations of his destination, which are important to the development of the story. Likewise the NP *ənqen ottəpojəqaj* *that little wooden spear* in 016b is mentioned mid-sentence; this magical item is important for the development of the story, and so it must be mentioned that it is present, even though nothing important has been done with it yet.

In 016c the zero-pronominal argument of the 3sg verb *qətyʔi* *he/she/it set off* is still 'the boy' i.e. 'the little wooden spear' has not become a topic).

016c *genrilə* *qətyʔi* //
thither set.off-TH

He set off to there.

[ot065]

016d *rəm-nin* *ʔəl-ə-tkən-ə-k* *pojy-ə-qaj* *na-jʔo-ʔa-n*
stick-3sgA.3sgO snow-E-TOP-E-LOC spear-E-DIM.3sgABS INV-approach-TH-3sgO
ənqen / *təng-ʔorawetlʔa-mk-ə-jg-ə-t*
this.3sgABS stranger-person-COLL-E-AUG-E-3plABS
qlawəl-ə-mk-ə-jg-ə-t *ləyen*
man-E-COLL-E-AUG-E-3plABS really

He stuck his little spear in the snow, they came up to him, a group of big stranger-people [i.e. Koryaks], a group of big men. [ot066]

In 016d the noun *ʔalatkənək* *into the snow* has no possibility of being expressed by verbal cross-reference, since it is not a core argument. The noun *pojyəqaj* *the little spear* is made overt for the purposes of disambiguation; it is mentioned again because of its coming importance in the story but still is not a topic. The noun phrase *təŋʔorawetlʔamkəjgət qlawələmkəjgət* *big Koryak men* is like an afterthought, but also disambiguation; it is established that the boy is going to the Koryak camp, but only implied that he arrived. Overt mention of the Koryak men makes it clear that he really has arrived at the Koryak camp.

Very low newsworthiness arguments indicating conceptually unitary events are frequently incorporated (e.g. *qoranmat-* *slaughter reindeer* and *tətlənnəmat* *close door*; see example 017d and §12.1).

The following episode (017a-e) illustrates the use of overt nominals for new topics. Sentence 017a introduces a new topic *məŋeɣtəlʔat* *the ritual dancers*:

017a *eryat-ə-k məŋe-ɣt-ə-lʔ-ə-t jet-ɣʔe-t*
dawn-E-SEQ dance-go.to-E-PCPL-E-3plABS come-TH-3pl

The next day the ritual dancers came.

[cy392]

In 017b there are three overt nominals. The sentence initial absolutive noun *rakwəryəjgən* *the big hole* is important information (the protagonist will escape through this magical portal) and a reactivated topic which will occur as verbal cross reference in 017c. The other nominals (*nilye* *with a cord* and *kəmyətə* *walrus meat parcels*) represent non-continuing elements explaining what the hole was like. The agents of the verb (the ritual dancers from 017a) are zero-pronominals:

017b *rak-wəry-ə-jə-ə-n / nily-e əŋjin ɣə-nəmyətəw-lən*
pierce-NMZR-E-AUG-E-3sgABS cord-INST thus PF-close-3sg
qənūt kəmyət-ə
like walrus.parcel-3plABS

The big hole they closed up thus with a cord, like a walrus meat parcel. [cy393]

The ritual dancers and the big hole have both already been established as topics, and so in 017c-d, where these are the only verbal arguments, there are no overt nominals.

017c *ecyi məŋe-ɣgo-ɣʔa-t / ne-n-went-et-ɣʔe-n*
when dance-INV-TH-3pl INV-CS-open-CS-TH-3sgO

As soon as they began ritual dancing, they opened it [i.e. the hole]. [cy394]

017d *tətl-ə-n-nə-m-at-ɣʔa-t*
door-E-CS-close-CS-TH-3pl

They closed the door

[cy395]

The additional underlying argument *tətl-* *door* is only relevant to the story in that it is used to make the room dark (017e); as a non-continuing, non-topical O it is incorporated by the transitive verb.

017e *wucq-əm-cəku*
dark-??-INESS

It was dark inside.

[cy396]

It is uncommon for a transitive verb to have two overt nominal arguments; usually it will have one or no overt nominals. Examples of transitive verbs with two overt nominal arguments usually occur in narrative description and usually correspond to the beginning of an episode. Example 010d is clearly the beginning of an episode, as it is the beginning of a story. Example 018 is at the beginning of an episode in the middle of a text. The translation of the preceding intonation units (ot034-035) is also given.

[ot034-035]:

*Those neighbour women said, "Your sister was kidnapped by strangers".
"Oh! Could they be telling the truth?", he was really worried. He grew up.*

[ot036]:

018 *ətləɣ-e tej-k-ə-nin əŋjin wa-lʔ-ə-n ott-ə-pojy-ə-qaj*
father-ERG make-E-3sgA.3sgO thus be-NMZR-E-ABS.SG wood-E-spear-E-DIM
ləyen / wʔare-ɣtə naqam
really fork-ALL but

[His] father had made a wooden spear, like this, simply [coming] to a fork.

[ot038]

Sometimes it seems that the appropriate amount of disambiguation is quite low. The storyteller may use the verb's bound pronominals as the sole means of reference to an argument in a context where this is ambiguous. In such situations listeners simply disambiguate by questioning. The following exchange is typical:

019a *ii ləye-təŋ-qonpə ye-tumyew-linet*
yes INTS-INTS-always PF-befriend-3pl
ətri jokwajo ʔinə //
3plABS duck.3sgABS wolf.3sgABS

STORYTELLER — Yes, and the wolf and the duck befriended each other forever.
[jo124]

019b *amən! //*
INTJ

LISTENER 1 — Gosh!

[jo125]

019c *ləyen ewat ir-ə-lʔ-ə-n ɣelwal n-ine-nli-qin //*
really immediately 'dump'-E-NMZR-E-ABS herd.ARS HAB-INV-turn.around-3sgO

STORYTELLER — If the herd took off, he turned it back.

[jo126]

019d *jokwa-ta? //*
duck-ERG

LISTENER 2 — The duck?

[jo127]

019e *ii jokwa-ta //*
yes duck-ERG

STORYTELLER — Yes, the duck.

[jo128]

However, questions from the audience do not necessarily imply that they do not understand what's going on—the Chukchi politeness convention for listening to

stories demands frequent verbal responses from the listeners, and it may be preferable to unnecessarily seek information than to seem uninvolved and uninterested in a story.

Quoted speech tends to have more overt nominals than non-quoted narrative; see §19.4.

19.3.1 Overt Pronouns

Personal pronouns are subject to slightly different pragmatic effects to other nominals. While the unmarked way of indicating pronominal reference in a clause is using the pronominal cross-reference affixes on verbs only, and personal pronouns in their free, nominal form have a special pragmatic prominence, the only pragmatic status indicated by free personal pronouns in core syntactic roles is contrastive focus, as shown in examples 020 and 021 (see also §7.2):

020 ii / ənqen ənən pətqə tənəm ləye
yes 3sgABS 3sgERG more.ADV INTS know.VBase

Yes, she knows even more than I do.

[kr092]

The following fragment of quoted speech is uttered in a folktale when a group of travellers discover an encampment in which everybody except one boy has been murdered. The boy has just explained that they were all killed by a spirit. He had heard it approaching, and had warned his fellows to be quiet, but they ignored him. The travellers don't believe the boy, and cry:

021 yənan təm-ə-tko-nat! qərəm kelə n-ə-jet-ə-n!
2sg.ERG kill-E-ITER-3plO NEG.FUT spirit.3sgABS 3sg.INT-E.come-E-3sg

"You killed them! No spirit came!"

[ke057]

The form of the verb already indicates a 2sgA; the full pronoun has a contrastive pragmatic function.

The other pragmatic function of free nominals is to indicate a new or reactivated topic or important information. This function cannot be conveyed by a free personal pronoun, since pronouns only indicate cross-reference to an already established referent, and these pragmatic functions are used to introduce (or reintroduce) referents which are either hitherto unknown or otherwise non-retrievable from context.

In many non-verbal constructions there is no other way of showing reference than by using overt nominals. In the following example a passive participle *rəmajgawjo* brought up has an instrumental pronoun indicating the agents of the underlying transitive verb stem.

022 wanewan rə-majg-aw-jo cit əccənan / neməqe /
NEG.NFUT CS-big-CS-PASS.PCPL.3sgABS first 3pl.INST also

macaw-ma a-tl'a-ka n'el-y'i
fight-SIM NEG-mother-NEG become-TH

No, [she was] brought up by them to begin with... also, she'd become motherless during a war

[kr154]

19.3.2 Discontinuous nominals

Occasionally a phrasal nominal straddles the verb. These discontinuous nominal phrases only occur in S and O functions (see examples 023 and 024), but it is not clear that they truly represent discontinuous constituents (i.e. whether they are discontinuous noun phrases rather than repeated coreferent nominals). The preverbal part of the nominal is usually a pronominal representing something highly discourse salient which has previously been in the background of the discourse, and the postverbal part of the nominal is simply a reminder of what should be considered shared knowledge or an afterthought:

SVS word order

023 qol=ʔm ra-ytə-y'e / ənqen ninqej
QUANT.3sgABS=EMPH house-go.to-TH DEM.3sgABS boy.3sgABS

The other also went home, that boy.

[ot120]

OVO word order

024 ee qərən / ʔetki waj menin jəto-y'a-n qol
INTJ NEG.FUT bad DEICT someone.ABS bear-TH-3sgO one.ABS

cakəyet yəmn-in
sister.ABS 1sg.POSS.3sgABS

Oh no, it's bad, she bore someone else, a sister for me

[ot025]

The preverbal part of the nominal is usually a quantifier or demonstrative, with the usual discourse functions of a sentence initial nominal; in 023 it has contrastive function, reactivating a previous topic, and in 024 it represents highly important information (the boy's realisation that he had a sister who had been kidnapped long ago, the emotional crux of the story). The identity of the pronouns in both these examples is probably retrievable/shared knowledge, but their relative importance is such that the storyteller has repeated it; as non-newsworthy background information it is ordered at the end of the sentence.

A false start may result in a discontinuous series of coreferent nominals. This is apparently the case in example 025 (note also all the hesitations):

025 taŋ-əməlʔo ləyen / amgərʔoot-qora-ta /
EMPH-all.3sgABS really eight-reindeer-ERG
taŋ-əməlʔ-etə jaale-ytə / ye-n-ekwet-ew-lin nalwəlʔ-ə-jə-ə-n
EMPH-all-ADV back-ALL PF-CS-go.back-TH-3sg herd-E-AUG-E-3sgABS

They [were] all simply... the eight reindeer... completely turned back the big herd.

[ot098]

19.4 Quoted speech

A folktale narrative is not centrally concerned with the narrator and audience; in folktales most instances of first and second person reference are in the context of quoted speech, i.e. they refer to fictional speech-act participants. The real speech act participants make an appearance only in asides. In a personal reminiscence there is more reason for reference to first person arguments, since the subject matter is concerned with the speaker's experiences. However, as will be shown, the presence of the speaker is not usually reflected in personal reminiscences by free pronouns. It is likely that the reason for this is the same as the reason for the paucity of free pronouns in face-to-face conversation — the physical presence of the person and the pronominal cross-reference of the verb is enough redundancy without needing free pronouns as well.

The discourse function of quoted speech disrupts the usual rules of narrative structure. In a basic narrative, in which a speaker imparts information to a listener, there is an assumption of a certain relationship of shared/presupposed information versus unpredictable knowledge between the speech act participants. With quoted speech there is a further layer of meta-discourse in which a fictional speaker is communicating with a fictional listener. This stylistic device provokes a number of discourse features different from usual narrative; in particular, ellipsis in quoted speech is much rarer. When quoting an imaginary conversation it is more often necessary to establish referents overtly, since the imaginary discourse context does not make clear which referents are retrievable. Because of the lower contextual involvement that the listener has in a imaginary discourse the presuppositions reasonable to assume of the real speech act participant can conflict with those of the imaginary speech act participant.

19.5 Two episodes

The following two episodes are selected as illustrative material because they deal with the same sequence of events from two versions of the same story. The story follows the adventures of an orphaned boy who rescues his kidnapped sister and takes revenge on her kidnappers. This episode is an emotional high point of the story; it contains the first contact between the boy and his sister since his babyhood. The sister is in the house with her father-in-law, and the boy calls her forth by making a distinctive bird call that contains his sister's name (Jare).

SAMPLE 1—Ottəpojəqaj³

026a ʔəpənacy-ə-qaj kətləyi qol jara-k n-ə-twa-qen
 old.man-E-DIM.3sgABS it.happened one.3sgABS house-LOC HAB-E-be-3sg
 It turned out there was an old man [who] was in the house. [ot127]

³ The storyteller is an elderly woman; the audience consists of two adult native speakers who she has been telling stories to since childhood and me. The story is new to one of the native speaker listeners.

The overt noun ʔəpənacyəqaj *old man* in 026a is focussed because it is new information and a new topic (further specified/discussed in 026b-c).

026b Jare-n uweqəc-in ətlay-ə-n
 Jare-POSS husband-POSS father-E-3sgABS
 Jare's husband's father. [ot128]

026c waj / cʔenut ʔənqen?
 DEICT what?ABS that.3sgABS
 Now what [was he called...]? [ot129]

In sentence 026d the previous topic is abandoned, and the topic (indicated solely by verbal cross-reference) reverts to the main topic of the story, the boy. The oblique nominals ʔiyənəlyəcəku *inside the wolf skin* and omkəcəkoytə *into the middle of the bushes* provide the spatial orientation of the events (the jare u:u:uk interjections are made to sound like the cry of an animal).

026d ʔiy-ə-nely-ə-cəku ɣʔel-γʔi neme qət-γʔi omk-ə-cəko-ytə
 wolf-E-skin-E-INNESS become-TH again set.off-TH bush-E-INNESS-ALL
 ɣaanre / ʔənqorə n-ʔejqe-qin / n-iw-qin "jare u:u:uk /
 thither thence HAB-cry-3sg HAB-say-3sg INTJ INTJ
 jare u:u:uk"
 INTJ INTJ
 He climbed inside the wolf skin, again set off, into the bushes thither, from there he cried out, he said "jare u-u-k jare u-u-k" [ot130]

In 026e the subject of the intransitive verb niwqin *he says* is given, along with repetition of the verb, as a disambiguation. In the quoted speech the personal name of the addressee is used to make clear who the speech act participants are supposed to be.

026e n-iw-qin ʔəpənacy-ə-n n-iw-qin "okkojl Jare
 HAB-say-3sg old.man-E-3sgABS HAB-say-3sg INTJ personal.name.3sgABS
 cʔenut ʔejqe-rkən?! ʔənqen ɛtaana palqat-ə-ɣgo-γʔe?"
 what?3sgABS cry-PROG DEM.3sgABS probably die-E-INCH-TH
 He said, the old man said "Oh! Jare, what's crying out?! Probably something has started starving..." [ot131]

Sentence 026f is also quoted speech, the response to that in 026e. The identity of the speaker is apparently clear enough from context.

026f "ce waj ɣəməy-nute-kin jokwa-qaj ɛtaana"
 INTJ DEICT 1sg-land-REL.3sgABS elder.duck-DIM probably
 "Oh, it's probably a little elder duck from my [home]land" [she said] [ot132]

The storyteller begins 026g assuming that the person just quoted is topical, and the actions described will be understood to be by her. However, the identity of the topic is reiterated sentence-finally in case disambiguation is necessary.

- 026g *anə* *waj* *ləyən* *qənwer* *omk-ə-cəko-ytə* *ekwet-γʔi*
 so DEICT really finally bush-E-INESS-ALL go-TH
tiwəcy-ə-qej *n-ine-nr-ə-qin* *ənqen* *Jare-na*
 snow.beater-DIM.3sgABS HAG-TR-hold-E-3sgO that.3sgABS Jare-ERG
Well then, simply, finally she went into the bushes holding a little snow-beater,
that Jare. [ot133]

In sentence 026h the topic again switches back to 'the boy'. In this quoted exclamation the fact that the boy is speaking, not the sister, is made further apparent by the use of the (lexical) vocative *cakej!* *O sister!*

- 026h *"waj* *cakej!* *γotqena-jyəmi* *ənqe* *ena-jʔo-ka*
 hey sister! here-1sg.ABS NEG.HORT AP-approach-NEG
q-ə-ra-yt-ə-γʔe!
 INT-E-home-go.to-E-TH
"Hey sister! I'm here! Don't approach, go home!" [said the disguised younger
brother] [ot134]

SAMPLE 2—Jokwajo⁴

This version of the story has the boy shape-shifting into a duck as well as a wolf. He flies to the Koryak encampment.

- 027a *ənəkʔam* *wakʔo-γʔe*
 and land-TH
STORYTELLER — And there he landed. [jo077]
- 027b *γəty-ə-kʔ*
 lake-E-LOC
LISTENER — On the lake? [jo078]

Sentences 027c-d have zero-place intransitive verbs.

- 027c *ej* *ewən* *ləyən* *ye-nki-rʔu-lin*
 yes INTS really PF-night-INCH-3sg
STORYTELLER — Yes. And it had just become dark. [jo079]
- 027d *γənməjep* *γ-ajwecy-ə-rʔo-len*
 some.time.ago PF-evening-E-INCH-3sg
Evening was some time ago. [jo080]

In 027e the sister appears 'in person' in the discourse for the first time.

- 027e *ənqen=ʔm* *Jareγγə* *cakəyet*
 DEICT.3sgABS=EMPH personal.name.3sgABS sister.3sgABS
There was that sister - Jareγγə [jo081]
- 027f *eləmpje?*
 further?
LISTENER — What next? [jo082]

⁴ The storyteller and the audience (apart from me) are elderly contemporaries taking turns telling stories. This story is apparently familiar to all of them. Note that in this version of the story the sister has a slightly different name than in the previous (Jareγγə, not Jare)

Sentence 027g assumes that the topic is still the boy/duck. This may be because, like in sentence 026d in the other version of this story, the boy is the assumed topic throughout, or it may be that the audience interaction in 027f prompts the storyteller to speed up, since the details are familiar.

- 027g *jare* *jare* *yu:u:uk!* /
 INTJ INTJ INTJ
elk-ənpənacy-ə-qaj *ləyən* *teγ-ilk-ə-lʔ-ə-n*
 blind-old.man-E-DIM.3sgABS really INTS-blind-E-NMZR-E-3sgABS
STORYTELLER — "Jare-jare yu-u-uk!" [cried the duck]. There was a blind old
man, completely blind. [jo083]

In the second part of 027g the blind old man is also introduced for the first time (*jare jare yu:u:uk* is an imitation of an animal noise). Thus, at this point 'the boy' is the main topic, and 'the sister' and 'the blind old man' are also established as possible topics. Sentence 027h is quoted speech spoken by the blind old man. His identity is suggested since he is established as a topic in the previous clause, but pragmatically 'the boy' is always available as a topic too, so the speaker's identity can only be discerned from the discourse internal evidence of what he actually says.

- 027h *ee* *rʔenute-t* *ejwel-qej-ti* *nute-k* *n-ena-pela-tore:e?*
 INTJ what?-3plABS orphan-DIM-3plABS land-LOC HAB-TR-leave-2pl
ənqen=ʔm *rʔa-γatle* *ʔajga-γγo-ʔe?*
 DEM.3sgABS=EMPH what?-bird.3sgABS cry-INCH-TH
"Oh, what orphans have you left in the tundra? What kind of bird is that
crying?" [jo084]
- 027i *olomej!*
 INTJ
LISTENER — My goodness! [jo085]

The NP *ənqen cakəyet that sister* in 027j has an ellipsed verb of speaking, followed by a pause and then a quote of what she said. The speaker has been comfortable not overtly specifying many of the speakers in his direct quotes; here the identity of the speaker is perhaps given for disambiguation, since it could be getting difficult to track the three participants.

- 027j *anə* *ənqen=ʔm* *cakəyet* / *γəm=ʔm* *γan*
 so DEM.3sgABS=EMPH sister.3sgABS 1sgABS=EMPH DEICT
Jareγγə-jyəm *γutin-nute-k* *t-ə-nʔel-ə-k*
 personal.name-1sgABS this-land-LOC 1sg-E-become-E-1sg
STORYTELLER — Well that sister [said]: "I Jareγγə came to be in this land"
[jo086]

Note that the nominals *γutin-nutek in this land* (027j) and *γəməynutekin from my land* (027k) have incorporated rather than phrasal modifiers since they are not the heads of NPs (the former because it is non-absolutive, and the latter because the complex nominal is itself a modifier within an NP).

027k ank'am yamn-inc-t ewən yəməy-nute-kin yalya-t
and 1sg-POSS-3plABS INTS 1sg-land-REL.3sgABS bird-3plABS

əŋgin n-ʔejje-qinet
thus HAB-cry-3pl

'And my.... and birds from my homeland cry like that'

[jo087]

027l ləyen ʔomr-ə-təjew-a n-ine-ly-ə-qin əlleŋi
really strong-E-send.off-VBase HAB-TR-AUX-Ḳ-3sg younger.brother.3sgABS

She firmly [sent off?] the little brother.

[jo088]

027m əŋqen "yəm=ʔm ʔan Jareŋŋa-ŋyəm"
DEM.3sgABS 1sgABS=EMPH DEICT personal.name-1sgABS

So, 'It's me, Jareŋŋa'

[jo089]

Appendix: Text

The following story was told by ʔEjgewewət, an elderly Telqep Chukchi woman of Tawajwaam village, in October 1995. She learnt the story in her childhood from her own grandmother.

001 cawcəwa-t=ʔm ewət ʔocʔ-ə-qay-te enaralʔ-ə-t
rich.herder-3plABS=EMPH likewise poor-E-DIM-3plABS neighbour-E-3plABS

[There were] rich and poor neighbours.

[ot001]

002 cakəyet=ʔm atlenju-qej n-ə-ppəlu-qin
sister=EMPH younger.brother-DIM.3sgABS ADJ-E-small-3sg

[There was] a sister and a small younger brother.

[ot002]

003 naqam ʔocʔ-ə-qay-te ənpənacy-ə-qay-te ətlʔa-t
but poor-E-DIM-3plABS old.man-E-DIM-3plABS mother-3plABS

But the old people were poor, the parents.

[ot003]

004 ʔe-rʔe-lin ʔ-uget-lin əŋqen cal.əyet
PF-do.something-3sg PF-collect.firewood-3sg DEM.3sg girl.3sgABS
ənpənacy-ə-qaj-ə-ry-en / mik-ə-n-ti ətlon?
old.man-DIM-E-PL-POSS.3sg who?-E-TH-3plABS INTER

*The sister was doing something, going for firewood; the old people's (girl).
[aside] What were they called?*

[ot004]

001a cawcəwa-ken ewət enaralʔ-ə-t ʔinqey-ti /
rich.herder-REL.3sgABS so neighbour-E-3plABS child-3plABS
n-ə-twa-qenat əmə
HAB-E-be-3pl also

The rich herder-neighbours had children too.

[ot004a]

005 ʔewəcəqet ʔ-uget-lin / ənraq=ʔm ʔeqe-lʔ-e
girl.3sgABS PF-collect.firewood-3sg then=EMPH bad-NMZR-ERG

req-e ʔe-piri-lin tanŋ-e qənut
INDEF.PRON-ERG PF-take-3sg stranger-ERG like

waj-əŋqena-t Wareŋ-ə-lʔ-ə-t
DEICT-DEM-3plABS place.name-E-NMZR-E-3plABS

*The girl was going for firewood, and there she was kidnapped ('taken') by
someone, evil-doers, by strangers/enemies, like those who live in Vaegi. [ot005]*

- 006 **ənqen-ə-cək remk-e ye-piri-lin / uget-l7-ə-n**
that-E-ANPl.ERG folk-ERG PF-take-3sgO collect.firewood-NMZR-E-3sgABS
ya-n-ra-yt-at-len
PF-CS-house-go.to-CS-3sgO
Those folk kidnapped the firewood-collector and took her home. [ot006]
- 007 **enmen ənqen Jare / ənpənacy-ə-qaj-ə-ry-en** **geekək**
anyway this.3sgABS Jare.3sgABS old.person-E-DIM-E-3pl-POSS.3sgABS daughter
Anyway, this was Jare, the old people's daughter. [ot007]
- 008 **ya-jalyat-lenat ənp-ə-gew-qey-ti ənpənacy-ə-qay-te əmə**
PF-nomadize-3plS old-E-woman-DIM-3plABS old.man-E-DIM-3plABS too
ginqej-qej
boy-DIM.3sgABS
The old women, the old men and the little boy continued nomadizing. [ot008]
- 009 **rewiw-kə=ʔm / erylət-ə-k ginqej-qej ənqen**
make.camp-SEQ=EMPH dawn-E-SEQ boy-DIM.3sgABS DEM.3sgABS
enaralʔ-ə-gawəcəqat-etə / n-ə-lewlicet-qin n-ə-rʔe-qin
neighbour-E-girl-ALL HAB-E-tease-3sg HAB-E-do.something-3sg
The next day after they made camp that little boy teased one of the neighbouring girls, did something or other. [ot009]
- 010 **enaralʔ-ə-gawəcəqat-a iw-nin "ilu-ke q-ə-twa-qaat-ə-rkən**
neighbour-E-woman-ERG say-3sgA.3sgO shake-NEG INT-E-be-DIM-E-PROG
anə! ənqen yənin plewat / cakəyet ɣən
so DEM.3sgABS 2sg-POSS.3sgABS ?? sister.3sgABS DEICT
taŋ-a ne-piri-ʔe-n
stranger-ERG 3A-take-TH-3sgO
The neighbour girl said to him, "Don't do it you little so-and-so; you've a sister who the strangers kidnapped!". [ot010]
- 011 **ra-yt-ə-ʔe ye-pənnəw-lin**
house-go.to-TH PF-be.despondent-3sg
He went home, he had become despondent [ot011]
- 012 **"əmmemejl"**
mummy!
"Mummy!" [ot012]
- 013 **"aa?"**
INTJ
"Hm?" [ot013]
- 014 **"yəmo amənan yənan ena-yto-ʔe?"**
1sgABS only 2sgERG INV-pull.out-TH
"Did you bear only me?" [i.e. "Am I your only child?"] [ot014]
- 015 **"ii ləyen taŋ-amyanan"**
yes really INTJ-only.2sg
"Yes, you're the only one". [ot015]

- 016 **"wəne waj qejwe qol meŋin ya-yto-len?"**
INTJ DEICT truly one.3sgABS someone.3sgABS PF-give.birth.to-3sg
"wanewan ujge
NEG.NFUT NEG.EXI
"Is that really true, you bore noone else?"
"No, there's noone..." [ot016]
- 017 **amənan ye-wʔi-lin ənqen cakəyet yən-in**
only PERF-dis-3sg that.3sgABS sister.3sgABS 2sg-POSS.3sgABS
Only one that died, that sister of yours. [ot017]
- 018 **n-ə-ne-temjuq-qin ənqen ginqej-qej**
HAB-INV-lie.to-3sg DEM.3sgABS boy-DIM.3sgABS
She is lying to that boy. [ot018]
- 019 **n-iw-qin "wəne wanewan! qəram waj! cakəyet**
HAB-say-3sg INTJ NEG.NFUT NEG.FUT DEICT sister.3sgABS
yəmn-in ʔemi-tlon?"
1sg-POSS.3sgABS where?=INTER
He said, "Oh no! No! Where is my sister?" [ot019]
- 020 **anə qonpə nota-jpə n-ə-lejw-ə-qeet-qin ənqen ginqej-qej**
so always land-ABL HAB-E-wander-E-DIM-3sg that.3sgABS boy-DIM.3sgABS
qənwet ləyen mejget-ʔi
finally really be.big-TH
Well that little boy was always roaming the land, finally he grew up. [ot020]
- 021 **ətləy-ə-n iw-nin / "atejl yəmn-in**
father-E-ABS say-3sgA.3sgO Dad.VOC 1sg-POSS.3sgABS
poŋy-ə-qaj q-ə-tejk-ə-ʔ-ə-n
spear-E-DIM.3sgABS INT-E-make-E-TH-E-3sgO
He said to his father, "Daddy! Make me a little spear". [ot021]
- 022 **"eej"**
yes
"Yes". [ot022]
- 023 **"anə e-lejw-ə-tku-lʔet-ke" ətlʔa-ta n-in-iw-qin**
so NEG-roam-E-ITER-DUR-NEG mother-ERG HAB-TR-say-3sg
"anə e-lejw-ə-tku-lʔet-ke::
so NEG-roam-E-ITER-DUR-NEG
"Don't wander off all the time", his mother said to him, "Don't wander off..." [ot023]
- 024 **ənqen taŋ-a ne-re-piri-yət neməqej**
this stranger-ERG INV-FUT-take-2sgO also
Those enemies will kidnap you too. [ot024]
- 025 **"ee qəram / ʔetki waj meŋin jəto-ʔa-n qol**
INTJ NEG.FUT bad DEICT someone.3sgABS bear-PF-3sg one.3sgABS
sakəyet yəmn-in
sister.3sgABS 1sg-POSS.3sgABS
"Oh no, it's bad, she bore someone else, a sister for me". [ot025]

- 026 qənwet ko:l:o anə ɟinqeɟ ənqen
finally INTJ so boy.3sgABS DEM.3sgABS
leɟw-ə-lʔet-ə-rkən taɟ-qonpə ləɟen
walk-E-DUR-E-PROG INTS-always really
Finally, ooh! but that boy is always wandering. [ot026]
- 027 qənwer ʔinə piri-nin
finally wolf.3sgABS lake-3sgA.3sgO
Finally, he caught a wolf. [ot027]
- 028 təm-nen ləɟen / ənkə taɟ-am-[ɟotqen] təm-nen
kill-3sgA.3sgO really there EMPH-REST-[that] kill-3sgA.3sgO
He killed it, right there... [?] , he killed it. [ot028]
- 029 r-ə-ra-ɣt-an-nen ʔinə
CS-E-house-go.to-CS-3sgA.3sgO wolf.3sgABS
He brought the wolf home. [ot029]
- 030 iw-nin otla "əmmemeɟ!
say-3sgA.3sgO mother.3sgABS mummy
He said to his mother "Mummy!..." [ot030]
- 031 taɟ-əməlʔ-etə q-ə-nwenɟ-ə-ɣ-ə-n ənqen / weɣ-ə-t
EMPH-all-ADV INT-E-skin-E-TH-E-3sgO DEM claw-E-PL
ənkə q-ə-nt-ə-ɣ-ə-net ɟely-ə-k"
DEM IMP-E-AUX-E-TH-E-3plO hide-E-LOC
Skin/butcher this all, but leave the claws attached to the hide". [ot031]
- 032 ɟanqen neme ekwet-ɣʔi ləɟen n-ə-leɟw-ə-lʔet-qin meɟqo
there.3sgABS again set.off-TH really HAB-E-walk-E-DUR-3sg why?
Once again he went off there, wandered off for some reason. [ot032]
- 033 miɟkə taɟ-ə-t n-ə-twa-qenat n-iw-qin
somewhere stranger-E-3plABS HAB-E-be-3plS HAB-say-3sgS
"jureq m-ə-lʔu-ʔe-n miɟkə"
maybe 1sgA.INT-E-see-TH-3sgO somewhere
[He went off to] Where the strangers lived, he said, "Maybe I'll find her somewhere". [ot033]
- 034 ɟewəcɟet-ti waj enaralʔ-ə-t n-iw-qine-t "ɣən-in
woman-PL DEM neighbour-E-PL HAB-say-3pl 2sg-POSS.3sgABS
cakəɣet taɟ-a ɣe-piri-lin"
sister.ABS stranger-ERG PF-lake-3sg
Those neighbour women say, "Your sister was kidnapped by strangers". [ot034]
- 035 kə:kel ipe ʔən-iw-ʔe-n ənɟatal wec-ə-rʔə-ɣəɣ-ə-ɟɟ-ə-n
INTJ truly NE.INT-say-TH-3sgO after.all worry-E-COLL-NMZR-E-AUG-E-ABS
/ qənwer meɟɟet-ɣʔi
after.all become.big-TH
Oh! Could they be telling the truth? — after all he had grown up, he was really worried. [ot035]

- 036 ətləɣ-e teɟk-ə-nin ənɟin wa-lʔ-ə-n ott-ə-poɟə-qaj
father-ERG make-E-3sgA.3sgO thus be-NMZR-E-ABS.SG wood-E-spear-E-DIM
ləɟen / wʔare-ɣtə naqam
really fork-ALL but
[His] father had made a wooden spear, like this, simply [coming] to a fork. [ot036]
- 037 poɟə-ott-ə-ly-ə-qaj ləɟen n-ə-ciwm-ə-qine-qej
spear-wood-E-END-E-DIM.3sgABS really ADJ-E-short-ɣ jsg-DIM
The spearshaft was really a short little one. [ot037]
- 038 ɟaryən ʔəlm-ə-tkən-ə-k rəm-nen ənkə
outside heaped.snow-E-TOP-E-LOC stick-3sgA.3sgO there
Outside he stuck it into the top of some heaped snow. [ot038]
- 039 n-ilu-lʔet-qin loɟ-kəɟajət-ə-lʔ-ə-n ləɟen poɟə-ə-qaj
HAB-shake-INTENS-3sg NEG.wind.blow-E-NMZR-E-3sgABS really spear-E-DIM.3sgABS
n-ə-req-ə-lʔet-qin
HAB-E.do.something-E-INTS-3sg
It was shaking, there was no wind but the little spear was doing this. [ot039]
- 040 neme pəkir-ɣʔi
again approach-TH
Again he approached. [ot040]
- 041 "anou ɟinqeɟ!" / ətlʔa-ta n-in-iw-qin "anou ɟinqeɟ!
INTJ boy.3sgABS mother-ERG HAB-TR-say-3sg INTJ boy.3sgABS
q-ə-paa-ɣe leɟw-ə-lʔet-ə-k!
INT-E-finish-TH wander-E-DUR-E-INF
"Hey boy!", mother says to him, "Hey boy, stop wandering!". [ot041]
- 042 əmmemeɟ! ʔemi ɟely-ə-n?
Mummy.VOC! where hide-E-3sgABS
"Mummy, where's the hide?". [ot042]
- 043 waj-ənqen waj
DEICT-DEM.3sgABS DEICT
"Here [there] it is." [ot043]
- 044 "lɣət ənɟe ekwet-ke
now NEG.HOCT go.out-NEG
"Now don't go out." [ot044]
- 045 qəram m-ekwet-ɣʔe-k t-ə-re-ɟəlqet-ɣʔi
NEG.FUT 1sg.INT-go.out-TH-1sg 1sg-E-FUT-sleep-TH
"I'm not going out, I'm going to sleep." [ot045]
- 046 ləɟen ɟəlqet-ɣʔe-t ətlʔa-t
really sleep-TH-3pl mother-3pl
The parents went to sleep [ot046]
- 047 ənɟaq ʔiy-nely-ə-n ɟəm-nen / ɟanqen ɟan ekwet-ɣʔi
then wolf-hide-E-3sgABS don-3sgA.3sgO yonder DEICT set.off-TH
Now he put on the wolf hide, went off yonder. [ot047]

- 048 ana genku tang-en galwəlʔ-a-jg-a-n naqam
so there stranger-POSS.3sg herd-E-AUG-E-3sgABS and
jara-mk-a-jg-a-n kol:ə jara-jg-a-t
house-COLL-E-AUG-E-3sgABS INTS house-AUG-E-3plABS
And there is the strangers' big herd, and a group of big houses, very big houses. [ot048]
- 049 ləy-ʔorawetlʔa-tang-a-t qarəmena-t ərucilʔ-a-t
AUTH-person-stranger-E-3plABS NEG.ID-3plABS Russian-NMZR-E-3plABS
[They were] ordinary stranger people [i.e. Koryaks], not Russians. [ot049]
- 050 ənqena-t raj Wareeg-tang-a-gaw-a-t
DEM-3plABS DEICT place.name-stranger-E-female-E-3plABS
k:yen teg-ʔetki-jg-a-t
really INTS-bad-AUG-E-3plABS
Those there stranger women from Vaegi are very, very bad. [ot050]
- 051 Jare cakəyet=ʔm genku ɣ-ʔeliket-lin
personal.name.3sgABS sister.3sgABS=EMPH there PF-marry-3sg
Jare, the sister, had got married there. [ot051]
- 052 ɣelwəl kəceciw-a-nin ləyen ten-ləmənkəri ɣanqen
herd.3sgABS follow-E-3sgA.3sgO really INTS-around.about DEM.3sgABS
ɣan n-a-lyi-lqeynew-qin ʔiy-a-qej ənqen ʔorawetlʔa-n
DEICT HAB-E-INTS-shoot-3sg wolf-E-DIM.3sgABS DEM.3sgABS person-3sgABS
He simply followed the herd, from all sides far off, they shot at that little wolf, that [one who was actually a] person. [ot052]
- 053-054 ana ɣelwəl n-ine-rkəceciw-a-qin qut-ti
so herd.3sgABS HAB-TR-chase-E-3sg other-3plABS
n-ine-piri-cqəcet-qinet ʔəlʔəl-a-k n-ine-np-a-qinet ʔəlʔəl-a-k
HAB-TR-take-PUNCT-3pl snow-E-LOC HAB-TR-knock-E-3pl snow-E-LOC
rənn-a-t ənkə ləyen n-a-kaməyra-rʔə-qenat
hom-E-3plABS there really HAB-E-struggled-COLL-3pl
Well he chased the herd, quickly took some, knocked [their] horns down onto the snow, there they simply struggled/kicked. [ot053-54]
- 055 ana n-a-rkəceciw-a-qin n-a-rkəceciw-qin uɟe ləyen camʔam
well HAB-E-chase-E-3sg HAB-E-chase-3sg NEG.EXI really unable.MOD
Well he chased and chased, but they simply couldn't manage [to catch him]. [ot055]
- 056 "okkoj mejl / ləyi-req-ʔinə ənɣatal taɣ-wenʔəm
EXCL EXCL INTS-what?-wolf of.course INTS-INTS
ənan a-ələm-kə-lʔ-en naqam rapətkew-kə
FUT NEG-listen-NEG-NMZR-3sgABS but hit.target-INF
"Oh, what kind of wolf is this? It's too much! But what a disobedient [lit. not-listening] target!" [ot056]

- 057 ləyen kajaw-a-myo-ɣʔa-t ətiʔa-t ra-ɣt-a-ɣʔe /
really wake.up-E-INCH-TH-3pl parent-3plABS house-go.to-E-TH
ʔiy-a-ɣely-a-n jən-nen wenw-atcʔat-ɣʔe
wolf-E-hide-E-3sgABS take.off-3sgA.3sgO secretly-go.to.bed-TH
When the parents were starting to wake up he went home, took off the wolf skin, secretly went to bed. [ot057]
- 058 caɟ-o-ɣɣo-k ne-nəɣjew-ʔe-n mal-ʔataw
tea-CONSUME-INCH-SEQ INV-wake-TH-3sgO APPR-it.happens
lyət-qej atcʔat-ɣʔe
now-DIM.3sgABS sleep-TH
After starting to drink tea they woke him, several times, he'd only just gone to sleep. [ot058]
- 059 "okkoj! eme meɣqora ye-jet-qeet-iyət?"
INTJ again whence PF-come-DIM-2sg
"Oh! Where have you come from this time?" [ot059]
- 060 "wanewan miɣkəri m-a-lqət-a-k ɣutku n-a-jəlqet-iyəm"
NEG.NFUT anywhere 1sg.INT-E-set.off-E-1sg here HAB-E-sleep-1sg
"No, I didn't go anywhere, I was here sleeping." [ot060]
- 061 nenie ənɣin ʔəloget-ɣʔe jara-k [ʔ] n-uurkilet-qin
again thus spend.day-TH house-LOC HAB-collect.firewood-3sg
n-orw-a-ko-lʔat-qen n-en-ott-a-n-natw-ew-a-qenat
HAB-sled-E-USE-DUR-3sg HAB-TR-wood-E-CS-carry.home-TH-E-3pl
ətlʔa-qay-te ənpənacɣ-a-qay-te
mother-DIM-3plABS old.man-E-DIM-3plABS
Again he spent such a day at home, collecting firewood, sledding, carrying the firewood in for his dear elderly parents. [ot061]
- 062 neme ləyen wulqətwik neme ləyen atcʔat-ɣʔa-t ətlʔa-t
also really become.evening again really go.to.bed-TH-3pl mother-3plABS
ewat ətlon neməqej ewat atcʔat-ɣʔe
likewise 3sgABS also likewise go.to.bed-TH
Again evening fell, again his parents went to bed, and he too went to bed. [ot062]
- 063 qeləq=ʔm lʔu-ninet genku tang-a-warat
because=EMPH see-3sgA.3plO there stranger-E-tribe.3sgABS
jara-mk-a-jg-a-t
house-COLL-E-AUG-E-3plABS
Because he saw there the stranger-folk, the group of big houses. [ot063]
- 064 ana ənraq ɣenrila cejw-e ənqen
so then thither walk-ADV DEM.3sgABS
ott-a-pojɣ-a-qaj rənɣ-a-nin
wood-E-spear-E-DIM.3sgABS take-E-3sgA.3sgO
So then he took the wooden spear [while] walking there. [ot064]
- 065 ɣenrila qət-ɣʔi
thither set.off-TH
He set off to there. [ot065]

- 066 rəm-nin ʔəl-ə-tkən-ə-k pojy-ə-qaj na-jʔo-ʔa-n
stick-3sgA.3sgO snow-E-TOP-E-LOC spear-E-DIM.3sgABS INV-approach-TH-3sgO
ənqen / tanq-ʔorawetlʔa-mk-ə-jg-ə-t
this.3sgABS stranger-person-COLL-E-AUG-E-3plABS
qlawəl-ə-mk-ə-jg-ə-t ləyen
man-E-COLL-E-AUG-E-3plABS really
He stuck his little spear in the snow, they came up to him, a group of big stranger-people [i.e. Koryaks], a group of big men. [ot066]
- 067 "olo kolo mejl n-ə-req-iyət ətlon?"
INTJ INTS INTJ HAB-E-do.what?-2sg EMPH
"Oh-ho! What are you doing?" [ot067]
- 068 "yəmn-in cakəyet Jare n-ena-jʔo-jyəm"
1sg-POSS.3sgABS sister.3sgABS personal.name.3sgABS HAB-TH-go.for-1sg
"I've come for my sister Jare." [ot068]
- 069 "eejl"
yes
"Yes." [ot069]
- 070 "n-ena-yt-eyəm waj t-ə-ra-n-ra-yt-an-ḡ-ə-n"
HAB-TR-go.to-1sg DEICT 1sg-E-FUT-CS-house-go.to-CS-TH-E-3sg
"I've come for her and I'll take her home." [ot070]
- 071 ee qəram wətku / ra-lw-ə-tko-γʔa pojylʔat-ə-k
INTJ NEG.FUT only.then FUT-defeat-E-INV-TH spear.duel-E-INF
wətku ənka ra-n-ra-yt-an-ḡ-ə-n
only.then here FUT-CS-house-go.to-CS-TH-E-3sgO
"No, only once you defeat us in spear duelling, only then will you take her home." [ot071]
- 072 "anə ləyen mən-pojyəlʔan-mək nekem
so really 1pl.INT-spear.duel-1pl same.time
luut q-ena-nm-ə-tək"
suddenly INT-INV-kill-E-2pl
"Well then, let's fight, you can all kill me at the same time." [ot072]
- 073 anə ənqen pojyəlʔat-γʔa-t ən-in pojy-ə-qaj
so DEM.3sgABS spear.duel-TH-3pl 3sg-POSS.3sgABS spear-E-DIM.3sgABS
ləyen utt-ə-qej
really wood-E-DIM.3sgABS
So they started spear fighting, his little spear was simply a little stick. [ot073]
- 074 cama ləyen cəmqək n-ine-pipk-ə-lwi-qinet pojy-ə-qa-a
and really other HAB-TR-ankle-E cut-3plO spear-E-DIM-INST
And he just cut the others' ankles with his little spear. [ot074]
- 075 tanq-ə-t n-iw-qinet "ok anə ʔəh yəmn-in
stranger-E-3plABS HAB-say-3pl INTJ so DEICT 1sg-POSS.3sgABS
plak-ə-ly-ə-n pərantet-γʔi"
shoe-E-SING-E-ABS rip-TH
The strangers said, "Oh, it seems my shoe's ripped" [ot075]

- 076 qut-ti-ʔm ləyen gutkete n-ena-n-takaḡ-at-qena-t
one-3plABS=EMPH really hither HAB-TR-CS-point.at-CS-3pl
pojy-ə-qaj-a lewat n-eccetat-qen
spear-E-DIM-INST head.ABS HAB-fly.off-3sg
And others, he just directed his spear at them, [and] their heads flew off. [ot076]
- 077 "ok anə gan yəmn-in kʔeli pərantet-γʔi" /
INTJ PLC DEICT 1sg-POSS.3sgABS hat.3sgABS rip-TH
ənqə=gan lewat γ-eccetat-len
NEG=DEICT head.3sgABS PF-fly.off-3sg
"Oh, it seems my hat's ripped", but really [their] heads had flown off. [ot077]
- 078 qəram-ewən ləyen əməlʔo n-ena-ponqe-qenat
NEG-INTS really all.ABS HAB-TR-cut.off-3plO
It was hopeless, he cut them all off. [ot078]
- 079 ewət pipik-ə-t n-ine-cci-tku-jw-ə-qinet
so ankle-E-3plABS HAB-TR-cut-ITER-COLL-E-3pl
Likewise he cut all their ankles apart. [ot079]
- 080 utt-ə-tʔul-qej-e
stick-E-PART-DIM-INST
With the little bit of stick. [ot080]
- 081 alwa NE.NADO
NEG don't!
[Interruption:] Don't! Don't! [ot081]
- 082 qənwet ra-yt-ə-ḡḡo-γʔe əntuulpəre-te iw-nin /
finally house-go.to-E-INCH-TH brother.in.law-ERG say-3sgA.3sgO
"eryat-ə-k yən-in ḡelwəl q-ə-ret-γ-ə-n
dawn-E-SEQ 2sg-POSS.3sgABS herd.3sgABS INT-E-bring-TH-E-3sg
Finally he got ready to go home; his brother-in-law said to him "Bring your herd tomorrow." [ot082]
- 083 yəmn-in neməqej ḡelwəl waj gutku yəty-ə-ly-ətə
1sg-POSS.3sgABS also herd.3sgABS DEICT here lake-E-EDGE-ALL
t-ə-ra-nlʔaten-ḡ-ə-n / ḡenku ənqen / mət-ra-pojyəlʔat-ə
1sgA-E-FUT-lead-TH-E-3sgO here this.3sgABS 1plS-FUT-spear.fight-E
əməlʔo-more əngatal ənka mən-ə-nm-ə-γət
all-1plABS of.course there 1pl.INT-E-kill-E-2sgO
I'll also bring my herd here to the edge of the lake; there we'll all fight with spears, and there of course we'll kill you. [ot083]
- 084 ḡelwəl yən-in murəy-ḡelwəlʔ-e
herd.3sgABS 2sg-POSS.3sgABS 1pl-herd-ERG
n-ə-tenti-cqəw-jəw-nin"
INT-E-stamp.down-PURP-INTS-3sgA.3sgO
Our herd will stamp your herd flat." [ot084]

- 085 moo-qora-t annan-matlögen / gireq weq-qora-t /
caravan-reindeer-3plABS one-five two trained-reindeer-3plABS
amgarootken qora-ga anqen
eight reindeer-3sgABS DEM.3sgABS
Six harness reindeer, two lead harness does, eight reindeer in all. [ot085]
- 086 ammemej män-jalyän-mäk gaanrelä / yamy-a-ly-eta gan
mummy.VOC 1pl.INT-move.camp-1pl yonder lake-E-EDGE-ALL DEICT
"Mummy, let's move camp over yonder, to the edge of the lake." [ot086]
- 087 cake-qaj t-a-re-piri-cqiw-g-a-n / gelwāl
sister-DIM.3sgABS 1sg-E-FUT-take-PURP-FUT-E-3sg herd.3sgABS
amä t-a-ra-n-l'at-en-g-a-n"
also 1sg-E-FUT-CS-go-CS-FUT-E-3sg
I'll go to take back [my] sister; I'll lead off a herd too." [ot087]
- 088 "k:olo anqatal anä läye-wec-yäry-eyot"
INTS it.happens so INTS-annoy-NMZQ-1sg.VOC
"Ooh, you're really being annoying" [ot088]
- 089 "anä macänan läyen" jalyät-y'a-t
so enough really nomadize-TH-3pl
"Well let that be as it may". They moved camp. [ot089]
- 090 rewik-w'e-t=?m / taray-nenat=?m
make.camp-TH-3pl=EMPH build.house-3sgA.3plO=EMPH
utt-a-n-eymew-jaw-a-nine=?m
wood-E-CS-approach-INTS-E-3sgA.3plO=EMPH
They made camp, he put up the house for them, brought them firewood. [ot090]
- 091 anqen amgarootken qora-ga moo-qora-t
DEM.3sgABS eight reindeer-3sgABS caravan-reindeer-3plABS
genri aytan-nenat
thence drive-3sgA.3plO
And those eight reindeer, he drove those harness reindeer there [ot091]
- 092 yäty-a-j::g-a-n
lake-E-AUG-E-3sgABS
It was a huuge lake. [ot092]
- 093 galwāl?-a-jg-a-n anqen tang-a-galwāl?-a-jg-a-n ankä
herd-E-AUG-E-3sgABS this.3sgABS strange-E-herd-E-AUG-E-3sgABS here
/ nemeqej yäty-a-lag-ka
also lake-E-EDGE-LOC
That big herd, that big stranger-herd there, [was] also on the edge of the lake. [ot093]
- 094 läyen ankä y-uwintet-a-l'et-linet
really there.ADV PF-make.fire-E-DUR-3pl
So there they made a big cooking fire... [ot094]
- 095 anä janot ya-qora-nm-at-a-l'at-lenat
so first PF-reindeer-kill-TH-E-DUR-3plS
But first they slaughtered lots of reindeer. [ot095]

- 096 Cakwajaqaj-a-n' qora-t amgarootken gelwāl
personal.name-E-3sgABS reindeer-3plABS eight herd.3sgABS
gutku / tang-a-galwāl?-a-jg-a-n
here stranger-E-herd-E-AUG-E-3sgABS
Cakwajaqaj's¹ eight reindeer herd here... and the strangers' big herd. [ot096]
- 097 ecyi qora-nm-at-a-platko-y'a-t anr'a galwāl?-eta an-in
no.sooner reindeer-kill-TH-E-COMPL-TH-3pl then herd-ALL 3sg-POSS.3sgABS
gelwāl?-a-qej r-eymew-nin ewät tang-en
herd-DIM.3sgABS CS-approach-3sgA.3sgO so stranger-POSS.3sgABS
galwāl?-a-jg-a-n
herd-E-AUG-E-3sgABS
As soon as they finished reindeer slaughtering now off to the herd, he drove his little herd, likewise the strangers' big herd. [ot097]
- 098 tag-amäl'o läyen / amgaroot-qora-ta /
EMPH-all.3sgABS really eight-reindeer-ERG
tag-amäl?-eta jaale-yta / ye-n-ekwet-ew-lin galwāl?-a-jg-a-n
EMPH-all-ADV back-ALL PF-CS-go.back-TH-3sg herd-E-AUG-E-3sg
They all simply... the eight reindeer... completely turned back the big herd. [ot098]
- 099 an-in gelwāl?-a-qej jara-gqaca-yta anqen /
3sg-POSS.3sgABS herd-E-DIM.3sgABS house-SIDE-ALL DEM.3sgABS
qanwer piri-nin=?m jara-gqaca-yta aytan-nen
like take-3sgA.3sgO=EMPH house-SIDE-ALL drive-3sgA.3sgO
His little herd just up to the house... finally he took it, and drove it up to the house. [ot099]
- 100 n-iw-?e-n "e q-a-jet-yi ewät / waj /
INV-say-TH-3sg INTJ INT-E-come-TH so DEICT
mat-ra-qame-twa-y'a=m / mat-ra-maraw-y'a"
1pl-FUT-eat-RESULT-TH=EMPH 1pl-FUT-fight-TH
They said to him, "Oh, come in, so now we'll have something to eat, [then] we'll fight". [ot100]
- 101 "eejl aj t-a-re-jet-y'e amanan
yes DEICT 1sg-E-FUT-TH only
gelwāl qeeqanuqej genri m-aytat-a-n"
herd.3sgABS slightly thence 1sg.INT-drive-E-3sg
"Yes, I'll come right away, I've just got to drive the herd a little bit that way" [ot101]
- 102 qora-t amä y-ermeltet-linet
reindeer-3plABS also PF-be.victorious-3pl
[His] reindeer also ended up the strongest. [ot102]

¹ This name is a mistake; it comes from a different story told by the same storyteller.

- 103 anə ənqen janot ləyen qame-twa-γ'a-t=ʔm
so DEM.3sgABS first really eat-RESULT-TH-3pl=EMPH
cakəyet ənkə
sister there
Well so first they just ate, the sister [was] there. [ot103]
- 104 n-in-iw-qin cakəyet "lγət=ʔm waj /
HAB-TR-say-3sg sister.3sgABS now=EMPH EMPH
mət-ra-ra-γt-ə-γ'a ɣirʔe-muri"
1pl-FUT-house-go.to-E-TH two-1plABS
He said to his sister "Now the two of us will go home" [ot104]
- 105 n-in-iw-qin cakett-a "qərəm-ewən q-ə-ra-γt-ə-ye
HAB-TR-say-3sg sister-ERG NEG-INTS INT-E-house-go.to-E-TH
ənqen na-ra-nm-ə-γət
DEM.3sgABS INV-FUT-kill-E-2sg
The sister said to him "You won't be going home, they're going to kill you" [ot105]
- 106 "qərəm ʔən-ə-nm-ə-γəm"
NEG-FUT 3plA.INT-E-kill-E-1sgO
"They won't kill me". [ot106]
- 107 anə ənən-məl-ə-lʔ-ə-n ənqen pojyəlʔat-ə-k
so SUPER-agile-E-NMZR-E-ʔsgABS DEM.3sgABS spear.duel-E-INF
ənqen ənən-ʔəttʔəjöl
DEM.3sgABS SUPER-first
Well the most agile [at] spearfighting, that one was first of all. [ot107]
- 108 anə janot ləyen n-ə-pojyəlʔat-ə-lʔat-qenat / naqam
so first really HAB-E-spear.duel-E-DUR-3pl but
ən-in ənən-məny-a qeluq=ʔm
3sg-POSS.3sgABS one-hand-INST because=EMPH
n-ə-ppəlu-qine-qej pojy-ə-qaj
ADJ-E-small-3-DIM.3sgABS spear-E-DIM.3sgABS
Well first they simply fought with spears, however [he used] his with one hand, because of his little tiny spear. [ot108]
- 109 ləyen ewət n-əna-n-ra-q-aw-ə-myo-qen pojy-ott-a
really so HAB-TR-CAUS-do.something-TH-E-INCH-3sg spear-wood-INST
n-ine-n-req-ew-qin ʔeqe-lʔ-e / req-e tanq-a /
HAB-TR-CAUS-do.something-TH-3sg bad-NMZR-ERG something-ERG stranger-ERG
[nine] n-əna-ponqe-qen pojy-ott-ə-ot
HAB-TR-block-3sg spear-wood-E-REDUP.3sgABS
n-ə-mle-qin pojy-ə-n
HAB-E-break-3sg spear-E-ABS
But whenever he started to do anything to him with the spear, the enemy was doing anything, the stranger whatever, he blocked the spearshaft, the spear broke. [ot109]
- 110 qulle-qej panəna n-ʔatca-qen
QUANT-DIM.3sgABS still HAB-wait-3sg
The other little one was still waiting [ot110]

- 111 qənwer ləyen telyet-γ'i pojy-ə-məl-ə-lʔ-ə-n
finally really puff-TH spear-E-agile-E-NMZR-E-3sgABS
tanq-ə-tan / pirq-ə-γ'i w'i-γ'i
stranger-E-REDUP.3sgABS collapse-E-TH die-TH
Finally the agile-spearling stranger started puffing, he collapsed from exhaustion and died. [ot111]
- 112 c, ləyen qeeqən / ləyen əməlʔə əngin
INTJ really more really all.3ABS thus
And so on, it was all just like that. [ot112]
- 113 taq-əməlʔə mənyətken ʔorawetlʔa-n qlawəl
INTS-all.3ABS ten person-3sgABS man.3sgABS
əməlʔə teg-ə-tku-nin
all.3ABS INTS-E-annihilate-3sgA.3sgO
All ten people, men, he wiped them all out. [ot113]
- 114 ʔamən əntuulpəre=ʔm ənkʔam ənnen ʔoratceq-qaj
INTJ brother.in.law=EMPH and one youth-DIM.3sgABS
rə-ynu-w-ninet ewət cakəyet
CS-stay.behind-CS-3sgA.3plO likewise sister.3sgABS
Well he left the brother-in-law and one youth, likewise the sister. [ot114]
- 115 əməlʔə qut-ti təm-ə-tko-jw-ə-nenat
all.3ABS other-3plABS kill-E-INTER-COLL-E-3sgA.3plO
He killed all the others. [ot115]
- 116 ənɾʔaq ənqen əntuulpəre-n-u / ləy-nin
then that.3sgABS brother.in.law-AN-EQU AUX-3sgA.3sgO
ənqen / rə-yno-w-jo ʔoratceq-qaj
that.3sgABS CS-remain-CS-PASS.PCPL youth-DIM
Now then he took that youth who was left as a brother-in-law. [ot116]
- 117 "mən-ra-γt-ə-mək waj"
1pl.INT-house-go.to-E-1pl DEICT
"Let's go home" [ot117]
- 118 ecyi ra-γt-ə-γgo-γ'a-t=ʔm / qətləyi waj / cəmqək
no.sooner house-go.to-E-INCH-TH-3pl=EMPH however DEICT other.ADV
ɣan miqkə n-ə-twa-qenat ənqen ʔorawetlʔa-t
DEICT somewhere AHB-E-be-3pl DEM.3sgABS person-3plABS
But as they were preparing to go home, those other people turned out to be somewhere else. [ot118]
- 119 jara-γtə ye-lqət-linet ʔorawetlʔa-t=ʔm / n-ʔejgew-ə-n
house-ALL PF-set.off-3pl person-3plABS=EMPH INV-call.out-E-3sgO
ɣewəcəqet ʔoratceq-qaj-ə-n
woman.3sgABS youth-DIM-E-POSS.3sgABS
The people set off home, they called out to the youth's woman. [ot119]
- 120 qol=ʔm ra-γt-ə-γ'e / ənqen ɣinqej
QUANT.3sgABS=EMPH house-go.to-E-TH DEM.3sgABS boy.3sgABS
The other also went home, that boy. [ot120]

- 121 r'enut?
what.3sgABS
What's that... (i.e. how does it go?) [ot121]
- 122 pojy-a-qaj rənr-a-nin ra-yt-a-y'e
spear-E-DIM.3sgABS hold-E-2sgA.3sgO house-go.to-E-TH
He took the little spear, he went home. [ot122]
- 123 n-iw-qin "itək-ewən ləyen cəmqaḱ əməl'o t-a-tku-net" /
HAB-say-3sg so-INTS really remainder all 1sgA-E-annihilate-3plO
jara-k pəkir-a-k
house-LOC arrive-E-SEQ
He said "As it happens I simply wiped out all the rest", [he said] after arriving home. [ot123]
- 124 "anə kəkəl ətlon i'am req-a-l'et-a-rko:n?"
so INTJ INTER INTER do.what?-E-DUR-E-PROG.VOC
"Oh my! Why, what on earth are you doing?!" [ot124]
- 125 anə waj ləyen
so DEICT really
Just like that. [ot125]
- 126 "enmec wə i'ət t-a-re-lqət-y'e"
anyway DEICT now 1sg-E-FUT-set.off-TH
"I'll set off now" [ot126]
- 127 ənpənac-y-a-qaj qətləyi qol jara-k n-a-twa-qen
old.man-E-DIM.3sgABS however QUANT.3sgABS house-LOC HAB-E-be-3sg
There was one old man in the house however. [ot127]
- 128 Jare-n uweqəc-in ətləy-a-n
Jare-POSS.3sgABS husband-POSS.3sgABS father-E-3sgABS
[He was] Jare's husband's father. [ot128]
- 129 waj / c'enut ənqen?
DEICT what?.ABS that.ABS
Now what [was he called...]? [ot129]
- 130 ?iy-a-nely-a-cəku ŋ'el-y'i neme qət-y'i omk-a-cəko-ytə
wolf-E-skin-E-INESS become-TH again set.off-TH bush-E-INESS-ALL
gaanre / ənqorə n-?ejje-qin / n-iw-qin "jare u:u:uk" /
thither thence HAB-cry-3sg HAB-say-3sg INTJ INTJ
jare u:u:uk"
INTJ INTJ
He climbed inside the wolf skin, again set off, into the bushes thither, from there he cried out, he said "jare u-u-k jare u-u-k" [ot130]
- 131 n-iw-qin ənpənac-y-a-n n-iw-qin "okkəjl Jare
HAB-say-3sg old.man-E-3sgABS HAB-say-3sg INTJ personal.name.3sgABS
r'enut ?ejje-rkən?l ənqen etaana palqat-a-ŋgo-y'e?"
what?.3sgABS cry-PROG DEM.3sgABS probably die-E-INCH-TH
He said, the old man said "Oh! Jare, what's crying out?! Probably something has started starving..." [ot131]

- 132 "waj yəməy-nute-kin jokwa-qaj etaana"
DEICT 1sg-land-REL.3sgABS elder.duck-DIM.3sgABS probably
"Well, it's probably a little elder duck from my [home]land" [ot132]
- 133 anə waj ləyen qənwer omk-a-cəko-ytə ekwet-y'i
so DEICT really finally bush-E-INESS-ALL go-TH
tiwəcy-a-qej n-ine-nr-a-qin ənqen Jare-na
snow.beater-E-DIM.3sgABS HAB-TR-hold-E-3sgO that.3sgABS Jare-ERG
Well then, simply, finally she went into the bushes holding a little snow-beater, that Jare. [ot133]
- 134 waj cakejl ɣotqena-jyəm! ənqe ena-j'o-ka
DEICT sister.VOC there-1sgABS NEG.HORT AP-approach-NEG
q-a-ra-yt-a-y'e!
INT-E-house-go.to-TH
Hey sister! I'm here! Don't approach, go home! [ot134]
- 135 anə ŋelwəl ənɾ'aq j'o-nen kəceciw-a-nin ənka
so herd.3sgABS then go.to-3sgA.3sgO follow-E-3sgA.3sgO there
Well he went to the herd, followed it there. [ot135]
- 136 cama ləyen n-ena-yatka-mila-tko-jw-a-qenat
and really HAB-TR-leg-break-ITER-INTS-E-3plO
And simply broke their legs. [ot136]
- 137 ənqen ?orawetl'a-t ejmew-a-l'a-t ləyen
that.3sgABS person-3plABS arrive-E-NMZR-E-3plABS really
n-ine-piri-qinet / yatka-jpə n-ine-piri-qinet / ənqen
HAB-TR-take-3plO leg-ABL HAB-TR-take-3plO that.3sgABS
?iy-a-nely-a-cəku aləmə / yatka-jpə n-ine-piri-qinet /
wolf-E-skin-E-INESS INTJ leg-ABL HAB-TR-take-3plO
n-ena-yatka-mila-qenat jaale-jpə
HAB-TR-leg-break-3plO behind-ABL
Those people coming to the herd, he simply took them by the legs he took them... that is he in the wolf skin... took them by the legs and broke them from behind. [ot137]
- 138 ənpənac-y-a-qaj j'o-nen pely-epə / wey-a-tku-nin
old.man-E-DIM.3sgABS approach-3sgA.3sgO throat-ABL claw-E-UTIL-3sgA.3sgO
təm-nen
kill-3sgA.3sgO
He approached the old man, clawed his throat, killed him. [ot138]
- 139 pənena neme ətr'ec ɣər'o-ryace / ɣiceq rə-ynu-w-ninet
still also all three-COLL two.NUM CS-remain-TH-3sgA.3plO
Once again he only left a trio, two. [ot139]
- 140 "ee mən-ra-yt-a-mək əugatal i'ət"
INTJ 1pl.INT-house-go.to-E-1pl of.course now
"Well let's go home now of course" [ot140]

- 141 ra-yt-a-y'a-t / ʔattʔajol pəkir-ʔʔl qelug=ʔm
house-go.to-E-TH-3pl first.ADV arrive-TH because=EMPH
ʔiy-a-nely-a-cəku n-a-twa-qen
wolf-E-skin-E-INCESS HAB-E-be-3sg
They went home. He arrived first because he was inside the wolf skin. [ot141]
- 142 atlʔa-ytə "okkoj ənrʔaq rʔenut ɣotqen?"
mother-ALL INTJ then what? 3sgABS this 3sgABS
[He went] to his mother; [she said] "Oh my, what is this then?" [ot142]
- 143 "waj ɣəmo / cake-qaj [#] / cake-qaj
DEICT 1sgABS sister-DIM 3sgABS sister-DIM 3sgABS
Jare t-a-piri-ʔe-n ewət uwequci-lqəl ən-in
personal.name 3sgABS 1sg-E-take-1H-3sg likewise husband-EQUIV 3sg-POSS 3sgABS
neməqej / ɣelwəl əmə t-a-piri-ʔe-n
also herd 3sgABS too 1sg-E-take-TH-3sg
'It's me. Sister.. I've taken [my] sister Jare and a fiance for her too; I've also taken a herd. [ot143]
- 144 taɣ-əməʔo t-a-nm-a-tko-jw-a nat iʔam ɣəmn-in
INTS-ALL 1sg-E-kill-E-ITER-COLL-E-3pl why? 1sg-POSS 3sgABS
cakəyet ɣe-piri-lin?"
sister 3sgABS PF-take-3sg
I've killed them all. Why did they take my sister?" [ot144]
- 145 e ənkʔam jalyət-y'a-t ɣalwəlʔ-a-jɣ-a-n ləyen
INTJ and move.camp-TH-3pl herd-E-AUG-E-3sgABS really
And they moved camp. [with] a big herd. [ot145]
- 146 iee ləyen nəm-a-twa-y'a-t ənqen ənɣin /
excellent really settle-E-be-TH-3pl DEM 3sgABS thus
ənpənacy-a-qay-te / cakəyet ewat əntuulpər ətlon
old.man-E-DIM-3plABS sister 3sgABS so wife's.husband 3sgABS DEM 3sgABS
So they all lived well; the old people, the sister, and her husband as well. [ot146]
- 147 iee ləyen taɣ-nəmətwa-y'a-t
excellently really INTS-live-TH-3pl
They all lived excellently. [ot147]
- 148 pələtku-y'e-t ənqen əməʔo qu-jw-a-ninet / vsjo
finish-TH-3pl DEM 3sgABS all 3ABS kill-AUG-E-3sgA 3plO all
They finished [i.e. they were finished], he killed them all. That's all.. [ot148]
- 149 əccʔet
all
The End. [ot149]

Bibliography

- Andrews, Avery. 1985. The Major Functions of the Noun Phrase. In Shopen (ed.). 1985a. 62-154.
- Anderson, Stephen. 1992. A-Morphous Morphology. Cambridge: Cambridge University Press.
- Bakker, Peter & Maarten Mous (eds.). 1994. Mixed Languages. Amsterdam: IFOTT.
- Belikov, L. 1961. Lyg'orawel'en lymnylte. Magadan: Magadanken Taknigayyn.
- Boas, Franz. (ed.). 1922. Handbook of American Indian Languages. Part 2. Washington: Government Printing Office.
- Bogoras, Waldemar. [Bogoraz, Vladimir G.]. 1900. Materialy po izučeniju čukotskogo jazyka i fol'klora sobrannye v kolymskom okruge V.G. Bogorazom. Sankt Peterburg: Izdatel'stvo imperatorskoj akademii nauk.
- 1904-1909. The Chukchee. Leiden [New York]: Jesup North Pacific Expedition. Publications Vol. VII, E. J. Brill [Memoirs of the American Museum of Natural History in New York. Vol. XI, Parts 1-3, G. E. Stechert & Co.].
1910. Chukchee Mythology. Leiden [New York]: Jesup North Pacific Expedition. Publications Vol. VIII, no. 1., E. J. Brill [Memoirs of the American Museum of Natural History in New York. Vol. XII, Parts 1, G. E. Stechert & Co.].
1922. Chukchee. In Boas (ed.). 631-903.
1937. [Bogoraz, Vladimir G.] Luoravetlansko-russkij slovar'. Moskva-Leningrad: Učpedgiz.
- 1939a. [Bogoraz, Vladimir G.] Čukči. Material'naja kul'tura Čukčej. Leningrad: Nauka.
- 1939b. [Bogoraz, Vladimir G.] Čukči. Religija. Leningrad: Nauka.
- Bradley, John. 1988. Yanyuwa: 'Men speak one way, women speak another'. Aboriginal Linguistics 1: 126-134.

- Bybee, Joan & Östen Dahl. 1989. The Creation of Tense and Aspect Systems in the Languages of the World. *Studies in Language* 13,1:51-103
- Chafe, Wallace. 1976. Givenness, Contrastiveness, Definiteness, Subjects, Topics and Point of View. In Charles Li (ed.), *Subject and Topic*. New York, Academic Press: 25-56.
- Chung, Sandra & Alan Timberlake. 1985. Tense, Aspect and Mood. In Shopen (ed.), 1985b. 202-258.
- Comrie, Bernard. 1976a. Aspect: an Introduction to the Study of Verbal Aspect and Related Problems. Cambridge: Cambridge University Press
- 1976b. The Syntax of Action Nominals: A Cross-Language Study. *Lingua* 40:177-201.
1979. Degrees of Ergativity: Some Chukchee Evidence. In Frans Plank (ed.), 219-240
- 1980a. Inverse Verb Forms in Siberia: Evidence from Chukchee, Koryak and Kamchadal. *Folia Linguistica Historica* 11:61-74.
- 1980b. The Genetic Affiliation of Kamchadal: Some Morphological Evidence. *International Review of Slavic Linguistics* 5:109-120
1981. *The Languages of the Soviet Union*. Cambridge: Cambridge University Press.
1985. Derivation, Inflection and Semantic Change in the Development of the Chukchi Verb Paradigm. In J. Fisiak (ed.), *Historical Semantics, Historical Word-Formation*. Berlin: Mouton de Gruyter.
1996. Language Contact in Northeastern Siberia (Chukotka and Kamchatka). In Jahr & Broch (eds.), 33-45.
- Comrie, Bernard & Sandra Thompson. 1985. Lexical Nominalization. In Shopen (ed.), 1985c. 349-398
- de Reuse, Willem J. 1994a. English Loanwords in the Native Languages of the Chukotka Peninsula. *Anthropological Linguistics* 36,1:56-68.
- 1994b. *Siberian Yupik Eskimo: The Language and its Contacts with Chukchi*. Salt Lake City: University of Utah Press.
1996. Chukchi, Eskimo and English: A Survey of Jargons in the Chukotka Peninsula Area. In Jahr & Broch (eds.), 47-62.
- Dikov, N.N. 1989. *Istorija Čukotki s drevnejšix vremen do našix dnei*. Moskva: Mysl'.
- Dixon, R. M. W. 1977. *A Grammar of Yidinj*. Cambridge: Cambridge University Press.
1979. Ergativity. *Language* 55:59-138.

1987. (ed.) *Studies in Ergativity*. Amsterdam, New York: Elsevier Science Pub.
1994. *Ergativity*. Cambridge: Cambridge University Press.
- Durie, Mark. 1997. Grammatical Structures in Verb Serialization. In Alex Alsina, Joan Bresnan & Peter Sells (eds.), *Complex Predicates*. Stanford: CSLI Publications.
- Emel'janova, N. & E. Nutekeu. 1996. *Lyg'orawet'en jilyjil*. Sankt-Peterburg, Prosveščenie.
- Evans, Nicholas. 1996. The Syntax and Semantics of Body Part Incorporation in Mayali. In Hilary Chappell & William McGregor (eds.), *The Grammar of Inalienability: A Typological Perspective on Body Part Terms and the Part-Whole Relation*. Berlin: Mouton de Gruyter. 65-109.
- Everett, Daniel. 1986. Pirahã. In Desmond Darbyshire & Geoffrey Pullum (eds.), *Handbook of Amazonian Languages*. Volume 1. Berlin: Mouton de Gruyter. 200-325.
- Flannery, R. 1946. Men's and Women's Speech in Gros Ventre. *International Journal of American Linguistics* 12: 133-135.
- Foley, William A. 1991. *The Yimas Language of New Guinea*. Stanford: Stanford University Press.
- Foley, William & Mike Olsen. 1985. Clausehood and Verb Serialization. In Johanna Nichols & Anthony Woodbury (eds.), *Grammar Inside and Outside the Clause: Some Approaches to Theory from the Field*. Cambridge: Cambridge University Press.
- Foley, William & Robert Van Valin. 1984. *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press.
- Forsyth, James. 1992. *A History of the Peoples of Siberia: Russia's North Asian Colony*. Cambridge: Cambridge University Press.
- Fortescue, Michael. 1997. Eskimo Influence on the Formation of the Chukotian Ergative Clause. *Studies in Language* 12,2:369-409.
1998. *Language Relations across Bering Strait*. Cassell: London, New York.
- Gildea, Spike. 1994. Semantic and Pragmatic Inverse: 'Inverse Alignment' and 'Inverse Voice' in Carib of Surinam. In Talmy Givón. (ed.), 1994. *Voice and Inversion*. *Typological Studies in Language* 28, John Benjamins. 187-230.
- Goldsmith, John. 1990. *Autosegmental and Metrical Phonology*. Oxford: Basil Blackwell.
- Golovko, Evgenij. 1994. Mednij Aleut or Copper Island Aleut: an Aleut-Russian mixed language. In Bakker & Mous (eds.), 113-121.

1996. A Case of Nongenetic Development in the Arctic Area: The Contribution of Aleut and Russian to the Formation of Copper Island Aleut. *In* Jahr & Broch.
- Greenberg, Joseph. 1963. Some Universals of Grammar with Particular Reference to the Order of Meaningful Elements *In* Joseph Greenberg (ed.). *Universals of Language*. Cambridge, Massachusetts: MIT Press: 58-90.
- Curvič, I. S. 1982. *Ėtničeskaja istorija narodov severa*. Moscow: Nauka.
- Hancock, Ian. 1996. The Special Case of Arctic Pidgins. *In* Jahr & Broch (eds.). 15-29.
- Haspelmath, Martin. 1994. Passive Participles across Languages. *In* Barbara Fox & Paul Hopper (eds.). *Voice. Form and Function*. Amsterdam: John Benjamins. 151-177.
1995. The Converb as a Cross-linguistically Valid Category. *In* Haspelmath & König (eds.). 1-56.
1997. *Indefinite Pronouns*. Oxford: Clarendon Press.
- Haspelmath, Martin & Ekkehard König (eds.). 1995. *Converbs in Cross-Linguistic Perspective*. Berlin: Mouton de Gruyter.
- Hass, Mary. 1944. Men's and Women's speech in Koasati. *Language* 20:142-149.
- Hengeveld, Kees. 1992. *Non-verbal Predication: Theory, Typology, Diachrony*. Berlin: Mouton de Gruyter.
- Himmelman, Nikolaus. 1996. Demonstratives in Narrative Discourse: A Taxonomy of Universal Uses. *In* Barbara Fox (ed.). *Studies in Anaphora*. Amsterdam: John Benjamins.
- Hoff, Berend. 1994. Island Carib, an Arawakan Language which Incorporated a Lexical Register of Cariban Origin, Used to Address Men. *In* Bakker & Mous (eds.). 113-121.
- Hopper, Paul & Sandra Thomson. 1980. Transitivity in Grammar and Discourse. *Language* 56,2: 251-299.
- Hyatt, Marshall. 1990. *Franz Boas, Social Activist: the Dynamics of Ethnicity*. New York: Greenwood Press.
- Inenlikej, Petr I. 1965a. K voprosu o toponimike v čukotskom jazyke. *Vsesojuznaja konferencija po toponimiku SSSR*, Leningrad.
- 1965b. O roli aggljutinativnoj affiksacii v čukotskom jazyke (morfologičeskaja struktura narečij). *Morfologičeskaja tipologija i problema klassifikacii jazykov*. Moskva-Leningrad: 258-264.
- 1966a. K voprosu o klassifikacii narečij čukotskogo jazyka. *Jazyki i fol'klor narodov sibirskogo severa*. V. A. Avrorin. Moskva-Leningrad, Izdatel'stvo Nauka: 128-142.

- 1966b. *Narečija v čukotskom jazyke*. Dissertacija na soiskanie učenoi stepeni kandidata filologičeskix nauk. Leningrad: 181.
- 1966c. Razvitie kategorii narečij v čukotskom jazyke. *Materialy vsesojuznoj konferencii po obščemu jazykoznaniju*. Samarkand. 2: 294-297.
1969. Obščnost' i različie v sklonenii imennyx častej v čukotskom i korjakskom jazykax. *Proizhoždenie aborigenov Sibiri i ix jazykov*, Tomsk.
1973. Nekotore leksičeskije osobennosti kolym'skogo dialekta čukotskogo jazyka. *Proizhoždenie aborigenov Sibiri i ix jazykov*, Tomsk.
- 1974a. Nekotore voprosy padežnoj sistemy čukotskogo jazyka. *Sklonenie v paleoaziatskix jazykax*. Leningrad: 139-157.
- 1974b. O značenii otpravitel'nogo padeža po dialektam čukotskogo jazyka. *Sklonenie v paleoaziatskix jazykax*. Leningrad: 201-204.
1976. *Čukotsko-Russkij, Russko-Čukotskij Slovar'*. Leningrad: Prosveščenie.
1978. K periodizacii razvitija leksiki čukotskogo jazyka (po dannym areal'nyx nabljudenij). *Narody i jazyki Sibiri*. Moskva. 74-77.
- 1987 [1976]. *Čukotsko-Russkij, Russko-Čukotskij Slovar'* (izdanie 2-e, dorabotannoe). Leningrad: Prosveščenie.
- Inenlikej, Petr I. & Vladimir P. Nedjalkov 1966. *Labil'nye ("perexodno-nepexodnye") glagoly v čukotskom jazyke*. *Materialy vsesojuznoj konferencii po obščemu jazykoznaniju*, Samarkand.
1967. Iz nabljudenij nad ėrgativnoj konstrukciej v čukotskom jazyke. *Ėrgativnaja konstrukcija predloženiya v jazykax različnyx tipov*. Leningrad. 246-260.
1972. *Glagoly čuvstva v čukotskom jazyke*. *Lingvističeskije issledovanija*. Moskva. 175-203.
1981. O svjazjax posessivnogo, "komparativnogo", kauzativnogo i affektivnogo značenij glagola. *In* Ubrjatova (ed.). 133-146.
- Jahr, Ernst Håkon & Ingvild Broch (eds.). 1996. *Language Contact in the Arctic: Northern Pidgins and Contact Languages*. Berlin: Mouton de Gruyter.
- Kenstowicz, Michael. 1986. The Phonology of Chukchee Consonants. *Studies in Linguistic Sciences* 16:179-96.
- Kimball, Geoffrey. 1987. Men's and Women's speech in Koasati: A Reappraisal. *International Journal of American Linguistics*. 53:30-38.
1990. A Further Note on 'Men's' Speech in Koasati. *International Journal of American Linguistics*. 54:158-161.
- King, Heather. 1994. *The Declarative Intonation of Dyirbal: an Acoustic Analysis*. Masters Thesis, Australian National University.

- Koptevskaja-Tamm, Maria & Irina A. Muravyova 1993. Alutor Causatives, Noun Incorporation, and the Mirror Principle. In Bernard Comrie & Maria Polinsky. *Causatives and Transitivity*. Amsterdam: John Benjamins.
- Koptevskaja-Tamm, Maria 1993. *Nominalizations*. London: Routledge.
1995. Possessive and Relational Forms in Chukchi. In Frans Plank (ed.). *Double Case: Agreement by Suffixaufnahme*. New York, Oxford: Oxford University Press. 301-321.
- Kozinsky, Ivan S., Vladimir P. Nedjalkov & Maria S. Polinskaja. 1988. Antipassive in Chukchee: Oblique Object, Object Incorporation, Zero Object. In Masayoshi Shibatani (ed.). *Passive and Voice*. Amsterdam: John Benjamins. 651-706.
- Krause, Scott. 1979. *Topics in Chukchee phonology and morphology*. Urbana: University of Illinois PhD dissertation.
- Lambrecht, Knud. 1994. *Information Structure and Sentence Form: Topic, focus and the Mental Representations of Discourse Referents*. Cambridge: Cambridge University Press.
- Leont'ev, Vladilen V. 1983. *Ėtnografija i fol'klor kerekov*. Moskva: Nauka.
- Mindalevič, A. M. 1934a. Čukotskie ieroglifi (očerk). *Sovetskij Sever* 1: 115-129.
- 1934b. Ieroglifičeskaja pismennost' u Čukčej. *Arktika* 2: 191-197.
- Mithun, Marion 1984. The Evolution of Noun Incorporation. *Language* 60,4: 847-894.
1987. Is Basic Word Order Universal? Coherence and Grounding in Discourse. R. Tomlin. Amsterdam: John Benjamins. 281-328
1992. Is Basic Word Order Universal? Pragmatics of Word Order Flexibility. D. L. Payne. Amsterdam: John Benjamins. 15-62.
- Moll, T. A. & Petr I. Inenlikej. 1957. *Čukotsko-russkij slovar'*. Leningrad: Gosudarstvennoe učebno-pedagogičeskoe izdatel'stvo ministerstva prosvěšćenija RFSFR.
- Mosel, Ulrike. 1991. Towards a Typology of Valency. In Hansjakob Seiler & Waldfried Premper (eds.). *Partizipation. Das sprachliche Erfassen von Sachverhalten*. Tübingen: Gunter Narr Verlag. 240-251.
- Muravyova, Irina. 1979. *Sopostavitel'noe issledovanie morfologii čukotskogo, korjaksckogo i aljutorsckogo jazykov*. Dissertacija na soiskanie učenoj stepeni kandidata filologičeskix nauk. Gosudarstvennyj universitet imeni M.V. Lomonosova.

1986. Rekonstrukcija fonologičeskoj sistemy čukotko-korjaksckogo prajazyka. In E. I. Ubrjatova (ed.). *Fonetičeskie struktury v sibirskix jazykax*. Novosibirsk: Academic Press. 144-164
1989. O morfonologičeskix osobennostjax kompozitov (na materiale čukotsko-kamčatskix jazykov). In I. Ja. Seljutina (ed.) *Zvukovyje sistemy sibirskix jazykov*. Novosibirsk: Academic Press. 123-133.
1992. The Paleosiberian Model of Incorporation in Contrast to the Austronesian one. *Pan-asiatic Linguistics, Proceedings of the Third International Symposium on Language and Linguistics*, Chulalongkorn University Printing House.
1998. Chukchi (Paleo-Siberian). In Andrew Spencer & Arnold M. Zwicky. *The Handbook of Morphology*. Oxford, Massachusetts: Blackwell Publishers. 521-538.
- Murray, Stephen. 1994. *Theory Groups and the Study of Language in North America: a Social History*. John Benjamins.
- Nedjalkov, Igor. 1998. *Converbs in the Languages of Eastern Siberia*. *Language Sciences*. 20,3:339-351.
- Nedjalkov, Vladimir P. 1976. *Diathesen und Satzstruktur im Tschuktschischen*. *Studia Grammatika XIII Satzstruktur und Genus verbi*. Akademie-Verlag Berlin.
1977. *Possessivnost' i inkorporacija v čukotskom jazyke (inkorporacija podležaščego)*. *Problemy lingvističeskoj tipologii i struktury jazyka*. Leningrad. 108-138.
1979. *Degrees of Ergativity in Chukchee*. In Frans Plank (ed.). 241-262
1982. Čukotskie glagoly s inkorporirovannym podležaščim (tip. n'egny y'l-y-mle-g'i "s gory obvalilsja sneg", bukv. "gora snego-obvalilas"). *Kategorija sub"jekta i ob"ekta v jazykax različnix tipov*. Leningrad. 135-153.
1985. Čukotskie deagentivnye konstrukcii s sub"ektnym infinitivom. *Tipologija konstrukcij s predikatnymi aktantami*. Leningrad: 82-89.
1988. *Typology of Resultative Constructions*. John Benjamins.
1994. *Tense-Aspect-Mood Forms in Chukchi*. *Sprachtypol. Univ. Forsch. (STUF)*.
1995. *Some Typological Parameters of Converbs*. *Converbs in Cross-Linguistic perspective*. In Haspelmath & König (eds.). 97-136.
- Nedjalkov, Vladimir P. & Petr I. Inenlikej 1983. Čukotskie konstrukcii s sub"ektnym infinitivom. *Kategorii glagola i struktura predloženija*. *Konstrukcii s predikatnymi aktantami*. Leningrad. 221-234.

- Nedjalkov, Vladimir P., Petr I. Inenlikej & V. G. Raxtilin 1988. Resultative and Perfect in Chukchee. *In* Nedjalkov (ed.). 153-166.
1969. Kauzativ v čukotskom jazyke. Tipologija kauzativnyx konstrukcij. Leningrad: 260-269.
- Nedjalkov, V. P. & S. J. Jaxtontov 1988. The Typology of Resultative Constructions. *In* Nedjalkov (ed.). 3-62.
- Nichols, Johanna. 1986. Head-Marking and Dependent-Marking Grammar. *Language* 62,1: 56-117
- Payne, D. L. (ed.) 1992. *Pragmatics of Word Order Flexibility*. Amsterdam: John Benjamins.
- Plank, Frans (ed.). 1979. *Ergativity: Towards a Theory of Grammatical Relations*. London, New York: Academic Press.
- Polinsky, Maria S. and Vladimir P. Nedjalkov. 1987. Contrasting the Absolutive in Chukchee. *Syntax, Semantics and Pragmatics*. *In* Dixon 1987
- Sapir, Edward. 1963 [1929]). *Male and Female Forms of Speech in Yana*. Selected Writings of Edward Sapir in Language, Culture and Personality. D. G. Mandelbaum. Berkeley and Los Angeles, University of California Press: 206-212.
- Saville-Troike, Muriel. 1988. A Note on Men's and Women's Speech in Koasati. *International Journal of American Linguistics*. 54:235-240
- Shopen, Timothy (ed.). 1985a. *Language Typology and Syntactic Description*. Volume I. Clause Structure. Cambridge: Cambridge University Press.
- 1985b. (ed.). *Language Typology and Syntactic Description*. Volume II. Complex Constructions. Cambridge: Cambridge University Press.
- 1985c. (ed.). *Language Typology and Syntactic Description*. Volume III. Grammatical Categories and the Lexicon. Cambridge: Cambridge University Press.
- Silverstein, Michael. 1976. Hierarchy of Features and Ergativity. *In* R. M. W. Dixon (ed.). *Grammatical Categories in Australian Languages*. Canberra, Australian Institute of Aboriginal Studies. 112-171.
- Skorik, Petr Ja. 1941. *Russko-čukotskij slovar' dlja čukotskoj školy*. Leningrad, Učpedgiz.
1948. Očerki po sintaksisu čukotskogo jazyka. Leningrad, Učpedgiz.
1952. Teorija stadial'nosti i inkorporacija v paleoaziatskix jazykax. *In* Protiv vul'garizacii i izvraščenie marksizma v jazykoznanii. *Sbornik stat'ej*. t. 2. Moskva. 136-156.

1961. *Grammatika čukotskogo jazyka*. t. 1 Moskva-Leningrad, Izdatel'stvo akademii nauk SSSR.
1964. O roli rodnogo i russkogo jazykov v kul'turnom razvitii malyx narodnocej severa. *In* V. V. Vinogradov (ed.). *Voprosy razvitija literaturnyx jazykov narodov SSSR v sovetskiju èpoxu*. Alma-Ata: Izdatel'stvo akademii nauk kazaxskoj SSR: 312-323.
1968. Čukotskij jazyk. *In* Vinogradov (ed.). 248-270.
1968. Kerekskij jazyk. *In* Vinogradov (ed.). 310-333.
1977. *Grammatika čukotskogo jazyka*. t. 2. Moskva-Leningrad, Izdatel'stvo Akademii Nauk SSSR.
1981. Analitičeskie konstrukcii v čukotsko-kamčatskix jazykax. *In* Ubrjatova (ed.). 120-132.
- Spencer, Andrew. 1995. Incorporation in Chukchi. *Language* 71: 439-489.
- Stalin, Joseph. V. 1950. Otnositel'no marksizma v jazykoznanii: k nekotorym voprosam jazykoznanija. Moskva: Izdatel'stvo Političeskoj Literatury.
- Stebnickij, S. N. 1994. Iz istorii padežnyx suffiksov v korjaskom i čukotskom jazykax. Vvedenie. *In* Stebnickij, S. N. Očerki po jazyku i fol'klory Korjakov. Sankt-Peterburg, Muzej Antropologii i Etnografii RAN. 135-294.
- Taylor, A. R. 1982. 'Male' and 'Female' Speech in Gros Ventre. *Anthropological Linguistics* 24:301-307.
- Ubrjatova, E. I. (ed.). 1981. *Jazyki i fol'klor narodov severa*. Novosibirsk: Nauka
- Va'xhtin, Nikolaj. 1992. *Native Peoples of the Russian Far North*. London, Minority Rights Group.
1993. [Vaxtin, N. B.]. *Korennoe naselenie krajnego severa rossijskoj federacii* [The Indigenous population of the Far North of the Russian Federation]. Sankt-Peterburg: Isdatel'stvo Evropejskogo Doma.
- Van Valin, Robert & Randy LaPolla. 1997. *Syntax: Structure, Meaning and Function*. Cambridge: Cambridge University Press.
- Vdovin, I. S. 1954. *Istoria izučeniya paleoaziatskix jazykov*. Izdatel'stvo akademii nauk SSSR.
- Vinogradov, V. V. (ed.). 1968. *Jazyki narodov SSSR* t. 5. Leningrad: Nauka.
- Volodin, A. P. & P. Ja. Skorik. 1996. 'Čukotskij jazyk'. *In* *Jazyki mira: Paeoaziatskie jazyki* (t. 4). Moskva: izdatel'stvo "Indrik". 23-38.
- Wilkins, David. 1995. (ed.). *Extensions of Space and Beyond: "Manual" for Field Elicitation for the 1995 Field Season*. Cognitive Anthropology Research Group, Max Planck Institute for Psycholinguistics, Nijmegen.

- Žukova, Alevtina N. 1967. Russko-korjaskij slovar'. Moskva: Nauka
- 1968a. Aljutorskij jazyk. *In* Vinogradov. (ed.).294-309.
- 1968b. Korjaskij jazyk. *In* Vinogradov. (ed.).271-293.
1972. Grammatika korjaskogo jazyka. Leningrad: Nauka.
1980. Jazyk Palanskix Korjakov. Leningrad: Nauka.
1988. Materialy i issledovanija po korjaskomu jazyku. Leningrad: Nauka.