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A Grammar of Chukchi

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A thesis submitted for the degree of
Doctor of Philosophy

of

Australian National University

May 1999
Except where otherwise acknowledged in the text, this thesis is entirely my own work.

Michael Dunn
Acknowledgments

In this thesis I owe a great deal to many people for their kindness and generosity. I am grateful to the people of the village of Tawajwaam, who, amidst considerable social and material difficulty, accepted me and managed to make me feel at home. The two poles of Tawajwaam life—the Social and Sporting Committee, and the Sixth Brigade—both helped me a great deal. Without Tawii (Valentina Rintuvii) my fieldwork could not have been remotely as successful as it was. In Tawajwaam I benefited from the generous efforts of my Chukchi language teachers and storytellers, Atawqaj, Ejzewewat, Vasilij Iukum, Valentina Kanle, Galina Netanvat, Jawkake, Rarowtat, Viktor Timnev’e, Tawii, and Nina Smirnova.

The villages of Kanchalan and Alkatwaam also welcomed me. In Kanchalan Ajgantowaj, Kantajjon, Kroma, Omrawawaj and Pagarowaaj talked with me and told me stories. Petja Nawlkytaj helped with translation and explanation. In Alkatwaam my kind host Elena Nutekeu patiently answered my questions about the Chukchi language, and introduced me to Paganto, Penwel and Tanecewaj, who also shared their knowledge of history and folklore with me.

In Anadyr’ Irina Gyrgo’naaut and Tamara Korav’e kindly shared their knowledge, as did the unfailingly helpful staff of the Chukchi language section of the radio station: Margarita Belichenko, Zinadla Kevev and Larissa Vykvyraxygirina.

Apart from the problems of trying to come to grips with the Chukchi language, life in Chukotka held many other challenges: food, clothing, housing, and administrative issues all pose great difficulties, particularly to the inexperienced. These difficulties were smoothed by the kindness and generosity of many people, including Andrej Etuwji, Galina Ivanovna and Jurij Jurievich, Aleksandr Jaggyrgin, Aleksandr and Tatiana Omyypkir, Olga Rastorgueva, Ekaterina Ragtytagyna, Tatiana and Valerij Švedov.

I also benefited from discussions with Paleoslberian scholars Tamara Korav’e, Vladimir Nedjalkov, Vladimir Raxylin, Nikolaj Vaxtin, Vladimir Yetyllin and Alevtina Žukova. I received institutional support from Department of Linguistics and the Research Centre for Linguistic Typology at the Australian National University, the Anadyr’skoe Peduilliičė, and the Science Centre “Chukotka”.

I am grateful to my supervisor Alexandra Alkhemvald, who has been a paragon of diligence and energy in her support of my work. I would also like to thank my advisers Bob Dixon and Avery Andrews for their valuable insights. Timothy Curnow and Angel Terrill have also made heroic efforts in editing and commenting. The fact that I know anything at all about linguistics is thanks to many teachers over the years at the ANU Department of Linguistics, in particular Cindy Allen, Avery Andrews, Bob Dixon, Harold Koch, Ulrike Mosel, Phil Rose, Timothy Shopen and Anna Wierzbicka.

My friends and fellow students have been very supportive also: Alec, Eva, Helen, Kazuko, Luisa, Pam, Patti, Peita, Stuart, Tony, Verna, and many others. My parents Robin and John Dunn also provided help and encouragement.

And finally I thank Angela, who lived through the whole process and managed to make it fun. He pawacqajqan!

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 grammaticalization 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
ABSTRACT

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)
+VH Dominant vowel harmony
(i.e. vowel harmony
prosodic phoneme present)
A Transitive subject
syntactic role
ABIL Abilitive
ABL Ablative
ABS Absolutive case
ADJ Adjective
ADV Adverb
ADVERB Adversative
Al Alutor (language)
ALL Allative
AN (High) Animate
AP Antipassive
APPL Applicative
APPR Approximative
ASS Associative
AUG Augmentative
AUTH Authentic
AUX Auxiliary
ChM Men's Chukchi
ChW Women's Chukchi
COLL Collective
COM Comitative
COMPAR Comparative
COMPL Completive
COND Conditional
CONSEQ Consequential converb
CONSUME Consume
CS Causative
DEICT Deictic particle
DEM Demonstrative
DESIC Desiderative
DIM Diminutive
DIST Distributive
DUR Durative
e Epenthetic schwa
EDGE Edge of...
EMPH Emphatic
EQU Equative
EQUIV Equivalent
ERG Ergative case
EXCL Exclamation
EXI Existential
FUT Future
HAB Habitual
HORT Hortative
ID Identity
IMPOSS Impossiblitve
INCH Inchoative
INDEF Indefinite
INESS Inessive
INF Infinitive
INST Instrumental
INT Intentional
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<td>INTER</td>
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<tr>
<td>INTJ</td>
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<td>INTS</td>
<td>Intensifier</td>
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<td>INV</td>
<td>Inverse</td>
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<td>ITER</td>
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<td>Ke</td>
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<td>KoCh</td>
<td>Chavchuven Koryak (language)</td>
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<td>SIM</td>
<td>Simultaneous aspect verb</td>
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<td>Tense, aspect and mood</td>
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<td>Extended intransitive</td>
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<td>Vocative (prosody)</td>
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<td>vt</td>
<td>Transitive verb</td>
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<td>vt+</td>
<td>Extended transitive</td>
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**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)
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 coast 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
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 Agqalpat (sg. AgqalPan), which simply means 'those from the sea'. There was no such conventionalised term for the reindeer Chukchis. Some AgqalPat use the term Cawcawat (sg. Cawcaw), meaning 'reindeer herders', but to the reindeer Chukchis this means specifically 'rich reindeer herders'. Another term, more generally acceptable than Cawcawat, is Emnugal7at (sg. Emnugal7an), 'those from the tundra'. When Chukchis speak of themselves, as opposed to any other ethnic group, they use the word LaykorawvetPat (sg. LaykorawvetPan), 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') was coined by the earliest American explorers who heard it while travelling towards Chukotka through the lands of the Chukchi's Tungus-speaking neighbours to the west. Ultimately we have come the full cycle, for the Tungus word Cawa is a phonological adaptation of the Chukchi word cawcaw 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 beyon~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 had been working with the brigade for over twenty years. At the physical and social
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 funeralss 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 1922:413-469). 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 folktales are a well recognised genre in Chukchi (named lamplsg. / lampaltepl.), with conventionalised behaviour patterns expected of both storyteller and audience. Similarly to many other folk traditions, lampalte 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 folktales 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 Raxtlín [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 Jetafián 'the one who has come', Jataryan 'arrival', Remkalian 'the guest', Yaryolgawat 'woman from above' (see also Bogoras 1904-1909:514-516).

The element -wji/-wje is a common terminal element in names, particularly among Telpií Chukhists. Bogoras says that the origin of this naming element is unknown (1904-1909:515). Some Chukhists speculate that this is related to the verb wjî-k 'to breathe', but then cannot explain the meanings of names including this element. Qorawje 'reindeer breath' and, Timgewje '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 -wwj - -wwe (e.g. Žukoiva 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. ?Elpel '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 -an in surnames is frequently reassigned 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 Telleg 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
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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 lattice orthography was developed which depicted phonemes instead (with supplementary letters from Cyrillic, e.g. schwa was represented by the Russian ‘soft sign’). This orthography was used in the first Chukchi-Russian dictionary and schoolbooks. A few years later almost all 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. Skorki (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 is called ‘Chukotkoan’ or ‘Koryako-Chukotkoan’. The Chukotko-Kamchatkan family consists of these languages and the language Itelmen (previously known as Kamchadal). Although Itelmen has many ideographic writing systems, the identity of this family is controversial; Comrie presents evidence to support the hypothesis of genetic relationship between Chukotko and Itelmen at a distant stage of linguistic prehistory, but indicates that detailed reconstruction of proto-Chukotko-Kamchatkan is almost certainly impossible (Comrie 1986b:120). The best evidence

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1 At about the same time a hitherto illiterate Chukchi called Tagewil devised an ideographic writing system for the Chukchi language. He taught some of this 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 (Mindaevich V. 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 cosmos. See also Dikov 1989 (plate between 95-97).

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Is the similarity 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 creation. In contrast, it is clear from high levels of cognacy that the various Chukotko languages are very closely related. Comrie (1981:240) suggests that on purely linguistic grounds these languages could be considered dialects of a single language. 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 is now called the Chukchi-Koryak wars of the 18th century (Gurevich 1982:206), when the northerners (proto-Chukchi) began a series of depredations against the southerners (proto-Koryak). The current notion of ‘race’ or ‘ethnicity’ (Russ. 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).

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2 See Bogoras 1922-1941 for a discussion of well-established Koryak-Itelmen language mixing by Itelmen speakers, and Golovko 1994, 1995 for a description not distinctor situation of Russian-Abor language mixing on Copper (Medniy) 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 (Zeleva 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 Tawaljwaam 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 Xatyronka on the border of the Koryak National Region was inhabited by Kereks.

The two Altalc languages bordering Chukchi land are Yakut (Turkic) and Even (Tungus). If Altalc is controversial as a linguistic phylum, nevertheless the speakers of the two languages are united in Chukchi by one name, Qoraramkan 'the people of the reindeer'. Chukchi say about Qoraramkan 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 Ajwanale. Chukchi and Eskimo have influenced each other, although much more has gone in the direction of Chukchi. 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 Tawaljwaam 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 Chukchiks coming from the north, not by Tawaljwaam Chukchiks. 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 lalurampa has a transparently Chukchi etymology laluramkan 'bearded folk' (Indigenous Chukchiks have little facial hair). This word has fallen out of use in Chukchi when it was melyatangat 'fire strangers', but a similar word leluvat 'bearded ones' is a regional form used by old people in Tawaljwaam. Gurvül reports Chukchified Eskimo toponyms along the Chukchi coast stretching between 60° and 70° north, suggesting earlier Eskimo inhabitation and probable cohabitation or assimilation with Chukchiks (Gurvül 1992:197).

Kereks and Koryaks are both simply known at tampat 'strangers' in Chukchi. Since Chukchi habituation of the Tawaljwaam tundra is quite recent, and before them the land belonged to tampat, it is tempting to look for substrate influence from these languages. One peculiarity of Telqep Chukchi is that the word 'yes' is different for men and women: men say ej, women say il. 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 il (§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 Chukchiks: the word kawkaw '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 English. 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 korpalyan/korpat 'buckwheat' is mostly limited to lexicon, although Fortescue (1997) argues that the word 'yes' is different for Chukchi and 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 Tawaljwaam 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 Chukchiks coming from the north, not by Tawaljwaam Chukchiks. 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 lalurampa has a transparently Chukchi etymology laluramkan 'bearded folk' (Indigenous Chukchiks have little facial hair). This word has fallen out of use in Chukchi when it was melyatangat 'fire strangers', but a similar word leluvat 'bearded ones' is a regional form used by old people in Tawaljwaam. Gurvül reports Chukchified Eskimo toponyms along the Chukchi coast stretching between 60° and 70° north, suggesting earlier Eskimo inhabitation and probable cohabitation or assimilation with Chukchiks (Gurvül 1992:197).

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1.2.2 Language retention and codeswitching

In the 1990s all indigenous languages in Chukotka are very much at risk. Chukchi is a language that is being lost to modern society. Even children who were recently born in 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 speaking community is at risk of becoming extinct. There are many fewer males who are monolingual in Chukchi than females. 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 most likely precursor to revival of the Chukchi language would be an increase in 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 of 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 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 noted in 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 vezdelod (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 vezdelods 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 vezdelod 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 aor' aintanceship, 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 Chukchi 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 and proverbs, so needed the assistance of a bilingual speaker. I am extremely grateful to Tawili (Russian name Valentina Ivanovna Rintwii), 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 Tawilam 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 (i.e. "yes", "no I dunno") and discourse particles (naqam). The conventional greetings jety and jettak are literally "you (sg) have come!" and "you (pl) have come!", and the conventional reply is simply ileeq "yes". These greetings have been reanalysed by non-speakers, who treat them as identical to Russian zdravstvij "hello (sg)" and zdravstvijetl "hello (pl)", using jety/jettak as both greeting and response, and using the plural form as a respectful form of address to individuals (i.e. the general European tu/vous distinction, which is not otherwise used in Chukchi).

My linguistic consultants can be divided into two groups: elderly (near-monolingual), and younger (bilingual). 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 Skorlik's Chukchi grammar, and accepted it as the prestige standard, although 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 Skorlik'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) folktales. 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 interviewee was me) or when the interviewee was of the lower echelons of 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 to be the most 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 (Narodnaia 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 Itelmén (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 re-arrange 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 the 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)

1 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’ meddles (Russian ‘вмешательство’). 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). Vdovin (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, Lovaravtiansko-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 1930 (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 categories. 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, *a’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 1951:10), but which he nevertheless does not entirely succeed in avoiding.
would seem uncharitable, if it were not for the fact that some of Skorlk'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 Skorlk's antipassive data in several ways; he describes the antipassive as productive, which is not the case, at least in Telep 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 Skorlk's data represents a true, spoken variety Chukchi it would be wise to approach his materials with scepticism.

Skorlk's doctoral dissertation was also published, entitled Ocherki po sintaksisu tukotskogo jazyka. Inkorporaciya [Outline of Chukchi syntax: incorporation] (Skorlk 1948). This work was written under the supervision of Mešaninov, 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 1950), turned against Marr, Skorlk published a humiliating (although objectively justified) retraction of this 'data' (Skorlk 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 ascent. His followers did not. As an academic, Skorlk 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-tukotskij slovar' dlja tukotskoj skoly [Russian-Chukchi dictionary for Chukchi schools] (Skorlk 1941), Čukotsko-russkij slovar' [Chukchi-Russian dictionary] (Moll & Inenlikej 1957), and Russko-tukotskij 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 forms, but lacks information on transitivty. Word class is sometimes apparent through the choice of citation form.

Belikov 1961 Lay0rawePen 1ampole 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; Raxtilln 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 & Raxtilln 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, 1978, 1994). Two theoretically-updated grammatical sketches of Chukchi have recently appeared, one in English (Muravyova 1998), and one in Russian (Veladin & Skorlk 1996); both take Skorlk's grammar (Skorlk 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). Arealtypological and comparative studies have been published by C. Comrie (Comrie 1980a, 1980b), de Reuse (1994b), Fortescue (Fortescue 1998) and Muravyova (1976, 1986).

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9 Bogoras died in 1936, the year of the 'Stalin' constitution.
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 Vell-eja (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, Atutor; sometimes called 'Chukotlan' or 'Koryako-Chukotlan') 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 (Itelmien 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 Inenlijk (1957) describe some differences in verb inflectional paradigms between the Chukchi of Narytk (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 (Kovar's 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 subgrouped differently according to linguistic parameter used, 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 (Kovar's pers. comm.).

Good wordlists are available for a number of the dialects 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].

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.

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 1977:17) there are twelve Chukchiks 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) Materials po izucheniyu chukotskogo jazyka... [Materials for the study of Chukchi] (1900:121-126). In his grammar Bogoras has a section entitled 'Pronunciation of Men and Women' (Bogoras 1922:663-666). In this section he states:

The pronunciation of the women differs from that of the men. Women generally substitute § for c and r, particularly after weak vowels. They also substitute s for k and th. The sounds c and r are quite frequent; so that the speech of women, with its ever-recurring §, sounds quite peculiar, and is not easily understood by an inexperienced ear. Women are quite able to pronounce c 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 c of male pronunciation, moreover it assimilates a following consonant k, for example the male...
26. substitution of one pronunciation for 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 Koryak-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 1984), Kasaari (Haus 1944; this is debated, see also Kimball 1987, 1990 and Saville-Troike 1979); Pirahã (Everett 1988:317), Yana (Sapir 1963 [1929]) and Yanyuwa (Bradley 1951).

Women's Chukchi has never been considered within the framework of general Chukotkan 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 fairy tale) 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 obscenely 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 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 pronunciations.**

<table>
<thead>
<tr>
<th></th>
<th>mosquito</th>
<th>polar fox</th>
<th>leg hide</th>
</tr>
</thead>
<tbody>
<tr>
<td>female speaker</td>
<td>mren</td>
<td>cegokalyan</td>
<td>panrat</td>
</tr>
<tr>
<td>male speaker</td>
<td>mren</td>
<td>cegokalyan</td>
<td>panrat</td>
</tr>
</tbody>
</table>

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 Telqep 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).
BACKGROUND

Chapter 2

FIGURE 2.2. Chukchi words: Same pronunciation.

<table>
<thead>
<tr>
<th>speaker</th>
<th>cajkok</th>
<th>utkue'an</th>
<th>raytaye</th>
<th>qorap</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 reconstructed. 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

<table>
<thead>
<tr>
<th>tongue</th>
<th>house</th>
<th>partridge</th>
<th>1pl/du pron.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al</td>
<td>jiljil</td>
<td>ra·ray·</td>
<td>mur·</td>
</tr>
<tr>
<td>KoPl</td>
<td>jela-Ion</td>
<td>re-wre, rewom.</td>
<td>mur·</td>
</tr>
<tr>
<td>ChW</td>
<td>jala-l</td>
<td>ra rewom.</td>
<td>mur·</td>
</tr>
<tr>
<td>Ke</td>
<td>jiljil</td>
<td>ja jawjawi</td>
<td>muj·</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>stranger</th>
<th>wild sheep</th>
<th>sister</th>
<th>kidney</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al</td>
<td>tampatan</td>
<td>ktipa-</td>
<td>sakayit</td>
</tr>
<tr>
<td>KoPl</td>
<td>tampatan</td>
<td>kteppa</td>
<td>cakayet</td>
</tr>
<tr>
<td>ChW</td>
<td>tampatan</td>
<td>katipe-</td>
<td>cakayet</td>
</tr>
<tr>
<td>ChM</td>
<td>tampatan</td>
<td>katipe-</td>
<td>cakayet</td>
</tr>
<tr>
<td>KoCh</td>
<td>tampatan</td>
<td>katep</td>
<td>cakayet</td>
</tr>
<tr>
<td>Ke</td>
<td>kacipa-</td>
<td>na</td>
<td></td>
</tr>
</tbody>
</table>

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.

3 Note the assimilations: ChW *rk → cc, ChM *r → tr. There also seems to be palatalisation/assimilation in KoCh *tj → cc (in this figure) and *nc → pp (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 *c*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 *c*d in women's Chukchi would be to modern t, not modern c (see fig. 2.2.5). Although *c*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 *c*d → c (they are all either *c*d → r or *c*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*c*d*p*c longer than the other members of the family, or which collapsed *c*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 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. VtGV₂ → V₂V₂, 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 *-n*:

- anqaat < anqenat [he091]
- napelataqaat < napelataqenanat [he094]
- n²əwalomaranat < n²əwalomarkanat [he106]
- yećəcalen < yećəcalnet [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'; li for women, and eef 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.

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

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>likely</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>and so</td>
<td>11%</td>
<td>5%</td>
</tr>
<tr>
<td>finally</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>now</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>suddenly</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>first</td>
<td>11%</td>
<td>5%</td>
</tr>
<tr>
<td>maybe</td>
<td>21%</td>
<td>14%</td>
</tr>
</tbody>
</table>

The source of this alternation is unclear, although a coherent historical account can make 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. relational form iyat-kin 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 language, 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.

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 realization 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 realization of other phonemes. For instance, speakers from the Kolyma district in the north-west pronounce the personal name forming suffix -wjl as -wyl. Likewise, Standard Chukchi inchoative suffix -go is in Telqep Chukchi more often pronounced -moo. 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 moo- through intervocalic approximant deletion/vowel assimilation process (§3.2.4). Telqep Chukchi has both moo- 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 kupro-net is not used in Telqep Chukchi; Telqeps use the word yige-n (stem nyle is reduplicated to form the absolutive). Another such example is the word ware-t (singular ware-ryan), which is used around the Markovo region to mean the main support tripod of a jaraga (traditional skin tent). In Telqep Chukchi the main supports of a jaraga 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 re-cqiw- 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 (§4.6.2). 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 iieej 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 He is used by all. This could perhaps be evidence that gender dialect differences do indeed originate from southern Chukchi. It is suggestive that the iieej 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.

<table>
<thead>
<tr>
<th></th>
<th>Telqep</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>yam</td>
<td>yam</td>
<td>yato</td>
</tr>
<tr>
<td>yato</td>
<td>yato</td>
<td>yam</td>
</tr>
</tbody>
</table>

* Literate Chukchi speakers are aware of instances of allomorphy because of spelling rules in the Russian-based orthography (see §3.7.1).
The Telqep forms are similar to the pronouns from a number of Koryak dialects (for example, Zhukova transcribes the 1st person absolute pronoun in Chavchuv Koryak variously as gargo, gorno and gomo; Zhukova 1988:9).

Moll and Inenlkje (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:

![Verb Form Chart]

The inflected verb form you left us

<table>
<thead>
<tr>
<th>Telqep Chukchi:</th>
<th>Xatyrka Chukchi:</th>
</tr>
</thead>
<tbody>
<tr>
<td>pele-tho-ye</td>
<td>na-pela-mak</td>
</tr>
<tr>
<td>leave INV 1pl-TH</td>
<td>INV take 1pl</td>
</tr>
</tbody>
</table>

While Telqep Chukchi does not share this difference with Xatyrka Chukchi, Chukchi from further inland (e.g. around VaeGl, T. Korav's 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 (Stebnicki 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 čukotskiij 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 functions. 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).

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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.
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 ʂ ɕ w ɬ y/. 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 ə 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 clitic (§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 σ = (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

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 (C₁ of CVC₂) 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. /cwecqat/ 'woman'

underlying form:

```
C-V-C-C-C-V-C
```

g ew c q e t

first association of a syllable

second...

third...

syllabified form:

```
C-V-C-C-C-V-C
```

g 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).

```
\sigma \sigma \sigma
```

g e w 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 -tok and -ika (both are person-number suffixes in the verb paradigm; see §10.2). There are several formal possibilities for dealing with this:

1. The schwa could be made part of the underlying form as an unspecified vowel present in the underlying CV skeleton.

2. 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 -tok and -ika in the examples above could be specified as being an underlying monosyllable and an underlying disyllable respectively:

```
\sigma \sigma \sigma
```

g e w a c q e t

The syllabification process generates and fills other slots in the skeleton

```
\sigma \sigma \sigma
```

t k a k t k k

Other examples have unpredictable syllabification/epenthesis at the beginning of the word, e.g. /tan/ path and /at/ 3sg personal pronoun. Both these forms have the underlying CV structure *CCVC. The predicted structure is CaCVC, since consonantal onsets are preferred (see §3.5 for examples of regular word-initial/word-internal allomorphy with the alternation #CaC - -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 CcCv and Cc is one of the phonemes /c r l/ then the process of schwa epenthesis is optional, for example:

```
/pcaqalyan/-/pcaqalyan/ bird
/moren/-/moren/ mosquito
/polekat/-/polekat/ 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:

\[-V_1-V_2 \rightarrow -V_2\]

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 -CiUC-

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

deletion of unassociated units

Note that Chukchi does not have any dipthongs.

### 3.2.4 Vowel-approximant assimilation (long vowels)

There exist a number of homonym pairs of the type /oracek/ - /aacek/ 'youth, lad'. The general form of this alternation is:

\[-V,CVz \rightarrow VzVz\]

where C represents any approximant (/w, j, y/).

In the late 19th and early 20th centuries this was reportedly a phonological change (-V,CVz -+ VzVz) 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 de!~tion + vowel lengthening occurred in men's speech with the consonant /p/ and /t/. In the Telqep data, no examples of the elision of /t/ were observed, and elision of /p/ was only observed by one elderly speaker. This is discussed in more detail in §2.3.3.

In autosegmental terms:

<table>
<thead>
<tr>
<th>initial syllabification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- V, CVz \rightarrow VzVz</td>
</tr>
</tbody>
</table>

deassociation of approximant and syllable merge

Examples of these word with variation between long vowel and vowel-approximant-vowel include /qora/-/qaa/ 'reindeer, /yiwik/-/yiik/ 'year, /qiuju/-/qiju/ 'call, /taen/-/teen/ 'really. Other words only occur with the long vowel, e.g. /weem/ 'river (compare Palana Koryak /wejen/), /jesokj/ 'daughter (compare /yeokjekj/ 'female-son) and /apljan/ '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.**

<table>
<thead>
<tr>
<th></th>
<th>bilabial</th>
<th>alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>uvular</th>
</tr>
</thead>
<tbody>
<tr>
<td>stops</td>
<td>p</td>
<td>t</td>
<td>k</td>
<td>q</td>
<td></td>
</tr>
<tr>
<td>nasals</td>
<td>m</td>
<td>n</td>
<td>j</td>
<td>y</td>
<td></td>
</tr>
<tr>
<td>approximants</td>
<td>w</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fricatives</td>
<td>s/c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The phonemes /t/, /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 morphosyntaxic 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]/_/Cnasal and as /t/ → [n]/_/Cnasal, rather than a general rule of the form Camerican → α place /_/Cnasal.

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

**Figure 3.2. Consonant distinctive features.**

<table>
<thead>
<tr>
<th>p</th>
<th>t</th>
<th>k</th>
<th>q</th>
<th>s</th>
<th>c</th>
<th>l</th>
<th>n</th>
<th>g</th>
<th>m</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>sonorant</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>anterior</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>coronal</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>high</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>back</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>nasal</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>fricative</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

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:

- /p/ → { [m]/_/Cnasal
- /t/ → { [n]/_/Cnasal

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

- /k/ → { [q]/_/q

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/ → { [GLOTTALISATION]/_/C

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.

### 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 [f] in free variation; there is apparently no allophonic variation.

- /s/ → [s] or [f]

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

The consonant /c/ 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/ → { [t]/_/#

This particular set of allophonic realisations of the phoneme illustrates an interesting point about psychological reality. Literate Chukchi speakers can graphically distinguish all allophones of phonemes when the allophone is the same as (an allophone of) a different phoneme, e.g. [l] is an allophone of both /c/ and /l/. In these cases literate speakers prefer to use orthographic symbols for the allophones rather than the phonemes; a speaker will always write 'c' where [l] 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]' (Tawiriv pers. comm.). This indicates she was aware that the phonetic sequence [sc] was phonologically /cq/.

Women's /s/ 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 /g/ → [j]/Cfricative → (see §3.3.3).

- /l/ → { [l]/_/l

---

1 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 (/y/ → [y]) in certain contexts.

\[ /m/ \rightarrow [m] \]
\[ /n/ \rightarrow [n] \]
\[ /y/ \rightarrow [\alpha \text{ place}] \]
\[ /y/ \rightarrow [\gamma \text{ place}] \]
\[ /y/ \rightarrow [\gamma /] \]
\[ /y/ \rightarrow [\gamma /] \]
\[ /y/ \rightarrow [\gamma /] \]

The output of [\alpha \text{ place}] in the rule for the realisation of /y/ 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 /y/ is alveolar [n], and if the conditioning environment is uvular the realisation of /y/ is velar [g].

The progressive dissimilation of /y/ → [n] / [\gamma /] may be the only progressive rule in the language. There is however another alternation which is only observed occurring within morpheme boundaries: /y/ → [y] / [\gamma /]. This alternation is a Chukchi innovation, not shared by any of the sister languages. The two commonly occurring examples of the alternation are the singularative */[\gamma /]m/*, which is realised as */[\gamma /]m/* → */[\gamma /]m/, as in */apapay-[\gamma /]m/'a (single) spider'/, */ila- [\gamma /]m/'an eye', and the augmentative */[\gamma /]m/*, which is realised as */[\gamma /]m/* → */[\gamma /]m/, as in */nakat-[\gamma /]m/'big doe'/, */paiwa-[\gamma /]m/'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\})

\[ /w/ \rightarrow [w] \]
\[ /l/ \rightarrow [l] \]
\[ /l/ \rightarrow [l] \]
\[ /l/ \rightarrow [l] \]
\[ /l/ \rightarrow [l] \]
\[ /l/ \rightarrow [l] \]
\[ /l/ \rightarrow [l] \]

Approximants are also subject to the deletion/assimilation process in which

\[ -V_{i}Y_{\text{ortho}}V_{i} \rightarrow -V_{i}V_{i} \] (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 /ο/ → [j] and /ο/ → [u / w].

The non-coronal approximants (i.e. /w y/) 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/.

\[ C_{\text{non-coronal}} \rightarrow /kw/ \] (where at least one of \alpha \text{ and } \beta \text{ 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 → yg*, 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 ico and ico-ico

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 explicative diachronically, but unpredictable synchronically (§2.3.2).

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

<table>
<thead>
<tr>
<th>Men's phonemic system</th>
<th>Women's phonemic system</th>
</tr>
</thead>
<tbody>
<tr>
<td>/qonapp/</td>
<td>/qonapp/</td>
</tr>
<tr>
<td>/panat/</td>
<td>/panat/</td>
</tr>
<tr>
<td>/sajok/</td>
<td>/sajok/</td>
</tr>
<tr>
<td>/cajok/</td>
<td>/cajok/</td>
</tr>
</tbody>
</table>

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 Note that in accordance with the traditional practice in Chukchi linguistics the velar approximant phoneme is written by the symbol /y/ (usually a velar fricative) instead of the technically correct symbol for a velar approximant /\gamma /.
3.4.1 Vowels and vowel harmony

Chukchi has six phonetic vowel segments, the segments [i], [e], [a], [o], [u] and the epenthetic vowel [a]. 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:

<table>
<thead>
<tr>
<th>VH</th>
<th>harmony prosody</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>[i]</td>
</tr>
<tr>
<td>-</td>
<td>[e]</td>
</tr>
<tr>
<td></td>
<td>[a]</td>
</tr>
<tr>
<td></td>
<td>[o]</td>
</tr>
<tr>
<td></td>
<td>[u]</td>
</tr>
</tbody>
</table>

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 absolute singular suffixes with form /-n/. One of these is +VH, and derives place nouns from action verbs (§3.4.1). The other has the value -VH, and is the default absolute suffix, carrying no further semantic specification (§6.3.1).

Thus the +VH word /bake-n/ 'path' is derived from the -VH verb root /bake-/. 'go, walk': the addition of the +VH suffix has changed the /e/ of the stem to /a/. In contrast, the noun stem /kemiliu-nt/ 'kamijka' (a cloth tunic worn over fur) forms absolute case with the suffix /-nt/, which doesn't cause any alternation of the vowels, i.e. /kemiliu-nt/.

Note that the vowel [a] 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.

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

2. Epenthesis (one of the possible markers of absolute singular; §6.3.1) copies consonants and vowels, but is blind to the presence of the glottal stop:

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 /hada-men/ 'he killed it' (NFUT) and /ya-nim-ten/ '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 */mə/ which is realised as
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, /*pant/», /*mpt/» and /*ppl/. The form /*pant/ usually occurs word initially, and the form /*mpt/ always occurs word internally. The form /*ppl/ is the absolutive nominal form with no affixation. The distribution of these forms can be accounted for by hypothesising an underlying form /*ppl/. 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 /*paj/ word initially or /*ppl/ word internally. After syllabification the underlying forms are then subject to regular phonological rules, giving either /*pl/ → /*nl/ or /*pj/ → /*mg/. 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:

1) */#/l-/*n/ alternation (/*l-/*nl/ alternation)
2) */#/l-Ct/*-/*Ct-l/ alternation (Internal consonant – zero alternation)
3) */CtCt/*-/*Ct-l/ alternation (Internal 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.

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 §11.6.2), 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 /*nl/ 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 /*Ct/ alternates with just the second consonant when word initial /*Ct/ are much less common than stems with the */#/l-/*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:
There are a couple of forms which show that these alternations are not phonologically or semantically predictable class. For example:

<table>
<thead>
<tr>
<th>ALTERNATION</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>#p - ip</td>
<td>#puur? - -ipuur? - exchange</td>
</tr>
<tr>
<td>#q - tq</td>
<td>#qeynew - -qeynew - shoot</td>
</tr>
<tr>
<td>#qut - -qut - stand up</td>
<td></td>
</tr>
<tr>
<td>#qut - -qut - set off</td>
<td></td>
</tr>
<tr>
<td>#k - rk</td>
<td># Kale - -kale - follow</td>
</tr>
<tr>
<td>#kap? - -kap? - hit</td>
<td></td>
</tr>
<tr>
<td>#w - tw</td>
<td>#wa- -tw? - draw out</td>
</tr>
<tr>
<td>#wut - -wut - stand up</td>
<td></td>
</tr>
<tr>
<td>#g - tg</td>
<td>#tg - -tg? - make fish shavings</td>
</tr>
<tr>
<td>#t - tt</td>
<td>#tt? - -tt? - pour</td>
</tr>
<tr>
<td>#k - tk</td>
<td>#tk - -tk? - spend night</td>
</tr>
<tr>
<td>#kw - kw</td>
<td>#kwut - -kwut - harness</td>
</tr>
</tbody>
</table>

External consonant - zero alternation

There are many other word internal clusters which don't show any such alternations, including /#law/ - /law/, /#lay/ - /lay/, /#kaw/ - /kaw/, /#taw/ - /taw/, /#taw/ - /taw/. 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 many other word internal clusters which don't show any such alternations, including /#law/ - /law/, /#lay/ - /lay/, /#kaw/ - /kaw/, /#taw/ - /taw/, /#taw/ - /taw/. The forms with the consonant deletion alternation 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-aw/), it is reduced to schwa:

/e-aw/ → o/ |

When the final vowel is underlying /i-aw/ or /u-aw/ the vowel is usually elided when word final, but this is rather less regular than the reduction rule:

/i-aw/, /u-aw/ → | |

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 §10.2), and there does not seem to be much variety in intonation patterns.

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 phonologically 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-sentence pitch 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 '[...].

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 boundary.

* 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 can 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

First syllable/REDUCED VOWELS

First syllable/VOWEL INITIAL

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 Vocative 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 in 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 + [l]

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 (pronounced) vowels.

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

001 ank?am n-in-lw-lyam Talel'pan / [...]

And I said to him: "Talel'pan" ...

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

002 ana kake1 ation Pam req-a-Pet-a-rkan?n

The word ammem is emphatic. In example 003 the final vowel of the stem is not reduced, and there is a [l] added after it; see (ii) and (iv).

003 "ammemel! əemi əly-ə-n?

Mummy,3sgABS.VOC where hide-E-3sgABS

"Mummy, where's the hide?"

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

004 ana e-lejw-a-tku-Petke

Don't wander off all the time!

Example 005 shows very strong emphasis by lengthening all the vowels of qolqitegotkujwujwaynet chop [i] up really well:

005 qa-lc-ylc-teq-a-tcl-tku-jw-a-q-a-net telget-ti [...]

Chop the food really well ...

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 Internationalsm 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.

<table>
<thead>
<tr>
<th>Chukchi Phoneme</th>
<th>Grapheme</th>
<th>(Russian Phoneme)</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/</td>
<td>Π</td>
<td>/p/</td>
</tr>
<tr>
<td>/t/</td>
<td>Τ</td>
<td>/t/</td>
</tr>
<tr>
<td>/k/</td>
<td>Κ</td>
<td>/k/</td>
</tr>
<tr>
<td>/q/</td>
<td>Κ’</td>
<td>no equivalent</td>
</tr>
<tr>
<td>/m/</td>
<td>М</td>
<td>/m/</td>
</tr>
<tr>
<td>/n/</td>
<td>Ν</td>
<td>/n/</td>
</tr>
<tr>
<td>/ŋ/</td>
<td>Ν’</td>
<td>no equivalent</td>
</tr>
<tr>
<td>/l/</td>
<td>Λ</td>
<td>/l/</td>
</tr>
<tr>
<td>/v/</td>
<td>Β</td>
<td>/v/</td>
</tr>
<tr>
<td>/r/</td>
<td>Γ</td>
<td>/r/</td>
</tr>
</tbody>
</table>

NOTE: Κ’ (uvular stop) and Ν’ (eng) can also be written with the special characters К and Н, but this poses typographical problems. In 1996 the symbol for /l/ was changed from Λ to Λ (this convention used in, for example, Emel’janova & Nutekev 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:

<table>
<thead>
<tr>
<th>Chukchi</th>
<th>Grapheme</th>
<th>(Russian)</th>
</tr>
</thead>
<tbody>
<tr>
<td>/c/</td>
<td>Τ (before K’)</td>
<td>/s/</td>
</tr>
<tr>
<td></td>
<td>Τ (elsewhere)</td>
<td>/ʃ/</td>
</tr>
</tbody>
</table>

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, [i] is /ʼi-VH/, [e] is /ʼe-VH/, [a] is /ʼa-VH/, and [o] comes from either of two sources: /ʼe-VH/ or /ʼo-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:

<table>
<thead>
<tr>
<th>Chukchi</th>
<th>Grapheme</th>
<th>(Russian)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[i]</td>
<td>Ι</td>
<td>/i/</td>
</tr>
<tr>
<td>[e]</td>
<td>Ε</td>
<td>/e/</td>
</tr>
<tr>
<td>[a]</td>
<td>Α</td>
<td>/a/</td>
</tr>
<tr>
<td>[o]</td>
<td>Ω</td>
<td>/o/</td>
</tr>
</tbody>
</table>

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: /a/ + /a/ is written ‘TA’, whereas /a/ + /a/ is written ‘TR’ (word finally palatalisation is indicated by a ‘silent’ letter ‘ʼ, 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 Λ is considered palatal, and all the others are non-palatal.

Thus, there is a redundant doubling of vowel symbols:

<table>
<thead>
<tr>
<th>Chukchi</th>
<th>Grapheme</th>
<th>(Russian)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Α</td>
<td>/a/</td>
<td></td>
</tr>
<tr>
<td>Ε</td>
<td>/e/</td>
<td></td>
</tr>
<tr>
<td>Α (after Λ)</td>
<td>/a/</td>
<td></td>
</tr>
<tr>
<td>Τ (after Λ)</td>
<td>/e/</td>
<td></td>
</tr>
<tr>
<td>Τ (elsewhere)</td>
<td>/e/</td>
<td></td>
</tr>
<tr>
<td>Τ (elsewhere)</td>
<td>/a/</td>
<td></td>
</tr>
</tbody>
</table>

The vowel symbols which in Russian follow palatal consonants are known as the ‘rotated’ vowels, as their second function is to represent /i/ + vowel sequences. This occurs word initially, or following a ‘soft sign’ or ‘hard sign’ (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 rotated symbols, when a /i/ precedes these it is written using the Cyrillic character I.
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 unjotted vowel.

Chukchi Orthography
# /j/ + /a/ Я
/α/ + /a/ ТА
/α/ + /i/ + /a/ ТЬА
/α/ + /a/ ЯЯ
/α/ + /i/ + /a/ ЛЬЯ
# /j/ + /i/ ИИ
/α/ + /i/ + /a/ ТИЯ
/α/ + /i/ + /a/ ЛИЯ

Thus, the soft sign and hard sign each have two functions: preceding the jotted series of vowels they indicate jotation, and preceding the unjotted 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:

<table>
<thead>
<tr>
<th>Chukchi Phoneme</th>
<th>Bogoras (1922) transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>/j/</td>
<td>Y</td>
</tr>
<tr>
<td>/h/</td>
<td>H</td>
</tr>
<tr>
<td>/e/</td>
<td>e, e</td>
</tr>
<tr>
<td>/æ/</td>
<td>e</td>
</tr>
<tr>
<td>/w/</td>
<td>w, w</td>
</tr>
<tr>
<td>/r/</td>
<td>ɬ, r</td>
</tr>
<tr>
<td>/y/</td>
<td>y, j</td>
</tr>
<tr>
<td>/s/</td>
<td>ʂ, h</td>
</tr>
</tbody>
</table>

The following sequence of phonemes is indicated by one letter:

/4/  L

The glottal stop is written as a superscript ' following the vowel in the syllable where it occurs, e.g. /tɛw/ 'whale' is transcribed ʼɛw. Bogoras didn't write the glottal stop in the nominaliser endings /tɛi 'men'; ʼɛi 'women'.

The vowels are transcribed using the following symbols.

<table>
<thead>
<tr>
<th>Chukchi vowels</th>
<th>Bogoras (1922) transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>[i]</td>
<td>i</td>
</tr>
<tr>
<td>[e]</td>
<td>e, æ</td>
</tr>
<tr>
<td>[æ]</td>
<td>æ</td>
</tr>
<tr>
<td>[ə]</td>
<td>ō</td>
</tr>
<tr>
<td>[ɔ]</td>
<td>ɔ</td>
</tr>
<tr>
<td>[u]</td>
<td>u</td>
</tr>
<tr>
<td>[ʊ]</td>
<td>ʊ, ū, ō</td>
</tr>
</tbody>
</table>

Full vowels usually include a diacritic which indicates the underlying vowel harmony of the morpheme; - 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 /u/ before a consonant. These conventions are illustrated in the following examples:

Transcription: Morphemic structure: Surface form:
laŋuqtə ˈlʌŋwɑ̌wɑkɤŋ-wən ˈlʌŋwɑ̌wɑkɤŋ/ 'he can't do it'
galaŋquna ˈgɑ̌lɑnɡwɑ̌wɑkɤŋ-zyn-wən ˈgɑ̌lɑnɡwɑ̌wɑkɤŋ/ '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 /u/ (which I have already been transcribing as /r/; 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 /s/...
which I have been transcribing as /c/; see footnote 2) are both transcribed 'c'. The symbol ć has been used by many writers (e.g. Comrie 1981), and 'e' 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 /l/ is written 'l' for the sake of clarity (to avoid confusion with 'č'). 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.

<table>
<thead>
<tr>
<th></th>
<th>bilabial</th>
<th>alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>uvular</th>
</tr>
</thead>
<tbody>
<tr>
<td>stops</td>
<td>p</td>
<td>t</td>
<td>k</td>
<td>q</td>
<td></td>
</tr>
<tr>
<td>nasals</td>
<td>m</td>
<td>n</td>
<td>j</td>
<td></td>
<td></td>
</tr>
<tr>
<td>approximants</td>
<td>w</td>
<td>r</td>
<td>j</td>
<td>y</td>
<td></td>
</tr>
<tr>
<td>fricative</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td></td>
</tr>
<tr>
<td>lateral fricative</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td></td>
</tr>
</tbody>
</table>

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

### Figure 3.9. Vowel graphemes used in this thesis.

<table>
<thead>
<tr>
<th>Underlying vowel</th>
<th>Vowel harmony prosody</th>
<th>-VH</th>
<th>+VH</th>
</tr>
</thead>
<tbody>
<tr>
<td>/'i/</td>
<td>'i'</td>
<td></td>
<td>'e'</td>
</tr>
<tr>
<td>/'e/</td>
<td>'e'</td>
<td>'o'</td>
<td></td>
</tr>
<tr>
<td>/'a/</td>
<td>'o'</td>
<td></td>
<td>'a'</td>
</tr>
</tbody>
</table>

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 prevoceal glottal stop, which is also the simplest way to indicate it in the orthography, e.g. 'r·bow' 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. undermine 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 walpa- forms the nouns walpa/walpa·t shovel/shovels, whereas to form a verb to shovel (something) requires a morphologically complex stem walpa-tko-, derived by means of the suffix -tko·VH used [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 converses are formed the same way), for this to produce a word
The selection of the auxiliary verb is the only overt marker of transitivity; 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**
- De-adjectival (closed?) — §4.8.1
- Dejectives (closed) — §4.8.2, §5.4
  - 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' qaramenqa-qacama (§4.8.5; classified with particles due to its similarity in form and meaning to the particle qaram/qacam) and the argument-taking particle interjection qoro (§4.8.6).

### 4.2 Nominals

Chukchi has a large class of nominals. They are characterised semantically by the feature that they represent relatively time stable phenomena (Givón 1984:53-56). 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 subject, transitive object, and 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 particiles (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. 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 Koryak-Chukotkan 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

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**WORD CLASSES**

- Adjectives (closed?) — §16.2
- Numerals (closed?) — §16.7
- Inflecting verbs (§4.3), including:
  - Transitive verbs (open) — §11.3
  - Intransitive verbs (open) — §11.2
  - Capulalauxillary verbs (closed) — §17
- Derived (deverbal, de-adjectival, and negative, open) — §§13.5-6, §18.8
- Underived time and manner (closed?) — §4.8.3
- NP modifier (closed) — §4.8.4
- 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

**Chapter 4**

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- Adjectives (closed?) — §16.2
- Numerals (closed?) — §16.7
- Inflecting verbs (§4.3), including:
  - Transitive verbs (open) — §11.3
  - Intransitive verbs (open) — §11.2
  - Capulalauxillary verbs (closed) — §17
- Derived (deverbal, de-adjectival, and negative, open) — §§13.5-6, §18.8
- Underived time and manner (closed?) — §4.8.3
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- Negative Particles (closed) — §4.8.5, §18.8
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- Discourse Particles (closed) — §4.8.9
- Evaluative Particles (closed) — §4.8.10
- Postpositions (closed) — §4.9, §15.5
- Interjections (open?) — §4.10

**Chapter 4**

**WORD CLASSES**

- Adjectives (closed?) — §16.2
- Numerals (closed?) — §16.7
- Inflecting verbs (§4.3), including:
  - Transitive verbs (open) — §11.3
  - Intransitive verbs (open) — §11.2
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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. 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 the 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 folktales 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 experimentation 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- which collapses the ergative/instrumental, locative and (sometimes) dative/ablative 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, sometimes 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 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):

<table>
<thead>
<tr>
<th>Person/Number</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>Yama - yam-</td>
<td>Muri - mury-</td>
</tr>
<tr>
<td>2nd person</td>
<td>Yato - yat-</td>
<td>Turu - tur-</td>
</tr>
<tr>
<td>3rd person</td>
<td>Atlon - an-</td>
<td>Atri - ar- (men's)</td>
</tr>
</tbody>
</table>

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
Adjective stems functioning attributively are frequently incorporated into their headword in the absolute
in the habitual inflection (§10.3.2). When other tenses are required, free adjectives cross-reference person and number in a manner identical to verbs constrained to a few functions only (universal habitual aspect predicates or adjectives'), but also have other functions. The word class of adjectives is adjectives. Adjective stems are the lexical head of adjective words ('free
It is necessary to distinguish the word class of adjectives from the stem class of numerals and analytic numerals.

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 combinatorial possibilities with other nominal morphology (§8.2).

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. kalyan-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. kalyan-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. qeek-kin kalyan-ken pacol thirty five (i.e. twenty [and] fifteen extra)

The word anot'ee 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 absolute 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 (-ke), human collective (-yire), non-human collective (-jono), and distributive (-jut) (§16.11).

In Skorik's description of Chukchei, 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. Analytic structures are not attested in the spontaneous data used for this comparison 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:

<table>
<thead>
<tr>
<th>INTRANSITIVE</th>
<th>TRANSITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero-place (vI)</td>
<td>Two-place (vt)</td>
</tr>
<tr>
<td>One-place (vi)</td>
<td>Three-place (vce)</td>
</tr>
<tr>
<td>(or 'extended')</td>
<td>(or 'extended')</td>
</tr>
</tbody>
</table>

LABILE (vlab)

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

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 layf know.

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-/twat-: to exist, to be (located)
- it-: to be
- n'tel-: to become

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

- lag-/ly- AUX
- rate-/l- AUX, treat as, make into
- rat-/nt- AUX, have as

These forms are distinguished semantically and distributionally: the rate-/l- auxiliary combines with the transitive mental act forms (derived and underived) to give a resultative meaning, whereas the lag-/ly- form combines with the same forms to indicate non-resultative, stative meaning, e.g. gemo lag·f·IY· know smith and gemo ratcoK forget smith. The rat-/nt- auxiliary combines with verb bases in -(e) and negative verb bases.

The verb lag-/ly- also has a transitive copula-like function which is discussed in §17.1.2. The verbs rate-/l- and rat-/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 suffixes -yta, n-...-ew, -u and -(t)e, or negative polarity, indicated by e-...-ke or lug-...-(t)e. The suffix -u derives transitive verb bases denoting various mental acts. These include yem-o not know (vt), cimy?-u think about (vt), cimky?-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 lug-...-(t)e, which differ appropriately (§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 lay? know (vt) in 002 is an example. There are only a very small number of other such forms; Moll (1957:138) gives teng-a laugh at (vt), although in Telqep Chukchi only an intransitive iterative (and possibly antipassivised) form teng-a tku- laugh is used.

Sporadically other adverbs and particles can act as underived verb bases, notably yujge the negative existential particle, and migkari the interrogative manner adverb how?

4.7 Converbs

Converbs are defined morphologically as a deverbal word class defined by specific suffixation (-rna, -k, or -inegu), 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 to 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, eyratak is usually glossed as tomorrow although it also means the next day relative to the discourse frame and is treated as a temporal adverb (Skorlik 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--ko:

003 eyratak paw-a-n-ra-yt-at-y'e
dawn-SEQ woman-CP-go.to-CS-TH
The next day he brought the bride home.

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. teg-ujge absolutely without (ujge negative existential, teg-intensifier), em-cinit entirely oneself (cinit oneself, em-restrictive), nemqej 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 snk?am angena-ja=gw=7m qanur
and DEM-ABS=EMPH like ADV-smeq-ADV
n-a-le-qin remk-a-n myriek-t-a-k
HAB-E-3sg lik-E-3sgABS work-E-3NF

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

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 -g (§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 numinals (§13.4).

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 converses as well. The majority of such forms have temporal meaning, e.g. Pelegit during the winter. The form ?at is an underived adverb meaning during the day; it has an irregularly related form ?alot which functions both as a noun day and as a verb spend the day. Other underived temporal adverbs include ajwe yesterday; yanmajep a while ago; teljenep long ago, is meanwhile; gop a always.

Examples 011 and 012 show Pelegit spend winter and ?alot spend day acting as verb stems:

011 [...] janra n-a-Pelegit-qin Jaqet-a-k [...] first HAB-E-spend, winter-3sg step-E-INF
... first they spend the winter sleeping ...

012 neme anqin ?alot-ye-q jana-k [...] again thus spend-day-TH house-LOC
Again he spent such a day at home ...

The same stems can act as underived nouns, for example ?alot spend day in the following:

013 tber ?alot jaan-ya-n?
how much day-3sgABS we-TH-3sgO
How many days did it take (lit. "use")?

Most manner adverbs are derived (see §4.8.1), but the corresponding Interrogative manner adverb ?am why is underived:

014 Ik-wi "q-a-wi-iy? 1am tam-a-tko-nat / say-Th INT-E-descend-Th why? E-ITER-3plO
... they spend time acting ...

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

Other underived manner adverbs include a number which express comitative-type relationships, for example kannel together and ceekej together.

015 qejwe kannel man-a-kejwa-a-rkan man-e-ekwet qejwe only together 1plCOND-e-nam-3sg E-PROP 1plCOND-set-off only
together Janor together first
If we were going out hunting together, we went together first.
4.8.4 DP 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 absolute case nominals, and indeed, are sometimes interchangeable with them. The DP modifier adverbs include a quantifier form camqan the others, a reflexive cinit self, and a series of restrictive forms (e.g. amyanman myself, by myself, amyanman yourself, by yourself, etc.). These forms are discussed in §§7.6.1-3.

4.8.5 Negative particles

Negative particles fulfill a number of syntactic functions. The particles qaram-qacam and wanewan forms negative predicates with verbs in the intentional. The particle ange forms imperatives of prohibition with negative conjunctives, and ujje generally goes with nominals in the privative case (homophonous with negative conjunctives). These particles are treated in greater detail in §§18.2.1-2, §18.4, §18.8.

The negative identity particle qaramena-qacamena consists of 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 atse-ed-ecet that’s all, welankagun thank you, and jwewjew wait a minute!

016 ejjej jwewjew edjape m-ya-y-a-nat
yes wait quickly 1sg.INT-get-3PO

Yes! Wait a minute! I’ll get them quickly

Negative particles (see §4.8.4) can also be proclauses, in which function they act as answers to polar questions, e.g. qacom-qaram ‘no’, ‘it won’t’. The positive answer to polar questions is til-ei ‘yes’. The non-inflecting word qoro gimme is a ‘transitive proclausal particle’. It can optionally take an absolute case syntactic dependent representing the ‘thing given’ and a first person singular beneficiary assumed. For example,

017 qoro til-tga

gimme need-ABS

Gimme ar the needle.

It functions as a variant of the inflecting verb qinejlayi give me (smth), which is a form of the verb jali-jli- 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 hithe which is also the origin of the ablative case suffix in some Koryak dialects.

Proclausal particles form a clitic with intonations (§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 (qelug=7m because) or temporal sequence (qanem then).

The conjunctive particles are underlined in the following example:

018 qanem anqora=7m / remk-a na-layen=7m / [a-g'o-ka
then after=EMPH folk=E-ABS might=EMPH NEG-hunger=NEG

ye-n-e-li-lii tunja=A=7m jinter-pasa=7m anch=7m remk-a-na=7m qanem
PF=come=3sg Jroot=act=7m anch=7m remk-a-na=7m qanem

PF=A=EMPH EABS=EMPH then

lon-q-pye-kanma-n-n-l-qin=7m geluqe=7m anqen
NEG-E-INTS-slaughter reinforcement NEG HAB-be=3sg=E-EMPH become=E-EMPH DEM.3sgABS

teljage n-a-twa-qen=7m
food.3sgABS HAB=E-E=3sg=E-EMPH

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

[193]

Note that anqora after that is also a regularly formed spatial deictic adverb from there (§11.6).

There are also conjunctive particles which are specialised as clause/sentence openers, e.g. anraq ai this/that time.

019 ana anraq genetsa cejwe-e anqen
so then liver walk=ADV DEM.3sgABS

ott-a-polya-a-qaj ran-a-nln
wood=E-ear=E-DEM.3sgABS take=E-3sg=3sgO

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

[193]2

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 cam?am, expressing inability and meccanka, which expresses sufficiency or ability:

020 cam?am mat-ra-jalyat-y7a
  unable.MOD 1pl-FUT move.camp-TH
  We can't move camp [nb080.2a]

021 meccanka mat-ra-jalyat-y7a
  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 ana n-o-kaacew-a-qin n-o-kaacew-a-qin ujge layen cam?am
  well HAB-chase-3sg HAB-chase-3sg NEG.EXCL 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 =7m 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 cewara=7m grey =7m pronounced cewara=7m. If it is joined to a consonant final word a syllabic is formed with an epenthetic schwa. For example, the pronunciation of remkal?am=7m guest (EMPH) is remkal?an=7m. 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 =7m, including two on nouns (tajnatyapa=7m really, anqen=7m really, qe?en=7m because), and two on verbs (na?qin=7m be/tell).

4.8.10 Evaluative particles

The 'evaluative' subclass of particles has two members: lee good, excellent and =etki(g) 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 lee excellently acting as a sentence adverb, while in 024 it is a predicate.

023 lee layen tay-namatwa-y7a-t
  excellently layen [INTS-lie-TH-3pl
  They all lived excellently. [nt147]

024 kolo layen / Cakwagaqaj na-n-awer?-ep-at-y7a-n
  INS really personal.name.3sgABS INV-CS clothing-dress-CS-TH-3sg
  n-ililyatuw-jow-7e-n / layen Cakwagaqaj
  HAB-wash COLL-TH-3sg excellent really personal.name.3sgABS
  And so they dressed Cakwagaqaj up, they washed him. Cakwagaqaj was excellent. [cy243]

Example 025 shows the evaluative particle =etki(g) acting as an attribute in an NP.

025 egalpe ra-yt-i-7e anqen =etki(g)
  quickly house-go-3sg ABS really personal.name.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-yr-_, 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 apa?ak):

026 ata?ka-y reen n-a-twa-a-gan annen yilk
  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 Po-waly-0-ma lukan?am ama
  see.RECIPE-E-SIM scholar-LOC.PL with PP and also
  kale-wetjaw-ma ary-lin-0-t eginm-a-t /
  write-speak-SIM 3sg-POSS-3sgABS word-E-3sgABS
  ... 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 an non-adjacent locative case nominal:
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 -qqac(a) which seems to share many of the same functions (§15.3.2).

4.10 Interjections
Interjections are words that are grammatically not integrated into the language. They generally express emotional content, such as surprise (okkoj, kako), distress (ñoqoj), or pain (ilk, ilkaka). 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 a 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 the topic (shared information which can be retrieved from verbal cross-reference) is 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:

-VERB-  
CORE ARG. (S)  
CORE ARG. (A)  
VERB-  

001 erratak nete rayta-y'qen qeren qor-nta-73m-n next.day again go'home-TH DEM.3sgABS under-head-FCLP-63sABS  

The next day that herder again went home. [cy014]

The constituent order of clauses is not fixed and core arguments are frequently referred to by verbal cross-reference (bound pronouns) or 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).
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 of a section of quoted speech; e.g.:

```
003 anqen mej-p-a-wil-u n-it-qfn=am DEM big E-place-EQU HAB-CPD-3sg=EMPH
  That was a lot of money.
```

The syntactic structure of copula clauses is described in §17.7.2.

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.

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 indepth study of speech genres than has been possible for this work).

5.3.2 Predicate adjectives and possessed predicates

Predicate 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 predicate adjective form occurs quite commonly, but the possessed predicate form is rare.

```
006 telqep-a-1p-a-n eaj liyt anka mal-anka
  Teqlqep-E-NAZER-E-3sg.ABS DEICT now here APPR-here
  Telqep-a-1p-a telqep-E-AMIR-E-3sg.ABS
  the axe... well now yaryolgaw is a Telqep, also Sasha Ukyl [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 indepth study of speech genres than has been possible for this work).

5.4 Dependent clauses

Converbs (§12.4) form the heads of dependent clauses. Participles may be analyzed as forming the heads of relative clauses, although there is little evidence to show that these should be considered a special clause type (§8.3). 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.

<table>
<thead>
<tr>
<th>Converb Suffix</th>
<th>Type of Adverbial Clause</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ma</td>
<td>simultaneous (after AC, MC)</td>
</tr>
<tr>
<td>-k</td>
<td>sequential (after AC, MC)</td>
</tr>
<tr>
<td>-(i)negu</td>
<td>consequential (as a consequence of AC, MC)</td>
</tr>
</tbody>
</table>
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 qenku ajwe wama while there yesterday could be interpreted as referring to the speaker. The person she is talking about, or even the addressee.

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

009 layen qa-yite-3sg italiani wama
realy INT-1sg-LOC-COLL-PROG DEM.3sgABS eense-3sg

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 ‘abverbial subordinators’ described in other linguistic traditions (e.g. the ‘datutive subordinator’ yundra in Yidiny; Dixon 1977). Converbs are discussed in §13.4.

PARTICLE 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 (absolutive case) attributes (§9.2.2).

5.5 Multicausal 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 ank’am and (a typical coordinator) merely implies sequence in time. However, thiscline 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).
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 conjunctions for joining clauses and predicates are anka and cama, which are freely used in nominal conjunction, but nominal conjunction with cama occurs very rarely; §9.5.2. Clauses and sentences can be coordinated using a range of conjunctive particles (see also §4.8.7).

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 (IMPETITIVE/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 particles (§5.6.2). The IMPETITIVE 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 of 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:

speaker 1: anka n-le-nu-qen? /// and HAB-TR-EST-3sg
speaker 2: wanyen nu-ku-te / NEG-NFUT NEG-EST-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 neutralizes mood distinctions and expresses tense by the choice of negative particle (§18.2.1-2):

020 [..] naran kela na-let-a-nl
NEG.FUT spirit.3sgABS 3sg.INT-E-come-3sa
No spirit came!

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-enya-wenya-at-jaw-qa
CONJ HAB-TR-INTS-CS-speak TH-INTS-3sg
speaker 2: ginaqtiwa "Nothing·
boy-OM.3sgABS
speaker 2: "She also spoke to him for a long time"
"With the little boy?"
"Yes"

[ko015-017]

022 speaker 1: nely-a-n?m etana n-a-yt-a-qen ?aga-njet?uw-a-g
hide-3sgABS-EMPHT probably ADJ-EMPH hard-3sg IMPSS-pr-EMPH
lamewat wentayl n-a-njtt?ew-qa?
or nevertheless HAB-EMPH-process-3sg
speaker 2: wanewan n-a-njtt?ew-a-n tag-wanewan
NEG.FUT INT-EMPH-3sg EMPHT-NEG.FUT
"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 putku hun-lejw-e tle?
but polar bear.3sgABS "he"
NEG-walk-NEG sometime
speaker 2: wanewan
NEG.FUT
"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.
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 (qiiwrken say ith):

029 lay-7owat-Pa-mel q-1w-a-rken m-eml-l-a-m-a-an ak-i?am
AUTH-person-ADV 2.INT-say-E-PROG bullet-NMZT-E-3sgABS=EMPH and

tang-a-mel q-1w-a-rken anqen r?enut /
stranger-E-ADV 2sg.INT-say-E-PROG DEM.3sgABS something.3sgABS

In Chukchi say "Bullet folk" and in Russian say what it is. Then [say] the others. [kv037]

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 wee?am ?an-a-n-jalyt-an-ma\ maybe
INT-E-CS-nomadise-TH=1PI

Maybe they'll give us a lift [With luck let him give us a lift]. [nb043.4.1]

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 anraq / "It ratangawgej waj / / /e\k waj / then yes enough
man-ra-yt-a-mak uu\i
1pl.INT-home-go-to-E-1PI 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 lam kante-ma-in cemqak e-n\-a-ke
why buy-POSS.E-ALL 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 lam 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 "arithmetical 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 qanvet ra-yt-a-go-go-y\e antualpare-te iw-nin / finally

house-go-to-E-INC-F-TH brother-in-law-ERG say-3sg.3sgO

eryat-a-k yan-in gelval q-o-ret-y-a-n
dawn-SEQ 2sg.POSS.3sgABS hold.3sgABS INT-E-ENG-E-3sg

Finally he got ready to go home; his brother-in-law said to him 'Bring your herd tomorrow'. [ut08]

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 ni\an they said to him is ambiguous as to whether it's the boy Cakwaqaqaj 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 qonpa layen am-anaan Cakwaqaqaj pakwap\eta // always
day REST-3sg.NGT personal.name.3sgABS hold.ALL

qanvet anqen teg-onjlw raju-leq-t-a\i j7m // finally

DEM.3sgABS good-uncle stand.watch.set.of-th-EMPH

h-1w-a-n wane anqen atcaj-ajl-n-a opopa
INJ-say-E-3sgO INTJ DEM.3sgABS aunt-DIM-E-ALL must

khw-tum\-u q-h-v l.
stay-night.found.EQU INT.3sg-be-TH

It was always Cakwaqaqaj 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 folktales. Example 035 shows a direct quote
used in conversational Chukchi:

035 yonmal in?e ya-cajo-ya?m genku=m anqo
recently morning PF-consume-3sg there=EMPH then
omawokwagaw y-1w-lin anju-re-k
personal.name.3sgABS PF-say-3sg ucht-ocht
opopo m-amalno-o qeq-o-k / il
must 1sg.INT-shit-PURP-3sg yes
This morning I drank tea there, and Omawokwagaw said "Ow-ow, I can't
hold on, I must go for a shit!"— "Yes" [kr262]

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

036 qanwer teryat-y?e "Pam naqam in-1w-a-rkro
finally cry-TH why but INV-say-E-PROG
INT-INV-use-TH finally FUT-INV-CS-leave-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 constrasts the frequency of use of various TAM forms in
narrative and 'dialog' (quoted direct speech).
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. put- here) referring to the nearest entities, gan:qen(a)- that (cf. gen-there/that) referring to comparatively distant entities, and a number of others derived from the various stems indicating entities very far away, e.g. gaan.qen(a-), goon.qen(a-). The stems indicating 'very far' are not graded for distance with respect to each other.

The demonstrative mn:qen(a)- has the same stem mn- 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, amal?o all and qut- one, other (irregular absolutive singular qol). They both decline like high animates (§6.2): amal?o is intrinsically plural, and may get plural agreement, but does not itself mark plural by affixation.

• PARTICLES (§8.2). Particles 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:

<table>
<thead>
<tr>
<th>Intransitive stems</th>
<th>Transitive stems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-core equative</td>
<td>Passive (O-focus)</td>
</tr>
<tr>
<td>e.g. e-m:la-17·a-n the one going (e-sole- go)</td>
<td>e.g. tam·jo the one killed (etam·jn·nm- kill)</td>
</tr>
<tr>
<td>Negative Passive (negated O-focus)</td>
<td>Non-core equative</td>
</tr>
<tr>
<td>e.g. e-mm·x-ka-17·a-n the one not killed</td>
<td>e.g. ine-mm·3-17·a-n the one who kills</td>
</tr>
<tr>
<td>Transitive Active (anti-passivised A-focus)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>CASE</th>
<th>GRAMMATICAL FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>absolute</td>
<td>S, O</td>
</tr>
<tr>
<td>ergative</td>
<td>A</td>
</tr>
<tr>
<td>equative</td>
<td>copula complement</td>
</tr>
</tbody>
</table>

The ergative case form actually has two functions: ergative, the grammatical case marker of the 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 copula 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. -jgko, 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 -kn·nm- 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 absolute 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) perulative, 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-jigka** under the cloth (sublative)
- **meniy-e** with the cloth (ergative/instrumental)
- **meniy-a-t** cloths (absolute plural)

Furthermore, other spatial cases cannot combine with the sublative; meniyjigka
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.

- **agqa-jekwe** along the sea (perlative)
- **agqa-k** at the sea (locative case)

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

- **moor?et-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
- **weem;iikwi-k** on the length of the river

Thus, there are actually two affixes, -jekwe ·VH which is a perulative case
marker, and -jikwi ·VH, which is a perulative 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 perulative; in some contexts it acts
as a case marker and in some contexts it acts as a derivational suffix. The
suffix -coku can occur word finally for a locational meaning without the
locative case:

- **retem-coku** inside the roof (inessive + absolute)
- **qora-coko** inside the reindeer (inessive + ablative)

Unlike the perulative, the two functions of the inessive are not formally
distinguished; -coku ·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 -curm-
edge cannot mark an independent nominal without some other case marker to
indicate its syntactic role. The notion of ‘location on the edge’ must be marked by
the locative case, e.g. **agqa-corm-a-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:

**LOCATION**

- **locative**
- **ablative**
- **ablatice**
- **orientive**
- **inessive**
- **perulative**
- **sublative**

**ACCOMPANIMENT**

- **comitative**
- **associative**
- **privative**

* the cases marked with an acerisk 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.

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:
ergative/Instrumental they have slightly irregular forms (fig. 6.2, notes 12 and 14).

locative case personal pronouns

Irregular form

nouns but have a thematic

person is the head of. The high animate inflections in the singular use a single suffix -re-VH to mark the ergative/instrumental, locative, and allative cases. In addition, the animate uses this suffix along with the standard ergative case suffix -a.

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 -re-VH or -ce-VH (men's and women's dialects respectively) prior to the case ending. The ergative case has an irregular form -reak-e-VH, which is identical to the (regular) locative -re-ak-w-VH, and the allative has an irregular form -reak-e-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).

Although underlying *ne-e would be realised as -ne because of vowel contraction, this form is better treated as unanalysable, since that the predicted form would actually be the unattested *n-e. Note that the high animate ergative is identical to the high animate locative.

Figure 6.1. Chukchi case inventory.

<table>
<thead>
<tr>
<th>Grammatical Cases</th>
<th>Spatial Cases</th>
<th>Accompaniment Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sessile</td>
<td>locative (at)</td>
<td>comitative (with)</td>
</tr>
<tr>
<td>ergative</td>
<td>allative (towards)</td>
<td>associative (with, part/whole)</td>
</tr>
<tr>
<td>Instrumental</td>
<td>ablative (from)</td>
<td>privative (without)</td>
</tr>
<tr>
<td>Equative</td>
<td>orientative (according to)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>inessive (inside)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>perative (along)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>subative (under)</td>
<td></td>
</tr>
</tbody>
</table>

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 suffixes 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 parents, sons, 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 -re-VH to mark the ergative/instrumental, locative, and allative cases. In addition, the animate uses this suffix along with the standard ergative case suffix -a.

• 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 -re-VH or -ce-VH (men's and women's dialects respectively) prior to the case ending. The ergative case has an irregular form -reak-e-VH, which is identical to the (regular) locative -re-ak-w-VH, and the allative has an irregular form -reak-e-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.

<table>
<thead>
<tr>
<th>Case</th>
<th>Case ending</th>
<th>High Animate Singular</th>
<th>High Animate Plural</th>
<th>Personal Pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abspl</td>
<td>-te-VH</td>
<td>**</td>
<td>-te-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>Erg/inst</td>
<td>-te-VH</td>
<td>**</td>
<td>-rakte-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>Loc</td>
<td>-te-VH</td>
<td>-rakeca-ke-VH</td>
<td>-te-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>Equ</td>
<td>-te-VH</td>
<td>**</td>
<td>-rakeca-ke-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>All</td>
<td>-te-VH</td>
<td>-rak-e-VH</td>
<td>-te-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>Abl</td>
<td>-te-VH</td>
<td>-rakeca-ke-VH</td>
<td>-te-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>Ori</td>
<td>-te-VH</td>
<td>-rakeca-ke-VH</td>
<td>-te-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>Iness</td>
<td>-te-VH</td>
<td>-rakeca-ke-VH</td>
<td>-te-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>Sublat</td>
<td>-te-VH</td>
<td>-rakeca-ke-VH</td>
<td>-te-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>Ass</td>
<td>-te-VH</td>
<td>-rakeca-ke-VH</td>
<td>-te-VH</td>
<td>-te elsewhere</td>
</tr>
<tr>
<td>Priv</td>
<td>-te-VH</td>
<td>-rakeca-ke-VH</td>
<td>-te-VH</td>
<td>-te elsewhere</td>
</tr>
</tbody>
</table>

Notes to Table:

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

1. (Abs.pl) - /-te/VC &-ne-

The coronal consonants are c, r, l, j, n and t (see §3.3); for example, ticajci-thousands, coqat-te bread (loaves), coqar-te bread; kilikti-umbilical cords, ginge-te boys (egnan) boy, rutan-te claws, gwenocvet-ti women.

2. (Erg) - /-te/VC

3. (Loc) - /-te/VC (i.e. after polysyllabic syllable final stem)

4. (Dat/All) - /-te/VC

5. (Abl) - /-te/VC

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 *n-e. Note that the high animate ergative is identical to the high animate locative.
dominant vowel harmony of the -ka*-VH form of the suffix suggests that it derives from a truncated form of -kayta.

[16] This element gets its dominant vowel harmony from the basic ablative suffix -jpa*-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.e. decline atla 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 enjiwqejuj uncle (DIM) declined as a high animate in the quoted speech of tina uncle's nephew, whereas the preceding example ?eqenjiw bad uncle is used by the unrelated narrator.

001 [...] / tap-qonpa aqen ?eqe-nljw·e n-in-1w-qin
INTS-always DEM.3sgABS bad-uncle-ERG HAB-TR-say-3sg
galw1?-eta q-a-lqat-ye galw1?-a-k q-a-twa-rken
herd-ALL INT-ESAT-off-TH herd-LOC INT-EB-prog
... the bad uncle always said to him "Go to the herd, be at the herd!"

002 qaram ?etki qejwe anljw-qej-a-ne r-ena-ccapeew-a-y7a
NEG.FUT badly truly uncle-DIM.EAN-ERG FUT-TR-beat-E-PF
"No, uncle will badly beat me"

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 epepeq-nejiae 1w-nin / re-pk1r-qye
spider-DIM.E-ERG say-3sg.3sg0 FUT-anive-TH
galw1?-eta ne-re-nljw-a-y7a
herd-ALL 3pl-FUT-send-E-2sg
Spider or 'the spider' said "You'll arrive, and he'll send you to the herd"

The high animate declension pattern is obligatory for personal names and the indefinite/interrogative pronoun milk 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...
are three core grammatical 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 (§17.2.4).

Grammatical cases show the grammatical relations of nominals in clauses. There are three core grammatical cases: absolute, 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.

§17.2.4). Grammatical cases show the grammatical relations of nominals in clauses. There are three core grammatical cases: absolute, 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.

§17.2.4).

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 animate, even though its head remke case noun phrase The demonstrative pronoun anqenacak is declined as a high animate, even though its head remke case noun phrase The demonstrative pronoun anqenacak is declined as a high animate, even though its head remke case noun phrase The demonstrative pronoun anqenacak is declined as a high animate, even though its head remke case noun phrase The demonstrative pronoun anqenacak is declined as a high animate, even though its head remke case noun phrase The demonstrative pronoun anqenacak is declined as a high animate, even though its head remke case noun phrase The demonstrative pronoun anqenacak is declined as a high animate, even though its head remke case noun phrase The demonstrative pronoun anqenacak is declined as a high animate, even though its head remke case noun phrase The demonstrative pronoun anqenacak is declined as a high animate, even though its head remke case 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noun phrase The demonstrative pronoun anqenacacans 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.

The possible variability of absolutive case noun phrases is discussed in §9.3 (including this particular example).

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 gotqen(a-) this in fig. 6.3:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>gotqen-ja'om this is me gotqen-more this is us</td>
</tr>
<tr>
<td>Second person</td>
<td>gotqen-ja'at this is you gotqen-tore this is you plural</td>
</tr>
</tbody>
</table>

All first and second person pronominal suffixes are -VH. The allomorphs of the 1sg and 2sg occur after vowels (-ja'om, -ja'at) or after consonants (-ja'um, -ja'ut). 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: absolute, 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.
regular phonological processes, glottalisation (Vq → ṭV / _C; §3.4.2) giving *P'ajaq, and then intervocalic approximant elision with compensatory lengthening (VqV or VqV; §3.2.4) giving the surface form j?aaq in the absolutive.

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

<table>
<thead>
<tr>
<th>Singular (pl.)</th>
<th>'blanket'</th>
<th>'carcass'</th>
<th>'island'</th>
</tr>
</thead>
</table>

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:

<table>
<thead>
<tr>
<th>Singular (pl.)</th>
<th>'newborn reindeer with undeveloped leg muscles'</th>
<th>'reindeer with a white backside'</th>
<th>'reindeer with a white face' (Ily- 'white', Pu 'look, see'; cf. Pu-łaq 'face' lit. 'used for looking')</th>
</tr>
</thead>
</table>

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-V or a-<e-V, but not e-V). The absolutive singular is formed by reduction of the final e-a to a. 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).

<table>
<thead>
<tr>
<th>Singular (pl.)</th>
<th>'sea'</th>
<th>'knife'</th>
<th>'moose'</th>
<th>'nappy'</th>
<th>'child'</th>
<th>'walrus' (men's/women's dialect)</th>
<th>'polar bear'</th>
</tr>
</thead>
</table>

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

<table>
<thead>
<tr>
<th>Singular (pl.)</th>
<th>'mother'</th>
<th>'spirit, ogre'</th>
</tr>
</thead>
</table>

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

<table>
<thead>
<tr>
<th>Singular (pl.)</th>
<th>'board for scraping hides upon'</th>
<th>'bone marrow'</th>
<th>'bag for plant gathering'</th>
<th>'bor'</th>
<th>'son'</th>
<th>'younger brother'</th>
</tr>
</thead>
</table>

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.

<table>
<thead>
<tr>
<th>Singular (pl.)</th>
<th>'belts'</th>
<th>'knife'</th>
<th>'harness reindeer'</th>
<th>'blanket'</th>
</tr>
</thead>
</table>

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)V 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.

<table>
<thead>
<tr>
<th>Singular (plural)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>vatwat-VH</td>
<td>'leaf'</td>
</tr>
<tr>
<td>witwitir</td>
<td>bark used for dyeing (cf. wit- 'to dye'; -t is a verb-derivational suffix; §14.3)</td>
</tr>
<tr>
<td>?ec?ec-VH</td>
<td>gorbusha (fish species)</td>
</tr>
<tr>
<td>ooc</td>
<td>boss, chief (also oc-a, oc-o)</td>
</tr>
<tr>
<td>namnam-VH</td>
<td>settlement (also nam-a-twau 'to be settled')</td>
</tr>
</tbody>
</table>
| cotcot | cushion (incorporated as cot-)

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

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 KeCh reflex of rarka/rarka- 'walrus' is j?afka in the absolutive singular.

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.
The words jara-ga 'house' and joro-ga '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-ga, roro-ga Zhukova 1980). The elements ra- and, less commonly, ro- are still encountered as incorporated or compounded forms, e.g. ra-yto- (house-go to) ‘go home’.

Iil) 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 ?) is realised as a prevocalic glottal stop, so a schwa is epenthesised to any stem ending with glottalisation to preserve phonological well-formedness. For example, the segmental and prosodic phoneme sequence /km?/ must be syllabified as the disyllable K?m? (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:

<table>
<thead>
<tr>
<th>CV</th>
<th>Skeleton</th>
<th>Absolutive</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>C'</td>
<td>km-a-kam</td>
<td>kom?-a-t</td>
<td>‘worm, caterpillar’</td>
</tr>
<tr>
<td>V.CV</td>
<td>eme-em</td>
<td>eme-t</td>
<td>suxatiof (type of tree)</td>
</tr>
<tr>
<td>V.C.C</td>
<td>irw-a-ir</td>
<td>irw-a-t</td>
<td>‘something sharp, an edged weapon’</td>
</tr>
<tr>
<td>V.CV</td>
<td>weni-wen</td>
<td>weni-t</td>
<td>‘bell’</td>
</tr>
<tr>
<td>V.CV&gt;V.C.CV</td>
<td>jilpe-jil</td>
<td>jilpe-t</td>
<td>‘arctic ground squirrel’</td>
</tr>
<tr>
<td>V.CV</td>
<td>tan-a-tan</td>
<td>tang-a-t</td>
<td>‘stranger’</td>
</tr>
<tr>
<td>V.CV&gt;V.C.CV</td>
<td>jokwa-jow</td>
<td>jokwa-t</td>
<td>‘eider duck’ (underlying form is apparently jow-wh; jow~ kw see §3.3.4)</td>
</tr>
</tbody>
</table>

Note that this type does not include stems with the structure VC or CVC—these go into type Ila. Glottal stop is best analysed as a syllable prosody outside of the CV structure ([3.3.4]). The glottal stop only occurs prevocally, and is not carried over into the reduplicated syllable unless there is no initial C.

| CV.CV | w?are-war | w?are-t | ‘forked stick’ |
| CV.C.C | m?aq-a-mac | m?aq-a-t | part of reindeer leg |
| V.CV | ?tu-tli | ?tu-t | ‘goose’ |
| V.CV>V.C.CV | ?er-?er | ?er-ta-t | ‘iceberg’ (underlying form of singular is *er?ra-?er; §3.2.3) |

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

Chapter 6

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

| werlw-a-c?a-n | werlw-a-c?a-t | forkery |
| sour-E-NMZ-R-E-3gLABS | sour-E-NMZ-R-E-3PlABS |

Many underven nouns also belong to this type:

| kaara-n (sg.) | kaara-t (pl.) | sled for carrying baby and nursing mother |
| kemiliu-n | kemiliu-t | type of women’s costume |
| nily-a-n | nily-a-t | ‘rope’ |
| nanq-a-n | nanq-a-t | ‘stomach’ |
| rojer-a-n | rojer-a-t | ‘family’ |
| atlay-a-n | atlaya-t | ‘father’ |

IV) SUFFIX -gVOL. A few high frequency nouns (this list may be exhaustive):

| jara-ga | ‘house’ |
| joro-ga | ‘sleeping chamber’ |
| kuke-ga | ‘pat’ |
| qeme-ga | ‘dish’ (stem qeme-olv) |
| qora-ga | ‘reindeer’ |
| rape-ga | ‘hammer’ (stem rape-olv) |
| titi-ga | ‘needle’ |
| apa-ga | ‘broth’ |

Note that this suffix only occurs with disyllabic stems of the form (CV)CV-. Comparative data shows that the original form was *-ge-olv (cf. type Iib 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 1998).

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.

| cakayet (sg.) | cakett-a-t (pl.) | ‘sister’ |
| nakirit | nakiti-tli | ‘night’ |
| yatte | yatya-t | ‘adze’ |
| yatle | yalya-t | ‘bird’ |
| wettu | welw-a-t | ‘raven’ |
| wanna | worw-a-t | ‘spoon’ |

There are a number of irregular forms ending in -na. The following two forms could be examples of underlying *ga with regular dissimilation y ~ n / y~ (§3.3.4); this would have to be an ordered rule, since the y is from underlying j, and majp is an attested stem:

| gey-na?ol | ‘hill’ |
| maj-a-tan | ‘hill’, ‘top of hill’ |
| may-na | ‘store, stash’ (n) |
| maj-a-k | ‘store’ (v) |
The following two stems are completely irregular; there is no productive phonological or morphological process which causes deletion of non-intervocalic consonants.

\[ \text{-m} \rightarrow \text{'wolf'} \]
\[ \text{ti-m} \rightarrow \text{'goat'} \]

In all four of the preceding examples the suffix -\text{m} appears to be in complementary distribution with -\text{g}, with -\text{m} used with (underlyingly) consonant final stems, and -\text{g} with vowel final stems.

The next two examples are similar to words formed with the -\text{m} derivational suffix (which makes deverbal nouns with meaning of place where 

\[ \text{wa-t} \rightarrow \text{'track, trace'} \]
\[ \text{win-wa-t} \rightarrow \text{'track, trace'} \]

The form wana is almost a semantically and phonologically regular formation from \#\text{wa-t} -\text{wa} - 'be located'—the only irregularity is the final schwa, which might be inserted to avoid making a monosyllabic noun (Chukchi has no monosyllabic verbs). The form wina is semantically appropriate to belong to this class, but vowel harmony is violated, and there doesn't seem to be a stem \#\text{wa} - (the verb \text{'track, trace'} is win-wa-t, formed with the -\text{et} verb derivational suffix: §4.3).

### 6.3.2 Absolutive forms of nominal derivational suffixes

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

(a) Bare stem: \text{-qeq} derivational suffix, e.g. anjiw-qeq dear uncle ABS, anjiw-qeq-\text{a} dear uncle EBC

(b) Bare stem, deleted final vowel: \text{-neg\#} derivational suffix, e.g. rige-neg aeroplane ABS, rige-neg-te by aeroplane INST (< rige \text{fly})

(c) Bare stem, deleted final vowel: \text{-neg\#} derivational suffix, e.g. rige-neg aeroplane ABS, rige-neg-te by aeroplane INST (< rige \text{fly})

(d) \text{\text{-\text{m}}} derivational suffix, \text{-\text{m}} the top of something, e.g. orw-a-t\text{-\text{m}} the top of a sled ABS, orw-a-t\text{-\text{m}}-a on top of a sled.

(e) Irregular: for example, \text{-\text{m}} derivational suffix, e.g. orw-a-t\text{-\text{m}} the top of something, e.g. orw-a-t\text{-\text{m}} the top of a sled ABS, orw-a-t\text{-\text{m}}-a on top of a sled.

\[ \text{\text{-\text{m}}} \rightarrow \text{\text{-\text{m}}} \]

\[ \text{\text{-\text{m}}} \rightarrow \text{\text{-\text{m}}} \]

The bare stem, reduced final vowel type (Ib) is not attested with reduplication (IIa-b) and the \text{-\text{g}} 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.

### 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 'singulativeised' to get individuated. Typical examples are listed below contrasting the (absolutive case) singulative form with the absolutive plural:

- **paired body parts**
  - small birds and animals
  - melota-ly-a-n, milute-t 'hares'
  - agat-leq-a-n, eger-ti 'storks'
  - agat-leq-a-n, eger-ti 'stars'
  - agat-leq-a-n, eger-ti 'trees'
  - agat-leq-a-n, eger-ti 'trees'

- **paired items of clothing**
  - plek-a-ly-a-n, plek-a-t 'shoes'
  - plek-a-ly-a-n, plek-a-t 'shoes'
  - plek-a-ly-a-n, plek-a-t 'shoes'

- **paired objects**
  - payt-a-ly-a-n, payt-a-t 'sled runners'
  - payt-a-ly-a-n, payt-a-t 'sled runners'
  - payt-a-ly-a-n, payt-a-t 'sled runners'
  - payt-a-ly-a-n, payt-a-t 'sled runners'

- **berries, grains**
  - oon7-a-ly-a-n, uun?-a-t 'berries'
  - oon7-a-ly-a-n, uun?-a-t 'berries'
  - oon7-a-ly-a-n, uun?-a-t 'berries'

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

[\text{SINGULATIVE}] \rightarrow \{ \text{-ly-a-n / VC-singular (underlying)} \}

The conditioning environment \text{VC-singular} refers to the underlying form; stems ending in \text{j} (which is + coronal) take the -\text{ly-a-n} suffix, even though the j itself is realised as y when it occurs before i (according to the regular rule i \rightarrow y / _-C-consonant: §3.3.4).

For example, the singulative form of the word epeepej-\text{ly-a-n} spider is apaapayagon.

There is also a special form -\text{ap}-\text{ly-a-n} which only occurs with stems of the form \#CVC(C) which refer to paired/non-singular body parts (human or animal), e.g. par-a-tlag-a-n shoulder, par-te shoulders.

This suffix is maintained even when compounding disrupts the canonical CV structure of the stem, e.g. jaaal-raly-a-tlag-a-n finger-E-SING-E-DIM.ABS toe (compare raly-a-tlag-a-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 kom7-a-ly-a-n (worm-E-SING-E-3sgABS) a (single) worm, there is also the form kom7-a-ly-a-qaj (worm-E-SING-E-DIM.3sgABS) a (single) little worm.

### 6.3.4 Absolutive 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 -\text{t}, but it has an allomorph -\text{ti} which can occur after

---

\[ \text{\text{-\text{t}}} \rightarrow \text{\text{-\text{t}}} \]
coronal (i.e. t, r, c, j, n). Within this phonological condition, selection of -t or -ti seems to be lexical.

\[ \text{(absolutive plural)} \rightarrow \{ \text{*t}^{\text{ABS}} / \text{C} \text{coronal} \} \]

Example:

006 qelun=\text{m} Cu-nine-t \text{genku t}ang-a-warat \text{jara-}na=\text{Jj}-\text{a-t}

because see-3sg3piABS there stranger-E-FOlk house-COLL-E-AUG-3piABS

Because he saw there the stranger-folk, the group of big houses. \[ [\text{ko}063] \]

High animate nouns form their absolute plural in the same way, but with the post-coronal consonant form -t of the plural following the high animate thematic suffix *-\text{t}^{\text{ABS}}\text{t}, which gives a plural with surface form -nti (see note [8] to figure 6.2).

007 ana layen=\text{m} waj \text{nam-a-taw-a}y=\text{a-t} kolo lee layen / so really-EMPH DEICT live-RESULT-PF-3pi very excellent really

anka Cukwajaqaj a-ne layen there personal.name=3piABS really

And so thus they lived, just excellently Cukwajaqaj's people there. \[ [\text{ko}443] \]

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. acla-y=t fathers or parents, and atPa=t mothers or parents. Other terms for humans which imply one sex or the other in the singular also show this behaviour, e.g. anpanacyan old man, anpanacya 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 pokera-a-gpo-y=t \text{ewa} orwa-a-\text{kan-a-k} \text{garyan} / approach-E-INCH-PF-PL but shed-E-ONTOP-E-LOC outside Cukwajaqaj \text{pequnu=\text{m}} \text{n-line-n} \text{mku-qin}

personal.name=3piABS wife-ERG HAB-TR-delouse=3piABS

They started approaching, but on a sled there outside Cukwajaqaj is being deloused by his wife [lit. the wife is delousing Cukwajaqaj]. \[ [\text{ko}364] \]

**Chapter 6**

**Chapter 6**

**Nominal Inflection**

**HIGH ANIMATE**

009 [... \text{Pu-mayn-a-\text{t} a-t} nemaqaj / repet=\text{m} \text{keji}\text{t}\text{a-t}

judge-E-3piABS also event-EMPH bear-E-3piABS

talwa-rkapla a-na tko ta cal Tagewi=lipa \text{ra}\text{s} INSTR-NK=NONE-CONV DEICT personal.name=AUG-E-3piABS

[...] They had quick hands too—ah, those people of Tagewi's struck and killed bears! \[ [\text{kr}132] \]

**PERSONAL PRONOUN**

010 n-lw=\text{e-t}n / opopa gelv=\text{t} man-yanir-t=\text{a-n} / 3-say=\text{TH} musy herd=3piABS 1pi\text{ERG} 1pi\text{INT}-guard-E-3piABS

man-plri=\text{t}e-n / 1pi\text{INT}-take=\text{TH}=\text{t}3pi

They said: 'We'll have to guard the herd, we'll take it' \[ [\text{ka}04] \]

**QUANTIFIER PRONOUN**

011 quit-a-raka=q\text{m} omk-a-ly=\text{a-n} n-a-law-a-qin angen on=\text{E-ERG.PL=}EMPH forest-E-SING-E-3piABS HAB-E-IS.in.E-3pi ABS DEMA=3piABS

Others tie up the tree \[ [\text{ka}06] \]

The instrumental marks several non-nominal 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 comunak n-line-pi=\text{pik}-a-lvi-qin=\text{t} polca=\text{s-a} and really other HAB-TR-ankle-E-3piABS really

And he just cut the others' ankles with his little spear. \[ [\text{ko}074] \]

013 rak-wary-a=j=\text{p} a-n / gilve angin ya-namqataw-len / piece-NOMINAR-E-AUG-E-ABS cord-INST thus PF-close=3pi

The big hole they closed up thus with a cord... \[ [\text{ko}393] \]

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. Contrastive ergatives and instrumentals are however freely elicited, as in example 014:

014 ajwe muri na-n-game-twa-a-mak tekel\text{y-e} pevak\text{c-e} yesterday 1pi\text{ABS} 3A-\text{CS-as}=RESULT-CS-1pi0 meat-INST girl-ERG

Yesterday the girl fed us with meat. \[ [\text{ka}120] \]

Examples 015 and 016 show instrumental nouns in intransitive clauses, where they could not possibly be interpreted as being ergatives.
Certain lexically determined oblique arguments of intransitive verbs are marked in the instrumental. The oblique object of verbs of consumption (i.e. the thing eaten) is regularly marked with the Instrumental. For example, the intransitive verb qame·-a·twa·Jenat ‘thing eaten, as’ has an optional instrumental argument marking the thing eaten, as in 017.

In a zero-copula construction (§17.2.2), the complement of an antipassive verb may be represented by an absolutive case nominal, as in 019.

The equative case 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 secondary predication of the subject. For example, in 021, the equative case marks the copula verb "had my eyes open" at the herd as the subject of the secondary predication.

The equative case has a high animate declension formed with the -ne thematic suffix, which is realised as -nu or -ne-u. Other spatial relationships are marked by derivational affixes, or by clitic adverbs. The case suffixes, the lnesslve has some derivational character as well, as shown in 020.

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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 -yta-VH: motion towards an entity (§15.2.2)
- ABLATIVE -jpa-VH: motion away from an entity or within an enclosure (§15.2.3)
- PERLATIVE -iekwe-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 caku-VH: location inside an entity (§15.2.6)
- SUBLATIVE jijo-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:

\[
\text{[comitative]} \rightarrow \begin{cases} 
  \text{ve-}...-te^m & \text{vowel final stem} \\
  \text{ve-}...-e^m & \text{elsewhere}
\end{cases}
\]

This case is relatively rare; the associative is much more common.

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^m.

'People with their herds':

\[
\begin{align*}
\text{va-} & \text{patwa} & \text{t-a-ma} & \text{n-a-piriq-a-qin} & \text{layen} & \text{ang} & \text{in} \\
\text{ASS} & \text{herd} & \text{E-ASS} & \text{HAB-E-collapse-E-3sg} & \text{real}y & \text{all.3sgABS} & \text{HAB-E-3sgABS} \\
\text{remk-o} & \text{tap-amal-eta} & \text{thm} & \text{oe-E-3sgABS} & \text{INTS-all-ADV-EMPH} & \text{HAB-E-3SGABS} \\
\ldots & \text{all the people came to be with little houses.} & \text{[lie055]}
\end{align*}
\]

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 ujie 'not, without, there isn't any' (sec §18.4).

The marker of the privative is the circumfix e-__ke.

'All the people came to be with little houses.'

\[
\begin{align*}
\text{e-} & \text{rih-a-ke} & \text{n-a-} & \text{qel-inen} & \text{gan} & \text{qian-t} \\
\text{PRIV-stomach-contents-E-PRIV} & \text{HAB-E-become-E-3pl} & \text{DEM.3sgABS} & \text{reindeer-3sgABS} \\
\text{Do the reindeer lose their stomach contents?} & \text{[ab5.31]}
\end{align*}
\]

'People with their herds':

\[
\begin{align*}
\text{va-} & \text{patwa} & \text{t-a-ma} & \text{n-a-piriq-a-qin} & \text{layen} & \text{ang} & \text{in} \\
\text{ASS} & \text{herd} & \text{E-ASS} & \text{HAB-E-collapse-E-3sg} & \text{real}y & \text{all.3sgABS} & \text{HAB-E-3sgABS} \\
\text{remk-o} & \text{tap-amal-eta} & \text{thm} & \text{oe-E-3sgABS} & \text{INTS-all-ADV-EMPH} & \text{HAB-E-3SGABS} \\
\ldots & \text{all the people came to be with little houses.} & \text{[lie055]}
\end{align*}
\]

He opened his mouth - completely toothless.

\[
\begin{align*}
\text{aagkot} & \text{t-o} & \text{laye} & \text{teq-ujje} & \text{a-rann-a-ka} & \text{open.mouth-TH} & \text{INTS-INTS-NEG-EXI} & \text{PRIV-tooth-E-PRIV} \\
\text{Do the reindeer lose their stomach contents?} & \text{[ab5.31]}
\end{align*}
\]
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 specialized 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: amo?po, which is intrinsically plural and means all; and qut-, which means one, one of them in the singular, and same, 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 elided) 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 camqak (§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):

<table>
<thead>
<tr>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>yam-o-yam-</td>
<td>muri-muri(y)-</td>
</tr>
<tr>
<td>yato-yam-</td>
<td>turi-tur(y)-</td>
</tr>
<tr>
<td>atlon-an-</td>
<td>acci-acc- (female speakers)</td>
</tr>
<tr>
<td>ooti-or(y)-</td>
<td>(male speakers)</td>
</tr>
</tbody>
</table>

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 verbal cross-reference and, to some extent, by the specialised anaphoric demonstrative anqaq(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 yamakekoku, a form with inessive case which means inside of me, and example 002 has yamakatkanak on the top of me, formed by means of a spatial derivational suffix -tkan- TOP and the locative case.

---

Chapter 7

001 qanwet qtl-a-wl-Pet-a-P-a-n n-in-lw-qlin "opopa
finally liise-e-de-DUR-E-PLCPL-E-3sgABS nAB-TR-truq-3sg must
yam-a-ke-coku wlin q-a-nel-y" 1sg-E-TH-RES
while INT-E-borne-TH
Finally to the always freezing (boy) she said "You'd better climb inside me for
the moment" [cy005]

002 anq/am q-ekwet-a-yi akwat-a-yqy-ke3n and INT-seto-TH set.e-E-INCH-WND-EMP
aym-a-ka-tkan-a-k q-a-kwarat-a-Ipat-yic 1sg.E-TH-TOP-E-LOC INT-E-rol-E-DUR-TH
And then go off, but as you [start to go, roll on me [cy041]

Forms identical to the third person singular pronouns atlon (3sgABS) and anan (3sg,ERG) are also used as emphatic particles. These most commonly occur in conversation and quoted speech. The particle atlon occurs in questions:

003 eqj kakel atlon milik-iyat?
INTJ INTJ INTER what?2sg.ABS
Oh my! Who are you? [cy108]

The emphatic particle anan occurs in statements about the future:

004 qran anan ra-jat-a-qy-yic-an anan t-o-vy-ya-yt NEG.FUT FUT-FROM-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 lyar yam oqjwe t-q-ekwet-yi=k-e kml ewar
DEICT now 1sg ABS today 1sg COINQ-go-TH-1sg-EMP CONJ
yato n-q-ekwet-yi=n ESLI TY RANTES hejg-a-n
2sg ABS 2SG-COND-go-TH-2sg if you wound bear-ABS
ewan yam-in wina n-q-a-role-nin
then 2sg POSS-3sgABS back.3sgABS 2SG-COND-E-LOC=n-3sgA3sgO
Well now, if I go out and you go out and if you wound a bear then when 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.
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.

In example 010, the free personal pronoun is part of a set phrase yamo tiewarkan 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:

In the following Is an example of associative conjunction in 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 use of the particle nemaqej also is another indicator that the boy's act is unexpected.

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 he knows that he will actually spend the night out stalking the Koryaks.

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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 use of the particle nemaqej also is another indicator that the boy's act is unexpected.
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 *yamo* is used despite the unambiguous presence of the first person agreement prefix *t-*, on the verb *torogewanjuciqwa* I will go looking for a wife.

013 *lw-nin* "anljw-qej q-o-ray-o-ye waj / cryatak
say-3sgABS.3sgABS uncle-3sgABS E-3sg INTJ-E-CONSUME-ABS TOMORROW DEICT tomorrow

*yamo* t-re-pew-a-nju-ciqw-a-s"

1sgABS 1sg-E-CONSUME-ABS SEEK-PURR-E

He said to him "Uncle, go home, tomorrow I will go looking for a wife." [cy169]

7.3 Indefinite/interrogative pronouns

There are indefinites/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.

<table>
<thead>
<tr>
<th></th>
<th>Absolutive stem</th>
<th>Non-absolutive stem</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Animate who?</strong>, <strong>someone</strong></td>
<td>*meqin(e)-*VH</td>
<td><em>mek</em>-1SG</td>
</tr>
<tr>
<td><strong>Inanimate what?</strong>, <strong>something</strong></td>
<td>*requ(e)-*VH</td>
<td>*req-eq(e)-*VH</td>
</tr>
</tbody>
</table>

Through normal allomorphic variation of *q* the *req-eq(e)-* stem has allomorphs *req(e)-* before consonants (see §3.3.1). The non-absolutive stem takes regular case affixes.

ABSOLUTIVE STEMS *req(e)-*:

014 [cy105] t-re-un "anljw-qej q-o-ray-o-ye waj / cryatak
say-3sgABS.3sgABS uncle-3sgABS E-3sg INTJ-E-CONSUME-ABS TOMORROW DEICT tomorrow

*req(e)-* ra-jan-o-nat?
what-3sgABS.PL FUT-USE-TH-3SG

What (do) you use? [cy066]

The *e(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 [cy081] *weqam nemaqej* *req(e)-kwan* *yaman*
may be also something COLL-3sgABS 2sg-ERG

may be also something COLL-3sgABS 2sg-ERG

... perhaps you also know a whole lot of things... [ab5.11]

016 [cy081] *weqam nemaqej* *req(e)-kwan* *yaman*
may be also something COLL-3sgABS 2sg-ERG

may be also something COLL-3sgABS 2sg-ERG

... perhaps you also know a whole lot of things... [ab5.11]
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 existential (see §18.4 and example 027 below). Privative case indefinite pronouns are used for negative existential (see §18.4 and example 027 below).

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Since then noone got sick.

[mb055.3]
The demonstrative pronouns are formed using the same stems as deictic
pronominal particles (§15.5). The non-deictic demonstrative form
!Janqen and combine with the deictic demonstratives (the other
deictic particle !Jan is already cognate with the deictic
particles waj or raj/caj (§ 15.4) and these pairings seem to behave
like stylistic variants. All these demonstratives can also
be used anaphorically, although the remaining demonstrative
!Janqen(a-) (sec adverbs and particles (§15.6). They are graded for distance from speaker:

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 < *got*wh, q-wh, line-Wh (cf. guti:ril “here”)
ganqen(a-) that < *gen*Wh, qWh, line-Wh (cf. gan deictic particle)
gaanqen(a-) goonqen(a-) that yonder

The forms jaanqen(a-) and goonqen(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 jaanqen(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 H ?al-a-tkwon-a-k "q-in-e-pet-3-pfl am-gotqena-ta
yes snow-TO-PERF-LOC INT-TR-butuhwa-TH REST-3SG-INST
qame-twa-a-t-k" / [...] RESILT-3SG-LOC
Yes, on the snow. "Butcher me, only eat these bits" [he said] [125]

035 [...] stla pannena layen kolo wetawets n-a-yantew-qfn
moxer.3sgABS DEM.3sgABS reely INTS definitely HAB-NOM-away-3sg
... that mother would definitely run away
[aa2.30]

036 Q-Ik-wi pannena qaa-3-p-n qaj-ece-ta
INT-say-TH DEM.3sgABS moiden-AUG-3sgABS hit-LAB=ALL
q-a-n-ecej-w-e-kan gaca-kence-rpo-torm-a-jal-kena-I-p-n
INT-E-CS-wander-CS-PROG left-curly-jUL EDGE=E-REL-MZR-E-3sgABS
Say "Drive yonder big reindeer with the leftside curly back fringe lower down
on the hill" [1817]

The remaining demonstrative pronoun is formed from the 3rd person singular
stem:

aanqen(a-), this, that < *an*Wh, q-Wh, line-Wh (cf. an-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 (Himmelmann 1996:211); and the form aanqen is clearly of this type. Most
examples of demonstratives in texts are forms of aanqen(a-).

037 Layen remk-a-n qanur layen=t=7 repet remk-a-n layen
really loc-E-3sgABS like really-EHMP even loc-E-3sgABS really
qanur n-a-qaceq-gen layen qaach-qen n-t-qin
?? HAB-E-compare-3SG really compare-VBase HAB-AUX-3sgABS
n-a-micyut-ret-qin=7m ??
HAB-E-work-3sg=EHMP
ank=am aanqen-3pa=?m qanur n-arqjw-7aw n-a-le-qin
and DEM-ABL=EHMP like ADJ=strong-ADV HAB-E-go-3sg
remk-a-n miyut-ret-a-k //
lok-E-3sgABS work-E-LOC
So it’s like people, people really hard, competing as they
work. And from that it’s like people went stronger in their work.
[he028.029]

038 aanqena-ta cit alamawag wa-l-a-t
DEM-INST first basically be-PCPL-3PLABS
qapemena t=7m nanqa-p-a-t=7m layen ank=am aanqena-n-e
NEG-ID-3PLABS DEM.NOM=LOC-IRSF-3PLABS=EHPM really and DEM-AN-EQU
ye-tenannan-lin
PF-call-3PL
Because of this first there were various... they didn’t have these, only
later they started to call them these. [125]

The non-deictic demonstrative form aanqen 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 gan is already cognate with the
demonstrative ganqen, and doesn’t combine with aanqen). Generally they are used

footnote
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 hai-angen ninkagut / mgeN / gan DEICT-DEM.3SGABS ?? who? DEICT Telea=?-wa-tra-angen / ?Oman-en ekak personal name=E-similar-E-DEM.3SGABS personal name=POSSE.3SGABS son.3SGABS

There’s that one, what’s he called, who looks like TelePan, ‘Oman’s son.” [kr006]

040 hai-angen nmea-ang aN-a:ta DEICT-DEM.3SGABS also old-E-woman.3SGABS quite n-a-pacwetay=wen-qaH HAB-E-converse-3SG

That there old woman too, she’s quite talkative...” [kr177]

However, example 041 shows the word order angenat raj with apparently the same deictic demonstrative meaning:

041 angenat raj Warengang-in-qua=ta layen teg?etki-lap=ta DEM-3SGABS DEICT Vaegi=angun-E-WOMAN-E-3SGABS really INTJ-bad-AUG-E-3SGABS

Those there stranger women from Vaegi are very really bad.” [kr050]

The distal demonstratives (i.e. apart from gogten here and anngen, which isn’t graded for distance) in the third singular absolutely 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-pa=wa-in=na pey=ta it-yi ne-n-jal=ya-tat=a-n gaangen 3SG-de-CS-E-3SG de-Vbase be-TH 3SG-CS-nomadise-CS-E-3SG DEM.3SGABS

They left him to die, he died, they drove him away/therewith.” [jo122]

Speakers lengthen the initial vowel of gaangen and goongen as an iconic way of emphasising distance:

043 anqenat=ma n-a-yrotku-quin teg-em-rangat-to thus=EMPH HAB-E-slaughter-3SG EMPH-CONV-GIVE=CONV

ne-a-laang-0angen n-in-e-lyi-n-jalquant-ew=quin=ma yander.3SGABS HAB-TR-INTS-CS-go.br.away-CS-E-3SG=EMPH

Thus he slaughtered meat, butchering it, way off yonder he took it.” [jo53]

7.5 Quantifier pronouns

There are two quantifier pronoun stems, amaPo all and qui- one, some. They both decline according to the high animate declension in non-absolutive contexts (§6.2).

Any inflected form of amaPo—that is, any form except for the third person absolute—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 [ ... ] / ma-ra-poiya=a-t o amaPo-more angatal 1SG-PUT-spear.fight.E all-1SGABS of course

anka ma-a-nam-yat here 1SG-NOM-ABS=EMPH

... we’ll all fight with spears, and of course we’ll kill you.” [ot1083]

045 n-a-ljy-n-ec=-qew-geat gey giwelat=xt tapaamaPo-ry-en=ma HAB=E-INTS-CS-ACT-CS-3SG DEM-3SGABS posse.3SGABS INTJ-3SG-FIVE.3SGABS-EMPH

gutiris [e] n-a-horal-ta=qew-genat / layen [ana] hiber HAB=E-cenal-E-USE-PURP-3PL

They fattened up herds, everyone’s [deer] they corralled himself, the folk drove the deer, weaned them.” [ha058]

It is common for amaPo 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 qeem=ew-a=ta layen amaPo n-ne-a-panje-genat NEG-INTS really amaPo E-WOMAN-E-3SGABS

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 nenatanpoqen in the example 047 is unambiguously 3SGA and 3SGO:

047 if / ama qu=nt-a=na=ma cama pol-a=na n-lene-ma=qa-ta yes so QUANT-E-NEG=EMPH act spear-3SGABS HAB-TR-eat-3SG

tumy-la=ta pol-a=na anqenat-ta yoryola-la=ta n-a-ri-te=mjentoqen friend=POSS.3SGABS spear-3SGABS DEM-NEG above-ADV HAB=E-charge-3SG

amaPo layen n-ne-a-panje-genat amaPo E-WOMAN-E-3SGABS

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 amaPo can also occur with singular (example 048) or plural (example 049) nominals; these nominals (not amaPo) determine verb number agreement.

048 amaPo remak-a-t / pai-teqen-cit-ee n-it=quin [...] all-3ABS look-3SGABS RECIPE-decline-ADVERS-Vbase HAB-AUX-3SG

All the people were living in harmony...” [he067]

049 onym-a-amaPo wajamrela ajmak-a=k slow-3SGABS all-AABS high carcass-E-LOC

qeca-yo ra-Pat-en-denat beside-ALL 3SG-mere-CS-3SGABS-3PL

He dragged all the sleds there to the carcasses” [cy347]
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:

\[
\text{gol} / \text{qol} / \text{qut} \text{etc.} / \text{jawren} = -a?m
\]

also

QUANT.3sgABS
snow-E-SEQ
next-year-CONV=EMPH

neme annan-mat1sg-qaw n?e1-y?i-t = -m
also one-five-ADV
become-TH=EMPH

Also another [herd], after the snow fell, the next year again a sixth [herd] came to be. [ke038]

The absolutive plural is formed regularly, but does not decline like a high animate:

\[
\text{qut-t! = -m}
\]

SPAT / jaqget-r?u-?e-t
QUANT-3plABS=EMPH
sleep
coll-TH-3pl

The others sleep. [ke021]

The quantifier takes high animate declensions in non-absolutive contexts; thus, the ergative singular is qutane, and ergative plural qutarak-qutarak:

\[
\text{angu} / \text{qut-an}
\]

Pu-nin qayite gan gaangen
CONJ
QUANT-E-AN.ERG
see-3sg?3sg0
look
DEICT
yonder

The other, one of them saw him, "Look, there he is!" [ke049]

Then, one of them saw him, "Look, there he is!" [ke049]

\[
\text{qut-t!-ank}
\]

angu onq qgung
n-a-te-osju-wa-a-qin
QUANT-E-AN.ERG
CONU
REM.3sgABS
HAB=EXPERIENCE=COLL-3sg

KOLPASA pccam-a-jg-a-a
/-/

sausage
sausage-E-AUG-E-3sgABS

Others now cut the preem-sausage...

As modifiers within noun phrases, forms of qut- agree with the number of the NP head:

\[
\text{angqara neme} / \# \text{neme anka jawren} = -a?m
\]

then
also
also here
next-year-ADVP=EMPH

lggun pccwaj-jonn-at-ka-koan ama /

solha spring-wean-TH=E-SEQ=EMPH
also
neme nol gelolol na-n-romy-aaw-a-a
also
QUANT.3sgABS
herd.3sgABS
3plCS=excl-CS=E-3sg

Then again, again there the next year after the spring weaning too, again they made another herd. [ke035]

\[
\text{gan} = -m \text{ ya-r?ela-yt-a-lenat} \text{ qut-t!} / \text{DEICT}=EMPH
\]

PF-race-go.to-E-3pl
QUANT-3plABS

\[
\text{torawel'}-a \text{ anponacy-a-t}
\]

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:

\[
\text{other-3p!ABS} \text{ tam-a-tko-?w-o-rena-t}
\]

all.3plABS
other-3plABS
HAB=COLL=COLL-3sg.Aug

He killed all the others. [ke115]

The quantifier qut- has an allomorph qulle- which is used with derivational suffixes (examples 057 and 058) and in incorporation (059).

\[
\text{guillaume} \text{ panen a-n?ota-gen}
\]

QUANT-DIM.3sgABS
still
HAB-wait-3sg

The other little one is still waiting. [ke110]

\[
\text{other-3p!ABS} \text{ n?isa} = -m
\]

/ layen optararo
QUANT-AUG-E-3sgABS=EMPH
wol.3sgABS=EMPH
real
off.ADV

n-apalmetel-gen / n-apaqal-twa-gen
HAB-E-hear-3sg
HAB=RESULT-3sg

The other one, that wolf, heard this from far off, [where] he was lying on his stomach. [ke103]

\[
\text{race-go.to-E-FCPL-E-3plABS}
\]

tome-TH-3pl
DEICT
QUANT-sentiment-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 camaqk others (§7.6.1), cinit self (§7.6.2), and a series of person marked restrictive forms, e.g. amyomnan alone, by myself, ammoryan 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 camaqk

The quantifier adverb camaqk 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 within noun phrases (§4.8.5).

\[
\text{cama layen camaqk n-ine-piplk-a-yw-o-quine} \text{ ppol-ya-qa-a}
\]

and
real
off.

other-

HAB=TR-ankle=E-DIM-INST

And he just cut the others' ankles with his little spear. [ke074]
This particle usually has human reference, but can indicate non-humans and inanimates as well, e.g. kantemkan campk some lollies [kr238] (see example 032 §5.6.3). Example 062 shows campk together with small, the quantifier pronoun all to form a noun phrase:

062 n-luq-qin "itak-ewon layen campk ama?po t-a-tku-net" [...]  
HAB say-3sg really others aliABS 1sg-E-ambulate-3pl
He said "As it happens I simply wiped out all the others"...

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 personal argument for it to modify: zero-pronominal from the verb is sufficient. The form only occurs with agentive arguments (i.e. A or S, 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 layen cinit n-inemat-s-Part-qen /  
on.3sgABS really self HAB-E-de-laod E-DR-3sg  
cinit retem-e t-inetqinilnet or-w-a-ks  
sel reft-E-3sgABS HAB-EO-pock-3pl sted-E-LOC  
This other one tied up the load by herself, packed the roof by herself on the sled.  
[cy297]

064 nehe an-in / wenqara-jg-a-n cinit  
again 3sg-POSS.3sgABS harnass doe-AUG-E-ABS self  
kanu-nin [...]  
lasoq-3sgA.3sgO  
Again he lassoed his harness doe himself....  
[cy119]

Chukchi doesn't have any morphological reflexivisation strategies: certain verbs can be reflexivised as lexical reflexives, and cinit can be used to support the reflexive v~y~g (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

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 cm-~.M.

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>amyomnan</td>
</tr>
<tr>
<td>2nd person</td>
<td>amyowan</td>
</tr>
<tr>
<td>3rd person</td>
<td>amnan</td>
</tr>
</tbody>
</table>

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-wa1 ammorywan layen q-a-jet-y-a-tak /  
say-TH REST 1sgADV really INT-E-comes-TH-E-3pl  
layo q-a-jet-y-a-tak [...]  
really INT-E-comes-TH-E-3sgpl  
He said, 'We are alone, you come [out], come [out]'  
[j0006]

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 it an analytic verb.

Restrictive adverbs usually appear without person-number marking when they modify a nominal which is overtly expressed:
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 ($\S$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 $\S$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 $\S$8.3. Section $\S$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 dejectival 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 qora- **reindeer** the nominalised form qoralan means **reindeer owner**, not the reindeer itself, but a non-word-class changing lexical derivation such as the augmentative qorajgan **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 -P, which can form nominals from all classes with a number of functions (§§8.2-3). Other nominalisers include -jo (passive participle; §8.2), -ybm- (active participle; §8.4), -n/-nwa- (place of activity; §8.5), -gew- (names of and terms for women; §8.6) and -w7i (names of men; §8.6). These nominalisers are more limited than -P, 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 -rvations such as collectives and intensifiers.

### 8.2 Participles

There are two participle suffixes occurring with verb stems with positive polarity: the active participle suffix -P and the passive participle suffix -jo (plural -jot-to). When a verb stem is negated (either by the negative circumflex e-_-ka- or the prefix lu-), the participle suffix -P forms both active and passive participles depending on the transitivity of the verbal stem (transitive participles form active participles, transitive form passives, see below). The suffix -P occurs very frequently in Chukchi, and also derives nouns from stems of other word classes (§8.3).

The -P participles can be active or, with negative polarity, passive. The -jo participle has only positive polarity and is also passive. The key grammatical difference between the -P participle and the -jo participle is that the -jo participle is resultative and the -P 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 -P 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 -P 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 -P 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 605-007).

From the intransitive stems tale-1-le- go or w7i- die the positive polarity participles are formed as follows:

tale-17-a-n go-PCPL-E-3sgABS one who goes
w7i-17-a-n die-PCPL-E-3sgABS one who is dead

and the negative polarity participles are formed:
e-le-ka-17-in NEG-go-NEG-PCPL-3sgABS one who doesn't go
e-w7i-ka-17-in NEG-die-NEG-PCPL-3sgABS one who isn't dead.

From the transitive stem tom-l-nm- kill and the positive polarity passive participle (i.e. the resultative participle) is formed with -jo:
tom-jo kill-PASS.PCPL-3sgABS one who has been killed.

but the negative polarity passive participle (non-resultative) is formed with -P; just like the active participles:

e-nm-2a-17-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.

Participle 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	tam-le

lynt-kin

emme-mlu-qin

gewe-+-en

w7i/PASS.PCPL-3sgABS

now-REL-3sgABS only

hab-TR:delouse-3sg0

w7i/ERG

The wife is already delousing the only just now killed [i.e. He was just now killed, and already is alive again and his wife is deleting him]. {[385]}

Example 002 shows the passive participle with a plural:

002
tolol / repet=7= waj-a-gpac repto-cemaw-nwa-k

INTS

emean=7=APHM

DEICT-E-SIDE

by=77-crash-E-PLACE-LOC

wanewan qo=7u-y-a-n

patrel-int-te

wakw-a-x?

NEG

INF-see-Th-E-3sg

arange-PASS.PCPL-3sgABS

sane-E-3sgABS

Oh yes! Even over yonder where the aeroplane crashed, have you seen the arranged stones? [i.e. how the stones there have been arranged] {[104]}

The following example has a passive participle from the transitive verb rep- which means (among other things) stake something as a prize.
Positive 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 -jo, 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. att-1aqal adoptive mother < att-1aqal mother). Example 009 shows the word roolqal food (*ru-1aqal), derived from the transitive verb ru-1qal eat.

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 ranmajawjo accanan (one) brought up by them, 006 moryanan rayjalawakottejote (ones) trained by us, and, with a negative passive participle, 007 enukalinet *orawetl?ata (ones) not eaten by people.

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.

Example 010 shows a derived noun Jaajolqal piece of equipment, thing which is used derived from the transitive stem jaa-use.

Example 011 shows an active participle acting as an NP head, example 012 shows an active participle as a dependent within an NP.
The negated stem of negative participles can be formed from the e·-ka- circumflex or the lug- prefix (see §18.7.1 for examples and further discussion). Negative participles formed by the e·-ka- circumflex and the -P- suffix take the endings -in (absolute singular) and -ine- (derived, plural, or oblique), e.g. aalomkalPen disobedient one (*e·walom-ka-P-INE-NEG-listen-NEG-PCLP-TH-3sgABS), aalomkalPenat disobedient ones (*e·walom-ka-P-INE-T NEG-listen-NEG-PCLP-TH-3plABS). Negatives formed by the lug- prefix take the normal -n final (morphological type III; §6.3.1) absolutive suffix, e.g. lugulwePa/n unresting one (*lug-ulwew->-P-3 NEG-rest-E-PCPL-E-3sgABS). It is unclear how to motivate the -in(e-) ending which occurs with negative participles in e·-ka-. It is hard to suggest a semantic motivation, particularly since it is never used with the personal name (see §8.6 for examples). There does not seem to be any correlation between the use of -in(e-) with possessive, demonstrative endings, and so on.

To make an active participle from a verb with a transitive stem the verb stem must be intransitive. It can be antipassivised, using either for 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 anqen neme qora:jg:a:na ya-penc:e-len ya-jayna-len
DEM.3sgABS again reindeer-AUG-ERG PF-antuck-E-3sg PF-charge-3sg
again this big reindeer attacked him, charged him. [cy222]

014 penc:e-ko:n-P-3 P-3 anqen
attack-E-AP.ITER-PCLP-E-AUG-E-3sgABS reindeer-AUG-E-3sgABS DEM.3sgABS
n·e-qora:jg:at·qen
HAM-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.

8.3 Non-participle derivations with -P- and -e-.

The suffix -P- 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 -P- depends on the semantics of the stem, although there is the semantic link that -P- derives a noun specified by its relation to another word:

• SPATIAL TERM. With a spatial term the -P- suffix forms a word indicating a person or thing originating from that place. Thus, from the noun emnug tundra it is possible to derive emnug-a-P-a-te tundra folk (tundra-E-PCLP-E-3plABS). Note that this contrasts to the relational formed with -kln(e-), e.g. emnug-kine-t tundra-REL-3plABS (from the tundra (emnug:kenet mrenti tundra mosquitoes) §8.7.2). It is likewise possible to form one of these -P- nominalisations with a spatial adverb, such as jaat-a-P-a-te ones situated behind (behind-E-NMZER-E-3plABS) from the adverb jaat behind.
The two following examples are typical. Example 023 shows the noun w?e-tko-yary-a-n 'plague, epidemic, death', which is derived from an iterative (-tku suffix) form of w?e- die.

023 w?otecj gan=m / gan lay=m / gan [u] / long
DEICT-EMPH DEICT know:VBASE-EMPH DEICT
yemo=m / gotqena-tko-rak synt-kena-?amwett-a
not.know:VBASE EMPH DEM-COLL-ANG:ERG new-REL:PEOPLE-ERG
rine-i?e / Janwa tag-yemo w?e-tko-r-vry-a-n
young:NMZR-ERG ?? INTS not.know:VBASE
die-DEICT-NMZR-3sgABS
pl?en gan / atr?ec walam-a et?am n-a-at-a-qin
DEM.3sgABS DEICT only hear:VBase apparently HAB-AUX-E-Sg
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 -r?u; §§14.2-3):

024 [u] angatal wmc-a-r?e-yary-a-g-a-n / qanwer mejget-y?i
after all worried-DEICT-NMZR-E-AUG-E-SgABS finally become.big-TH
...After all he was really worried when finally he grew up... [oa035]

Example 025 shows two sorts of action nouns which differ in the absence of other derivational suffixes which fill that slot, such as the collective -r?u; §§14.2-3:

025 Etet?en=?m anqen n-lw-qletem Etet?en
Yukaghir:3sgABS-EMPH DEM.3sgABS HAB-say-y?i Yukaghir:3sgABS
EMPH REST-kind.be.sick-NMZR-3sgABS-EMPH previously HAB-E-NITS:be.sick-3sg
Yukaghirs, they say Yukaghirs are always sick between the legs f.e. sexually transmitted disease), it was a fatal illness. [kr062]

8.4 Action noun derivation (yary, ...vN)

The suffix -yary-vN 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.
Bare transitive stems without any intransitivisation can also form action nouns; for example, the noun rakkawy- hole is formed from the transitive verb rrw- pierce (<verb ending> + -nwa-). The action noun formed from the transitive verb tonI-/nmi- sev means steam:

028 [...] / ra-tityat-jaw-ën-ën / anqen tónëy-ën-ät
cause-separ-C5-COLL-3sgA.3sgO DEM.3sgABS noun-NOMINAL-3sgABS
angen / eowi-tku-jaw-ën-ën / nely-ë-a-n garjan
DEM.3sgABS cutTER-COLL-E-3sgA.3sgO hide-E-3sgABS outside-ADV
ra-ran-an-nen / [...] CS-spread-CS-3sgA.3sgO

... He cut the seams all apart, cut along them, spread the hide out outside ...

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 palwa?arjan herdng which is derived from the noun gelwal herd, and example 030 has the action noun ?aqale?arjan terror derived from a complex noun formed by an adjective ?ege- bad incorporated with the noun-lg- hear:

029 angara qanur ?ewke=7m yomo t-hw-a-rkan ?ewke
them then like so-EMPH 1sgABS 1sg-say-EMPH-PROG
angatal aml=7m mac-at-opel remik-a-n wecé-am
INTJ this-EMPH APPR-somewhat fine-E-3sgABS maybe
n?a-n?ël?-yto-a / qa?en makara-jow-xor-a-t
INTJ-ERCOME-TH-3sgq like the hide-E-3NgABS

Then like... I say it's perhaps a little better, if people would start herding
again ... [cy107]

030 "kake wane ation meggora?" qora-yta n-aqljyaw-ßen
INTJ INTJ INTER whence? reindeer-ALL HAB-be.ahald-3sg
"okkoj qora-n?a / tetki ?aa-lep-yor-xa-a-lp-a-n
t INTJ reindeer-3sgABS bad.AOV bad-heart-NOMINAL-E-AUG-E-3sgABS

"Oh dear me! Where are they from?"—She feared the reindeer—"Oh what
reindeer, it's terrifying!" [cy431]

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 Wokworayryan is an action noun, literally meaning Homecoming stone (wakw-a-ra-ya?ary-a-stone-E-House-go-to-E-NOMINAL-E-3sgABS). Because of the obligatory use of the high animate declension, negative passive participles look slightly different in the absolute when they are being used as personal names than when they are common nouns, e.g. the participle aalomkal?an (ergative suffix -nVe-VAH) may be deverbal (wetay:a-awat-VAH) or by antipassivisation (wetay:a-awal-VAH) or by antipassivisation (wetay:a-awal-VAH). For example, the noun rigenege-t forms a nominal with meaning 'container'; Derivatives may be deverbal (wetay:a-awal-VAH) or by antipassivisation (wetay:a-awal-VAH).

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 penjolyan denotes fireplace but not ashtray, although both could be thought of as containers for ashes).

• LOCATIVE NOMINALISATION (Comrie 1985:355). The derivational suffix -nwy- -nwa- derives a noun from a verb indicating an action or state and means the place where the action or state occurs, for example tala-n path, tala-nwa-t paths is derived from the verb tala-I-le-go.
the female of all types of animals, and the suffix -gew derives the word anpagew old woman, granary from the adjective stem anp- elderly (note that there is no corresponding suffix deriving a word for man—the word for old man, grandad is formed from the stem anp- by means of the high animate thematic suffix and the augmentive suffix, giving anp-a-na-cy-a-n elderly-E-AN-AUG-E-3sgABS).

The suffix -wji forms personal names from verb and noun stems: e.g. Rintuwji < rintu throw, Tamgwej < tamgo-ven get lost, ?att?awji < ?att?- 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 -ine- derives a noun indicating something possessed by means of suffixation on the stem indicating possessor; e.g. qor-ena-t qelhu-t (reindeer-POSS-3sgABS calf-3sgABS) calve 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 -ine suffix, but indicates source, origin, or purpose rather than possessor; e.g. qora-ken orwor (reindeer-REL-3sgABS sled-3sgABS) reindeer sled; telenjep-kin ?orawet-fan person from the olden days. See §8.7.2.

• The nominaliser suffix -P-, 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 -ine(-) and -kin(e)-forms usually derive words from other nominals, but can also derive nouns from verbs, for example:

031 celat ya-toqe-tkga-ta pan
then
CONV-beat.snow-ITER/BICH-CONV DEICT

jalyat-ken Image-t
nomadise-REL-3sgABS cargo.sled-3sgABS

Then (they) begin beating off snow from the cargo sleds used in nomadising... [ch25]

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Nominal Derivation

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 -ine-
The possessive form is not a case suffix. 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 suffixes 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 Ie deleted final vowel).

Example 032 shows a noun phrase with possessive forms kel7in of the spirits and w7i-remkin of the dead folk.

032 anka jara-mk-a-jp-a-n ke7in
here house-GROUP-E-AUG-E-3sgABS spirit-POSS-3sgABS

angen w7i-remkin
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 weqe-qm-ln atlay-a-n
Jare-POSS-3sgABS ...and.POSS-3sgABS father-E-3sgABS
[He was] Jare's husband's father. [at128]

PRONOMINAL POSSESSORS are produced regularly, by means of a pronominal stem and the possessive suffix:

034 amanan ye-w7i-lin angen calayet yan-in
only PERF-de-3sg that.3sgABS sister.3sgABS 2sg-POSS-3sgABS

Only one that died, that sister of yours. [at017]

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 1998).
FIGURE 8.1. Possessed pronouns.

<table>
<thead>
<tr>
<th>Case</th>
<th>3sg</th>
<th>3pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possessed:</td>
<td>yamn-lnt</td>
<td>yamn-lnt</td>
</tr>
<tr>
<td>Possessor:</td>
<td>mury-lnt</td>
<td>mury-lnt</td>
</tr>
<tr>
<td>2sg</td>
<td>yan-lnt</td>
<td>yan-lnt</td>
</tr>
<tr>
<td>2pl</td>
<td>tury-lnt</td>
<td>tury-lnt</td>
</tr>
<tr>
<td>3sg</td>
<td>an-lnt</td>
<td>an-lnt</td>
</tr>
<tr>
<td>3pl</td>
<td>ary-lnt/acc-lnt</td>
<td>ary-lnt/acc-lnt</td>
</tr>
</tbody>
</table>

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-lnt qora-yam
2pl POSS-3abs 3sg father
I am your(PL) herdsman {na092: Jj

036 yam-lnt t:umy-a turi
lsg POSS 2plABS travel-friend PL ABS
You (PL) are my fellow travellers {na092:2j

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 Onma!?at (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.

An interesting subset of possessive examples have 'dative' type meanings, as shown in examples 040-041:

040 atlay-a an iw-nin / atejl vam-lnt
father E ABS say 3sg.3abs Daf Yoci 1sg.3poss.3abs
poly-a qaj q-tejk-ay-an
spear E Dim.3abs INT E make E TH E 3sg.0
He said to his father "Daddy! Make me a little spear" {na021:}

041 anqen yan-lnt anqen anpanacy-3-qay-tc
DEM 3sg.3 abs DEM 3sgABS 3sg.0 family.person E Dim.3abs
Ano-tam anal long.3sg REL.3abs 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 adverbs (of place or time).

Deverbal relational form (<iwtalet vi. descend)

042 iwtalet-kin orawet-lnt r?et
descend REL 3sg. abs road.3sgABS
a road for people to descend by {nb039:1:}

Deixisverbal relational form (<iyat vi. today)

043 anqen caj Tajulqut iva-kin
and DEICT personal.name 3sgABS now REL 3sg. abs
Tajulqut's father.

And there's that Tajulqut of today, Tajunteryrew's father. {kr134:}
Denominal relational form (c)Plyv- n. moon), indicating place of origin:

044 gi-teq-gac te-ya-ea ewan amancye-n PHV-REL
ite-SIDE pass-PF INRS om-ekan-3sgABS moon-REL3sgABS
orw-a-tarraw-rajwaca n-a-yaty-ka-ken / lw-nin
stedE-build house-leeward side HAB-E-adze-USE-3sg say+yaga-3sgO
olkoj toj yekeq-ya-a-gqj
INTJ INTJ ride-P CPL-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 of sleds with an adze, he said to him
"Hey! It's a rider!" [cy167]

Denominal relational form (c)caewawa- n. rich herder), denoting origin or source:

045 caewawa-ken ewat enara-p-ka tincen-t /
rich herder-REL-3sgABS so neighbour-E-3plABS child-3plABS
n-a-ke-i:ami ama
HAB-E-3pl also

The rich herder-neighbours had children too. [cy10014a]

Plural marking of the relational form is the same as that of the possessive;
plurality of the possessed is usually only marked in Telpp 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-ty-nqet 2tine.remk-a-kin naqel-te ok кakaq
HAB-say-3pl rec-e-fik-REL3sgABS mon-3plABS INTJ INTJ
Cawgangayj anmc gqylte tine-wineq-nqin
personal name.3sgABS already look! HAB-AP-3sgQ

The men of the racers' encampment said, "Oh boy, look at Cawgangayj already
training [lit]." [cy116]

Example 047 has a plural marked relational form; no other head noun is present:

047 kaara-cako-kena-t jan-tenat / Cawgangayj-a-na
nursery.sled/NESS-REL-3plABS gakko-3plABS personal name-ERG
Cawgangayj 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 ar-ke-kine-t awee-nwa-t
3pl-E-3sgABS pasture-PLACE-3plABS
their pastures [na107:12]

Chapter 8 NOMINALS

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049 ik-wi / gew-at-ke-qaj-e lw-nin waj-anqen yan
say-TH women-dog-E-DIM-ERG say+yaga-3sgO DEICT-as.3sgABS DEICT
namman q-ajYo-ya-n / pandilla q-gawwecqajiek-wl /
settlement.3sgABS INT-ERG-gaa-TH-3sgO 90iAR INTE-end.bride-TH
DEVUSHIKA q-aj-plr-y-a-n an-ke-kine
int-ERG-take-TH-3sg an-ke-ke
She said, the dog said to him, "Visit that there settlement, go there to find a
bride, take a girl from that [place]."

However, relational pronouns with SAP heads have alternative forms with -line
instead of -ke (see also §8.7.1).

FIGURE 8.2. Relational pronouns.

<table>
<thead>
<tr>
<th>person/number of modified nominal</th>
<th>3sg</th>
<th>3pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>yamn-ine-kine</td>
<td>yamn-ine-kine</td>
</tr>
<tr>
<td>1pl</td>
<td>yam-a-ke-kine</td>
<td>yam-a-ke-kine</td>
</tr>
<tr>
<td>2sg</td>
<td>yam-in-ine-kine</td>
<td>yam-in-ine-kine</td>
</tr>
<tr>
<td>2pl</td>
<td>yam-a-ke-kine</td>
<td>yam-a-ke-kine</td>
</tr>
<tr>
<td>3sg</td>
<td>an-ke-kine</td>
<td>an-ke-kine</td>
</tr>
<tr>
<td>3pl</td>
<td>ar-a-ke-kine</td>
<td>ar-a-ke-kine</td>
</tr>
</tbody>
</table>

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 -tok- an- TOP, -gqac SIDE,
-lag/-ly- 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 -tok- and -gqac indicate the absolutive
case without a further case marker; -lag/-ly- and -curm- mark the absolutive
singular with the suffix -n.

Stem: Absolutive singular:
-tok- an- orw-a-tok top of a sled (allative: orw-a-tok-eto)
-gqac(a) jara-gqac side of a house (allative: jara-gqac-a-yto)
-lag/-ly- yaty-ly-a-n edge of a lake (allative: yaty-a-ly-etoo)
-curm- weem-curm-a-n side of a river (allative: weem-curm-eto)

These derivations are frequently marked with locational case, most frequently
locative or the basic directional cases (allative, ablative):
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 angoro / layen=7m pan paluval=a-cy-a-t n-a-mk-a-qinet=7m
then really=EMPH DEICT herd-E-AUG-E-3sgABS HAB-E-heb=5sg=EMPH
pan layen=7m tajajco ya-par-ten-t towaren gutku /
DEICT really=EMPH thousand POS:PRCL-extra-3pl trade.herd here
n-a-capoj-gen=7m
HAB-E-slaughter-3sg=EMPH
Then like that great herd increased, a thousand and more here were slaughtered.

The -jp- augmentative doesn't have any allomorphic variation:
054 c?acap-a-jp-a-n
cold-E-AUG-E-3sgABS
(During/there is) extreme cold.

055 am?-a paluval-a-jp-a-n=7m layen TRANSPORTA-ken [4]
then herd-E-AUG-E-3sgABS=EMPH really transport.REL.3sgABS
qua-paluval-a-cy-a-n / n-a-twa-gen=7m [...] reindert-heid-E-AUG-E-3sgABS
HAB-E-heb=3sg=EMPH
Then there was a huge transport herd, a vast herd of reindeer.

Like diminutives, augmentatives also intermittently act as nominalisers. The noun w?eto kj?j?an p?g?ue is derived from an iterative-marked intransitive verb stem (w?i 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 -yiniv (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 qeluq~>m n-a-mk-a-qin n ye-lqut-lln / koke wanel /
because=EMPH ADJ-E-many-E-3sg PF:stand-up-3sg dog-COLL-E-AUG-E-3sgABS
H
Because lots of dogs had stood up.

The -mk- suffix is clearly cognate with the adjective stem mk many.

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 -qen expresses the idea of smallness or fondness.

051 n-ine-tem?in-qin anqen plennel-qen
HAB-FIND=3sg DEM.3sgABS boy=DEM.3sgABS
She is lying to that boy.

The diminutive is sometime used as a derivational suffix. For example, the noun aw-qay-te (grunt'-DIM-3piABS 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 -jp- and -cy-. These both express the notion of bigness. Speakers report that -jp- 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 allomorphical alternation:

\[\text{AUC} \rightarrow \{ \text{-cy}/\text{VC} \}_{-cy \text{ elsewhere}}\]

This shows that its underlying form is -cy.

052 n-lw-qin / gew?en tep-snjw-in / koke wanel /
HAB-say=3sg wife=3sgABS good-uncle-POSS.3sgABS INTJ INTJ
pawasarat -cap-a-nl
woman-AUG-E-3sgABS
The good uncle's wife says, "Dear oh dear! What a woman!"

\[\text{cy333}\]
The prefix *em-* restrictive prefix combines with instrumental case personal pronouns to form the personal name of the person/number specific form (§7.6.3).

The form seems to be productive and there are examples of it used in spontaneous compounds; e.g. the word *lay-7orawetl7a-tann-a-t* (AUTH-person 3sgABS), which is the native Chukchi ethnonym used for self-reference. There are quite a few similar terms; *lay-7orawetl7a-t* adverb meaning *alone, am-oom anam, by himself*, *am-aryam am-acc, by themselves, am-yanam by myself, am-yanan by yourself* etc. The form *amanan* can be used in place of any of the person/number specific forms (§7.6.3).

### 8.11 Miscellaneous lexical affixes

The prefix *ly* also derives nouns from nouns with the meaning 'authentic', 'true', 'proper'; see §8.11.

### 8.10.3 Approximative and restrictive prefixes

The restrictive prefix *em-* occurs most frequently with nouns and adverbs. The approximative prefix *mel-* occurs with nouns and adjectives (see also §16.3.3), and the related form *me-* occurs with nouns, verbs, and adverbs.

#### 8.10.2 Intensifier prefixes

The intensifier prefixes *lyi-* and *teg-* occur with words of most word classes (e.g. verbs §14.5.2, adjectives §16.3.3). They are most common with nominal derivatives from other word classes, or with pronouns. They very rarely occur with underived nouns.

The postfix *-tku* collective suffix is formally identical to the iterative/antipassive-iterative suffix (§14.4.5).

The intensifier prefixes often occur together:

057 **ank7am** layen' gan cit tag-kolo gan namnam-a-mk-a-sy-a-n and really DEICT first INTS-INTD DEICT village-E-COLL.E-AUG.E-3sgABS

layen'**m** layen' cawcawa-yennit cit teg-n-a-mk-a-qinen / really-EMPH really reindeer.COLL first INTS-ADJ-E-many-3pl

n-a-two-qinen HAB-EMPH-3pl

And well at first there were lots and lots of settlements, there lived a huge number of reindeer people. [he009]

062 **amqora** gan t'ee-e yiwi-kine-k=7m / para-ca then DEICT some-ADV year-REL-LOC-EMPH four-ADV

yiwi-kine-k / emelke layen'**m** cawcawa-Ho-n year-REL-LOC probably really-EMPH reindeer.COLL-3sgABS

yanu-n-a-n Itak-eawon n-a-mk-a-qin ye-ynu-lin=7m remain-PCPL.E-3sgABS 52-INTS ADJ-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).

063 **Enmal1-o-P-a-n** VSJO VREMJA BORTISA
ciff.E-NMZR.E-3sgABS all time fighting
cecn Cilt-a-quepe-P-a-n accel

3plABS low-E-pot.NMZR.E-3sgABS 3plABS ciff.E-NMZR.E-3sgABS

tekikajj-a-t am-mcawac-a-P-a-t bad-AUG.E-3pl REST-give.E-PCPL.E-3sgABS

The 'Cliff folk' are always afraid of them, the "Low Pots", those Cliff folk. They're really bad, always fighting. [kr042]

See example 011 for an example of the rarer *mec- from of the approximative prefix: mecc-meljet-a-P-a-t (APPR-become.blg.E-PCPL.E-3plABS) the ones who had become rather big. The I-c alternation is common in derivation.

Several prefixes can occur together (this is also a rare example of these derivations on an underived noun):

064 **layen=7m** luc-keli-tku-te t-it-yene-k ten-am-gelwil?o-a-k / really-EMPH NEG-write-ITER-Base 1sg-be-Th-1sg EMPH-REST-end.E-LOC
t-amyegile=ye-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

### 8.11 Miscellaneous lexical affixes

The prefix *ly* (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 *lay-7orawetl7a-n* (AUTH-person 3sgABS), which is the native Chukchi ethnonym used for self-reference. There are quite a few similar terms; *lay-oom-a-t* berry species (considered specific to Chukotka; Russian shishka), *lay-7ewir-a-t* traditional Chukchi clothing, *layHitt7aqji* (*lyi*-tatt7aqgi) Chukchi sled dog. The form seems to be productive and there are examples of it used in spontaneous compounds; e.g. the word *lay-7orawetl7a-tang-a-t* AUTH-person-stranger-E-3plABS (from *ot019*) is used to specify Koryaks when the
Chapter 8: 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 aiyaq-a-noray-te ama
dim-3sg ABS nom-adm-3pl ABS old-E-woman-3sg ABS oldman-E-DIM-3sg ABS too

The old woman, the old man and the little boy continued nomadising. [otOBO]

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). There are noun phrases with two non-modifier noun heads (forawutat anpanacayt the people, the old people) and a quantifier pronoun (quittu some) which could be either a modifier within an NP, or it could be another independent nominal:

002 samatm yata?ela-ya-lenat nutl
DET-COM PH-KNOW-BE-3sg DEM-NOM NOUN

Well, some people went to a race, old people.

There are a few instances of ergative case nominals 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 pawacapt y-upet-lin / anraq=nm zene-le
PH-collect.wood-3sg DEM-NAME-NOM NOUN

The girl was going for firewood, and there she was kidnapped (taken) by someone, an ill-doer, by stranger/enemies/Koryaks, like these who live in Varegi.

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 postposed (as in example 004), postposed (example 005), or both (examples 006, 008).

004 anka wajam-nenat angen paws-a-n-rayt-at-kennat
there where 3sgA.3pl DEM-3sGABS woman-CS-house-go-loc-TH-REL-3plABS

There he untied them, the marriage reindrs, they hung earrings on them.

005 upe kemlliInu pawacapt-In
NEG.EXI PH-collect.wood

The heads of noun phrases are usually nouns (or participles, which in Chukchi are a kind of noun). The modifiers in the noun phrase can be

Chapter 9

160. NOMINALS

161. COMPLEX NOMINALS

- FREE PRONOUNS (§9...). Demonstrative, quantifier and indefinite/interrogative pronouns can be modifiers in NPs. Personal pronouns cannot, which would follow from the special discourse conditions which obtain for their use (§7.2). Personal pronouns do occur in phrasal nominal constructions with concord, 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 DERIVATIVES OF NOUNS (§9.2.2)
  - OBQUILE 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 lejw!t at who were walking does.

006 anraq=nm angen zene-nivl-In skke-ta?m
DEM-3sGABS DEM-NOM NOUN PARTY-NOM NOUN DEM-NOM-3sgABS

Then these sons of the bad uncle came, they walked there, as soon as they heard about the race.

Pronominal and possessive/reational modifiers do however always agree with the number of the underlying head when the head nominal is ellipsed from the NP. E.g.

007 lavi-telenjen-kinet arata 1-pi ...
INTS-long ago-REL-3sGABS ask n-nt

[They're] from really quite a long time ago...

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 lejw-at waj layen man-jalyn-mak man-rayt-a-mak
PH-are WHERE-IN NOUN-MAJ NOUN-MAJ NOUN

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 grammatical 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.

![Diagram showing linear ordering within an NP](image)

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 [...] ttket-kln pacewetlyaw mury-in angen [...]  
then-REL 3sgABS conversion 1pl-POS 3sgABS DEM 3sgABS  
... that previous conversation of ours ...

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 qanwet; ko:lo ana ploonge angen  
finaly INTJ so boy DEM 3sgABS  
lejw-a-匹-a-rkon tag-qompa layen  
walk-EOUR-PROG INTJ always really  
Finally, ooh! but that boy is always wandering.  

**QUANTIFIER**

011 inumany-a-ηal qaTDayi goj |ara-k n-a-twa-gen  
old man-3sgABS however QUANT 3sgABS house-LOC HAB E-be 3sg  
There was one old man in the house however.

**INDEFINITE/INTERROGATIVE:**

012 ee penu-te ciwaw-γεε-l1 nute-k n-ena-pela-toree?  
INTJ what 3sgABS orphan-3sgABS land-LOC HAB TR-leave 2pl  
Oh, what orphans have you left in the tundra?

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

Absolutive 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 cew-anjw !po-nen pelwa-γεε-k wa-P-a-n lw-nil  
INTS-loc 3sgABS go-to 3sg ABS HAB-LOC be-PCPL-3sgABS say 3sg 3sgO  
znjw-e  "cejl kakomejil Cakwagaqaqj cik-in-ε-e"  
uncle-ERG INTJ INTJ personal name 3sgABS INTS-early ADV  
He reached the good uncle who was at the herd.

In the above example, the locative nominal gelwaPak at the herd is a complement of the copula wa-i-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.
9.2.2 Nominals

Examples 015 and 016 show relational modifiers formed from a noun (pélwalaľkin having to do with herders) and a temporal adverb (títekiňet having to do with that time) respectively:

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.
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):

Example 027 is from a story about waking up after a wolf skin. The noun өөрөн водиёкил is introduced by a noun phrase in the absolutive case and then referred to by a pronoun or single word. 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

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 they are believed to be hypothesised 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 not an argument of the verb (note number agreement), but which also strongly implies an ellipsed nominal head lampitse stories (understood from context):

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 repitition of different terms for a referent which 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:

Example 028 shows a highly unusual example of an ergative demonstrative and an ergative noun which do seem to be in a modifier-head relationship:

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 өөрөн folk cannot be marked for number outside the absolutive (§6.2).

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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 racht-a-yta-t / satqajal pakir-yi qelug-=m
house-go-in-TH 3pl 1st.ADV wife-TH because=EMPH

They went home. He arrived first because he was inside the wolf skin. [ot.141]

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 kawrajelyomelyatanga '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 unexpected.

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 inessive case (see also examples 030-037 below, which show incorporated possessors).

030 ... rapt-apa-nta n=el-yi remk=on tag-ama?-eta=nt
COME-IN-HOUSE COM become-TH fed-E-ABS 3sgABS INTS-all-ADV-EMPH
... the people in their entirety came to be in little houses. [he.055]

Adjectives in attributive function are almost always Incorporated. Compare 031-032 (adjectives in attributive function) with 033-034 (adjectives in predicative 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-lly-yyi-pet-qin angen qa-lanay-a-ju-n
HAB-E-INTS,=chousework=OUR-3sg DEM rawhide=E-AUG-ABS
That [magical] raw hide worked hard around the house. [cy.285]

032 malpo-s-maraw n=a-le-qin
big-E-6sg,3sgABS HAB=E-go-3sgS
The [Second World] war was going on. [he.024]

The following examples show free adjectives in predicative functions:

033 meelu' n=a-alt-qin uwul-kuk / n=enai-yyo-qen
sometimes ADJ/E-warm-3sgS cook-pot.3sgABS HAB=TR=pot.our-3sgS
Sometimes even the pot was still warm when he got it out. [jo.021]

034 polj-ott-a-ly-a-qaj hayen n=a-ciwm-a-sine-qel
spare-wood=E-END=E-DIM 3sgABS rely ADJ/E-short-E-3sg-DIM
The spearshaft was really short. [at.037]

Note that in examples 031 and 032 the incorporated adjectival modifiers make up entities which are similar to lexical compounds according to the nameformness 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 qunqora:Payat you have one reindeer (or perhaps better: you with one reindeer).

035 gewacqete n=iy-a-n "okkoj! waj meplin-qaj waj
woman-ERG Inv=day-3sg INTJ DEICT who=DIM.3sgABS DEICT
q=a-caj-o-rkon kake waren-qaj qonqora?:Payat
INT=E-tea-COMSUME-PROG INTJ INTJ-DIM one-reindeer=HMZR=3sg ABS
men?qet? whence
The women said to him: Who's this? Drink some tea! Well well, you've got one reindeer... Where have you come from? [cy.104]

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 in incorporated the noun nute-land, and the resultant stem occurs in the relational derivation to show place of origin.

1 This compound kawrajelyomelyatanga 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 form 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 Qs (§12.2) is part of the same general phenomenon that non-specific, non-differentiated elements are referred to using a single word.

1 Note that possessive and relational forms cannot be combined recursively: gymn-ln nute-ktin jokwa-qaj (1sg-POSS.3sgABS land-REL.3sgABS duck-COM.3sgABS) would
Example 037 shows another instance of a semantically complex non-absolutive element formed by incorporation rather than by phrasal syntactic means.

Given: Incorporation

Example 037 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.

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).

In pragmatically different circumstances the incorporated noun ʔinye- in a non-absolutive wolf hide could be split into a phrasal nominal ʔinye-a- 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-jar-q
nappy-COLL-CONTENTS EQU
Nappy padding/stuffing [ch09]
manek-woj-cy-a-qat-a
dish-KAM-IGA-PEQ-ERG
Dress made of fabric (instead of fur) [cy223]
ott-a-paj-jy-a-qaj
wool-E-POSS:E-DIM
Wooden spear [cy036]

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.
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 atlayat jara-p-o q-l-y-o-tak
2plABS aus.dog-3sgABS house-NMR-LOC INT-be-TH-2pl
You and aunty (lit. 'you (pl.) including auntie') remain at home. [cy062]

045 naqam atraroc atri paw-qatt-e-pa-e
but only 3plABS woman-dog-3dim
And it was just him and the bitch [ke147]

046 enmen / ?eqe-1-o [... ] ya-nm-a-lenat
once upon a time bad-NMER-ERG FF-hit-3plO
atlayat ammena
parent-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 stenqaj you and aunty; the pronoun in this example indicates that the NP contains another person).

\[1\] The word atlayat can mean parents or fathers (the singular atlayan only means father). In conjunction with the singular ammama mother the phrase atlayat ammena means father and mother, literally 'parents incl. mother'. In general the plurals of terms indicating men include women (§6.3.4).

---

Chapter 9

<table>
<thead>
<tr>
<th>Nominals</th>
<th>Complex Nominals</th>
</tr>
</thead>
<tbody>
<tr>
<td>047</td>
<td>laye-tag-qonqa ye-tumyew-qonqal</td>
</tr>
<tr>
<td>yes</td>
<td>INTS-INTS-always FF-behind-3pl</td>
</tr>
<tr>
<td>atri</td>
<td>lokwaata 3l-ko</td>
</tr>
<tr>
<td>3plABS</td>
<td>elder.duck-3sgABS wall-3sgABS</td>
</tr>
<tr>
<td>Yes, and the wolf and the duck befriended each other forever.</td>
<td></td>
</tr>
<tr>
<td>048</td>
<td>atri mun-att-e-gel</td>
</tr>
<tr>
<td>newacqet anqa</td>
<td></td>
</tr>
<tr>
<td>3plABS</td>
<td>woman-dog-3dim home-3sgABS</td>
</tr>
<tr>
<td>woman-3sgABS</td>
<td></td>
</tr>
<tr>
<td>n-1-twa-lenat / jara-k</td>
<td></td>
</tr>
<tr>
<td>HAB-E-be-3plO home-LOC</td>
<td></td>
</tr>
<tr>
<td>They were the dog and the woman there, at home.</td>
<td></td>
</tr>
</tbody>
</table>

---

9.5.2 Conjunctive particles

There are two conjunctive particles which typically occur with nominals: ank?am and ama (there is also discussion below of an unusual instance of nominal conjunction with cama: example 052). These conjunctive particle also join verbs and clauses, and introduce intonational phrases (see §5.5.2).

The form ank?am is semantically the most neutral of the conjunctive particles.

050 ?amam anuulpa-tam ank?am ammen atereteg-gal
INTJ brother-in-law-EMPH and one youth-3sgABS |
ra-ynu-w-nilnet ewet, cakayet |
CS-behind-CS-3sgABS likewise sister-3sgABS |
Well he left the brother-in-law and one youth, likewise the sister. [jo114]

Note that the noun cakayet in this example is an afterthought, not a syntactic argument of any verb.

The particle ama 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.
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 Skorlik 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 and inverse markers. In the stative paradigm 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).

<table>
<thead>
<tr>
<th></th>
<th>passive</th>
<th>neutral aspect</th>
<th>active</th>
</tr>
</thead>
<tbody>
<tr>
<td>perfect</td>
<td>yelqin</td>
<td>'she has come'</td>
<td>yelqin</td>
</tr>
<tr>
<td>habitual</td>
<td>najeqtqin</td>
<td>'she comes'</td>
<td>najeqtqin</td>
</tr>
</tbody>
</table>

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 no 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 1982:126), 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-Pa-yP (INV-sec-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).

<table>
<thead>
<tr>
<th></th>
<th>non-future</th>
<th>future</th>
<th>intentional</th>
<th>conditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sgS</td>
<td>t-S-(y?)-k</td>
<td>t-re-S-(y?e)</td>
<td>m-S-(y?)-k</td>
<td>m-re-S-(y?e)-k</td>
</tr>
<tr>
<td>1plS</td>
<td>mat-S-mak</td>
<td>mat-re-S-(y?e)</td>
<td>mat-S-mak</td>
<td>mat-re-S-(y?e)-k</td>
</tr>
<tr>
<td>2sgS</td>
<td>S-(y?)-l</td>
<td>re-S-(y?e)</td>
<td>q-S-y-l</td>
<td>q-re-S-(y?e)-l</td>
</tr>
<tr>
<td>2plS</td>
<td>S-tak</td>
<td>re-S-n-tak</td>
<td>q-S-tak</td>
<td>q-re-S-n-tak</td>
</tr>
<tr>
<td>3sgS</td>
<td>S-(y?)-j</td>
<td>re-S-(y?e)</td>
<td>n-S-(y?e)-n</td>
<td>n-re-S-(y?e)-n</td>
</tr>
<tr>
<td>3plS</td>
<td>S-(y?)-t</td>
<td>re-S-g-n-t</td>
<td>n-S-net</td>
<td>n-re-S-g-n-t</td>
</tr>
</tbody>
</table>

The symbol $ represents the verbal stem. Bracketed forms are optional, and usually only occur with monosyllabic verb stems. The suffixes -y?/-y?e and -i are thematic, and are discussed in §10.2.7. Verbal inflections are all -VH.

**FIGURE 10.2.** Intransitive neutral aspect paradigms.

<table>
<thead>
<tr>
<th></th>
<th>non-future</th>
<th>future</th>
<th>intentional</th>
<th>conditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sgS</td>
<td>t-S-(y?)-k</td>
<td>t-re-S-(y?e)</td>
<td>m-S-(y?)-k</td>
<td>m-re-S-(y?e)-k</td>
</tr>
<tr>
<td>1plS</td>
<td>mat-S-mak</td>
<td>mat-re-S-(y?e)</td>
<td>mat-S-mak</td>
<td>mat-re-S-(y?e)-k</td>
</tr>
<tr>
<td>2sgS</td>
<td>S-(y?)-l</td>
<td>re-S-(y?e)</td>
<td>q-S-y-l</td>
<td>q-re-S-(y?e)-l</td>
</tr>
<tr>
<td>2plS</td>
<td>S-tak</td>
<td>re-S-n-tak</td>
<td>q-S-tak</td>
<td>q-re-S-n-tak</td>
</tr>
<tr>
<td>3sgS</td>
<td>S-(y?)-j</td>
<td>re-S-(y?e)</td>
<td>n-S-(y?e)-n</td>
<td>n-re-S-(y?e)-n</td>
</tr>
<tr>
<td>3plS</td>
<td>S-(y?)-t</td>
<td>re-S-g-n-t</td>
<td>n-S-net</td>
<td>n-re-S-g-n-t</td>
</tr>
</tbody>
</table>

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 10.3.** Transitive progressive aspect paradigms

<table>
<thead>
<tr>
<th></th>
<th>non-future</th>
<th>future</th>
<th>intentional</th>
<th>conditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sgS</td>
<td>t-S-rkan</td>
<td>t-re-S-rkan</td>
<td>m-S-rkan</td>
<td>m-re-S-rkan</td>
</tr>
<tr>
<td>1plS</td>
<td>mat-S-rkan</td>
<td>mat-re-S-rkan</td>
<td>mat-S-rkan</td>
<td>mat-re-S-rkan</td>
</tr>
<tr>
<td>2sgS</td>
<td>S-rkan</td>
<td>re-S-rkan</td>
<td>q-S-rkan</td>
<td>q-re-S-rkan</td>
</tr>
<tr>
<td>2plS</td>
<td>S-rkan-tak</td>
<td>re-S-rkan-tak</td>
<td>q-S-rkan-tak</td>
<td>q-re-S-rkan-tak</td>
</tr>
<tr>
<td>3sgS</td>
<td>S-rkan</td>
<td>re-S-rkan</td>
<td>n-S-rkan</td>
<td>n-re-S-rkan</td>
</tr>
<tr>
<td>3plS</td>
<td>S-rkan-tak</td>
<td>re-S-rkan-tak</td>
<td>n-S-rkan-tak</td>
<td>n-re-S-rkan-tak</td>
</tr>
</tbody>
</table>

**FIGURE 10.4.** Transitive non-future neutral (norist).

<table>
<thead>
<tr>
<th></th>
<th>1sgO</th>
<th>1plO</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sgA</td>
<td>-</td>
<td>t-S-yat</td>
<td>t-S-tak</td>
<td>t-S-(y?)-n</td>
<td>t-S-net</td>
<td></td>
</tr>
<tr>
<td>1plA</td>
<td>-</td>
<td>mat-S-yat</td>
<td>mat-S-tak</td>
<td>mat-S-(y?)-n</td>
<td>mat-S-net</td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td>ine-S-y?-l</td>
<td>S-thu-y?-l</td>
<td>-</td>
<td>-</td>
<td>S-(y?)-n</td>
<td>S-net</td>
</tr>
<tr>
<td>2plA</td>
<td>ine-S-tak</td>
<td>S-thu-tak</td>
<td>-</td>
<td>-</td>
<td>S-tak</td>
<td>-</td>
</tr>
<tr>
<td>3sgA</td>
<td>ine-S-y?-l</td>
<td>ne-S-mak</td>
<td>ne-S-yat</td>
<td>ne-S-tak</td>
<td>S-nil</td>
<td>S-nil</td>
</tr>
<tr>
<td>3plA</td>
<td>ne-S-yam</td>
<td>ne-S-mak</td>
<td>ne-S-yat</td>
<td>ne-S-tak</td>
<td>ne-S-(y?)-n</td>
<td>ne-S-net</td>
</tr>
</tbody>
</table>

**10.2 Active inflections**

There are eight active inflectional paradigms: non-future (or 'norist'), future, intentional, and conditional, each with progressive and neutral aspectual variants. They are presented as paradigms because there is no simple or co-extensive 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 10.5. Transitive non-future progressive.**

<table>
<thead>
<tr>
<th>1sgA</th>
<th>1plO</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>t-S·rkoni-yat</td>
<td>t-S·rkoni-tak</td>
<td>t-S·rkani</td>
<td>t-S·rka-net</td>
</tr>
<tr>
<td>1sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td>ine-S·rkani</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rkani</td>
<td>ine-S·rka-net</td>
<td></td>
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<tr>
<td>2plO</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rka-net</td>
<td></td>
</tr>
<tr>
<td>3sgA</td>
<td>ine-S·rkani-mak</td>
<td>ine-S·rkoni-yat</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rka-nin</td>
<td>ine-S·rka-ninet</td>
</tr>
<tr>
<td>3plA</td>
<td>ine-S·rkani-yam</td>
<td>ine-S·rkoni-yat</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rka-nin</td>
<td>ine-S·rka-ninet</td>
</tr>
</tbody>
</table>

**FIGURE 10.6. Transitive future neutral.**

<table>
<thead>
<tr>
<th>1sgA</th>
<th>1plO</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>t-re-S-yat</td>
<td>t-re-S-tak</td>
<td>t-re-S-nya-n</td>
<td>t-re-S-nya-net</td>
</tr>
<tr>
<td>1sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td>ine-S·yi</td>
<td>ine-S·tku-yi</td>
<td>ine-S·yi</td>
<td>ine-S·ya-n</td>
<td>ine-S·ya-n</td>
</tr>
<tr>
<td>2plO</td>
<td>ine-S·yi</td>
<td>ine-S·yi</td>
<td>ine-S·yi</td>
<td>ine-S·ya-n</td>
<td>ine-S·ya-n</td>
</tr>
<tr>
<td>3sgA</td>
<td>ine-S·yi</td>
<td>ine-S·yi</td>
<td>ine-S·yi</td>
<td>ine-S·ya-n</td>
<td>ine-S·ya-n</td>
</tr>
<tr>
<td>3plA</td>
<td>ine-S·yi</td>
<td>ine-S·yi</td>
<td>ine-S·yi</td>
<td>ine-S·ya-n</td>
<td>ine-S·ya-n</td>
</tr>
</tbody>
</table>

**FIGURE 10.7. Transitive future progressive.**

<table>
<thead>
<tr>
<th>1sgA</th>
<th>1plO</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>t-re-S-rkoni-yat</td>
<td>t-re-S-rkoni-tak</td>
<td>t-re-S-rkani</td>
<td>t-re-S-rka-net</td>
</tr>
<tr>
<td>1sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td>ine-S·rkani</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rkani</td>
<td>ine-S·rka-net</td>
<td></td>
</tr>
<tr>
<td>2plO</td>
<td>ine-S·rkani-tak</td>
<td>ine-S·rkani-tak</td>
<td>ine-S·rkani-tak</td>
<td>ine-S·rka-net</td>
<td></td>
</tr>
<tr>
<td>3sgA</td>
<td>ine-S·rkani-mak</td>
<td>ine-S·rkoni-yat</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rka-nin</td>
<td>ine-S·rka-ninet</td>
</tr>
<tr>
<td>3plA</td>
<td>ine-S·rkani-yam</td>
<td>ine-S·rkoni-yat</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rka-nin</td>
<td>ine-S·rka-ninet</td>
</tr>
</tbody>
</table>

**FIGURE 10.8. Transitive intentional neutral.**

<table>
<thead>
<tr>
<th>1sgA</th>
<th>1plO</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>m-S-yat</td>
<td>m-S-tak</td>
<td>m-S-(yi)·ne-n</td>
<td>m-S-net</td>
</tr>
<tr>
<td>1sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td>q·ine-S·yi</td>
<td>q·S·tku-yi</td>
<td>q·ine-S·yi</td>
<td>q·S·ya-n</td>
<td>q·S·ya-n</td>
</tr>
<tr>
<td>2plA</td>
<td>q·ine-S·yi</td>
<td>q·S·yi</td>
<td>q·S·yi</td>
<td>q·S·ya-n</td>
<td>q·S·ya-n</td>
</tr>
<tr>
<td>3sgA</td>
<td>q·ine-S·yi</td>
<td>q·S·yi</td>
<td>q·S·yi</td>
<td>q·S·ya-n</td>
<td>q·S·ya-n</td>
</tr>
<tr>
<td>3plA</td>
<td>q·ine-S·yi</td>
<td>q·S·yi</td>
<td>q·S·yi</td>
<td>q·S·ya-n</td>
<td>q·S·ya-n</td>
</tr>
</tbody>
</table>

**FIGURE 10.9. Transitive intentional progressive.**

<table>
<thead>
<tr>
<th>1sgA</th>
<th>1plO</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>m-S·rkoni-yat</td>
<td>m-S·rkoni-tak</td>
<td>m-S·rkani</td>
<td>m-S·rka-net</td>
</tr>
<tr>
<td>1sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td>ine-S·rkani</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rkani</td>
<td>ine-S·rka-net</td>
<td></td>
</tr>
<tr>
<td>2plA</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rka-net</td>
<td></td>
</tr>
<tr>
<td>3sgA</td>
<td>ine-S·rkani-mak</td>
<td>ine-S·rkoni-yat</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rka-nin</td>
<td>ine-S·rka-ninet</td>
</tr>
<tr>
<td>3plA</td>
<td>ine-S·rkani-yam</td>
<td>ine-S·rkoni-yat</td>
<td>ine-S·rkoni-tak</td>
<td>ine-S·rka-nin</td>
<td>ine-S·rka-ninet</td>
</tr>
</tbody>
</table>

**FIGURE 10.10. Transitive conditional neutral.**

<table>
<thead>
<tr>
<th>1sgA</th>
<th>1plO</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>m-S·rkoni-yat</td>
<td>m-S·rkoni-tak</td>
<td>m-S·rkani</td>
<td>m-S·rka-net</td>
</tr>
<tr>
<td>1sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td>n·ine-S·rkani</td>
<td>n·S·tku-rkan</td>
<td>n·ine-S·rkani</td>
<td>n·S·rka-net</td>
<td></td>
</tr>
<tr>
<td>2plA</td>
<td>n·ine-S·rkoni-tak</td>
<td>n·S·rkoni-tak</td>
<td>n·S·rkoni-tak</td>
<td>n·S·rka-net</td>
<td></td>
</tr>
<tr>
<td>3sgA</td>
<td>n·ine-S·rkani</td>
<td>n·S·rkoni-yat</td>
<td>n·S·rkoni-tak</td>
<td>n·S·rka-nin</td>
<td>n·S·rka-ninet</td>
</tr>
<tr>
<td>3plA</td>
<td>n·ine-S·rkani-yam</td>
<td>n·S·rkoni-yat</td>
<td>n·S·rkoni-tak</td>
<td>n·S·rka-nin</td>
<td>n·S·rka-ninet</td>
</tr>
</tbody>
</table>

**FIGURE 10.11. Transitive conditional progressive.**

<table>
<thead>
<tr>
<th>1sgA</th>
<th>1plO</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>m-S·rkoni-yat</td>
<td>m-S·rkoni-tak</td>
<td>m-S·rkani</td>
<td>m-S·rka-net</td>
</tr>
<tr>
<td>1sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td>n·ine-S·rkani</td>
<td>n·S·tku-rkan</td>
<td>n·ine-S·rkani</td>
<td>n·S·rka-net</td>
<td></td>
</tr>
<tr>
<td>2plA</td>
<td>n·ine-S·rkoni-tak</td>
<td>n·S·rkoni-tak</td>
<td>n·S·rkoni-tak</td>
<td>n·S·rka-net</td>
<td></td>
</tr>
<tr>
<td>3sgA</td>
<td>n·ine-S·rkani-mak</td>
<td>n·S·rkoni-yat</td>
<td>n·S·rkoni-tak</td>
<td>n·S·rka-nin</td>
<td>n·S·rka-ninet</td>
</tr>
<tr>
<td>3plA</td>
<td>n·ine-S·rkani-yam</td>
<td>n·S·rkoni-yat</td>
<td>n·S·rkoni-tak</td>
<td>n·S·rka-nin</td>
<td>n·S·rka-ninet</td>
</tr>
</tbody>
</table>
### 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.**

<table>
<thead>
<tr>
<th></th>
<th>future &amp; non-future</th>
<th>intentional</th>
<th>conditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sgA/S</td>
<td>t·</td>
<td>m-</td>
<td>m?</td>
</tr>
<tr>
<td>1plA/S</td>
<td>mat·</td>
<td>man·</td>
<td>man?</td>
</tr>
<tr>
<td>2sgA/S</td>
<td>θ</td>
<td>q-</td>
<td>n?</td>
</tr>
<tr>
<td>2plA/S</td>
<td>-tak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3sgA/S</td>
<td>θ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3plA/S</td>
<td>-tka</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.**

<table>
<thead>
<tr>
<th></th>
<th>S</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>θ (ka)</td>
<td>-yam</td>
</tr>
<tr>
<td>1pl</td>
<td>θ (mak)</td>
<td>-mak</td>
</tr>
<tr>
<td>2sg</td>
<td>θ</td>
<td>-yat</td>
</tr>
<tr>
<td>2pl</td>
<td>-tak</td>
<td>-tak</td>
</tr>
<tr>
<td>3sg</td>
<td>θ</td>
<td>-n</td>
</tr>
<tr>
<td>3pl</td>
<td>-t</td>
<td>-net</td>
</tr>
</tbody>
</table>

The bracketed forms only appear in aspectually neutral paradigms. The 3pl 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.**

<table>
<thead>
<tr>
<th></th>
<th>non-future</th>
<th>future</th>
<th>intentional</th>
<th>conditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>neutral (sg.)</td>
<td>$·(y?)-i$</td>
<td>re-$·(y?)-t$</td>
<td>n-$·(y?)-n$</td>
<td>n²-$·(y?)-n$</td>
</tr>
<tr>
<td>(pl.)</td>
<td>$·(y?)-t$</td>
<td>re-$·(y?)-t$</td>
<td>n-$·(y?)-n$</td>
<td>n²-$·(y?)-n$</td>
</tr>
<tr>
<td>progressive (sg.)</td>
<td>$·-rkon$</td>
<td>re-$·-rkon$</td>
<td>n-$·-rkon$</td>
<td>n²-$·-rkon$</td>
</tr>
<tr>
<td>(pl.)</td>
<td>$·-rkot$</td>
<td>re-$·-rkot$</td>
<td>n-$·-rkon$</td>
<td>n²-$·-rkon$</td>
</tr>
</tbody>
</table>

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 θ. The non-future progressive form is -rkat; this is apparently a fused form of progressive and 3pl, but does not follow any regular phonological or historical process.

### 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 < 3sg < 3pl (more marked agent)
1A → 2O is an unmarked agency relationship (i.e., DIRECT)
2A → 1O is a marked agency relationship (INVERSE)
3sgA → 3sgO, 3sgA → 3pI are both unmarked (DIRECT)
3pIA → 3sgO, 3pIA → 3pI 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, third person acting on a (different) individuated entity is more likely agent than second person (other languages with inverse marking place the former in the active and the latter in the passive). For transitive verbs with arguments which are entirely speech act participants, third person acting on a (different) individuated entity is more likely agent than second person (other languages with inverse marking place the former in the active and the latter in the passive).

For transitive verbs with arguments which are entirely speech act participants, third person acting on a (different) individuated entity is more likely agent than second person (other languages with inverse marking place the former in the active and the latter in the passive). For transitive verbs with arguments which are entirely speech act participants, third person acting on a (different) individuated entity is more likely agent than second person (other languages with inverse marking place the former in the active and the latter in the passive). For transitive verbs with arguments which are entirely speech act participants, third person acting on a (different) individuated entity is more likely agent than second person (other languages with inverse marking place the former in the active and the latter in the passive). For transitive verbs with arguments which are entirely speech act participants, third person acting on a (different) individuated entity is more likely agent than second person (other languages with inverse marking place the former in the active and the latter in the passive).

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 §1.6). 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.**

<table>
<thead>
<tr>
<th>1sgA</th>
<th>1plA</th>
<th>2sgO</th>
<th>2pI</th>
<th>3sgO</th>
<th>3pI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1pIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2pIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3pIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 -tak (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 (nords) paradigm of the transitive verb ~tuk see.

**FIGURE 10.18. Inverse markers, ine- and -tku forms.**

<table>
<thead>
<tr>
<th>1sgA</th>
<th>1plA</th>
<th>2sgO</th>
<th>2pI</th>
<th>3sgO</th>
<th>3pI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1pIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2pIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3sgA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3pIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
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:

<table>
<thead>
<tr>
<th>person and number of:</th>
<th>pronominal cross-reference?</th>
<th>inverse marker</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>1sg</td>
<td>none</td>
</tr>
<tr>
<td>2sg</td>
<td>1pl</td>
<td>none</td>
</tr>
<tr>
<td>2pl</td>
<td>1sg</td>
<td>to A (-tak)</td>
</tr>
<tr>
<td>2pl</td>
<td>1pl</td>
<td>to A (-tak)</td>
</tr>
</tbody>
</table>

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.

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: -tku 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:

<table>
<thead>
<tr>
<th>number of:</th>
<th>pronominal cross-reference?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>O</td>
</tr>
<tr>
<td>3sg</td>
<td>1sg</td>
</tr>
<tr>
<td>3sg</td>
<td>1pl</td>
</tr>
<tr>
<td>3pl</td>
<td>1sg</td>
</tr>
<tr>
<td>3pl</td>
<td>1pl</td>
</tr>
</tbody>
</table>

The 'elsewhere' condition is given here with two forms, word final -rkan/-ccan and word internal -rkan(-e)/-ccan(-e). Deletion of word final underlying -e·WI is a productive morpho-phonological process for many different morphemes (e.g. type Ic nouns, §6.3.1).

The alternation between the forms -rkan(-e)/-ccan and -rkan(-e)/-ccan, 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 'ligature morpheme' joining SAP pronominal elements (see -iyam, -iyat in §10.3).

Examples of verbs with progressive:

001 anaq-sun ano 3p=3p qawratkna-ccan
7-1015
so-WS - so what? nade-PROG
What can that be rustling?

002 qut-y7i walk/o-y7e iw-nin
7-1015
• qom-ena-mc-sa-ccan!
stand-up-TH sit-down-TH say-3sg 3sgO INT-stare-AP-stand-TH-PRGG
eama yatka-t. anqen q-a-niluk-rku-ne7!
and log=3ABS that.3sg/3S INT-E-wave-PROG-3plO
He stood up, he took his hat, she said to him "Hold on tight! And wave your legs!"

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.
The example cognate morphemes. The grammaticalisation pattern whereby a lexical form clearly diverged. The desiderative can be used with any verb or converb form (see derivational category. Dahl 1989). The difference in distribution is difficult to explain; however, it is meaning typologically not unusual for an inflectional category to be less regular than a suffix -gan, -yninet, where a regular derivation, see §14.6.1), differing only in that the -g suffix Is the result of the morpho- morpheme specific allomorphy rule *g → gai_net (perhaps by analogy to the 3sgO forms *gan, which are formed from underlying *g-n# with regular schwa epenthesis; §3.2.2). In the 2plA forms the suffix is realised *g-n-tak (TH-2plA) → -ntak, which is a regular phonological change g → 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 -g 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 -g); example 005 is a future verb without 3rd person O or the -g suffix. Example 006 is a desiderative.

004 wane re-γ1n靓-7e gelwaj ra-nun-tko-p-o-n
INFJ FUT-be-greed-th HER 3plABS FUT-ABE-INTER-TH-E-3sg
re-γ1kneneq-wat / Iyt-γ1qej ne-γ1rint-yat
INFJ-FUT-Shoot-2sg
But if you get greedy, if you will wipe out the herd, they'll shoot you straight away, they'll kill you. [ke066]

005 anqen tang-a ne-γ1p-γ1n-net nemageq
FUT stranger-ERG INV-FUT-take 2sgD also
Those enemies will kidnap you too. [ko024]

006 cawcaw-a-ko-t anqen reindeer-herder-COLL 3plABS that 3sgABS
n-γ1a-γ1n-kolxawm-a-γ1ko-gnetam lsg
HAB-E-DESID-CS-be.n.kolxaw-DESID-INTER-3plO-EMPH
They wanted to put the reindeer flock into kolxawes...
[ko016]

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 cam?am unable and mecanka enough, possible.

007 a-qora-ka t-a-re-m-stl-y_e / cam?am t-a-re-jmit-yat
PRV-reindeer-PRV 1sgE-FUT-become-TH unable MOD 1sgE-FUT-slaughter-2sg
I'll be left without a reindeer, I can't slaughter you
[ko108]

011 lyst waj ekwew-a-γ1stu-y_e mecanka pireq
now DEICT left.harness.deer.E-ACQUIR-TH able.MOD two
qora-t ra-jaa-γ1n-net reindeer-3plOBS FUT-use-FUT-3pl
Now you've got a leftside harness deer. you will be able to use two deer with your sield.
[gy168]

Negative clauses with notionally future future are marked differently. Instead of the tense affixes they use the negative particle qarom with a verb in the intentional (§10.2.5). Negation is discussed in §18.

When an optional word final thematic suffix -γ1e-VH is omitted, a schwa is pronounced in its place:

009 anqen name jet-y_e / pellem waj then again come-TH then again
ra-paw-a-o-rayt-at-a FUT-woman-CS-go.home-CS.E
Again he came - "Soon you'll take [your] bride home" [ke201]
In example 009 the word ragawanraytata (ending with -t) is equivalent to ragawanraytaty'na (ending with *-t*). 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/narrative modality
- Negated inflecting verbs

First person intentional is used for hypothetical or intended actions:

100 *milaka* *tang-a-t* *nas-twa-qenat* *niw-qin*

somewhere stranger-E-3plABS HAB-E-3sgS HAB-say-3sgS

"Jureq ma-Pu-te-n*

maybe 1sgA·E·FUT·Iead-TH·E·2sgO

somewhere

[He went off to] Where the strangers lived, he said: "Maybe I'll find her somewhere"

The use of 1st person Intentional is contrasted with 1st person future, which is used for actions not expected to be resistible in any way, utterly under the control of the agent. In the following example the evil brother-in-law challenges the hero Cakwanaqaj to a duel. He uses both future and intentional in his challenge:

101 *yan-n* *nenaq* *gelwal* *waj* *putuk* *yaty-a-ly-e-ta*

1sg-POSS.3sgABS also herd.3sgABS DEICT here lake-E-EDGE-ALL

*fa-ra-na?paten-pan* / *genku* *anqen* / *mat-ra-peljacPat-a*

1sgA·E·FUT·Iead-TH·E·3sgG here ins.3sgABS 1plS-FUT·spear·light-E

anma?ta-more *sanpat* *anka* *man-za-mm-a-vet*

3sg-dABS of course then 3plA·E·ABS-E-3sgG

*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.*

The word *taranPatenpan* *I will* (FUT) lead it refers to an action completely under the control of the agent. The verb *matrapeljacPat* *we will* (FUT) have a fight refers to the action without reference to any possible result (and, considering the bloodbath perpetrated by Cakwaganqaj on the brother-in-law's colleagues preceding this challenge, it is unlikely that he will avoid the fight), and contrasts with the blustering *manamayat* 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:

---

**Chapter 10**

<table>
<thead>
<tr>
<th>INFLECTING VERBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>012 <em>gelwal</em></td>
</tr>
<tr>
<td>herd.3sgABS</td>
</tr>
<tr>
<td><em>na-tentli-cagaw-law-nin</em></td>
</tr>
<tr>
<td><em>Our herd will stamp your herd flat.</em></td>
</tr>
</tbody>
</table>

The intentional here again marks an intended and hypothetical outcome.

Intentionals with second person A or S most commonly have imperative meaning. Aspectsual 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 where 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).

103 *ewar* *n-line-wirnet-y-a-tak*

3sg INT·INV·help·TH·E·2pl

*Help me please*

Third person intentional with hypothetical meaning:

104 *kasket* *ipe* *?an-lw-po-n*

INTJ only INTJ·say·TH·3sgO

*Oh! Could they be telling him the truth?*

Negated inflecting verbs are marked by a particle and a verb in the intentional. In negative future the particle used is *qaram*, while in negative past the particle is *wanacan* (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:

105 *qe??e* *kanmal* *man-7-a-lej-wa-ra-teyn* *man-ka-kvet* *qe??e*

tuly together 1pl·COND·from·PURP·INTS·3sgG·3sgO
tuly
cqe??e
tanyor
tgether first

*If we were going out hunting together, if we went together first...* [an019]

Conditional with neutral aspect:
The suffix -y?e is never obligatory, it is rarely omitted when the stem conditions: or, d
or only in active non-progressive paradigms.

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:

10.3 Stative inclusions
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:


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: -ln(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 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 suffixes.

In the perfect the pronominal suffixes of transitive verbs always cross-reference to O except in contexts where the ine- and -tku suffixes are used with the active paradigms. Since the suffixes 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.

<table>
<thead>
<tr>
<th></th>
<th>1sgA</th>
<th>1plA</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sgO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgO</td>
<td>ine-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2plO</td>
<td></td>
<td>ine-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3sgO</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

cross-reference to O

cross-reference to A

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 paradigms 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.

<table>
<thead>
<tr>
<th></th>
<th>1sgO</th>
<th>1plA</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sgO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgO</td>
<td>ine-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2plO</td>
<td></td>
<td>ine-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3sgO</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

cross-reference to A

cross-reference to O

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 prefix 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.


<table>
<thead>
<tr>
<th></th>
<th>1sgO</th>
<th>1plO</th>
<th>2sgO</th>
<th>2plO</th>
<th>3sgO</th>
<th>3plO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sgO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2sgO</td>
<td>ine-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2plO</td>
<td></td>
<td>ine-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3sgO</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3plO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

cross-reference to O

cross-reference to A

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.
The habitual

Habitual- transitive and Intransitive.

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 -tstu affix which changes the default cross reference from O to A (see §10.3).

The habitual is common in narrative descriptions of situations, and in habitual/universal contexts. An example of the former is:

**FIGURE 10.25. Habitual — transitive and intransitive.**

<table>
<thead>
<tr>
<th>1sg(\text{NOM})</th>
<th>1sg(\text{IMP})</th>
<th>2sg(\text{NOM})</th>
<th>2sg(\text{IMP})</th>
<th>3sg(\text{NOM})</th>
<th>3sg(\text{IMP})</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sgA</td>
<td>-</td>
<td>-</td>
<td>1sg-lne-(\text{i=})rem</td>
<td>1sg(\text{PL})</td>
<td>1sg(\text{PL})</td>
</tr>
<tr>
<td>1plA</td>
<td>-</td>
<td>-</td>
<td>1pl-lne-muri</td>
<td>1pl-lne-muri</td>
<td>1pl-lne-muri</td>
</tr>
<tr>
<td>2sgA</td>
<td>n-ine-(\text{i=})rem</td>
<td>n-ine-(\text{i=})rem</td>
<td>2sg-lne-muri</td>
<td>2sg-lne-muri</td>
<td>2sg-lne-muri</td>
</tr>
<tr>
<td>2plA</td>
<td>n-ine-(\text{i=})rem</td>
<td>n-ine-(\text{i=})rem</td>
<td>2pl-lne-muri</td>
<td>2pl-lne-muri</td>
<td>2pl-lne-muri</td>
</tr>
<tr>
<td>3sgA</td>
<td>n-ine-qin</td>
<td>n-ine-qin</td>
<td>3sg-lne-muri</td>
<td>3sg-lne-muri</td>
<td>3sg-lne-muri</td>
</tr>
<tr>
<td>3plA</td>
<td>n-ine-qin</td>
<td>n-ine-qin</td>
<td>3pl-lne-muri</td>
<td>3pl-lne-muri</td>
<td>3pl-lne-muri</td>
</tr>
<tr>
<td>intr.</td>
<td>n-ine-qin</td>
<td>n-ine-qin</td>
<td>n-ine-qin</td>
<td>n-ine-qin</td>
<td>n-ine-qin</td>
</tr>
</tbody>
</table>

The habitual paradigm where

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 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)

<table>
<thead>
<tr>
<th>025</th>
<th>n-lne-qin</th>
<th>log-kataq-jat-qo-(\text{a})-(\text{n})</th>
<th>layen</th>
<th>poh-(\text{a})-qaj</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HAB(\text{SG})-INTEN-S(\text{N})-3sg</td>
<td>HEG(\text{SG})-(\text{N\text{-}})-(\text{INV\text{-}})-3sg</td>
<td>layan</td>
<td>HAB(\text{SG})-(\text{N\text{-}})-(\text{INV\text{-}})-3sg</td>
</tr>
</tbody>
</table>

Prefix ine-: 1plA, 3sgO (non-Inverse)

<table>
<thead>
<tr>
<th>026</th>
<th>n-ine-qin</th>
<th>t-e-qat-qo-(\text{a})-(\text{n})</th>
<th>layen</th>
<th>poh-(\text{a})-qaj</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DEM(\text{SG})-(\text{N\text{-}})-(\text{INV\text{-}})-3sg</td>
<td>HAB(\text{SG})-(\text{N\text{-}})-(\text{INV\text{-}})-3sg</td>
<td>layen</td>
<td>HAB(\text{SG})-(\text{N\text{-}})-(\text{INV\text{-}})-3sg</td>
</tr>
</tbody>
</table>

The ine- prefix is glossed as TR (transcrite) 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:

<table>
<thead>
<tr>
<th>syntactic valency</th>
<th>semantic valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>zero-place intransitive</td>
<td>1</td>
</tr>
<tr>
<td>(canonical) intransitive</td>
<td>1</td>
</tr>
<tr>
<td>extended intransitive</td>
<td>1</td>
</tr>
<tr>
<td>(canonical) transitive</td>
<td>2</td>
</tr>
<tr>
<td>extended transitive</td>
<td>2</td>
</tr>
</tbody>
</table>

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, S₁ and S₂, according to their morphosyntactic behaviour. The distinction between S₁ and S₂ is motivated by the same sort of semantic prototype that activates the distinction between A and O. This is clearly exemplified in Chukchi by (i) the behaviour of the r-1-n-causative/applicative prefix, and (ii) the behaviour of labile verbs.

(i) The r-1-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 meji·et (an adjective stem + verb suffix) grow up has a single argument.

001  ḥiŋqeŋ  meji·et-ŋ21
boy-3sgABS  big-VB-TH(3sgS)

The boy grew up.

The addition of the r-1-n- prefix produces the causative form ra-meji·ew bring up:

002  ḥiŋqeŋ  ra-meji·ew-n1n  aŋqe·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, S₁ 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-1-n- prefix derives an applicative. The S of the intransitive verb (003) has the same semantic role as the A of the applicative form (004), i.e. it is an S₁ (an S which clusters morphosyntactically with A; Dixon 1994).

003  ŋeekke  wetyak-w2e
sing-3sgABS  speak-TH(3sgS)
The sister spoke.

004  ŋeekkete  ra-wetya-an-nen  aŋqe·te
sing-ERG  A=PL-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 S₁, O and S₂.

The verb kolyat- to harness is an A=S₁ labile. The S of the intransitive form has the same semantic role as the A of the transitive; see examples 033 and 034 (§11.1.1).

The verb mle- to break is an O=S₂ labile. The S of the intransitive form has the same semantic role as the O of the transitive; see examples 041 and 042 (§11.1.2).

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 S₁ in grammatically unmarked contexts. However, the experiencer departs enough from the semantic prototype of an experiencer, that it can, with grammatical elaboration, be treated as an undergoer and enter into morphosyntactic phenomena usually reserved for O/S₁. For example, the verb walam· hear is an A=S₁ labile, with the argument frame A/experience and O/stimulus. The experiencer can not really be interpreted as causing anything, and may not be actively doing anything; in so far as it reacts 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=S₁ verb of perception can be treated as an S verb, and causativised to make a transitive with the argument frame Accuser and O/experiencer(cS₁). 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 valence values. Mosel (1981:240-241) describes three types of secondary valence, 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 & Alkhenvald 1997). The three types of secondary valence 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 of 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 valency schema 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 intransitive verb, e.g.:

005 aatac'ek-a piri-lin rowlqul
youth-ERG take-3sgA.3sgO food.3sgABS
The youth took the food

006 aatac'ek ine-piri·q'ar
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 applicative 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.**

<table>
<thead>
<tr>
<th></th>
<th>Affix</th>
<th>Derivation type</th>
<th>Secondary (derived) valency</th>
<th>Syntactic changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intransitive</td>
<td>-r/-n-</td>
<td>Causative</td>
<td>Transitive</td>
<td>S→O</td>
</tr>
<tr>
<td>(S,)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transitive</td>
<td>ine</td>
<td>Applicative</td>
<td>Transitive</td>
<td>O→obl</td>
</tr>
<tr>
<td>(S,)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transitive</td>
<td>-t'ku</td>
<td>Antipassive</td>
<td>Intransitive</td>
<td>A→S</td>
</tr>
<tr>
<td>(S,)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Causatives and r-/-n- applicatives are fully productive, but the ine- and -t'ku 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 Skorlk 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 Skorlk (1960) as an example of the antipassive (see §11.6.2):

007 cawcawaa·q'at qaa·ta
herder-3plABS AP-leave-3plS moose-INST
The (nomadic) herdsmen left the deer [Skorlk 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 at'pa·ta ena-pela-nen ge'mrt'yan qoqar-a
mother-ERG APPL-leave-3sgA.3sgO grinny.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 pola- without the ine- prefix) appears as an oblique in the instrumental case. An applicative derivation in Chukchi is discussed in Kozlnskaý, Nedjalov and Polinskaja 1998. Another account of Chukchi valency is found in Nedjalov 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 SA) and Undergoer S (Su). The actor macrorole includes agent (example 009) and experiencer (example 010). Examples 011 and 012 show undergoer roles.

**ACTOR S**

009 r'ela-xt-y?nnet enyatak / janot
galop-go-to-E-TH-3pl next-day race-INC-TH-3pl

They went to the race the next day, started racing, first they participated in the race [cy361]

010 kolo ana ve-yoqaw-linet amyatal ya-qa-me-twa-myo-lenat
INTS so PF-be.hungry-3p!ABS of course PF-eat-RESULT-INC-3p!S

Well they'd a': "I'm hungry, they started eating." [cy304]

**UNDERGOER S**

011 tang-a-t n-lw-qinet ok ana go yam-in
surger-E-3p!ABS HAB-say-3p! INTJ so DEICT 1sg POSS.singular
plak-a-ly-a-n paranot-y?i
shoe-E-SING-3p!ABS be.ROTTED-TH

The strangers say "Oh, it seems my shoe has ripped" [cy075]

012 qame ango ra-qo-to-jaw / na-yo-CAT-R-E-3sg
so.then then ADJ-heal.-ADV COND-e-be.preserved-INC-3p!S

When you have been injured, 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 which are both transitive and intransitive) have different syntactic behaviour depending on whether the intransitive form takes an S, or an Su (§11.4). Similarly, the r-IN- derived form of an intransitive has two functions, determined by the status of the S: this prefix forms an applicative with an Su verb, and a causative with an S 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 -ru (§11.4.2). 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 pig-e-r?u-y?i
snow-INC-TH

It started snowing [na080:1]

014 nakl-r?u-y?i / [...] night-INC-TH

Night fell [...] [po90]

Other meteorological verbs (ones without the -ru morpheme) are formed with the -etru suffix, and tend to be stative rather than inchoative.

015 m?k?i-k?i qun m?k?i-k?i=qun qonpa na-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 018 is a rare spontaneous example of S-incorporation, showing the verb pata-I-to- come out with incorporated noun nenene-Inf baby.

018 ekke-l lw-net “kakomejl Cakwagajaj enmek
r?on-3p!ABS say-3sga-3p! INFJ personal.name.3sg ABS already
ya-gwit-an-len ama ya-naana-nto-len”
PF-fwE-3sgS and PF-baby;come.out-3sg

He says to his sons, 'Kakomejl Cakwagajaj is already married, a child's even been born'. [cy327]

Incorporated S does not necessarily make a zero Intransitive: the word tewir?qirtokjan my clothes freeze (t-e-wir?-a-qirt-a-rt?an 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 struct- 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 kw-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 angen jokwajo ipe nite-i
that:3sgABS duck:3sgABS only way:DEFINITE HAB:be-3sg
That duck was actually a wolf, ha ha! [a0104]

Other copula verbs take locative complements, for instance n?el become:

018 ral-y?e-t angen anjiw ewot acaj /
crawl-3pl this uncle:3sgABS so aunt:3sgABS
Jaro-cake n?el-y?e-t
sleeping chamber-DEFINITE 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 angen=x=a mire-a-tik kitkik ye-mee-pinta-get-get-eqet-lin /
this-EMPH sun-REDUP:3sgABS slightly PF-APPR show:SOFT DIM-3sg
SOLNYSIHK=e?an ter-teh?e=pan kitkik varcola=ta ye-n?e=llin /
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 pklir- arrive strongly imply a locative argument (which may be a nominal in the locative case or a delictic adverb). In rare instances where a locative argument is not present, a nominal in locative case role always seems to be retrievable.

020 mcclu-yu mac>peker-a-gpe-lenat kawra-nce-nwa-k
hardy PF-APPR active-E-INKH-3pl around-3sg PLACE-LOC
Cakwanaqaj ennec jara-gaca-y?e / nlla=ll-lin
personal.name:3sgABS already house-BESIDE ALL HAB:go-3sg
They had hardly even reached the turn around point, when Cakwanaqaj was already heading homewards [cy141]

021 qenku pokr-y?i=m / pker-a-gpe-y?e
there moon-E-LOC arrive-TH-EMPH active-E-INKH-TH
There he arrived on the moon, he approached. [cy185]

In the preceding example pkeragpo?e lit. he began to arrive refers to poklir at the moon, the same as pklir-y?i he arrived. In the following examples there is no locative case complement of pklir- 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 conversbs rarely take any sort of overt argument (§13.4).

022 ?eqe-njiw-e poklir-ingen n-in-iv-lin okokoj
bad-uncLE-ERG approach-CONSEQ HAB:BE.say:3sg INTJ
naqam n-a-nq-iyat eqeluq n-om?e?q-ePa-at-iyat
but HAB:DO what:3sg because HAB:sweat:OUR-2sg
The sad 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 nene poklir-y?i
again approach-TH
Again he approached. [a0410]

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 ewot enncq-cpa / nikagut / wolka-ts
so pass-ARG same-as wolf-ARG
n-ine-rokalo-Pot-qin non-par
HAB-TR-fall-DUR-3sg cawan-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 rapetjawin he butchered it has an O which has been directly acted upon by A. The verb rqitejawin 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 fomen he went it has a location; O which is hardly affected by A at all. Note that the transitive motion verb /po/- 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 rapet-jaw-lin eqelpre ra-git-et-jaw-lin telicy-s-t
butcher-INTS-3sgA.3sgO quickly CS-freeze-TH-INTS-3sgA.3sgO meat-E.3sgABS
uw1-kuk Po-ten
cook-pot.3sgABS qa-po-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 uncasusativised stem. Examples 026 and 027 show the stem yjult learn as an intransitive verb (yjulet-) and a transitive (-nayjulew- teach). The semantic role of S and O in these two examples is presumably the same: it belongs to the undergoer within the macrorole.

026 layen cinit laq-e n-ya-yul-et-ginet
really self look-INTS-3sgA.3sgO
All by themselves watching (others) they learn. [ch26]

027 an-ln nenencet migkri n-i-ne-a-yul-et-ginet nam-a-twa-k?
3sg-3sgABS baby-3sgABS how?
HAB-TR-C5S-learn-CS-3sgO live-E-be-INF
How does she teach her children how to live? [an043]

An experiencer A always has a stimulus O.

028 reqoka-la-y a take-c-2-s a ya-jgo-lan
polar fox-SING-ERG smelt-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 l9g-ly-

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 ADDONOR and O:RECIPIENT, but the nominals encode ADDONOR (ergative case) and O:GIFT (absolutive case). Recipients are typically not expressed as nominals within the clause, where they are are put in the allative case.

Chapter 11

11.3.1 Extended transitive

The three place copula l9g-ly- 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.
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,) and Undergoer-S (S,). Labiles are formed such that S, corresponds to A and S, 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; S=A labiles are like applicatives and 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.

**kalyet- harness (A/Actor 0/Undergoer)**

**INTRANSITIVE**

033 qora-yaarke-platsgy-an-t / layen evat

reindeer-catch-finish-TH-3pl ready so

akovat-a-myo?y-an-t kalyat-a-moyo?ye

leave-E-IND-TH-3pl harness-E-IND-TH

They finished catching reindeer, straight away they started leaving, he started harnessing.

**TRANSITIVE**

034 ra-winiw-tluku-nin qenyn am?enq / kalyen-nin

CS-iran-E-ITER-3sgA.3sgO more then harness-3sgA.3sgO

He trained it some more, and then harnessed it.

**yala- pass (A/Actor 0/Undergoer=locative)**

**INTRANSITIVE**

035 palanglat-cako-jpa layen xalay-anje gen1

flame-NLESS-ABL really pass-TH other

He passed through the flame to get there.

**TRANSITIVE**

036 gutkete layen ta-yen mraaq-jaq-an ?era-yaala-nenat

by here really go-TH dgi8-SIDE=EMPH getop-pass-3sgA.3sgO

He came through here on the right, he quickly passed them (arrived) to another encampment, he left them all behind.

NOTE that this example has a verb compound, but that compounding is not a valency changing derivation (§12.4).

**11.4.2 S=O type**

S=O labiles are rare. Examples include mle break and yr?o be born, give birth to.

**mle break (A:Agent 0/S:Patient)**

**INTRANSITIVE**

041 n-ena-pong-eqen qoqy-ottoot n-o-mle-gln

HAB·TR-block-3sgO spear-waod.3sgABS HAB·E-break-3sgS

... he blocked the spear and the spear broke.

**TRANSITIVE**

042 m-yam-eq-an

1sg.INT-E-break-TH-3sgO

I want to break it.

**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/IS is the speaker and 0 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.
11.5 Transitivity-increasing derivations

Chukchi has a prefix r-1-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-1-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-1-n--ew**

043 utje ya-ye-ntamgew ama layen jara qa NEG.EXI PF-INTS-AI-ERG-INTS-E-3pl and really house-3sgABS

They are no longer, [they] killed them all, even the house[s] broke, [they] smashed them all up.

This is not, however, without exception; tamgew- be lost has the causative r-tamgew-ntamgew- lose.

The r-1-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 unprefix, 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-1-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-1-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, i.e. the subject of the intransitive verb has the macrorole UNDERGOER, e.g. the causative -mpoqetavw knock down is formed from the intransitive verb peqet-v pequet-collapse.

Example 047 shows the causative -ntamgew vt (caus) lose, which is derived from the intransitive verb tamgew vi be lost, get lost.

047 amar 'an [a] qora-yan-et-1-1a-qa?m / TAM.E-EMPH

and

qora-3sgABS NEG-NEG-NEG-NEG HAB-E-AUX-3sg

HAB-TR-AUX-1pl-EMPH

And the herders didn't lose a single reindeer, we didn't.

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-
remain (§11.7.2); the causative semics to have been formed on the basis of this intransitive stem.

Example 052 shows the applicative derivation of the intransitive verb myier-SELL
work; the O of the applicativised verb is the thing acted upon or done by the
workers (A):

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->0 derivation, it
occasionally can be applied to an S->A labile. This is unusual, as it has an
intransitive subject acting in derivation as an

The one clear example I have is from the verb walam-
understand. This verb is a
S->A labile, with an experiencer S (as in example 049) or A (example 050):

However, a causative can also be made from this verb, in which case the stem is
treated like an S->intransitive:

Causative

051 yamman t-a-n-walam-at-a-nat anganacy-a-t
1sg.ERG 1sg-CS-understand-TH-3plO old-man-3plO

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 walam
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=A 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).

Examples 053 and 054 show the intransitive verb wetyat-
SPEAK experiencer/actor (or A)

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: r-a-w-SELL. 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 ANTIpassivating 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 in- also become intransitive when O is incorporated. Verbs which become applicative with in- rem-in 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 is a nominal which is the semantic possessor of the nominal Nj, and V is the verb, the following two structures are propositionally equivalent:

structure 1: free nominals

N:POSSESSIVE Nj:ABSOLUTE V

structure 2: possessor raising

N:ABSOLUTE Nj:V

Possessor 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 qetakwa-a ·qet-kwa-rJan qetakwa-rJan exwir?-a-n
because=EMPH 1sg=S-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-l-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 in- 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 applicative 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 bivalence (Hoppen and Thompson 1980). Transitivity-lowering is a general feature of the morpheme in- in Chukchi (see §11.2.2, §11.6.2; Comrie 1979, for other transitivity-lowering functions carried out by in-). 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 in- 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 denoted patient O may be expressed as an oblique in the instrumental case (see example 058):

A:agent O:patient (NO APPLICATIVE)

056 atPa-ta jme-ne sat exwir?-a-t
mother-ERG hang-3sgA.3sgO clothe-E F:3sgABS

Mother hung up the clothes

A:agent O:location (APPLICATIVE)

057 atPa-ta ena:jme-nen nliy-a-n
mother-ERG APPL-hang-3sgA.3sgO cord-E-3sgABS

Mother hung (something) on the cord.

A:agent O:recipient (APPLICATIVE)

058 atPa-ta ena:jme-nen tat alent-menty-e
mother-ERG APPL-hang-3sgA.3sgO door-3sgABS clothe-INST

Mother hung the door with cloth.

The applicative of the verb pela- leave swaps O:patient for O:recipient.

A:agent O:patient (NO APPLICATIVE)

059 na-pela-ya-n layen aeka ye-cct-ktu-jw-a-lin
INV-leave-TH-3sgO really there PF-cut-INTER-INTS-E-3sg

They left him there [he was] chopped to bits. [cy370]

A:agent O:recipient (APPLICATIVE)

060 t-ena-pela-ya-n new-miryan coqar-a
1sg=APPL-leave-TH-3sgO 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 koj-a-n ena-talo-nen uun?-e
cup-3sgABS APPL-pull-3sgA.3sgO hey-INST

She filled the cup with berries. [nb076.1]
Functions as an antipassive the frequently overlap. In particular, the -tku and other nominalisations and 'canonical' antipassives in inflected verbs are very rare in spontaneous texts (example 063).

There are two forms, a causative makes a transitive verb from an intransitive with actor (see also discussion to examples 049-051). Apart from the forms described above, there are a number of low productivity valency changing devices which can change or rearrange valency, including a number of non-finite verb forms and nominalisations: 064

<table>
<thead>
<tr>
<th>Verb</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>qanwet</td>
<td>pirq-ay?i ecyl pelval jara-gqaca-yta qanwet</td>
</tr>
<tr>
<td>Finally it collapsed, as soon as the herd was by the house, finally it collapsed, that attacking reindeer.</td>
<td></td>
</tr>
</tbody>
</table>

Almost all examples of negated transitive verb stems are antipassivised:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>anqa-tejka</td>
<td>qonwct pirq-o-y?i</td>
</tr>
<tr>
<td>put-3sgA.3sgO</td>
<td></td>
</tr>
<tr>
<td>woman-friend-ALL</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td></td>
</tr>
<tr>
<td>HAB-TR-say-3sg</td>
<td></td>
</tr>
<tr>
<td>INS HAB-TH REINDEER-ASS</td>
<td></td>
</tr>
<tr>
<td>Finally it collapsed, as soon as the herd was by the house, finally it collapsed, that attacking reindeer.</td>
<td></td>
</tr>
</tbody>
</table>

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- trains, 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:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>waj</td>
<td>cakefl potqena-jyam</td>
</tr>
<tr>
<td>hey</td>
<td>skin.VOC! here-1sgABS NEG.HORT AP-approach-NEG</td>
</tr>
<tr>
<td>qo-ay?o</td>
<td>pirq-o-y?i</td>
</tr>
<tr>
<td>INT-E-home go to-E-PERF</td>
<td></td>
</tr>
<tr>
<td>Hey sister! I'm here! Don't approach, go home!</td>
<td></td>
</tr>
</tbody>
</table>

The thesaurus menu is a future-oriented view of the thesaurus, intended to provide a structured and comprehensive reference for antipassives. The thesaurus menu allows users to explore antipassives by category, search for specific antipassives, and access detailed information about each antipassive. The thesaurus menu is designed to be user-friendly and accessible, with clear navigation and intuitive search functionality. The thesaurus menu is an invaluable resource for researchers, writers, and anyone interested in the study of antipassives.
11.7.1 Reciprocals

Chukcht doesn’t have any productive reciprocal markers. There are three forms which express reciprocal-like meanings.

The prefix pal-, pac- derives occasional verbs indicating that something is mutual.

The stem pacwetyaw is a verb stem meaning converse and a noun stem meaning conversation:

071 mew-pacwetyaw-mak
1pi.INT-MUTUAL-talk-1pl
Let’s have a talk!

Example 075 has the form pal-teyjeg- mutual desire.

The suffix -cit Is has a number of different lexical functions:

* Derives a large number of terms for competitions, e.g. yekencit- complete in a race.

072 yekencit-1?e
na-tatlopa-n joro-go
race-ADVERS-PCPL-EN6 INV-open.door-3sg sleeping.chamber-3sgABS
The race competitors opened the sleeping chamber.

* Indicates some kind of Iterative or duratative meaning:

073 putku kale-tho-ra-k n-a-keli-cit-yam
here inscribe-ITER-house-LOC HAB-inscribe-ADVERS-1sg
I wrote here in school.

I'll cook meat for myself [lit. "my body"].

[ke255-256]

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: stri gev-?utt-a-gej
3ABS woman-dog E-DIM.3sgABS woman.3sgABS HAB-E-be-3pl
Jara-k house-LOC
b: pel-at-y?o-4
leave-ADVERS-TH-3pl
speaker a: There was the dog and the woman there, at home.
speaker b: They remained [behind].

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 yanm-in swik m-uw1-y?e-n
1sg.POSS.3sgABS body.3sgABS 1sgVH-E-cook.meal-TH-3sg
I'll cook meat for myself [lit. "my body"].

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 ilyatew- 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 nameworthy 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 absolute case role has a privileged position in the language as the way of presenting salient/topical information. Only in the absolute nominal can constituents be represented by syntactic phrases (and thus have the greatest grammatical possibilities for combining with modifiers: §9), and absolute nominal constituents 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 toward human actors (syntactic A) as protagonists in narratives. This conflicts with the pragmatic function of the absolute 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 thematic object.

- **Incorporation of a transitive verb (new O argument)**

  **Example 1:**
  
  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):

  ```chukchi
  002 eryatak  tera-myia-y?a-t //
       next.day  face-INCCH-TH-3pl
  ya-qora-nen-at-len Cakwanaqaj remk-a-k //
       IF-reindeer-chase-TH-3sgS personal.name.JsgABS talk-LOC
  nelwal ra-pltir-en-nln gora-y<Jrke-myo-y1a-t //
       harness.animal.JsgABS PF-reindeer-chase-TH-3sgS
  herd.3sgABS CS-aff I-3sgA.3sgG reindeer catch-INCCH-TH-3pl
  The next day they started racing. Cakwanaqaj went after the reindeer in the other encampment. He brought the herd in, they started to catch the reindeer.  

  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:

  ```chukchi
  003 neme anin / wen-qora-jp-a-n cinit kan'nu-nin //
       again 3sg.POSS.3sgABS harness-deer-AUG-3sgABS self
  neme layen ?emct-jaw-nin qanqen pan layen //
       again really drag-3sgABS.DEICT-3sgA.3sgG higher
  again really drag-3sgABS.DEICT-3sgA.3sgG higher DEICT really
  Again they caught his harness reindeer himself, again she dragged him off thither.  

  This reindeer is specific and individuated and it is expressed as a free argument. Furthermore, Wengoqaj 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. majawenqor *a big harness deer*).

12.2 Incorporation by transivity

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.**

<table>
<thead>
<tr>
<th>Group 1</th>
<th>ANTI-PASSIVISING</th>
<th>Group 2</th>
<th>APPLICATIVISING</th>
</tr>
</thead>
<tbody>
<tr>
<td>lnc- prefix</td>
<td>antipassive</td>
<td>(A → S, O → O)</td>
<td>applicative</td>
</tr>
<tr>
<td>Incorporated O</td>
<td>intransitive verb</td>
<td>(A → S)</td>
<td>transitive verb</td>
</tr>
</tbody>
</table>

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 yamman | t-s-yacci-t-ch | lay-noon?-l-a-n
0sg.ERG | 1sg-E-col:PROG | AUTH-bemy-E-SING-2sgABS
I collected shiksha berries  [na079:2]

Incorporated

005 qora,yarke-y?e | ltna-nm | jara-yta | yekep-e | qta-y?i | [..]
reindeer-collect-TH | manos-EMPH | house-ALL | give-ADV | sat-e-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 lyaan?alyan is used generically, it is salient (note that the although the superordinate term for berry is oon?alyan, the lya(0)-prefixed form is the lexicalised name for a specific variety).

Example 006 shows another instance of a non-specific noun being incorporated.

006 jokwa:n-a | lw-nln | lam-1-puur?et-0-net
duck-AUG-ERG | say-3sgA.3sg0 | disease-3plABS | 1sgINT-E-swap-3pl
kateq | yam | amnoq-e | ma-cjew-j-tku-y?e-ka=7m
temporarily | 1sgABS | under-ABL | 1sgINT-E-name-ITER-TH-1sg-EMPH
yac=7m | n-oon-a-| l-es-yi
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’  [ko064]

The situation’s from a folktale: a magical duck is proposing to a magical wolf that they exchange skins. The incorporated noun qonnaIONS/you watch fish is a slightly poetic way of suggesting to the wolf that he join the amblespheric 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 tat!- door, nor was there any mention of it subsequently.

007 tat!-a-nnmat-y?a-t
door-E-dece-TH-3pl
They closed the door  [cy395]

The sentence tat!-a-nnnmat-y?a-n they closed the door would imply that the door had discourse salience, and it was expected that there would be 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 qew-a-nju-cqiw-, which comes from the stems qew- woman, reju-/rju- stand watch by night over [something] and the purposive -cqiw. The complex root qew-a-nju-cqiw- has the meaning, unpredictable from the syntactic point of view, of be a savior. This word can be compared to qaa-wjat-unharness reindeer (example 008), which is the expected meaning for a word formed from a combination of qaa- reindeer and wjat unharness.

008 wengora-jq-a-na | lw-nln | Cakwagaqaj
harness.de-AUG-ERG | say-3sgA.3sg0 | personal.name-3sgABS
cryatak | q-awewa-nju-cqik-wl
tomorrow | INT-3wife-E-be.on.watch-PURP-TH
The big harness doe said to him: Cakwagaqaj. tomorrow you go off to find yourself a wife  [cy162]
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.

<table>
<thead>
<tr>
<th>Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>011</td>
</tr>
<tr>
<td>INTJ</td>
</tr>
<tr>
<td>INTJ</td>
</tr>
<tr>
<td>aika</td>
</tr>
<tr>
<td>there</td>
</tr>
<tr>
<td>kraut</td>
</tr>
<tr>
<td>finally also</td>
</tr>
<tr>
<td>Well, he slaughtered reindeer for the wife, there he ate, she herself cooked it. Finally she also started to eat the meat.</td>
</tr>
</tbody>
</table>

Compare n-ena-qora-nm-a-ken (HAB-TR-REINDEER-kill-E-3sg) he killed reindeer for her in the above to the Intransitive ya-qora-nm-at-len (PP-REDIceland-kill-TH-3sg) he killed reindeer in example 001.

The stem *tajo put is unusual in that it only occurs with (i) the applicative prefix *Ine-* or (ii) an incorporated nominal argument. The designation 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).
argued that Is the possessive relationship of argument structure when the salient effect of the action is incorporated by a transitive verb without change of the argument roles. The following example shows a transitive verb stem yatka-mla- break legs, with the O role referring to the possessor of the incorporated noun leg (here zero pronominal, but absolute qora-tardeer could be added). Example 017 shows the same thing: the transitive verb root lave-t-male-stroke the head has a zero pronominal O (Cakwayaqaj, the name of the wife's husband and possessor of the body part in question, can be substituted).

016 cama layen n-enayatka-mla tko-jw-o-kenat and really HAB-TR-rg break ·ITER·INTS E-IPO
And simply broke their legs. [cy136]

The following example shows an intransitive verb root rann-a-kwa horns get stuck which has the possessor of the horns (i.e. qora-yag reindeer) as S:

018 rak-wary-o-k=tm ya-rann-a-kwa-len angen pierce-NMZ·E-LOC=E-MPH PF-horn E-GEN·2piSStuck·3piS 01S.3piABS
anang-jaale-g qora-yag SUPER-INT-ADV reindeer·3piABS
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 Ss intransitives (i.e. where S is in an UNDERGOER semantic role) would be subject to part-apposition by incorporation, which seems to be the case with all the available data.

The following example is possessor raising from the intransitive stem tage-/lng-e-grow.

019 ekkokol Cakwaqajq enmemec y-ekwew-a-nge-yetl! INTJ personal name.3piABS already PF-deer-type E-grow·2sg
Oh-ho! Cakwaqajq 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 possessor relationship in example 019 Is in fact a part-whole relationship which could be treated by speakers as inalienable. This is not so far fetched—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 eqalpe ra-y-a-y?e angen t?ektlg anjw // quickly home-goos·E-TH that bad uncle
ekke-t lw-ninet *'kakomejl Cakwaqajq enmemec son-3piABS say-3pi3G.3piOO INTI personal name.3piABS already
ya-pawtsen-len ama ya-nanana-le-len // PF-be.married·3sg also PF-child-exit·INTS·E·E-LOC
anang-jaale-g qora-yag SUPER-INT-ADV reindeer·3piABS
tu=$7m qonpa joro-cako 2piABS=EMPH always sleeping.chamber·INSS there
layen wa-?at-a-p-a-tore! really be DUR-E·NMZ·E·2piABS=EMPH
That bad uncle quickly went home. He says to his sons: Kakomejl Cakwaqajq is already married, a child's even been born. But you lot are always in the sleeping chamber, you're only ever there! [cy326-338]

In this speech the father Is unfavourably comparing his sons to their step-brother Cakwaqajq. The birth of Cakwaqajq's son Is one of the events which shows that Cakwaqajq 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?ey-ti ININ-y?e-t grasp·3piABS appear·TH-2piS
The grass appeared
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 genitive 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

<table>
<thead>
<tr>
<th>Verb Stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>ʔαqαI (stem ʔαki) 'snow' n</td>
</tr>
<tr>
<td>ʔαlet- 'to snow' vi (verbalised by -et suffix)</td>
</tr>
<tr>
<td>kαtαji- 'wind' n</td>
</tr>
<tr>
<td>kαtαji-at- 'wind to blow' vi</td>
</tr>
</tbody>
</table>

S-Incorporation is obligatory when the entire intransitive clause is incorporated as a modifier of something else, e.g.:

023 ʔemqeqa-tke-merly-ʔtanq-ʔa-t
emqe-smel-fire-3E-stranger-E-3PABS

Musk-stinking westerners.

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 ʔiqat-set off.

Example 025 shows the stem -ʔiqat- without incorporation:

025 jara-yta veʔiqat-ʔnemt forawet-ʔpu-ɾʔam / nʔepeqwaʔ-ʔa-n
house-ALL PF-set-off-3PALS pers=3PABS-EMPH INV-collect-E-3SGO

gewacqet toraʔeq-ʔaj-ʔaʔ-ʔa-n
car-TH-3sgABS-POSS-3sgABS

The people set off home, they called out to the youth's woman. [cy022]

In 026 the stem -ʔiqat- has an incorporated ver - showing manner (fire gallop):

026 ekweʔu japa-ʔen-ʔen jara-ʔqaqac-yta / ʔaʔi-ʔaʔiqat-ʔn2i
reindeer-type-EQU diess-TH-3sgABS-EMPH 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 qawet anqen nʔiʔ-enjew rakuʔeqat-ʔn2i-ʔam
finally DEM-3sgABS good-TH-3sgABS-EMPH stand.watch-set-off-TH-EMPH

Finally the good uncle went to stand watch. [cy022]

028 ejeʔ jikwe opt-eqam m-ʔaʔeqa-ʔaʔ-yta-ɾkam
INTJ INTJ INTS-3PABS-EMPH E-3SGABS-POSS-3SGABS

Oh! If only I too was going racing. [cy055]

Within the semantic constraints given, this process makes something 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.

<table>
<thead>
<tr>
<th>ekweʔu-vH</th>
<th>go away</th>
<th>kαtαjynt-akwαt run away</th>
<th>MANNER</th>
<th>kαtαjynt run</th>
</tr>
</thead>
<tbody>
<tr>
<td>set off vi</td>
<td>rʔiʔeq-ʔiqat gallop off</td>
<td>MANNER</td>
<td>rʔiʔeq gallop</td>
<td></td>
</tr>
<tr>
<td>liʔeq-ʔiqat</td>
<td>set off to race</td>
<td>PURPOSE</td>
<td>rʔiʔeq race</td>
<td></td>
</tr>
<tr>
<td>njuʔaq-ʔiqat</td>
<td>set off on watch</td>
<td>PURPOSE</td>
<td>njuʔ be on watch</td>
<td></td>
</tr>
</tbody>
</table>
There is a derived adverbial

or purpose. Example 031 shows compounding of a phrase.

The following pair of examples show compounding with a labile verb:

In example 029 yala- is intransitive, in 030 it is transitive:

The following pair of examples show compounding with a labile verb. In example 029 yala- is intransitive, in 030 it is transitive:

The other secretly peeked out of the sleeping chamber. They were afraid.

He came through there 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 phrase:

Apart from verb-verb compounds, verbs form compounds with modifiers from other word classes, including adjectives, adverbs and (semantically non-core) nouns:

Chapter 12

VERBAL INCORPORATION

COMPOUND WITH ADJECTIVE strong

COMPOUND WITH ADVERB secretly

The noun yu- caravan is used with the Intransitive stem to- go to indicate the manner of motion:

The verb to- go is an intransitive, but the noun joined to it is not an underlying S. Thus, this is an example of compounding, not 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 words of quite unusual length. There is a whole genre of humorous virtuosity based on this, sometimes called yâ-yâ-yâ-tongue twister hurry-word. This name may be a calque of Russian skorogovorka. A few tongue twisters include:

Example 031

<table>
<thead>
<tr>
<th>Verb Pair</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>r'ela-yl</td>
<td>gallop to</td>
</tr>
<tr>
<td>mage-yl</td>
<td>to dance</td>
</tr>
<tr>
<td>yala</td>
<td>gallop past stand a whole watch period</td>
</tr>
<tr>
<td>vlab</td>
<td>see on watch</td>
</tr>
</tbody>
</table>

This type of compounding corresponds to the unified treatment of verb serialization and verb compounding given by Durie (Durie 1997:291; note that Foley and Olsen state that motion verbs are far more likely to serialize; 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 Sa (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 Arrernte, Wilkins 1991, Koch and Simpson 1995; in Yidiny 'going and coming' Dixon 1977).

The noun myu.- caravan is used with the Intransitive stem to- go to indicate the manner of motion:

The noun myu.- caravan is used with the Intransitive stem to- go to indicate the manner of motion:

The others secretly peeked out of the sleeping chamber, they were afraid.

The verb to- go is an intransitive, but the noun joined to it is not an underlying S. Thus, this is an example of compounding, not syntactic incorporation.

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The semantic test is a test of predictability of meaning. If the meaning of a complex root is a 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-qa-reindeer) see below) are actually lexicalised.

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-qa-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 unproductively lexically incorporated nominal such as a compound by the morphological criterion. The word uwi-cook is a non-intransitive verb, but *mlylit- (assuming the +VH comes from the inchoative suffix -myo) seems to be an unusual form of mlylit-cook.

In the following example, the word owenemetyamoyte she worked cooking is a lexicalised compound by the morphological criterion. The word uwi- cook is a normal intransitive verb, but *mlylit- (assuming the +VH comes from the inchoative suffix -myo) seems to be an unusual form of mlylit-cook.

---

1 This tongue twister does not obey the phonological rule of the vowel harmony word prosody (par?aw?are- is +VH and -kepunege?iyam is -VH). Several other tongue twisters in my collection have vowel harmony violations; perhaps tongue twisters are so grammatical; *extreme for some speakers that they cannot apply their phonology in the regular manner.
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-a-tko-l?·a-jp·a·n qora-jp·a·n
\[\text{go.after-AP-NMZR-E-AUG-E-ABS}\]
\[\text{reindeer-AUG-E-ABS}\]
anqen n-a-qora-vt-at-qen
\[\text{that} ~ \text{HAB-E-reindeer-go.to-TH-3sgS}\]
\[\text{That attacking reindeer drove the others.}\]

The verb stem here is -vt- '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 Cakwayaqaj remk-a-lk
\[\text{FF-reindeer-go.after-TH-3sgS} ~ \text{personal.name.3sgABS} \]
\[\text{folk-E-LOC}\]
\[\text{Cakwayaqaj went after the reindeer in the other encampment.}\]

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-a-qora-nt-at-a-rkan
\[\text{INT-E-reindeer-pasture-TH-PROG}\]
\[\text{Pasture the reindeer!}\]

The stem -nt- in isolation means have, but is usually used as an auxiliary with verb bases (see §1.3.5 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 1981:230)

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 suffixes. There is a grammaticalisation cline with incorporated stems on one extreme and derivational suffixes 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. pce-i-tvtr
\[\text{boot-take.off}\]
\[\text{He took off his boots}\]

045. kulit-ii-rkt
\[\text{thong.seal.sole.hide.look-for.to.they}\]
\[\text{they are looking for thong-seal sole-hide.}\]

Bogoras never justifies his distinction between these 'derivational suffixes' and incorporating V stems. It is likely that these suffixes are simply V 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 -a CONSUME mentioned could be related to the verb ru-ta-nu- 'eat (vt) which has the initial alternation e- → n- which is usually a transliterator (§1.1).

The inchoative and completive suffixes -myo and -platku are formally identical to the verbs meaning 'start' and 'finish'. The -myo suffix is in a phonological variant -djo; 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 elements 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, motions 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-w7: kitaqun q-a-yite-cqik-w-a-n //
sey-TH HORT INF-look.at-PURP-TH-E3sg
yite-cqik-w-3p
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 -(c)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's 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, §§4. These forms, although having some verbal features, are functionally closest to other nominals. The remaining classes are more verb-like. The infinitive forms a compound predicate with a main verb; the verb 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 deictival 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 homophonic with a converb, i.e. the suffix -(t)e 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 arguments with matrix verb

**CONVERB:**
- non-inflecting (no argument cross-reference)
- dependent but distinct tense and aspect (i.e. relative tense-aspect)
- no obligatory shared arguments

**VERB BASE:**
- non-inflecting (no argument cross-reference)
- independent tense, aspect and mood (marked by auxiliary)
- no obligatory shared arguments

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:
- -(i) anterior clause (simple temporal sequence)
- -(ii) 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):

Conspicuously absent from this corpus are converbs of cause and purpose, which appear in the literature (e.g. supine -nwa, causal -jpa; 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 Telqepe variety. In the texts which make up the database for this description clauses of reason and purpose are introduced by conjunctive particles (cf. qeluq; §5.5.2). Other conjunctive particles (with finite clauses) also have functional overlap with converb clauses, particularly coordinating conjunctions like anqora 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 reinterpreted 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 intransitive phasal verb qapaayc finish (2sgS) with an intransitive infinitive complement lejwotetak wander sharing its subject:
The relative order of the main verb and the infinitive is determined pragmatically (§19), and there is no syntactic difference between Intransitive + Transitive constituent order and the converse; compare 002 and 003:

002 naa-mm-at-a-Paat-a-k re-y3?inre-o-e=7m /
reindeer-kill-TH-E-DUR-E-INF FUT-be.greedy-TH=EMPH
na-ra-nm-a-yat petle ne-re-kqenmek-wat
3A-FUT-be.greedy-E-INF quickly 3A-FUT-shoot-E-INF

If you get greedy killing the reindeer they'll kill you quickly, you'll shoot you

003 qeeqan t-a-re-nin7-e-jwa-yat / ana pan /
...the 1sg-E-FUT-explain-AUG-TH-E-2sg 2sg-EMPH
re-lyin?-a-twi-yi?e / ?ama-n=7m re-lyinre-o?
FUT-INTS-fast-E-LOC TH-E-EMPH
qelwal7-a-la naa-mm-at-a-Paat-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

Less commonly the infinitive and main verb are both transitive, sharing an A, as in example 004. The labile verb nalyitwemetcwqin can be determined to be 3piA.3sgO from context (the 3sgS form is identical; §10.3.2).

004 layen n-a-bi-tenmetew-qin tap-aqamPo-get ra-ra-ya-at-a:k
really HAB-INTS-become-3sgO EMPH all
5qelwa ujge anqen MJASO n-a-neta-qin
because NEG.EXI DEM.3sgO meat HAB-become-3sg

Only they were unable to take all of them home, because the meat ran out. 001-002, 003-004

Likewise, in example 005 the main verb naluwaqen could either be 3piA.3sgO or 3sgS, but from context it is clear that the plural A reading is to be preferred.

005 n-a-hlawa-qen qelwal ra-ray-at-a-k
HAB-become-3sgO herd.3sgO 3A-FUT-explain-TH-E-LOC

They couldn't bring the herd home. 001-002, 003-004

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-w?e-t / yat / morovanan lan-ka n?e-nget-e-q?
sey-Th-3sg 2sgABS 1sg-ERG take-as-INF 2sg.GIND-decline-E-2sg

They said, "Do you desire us to take you in?" We would bring you home along

The subject of the intransitive infinitive qorayanretqin could be thought to be both the A and the O of the transitive verb ninwinretqin. The verb ninwinretqin

She helped him unambiguously transitive because of the in-e prefix, and the verb stem qoraynret- is unambiguously intransitive, because of O-incorporation of the noun stem qora-:reindeer - by the transitive verb stem yanret- guard.

She helped him herding the reindeer 001-002

This ambiguity is of course not incompatible with the generalisation that O-S shows the identity of the shared argument is ambiguous. Semantically the subject of the intransitive infinitive qorayanretqin could be thought to be both the A and the O of the transitive verb ninwinretqin. The verb ninwinretqin
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 -nepu 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 -nepu is retro active, 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 anQ'am / kolqocat-ta-k-y'e remk-a-n qaun / [...] and join.kolqoc=E-ITER-TH folk-E-ABS like qaun lamal-a-n?m / anqora?=tm gan kolqoc-a-k like obedient-ABS=EMPH then=EMPH DEICT kolqoc=E-LOC remk-a-n?m remk-a-n?m gan / atc?e='am gan become=Th folk-E-ABS folk-E-ABS=EMPH DEICT finally=EMPH=DEICT malay=nama?wam gan samo-ya / remk-a-n / kolqocat-=y'e big & fight-3sgABS=EMPH DEICT be-SIM folk-E-3sgABS join.kolqoc=TH And, the people entered the collective farm [kolqoc] like... like they were obedient. When people began to be in the collective farm, only during the big war [at], while the big war was being fought, the people entered the collective farm. [lec23]

ANTERIOR CONVERB CLAUSE (TEMPORAL SEQUENCE): -k

012 col-opp-ko ne-maylew-?o-n mal?ataw tea=CONSUME-INC-SEQ INVF-arrive-3sgO APPR=77 iyat-y'e atc?at-y'e new=INTS=3sgABS sleep=TH After starting to drink tea they woke him, several times, he'd only just gone to sleep. [ota58]

ANTERIOR CONVERB CLAUSE (CONSEQUENCE): -nepu

013 layen d!re:platu-nya yekwet-lin jara-yta maly race=FINISH-CONSEQ PF=leave=3sg home=ALL Since he had finished racing he set off homewards. [cy154]

014 [...] / evar in'et-w-la?nepu layen-evar nena-penacagew-qen so manage=CONSEQ really-so HAB-TR=leave=3sg cnet-wa?m n-a-pa?l-qin cinit n-a-game-twa-pajqo-qen self=tooth-illness HAB-E-become=3sg self HAB-E-eat=RESULT=INC-3sg ... once =they can manage they leave them, [when] they've got their own tooth, [and] they begin to eat by themselves. [ava4.04]

13.5 Converbs and Deixis

Some of the patterns observed:

COREFERENCE: Subj = SNoun

017 n-lwe-qin net:ma "na-ta-rr?ola-my.o-y'aw?m man-raacak-yam" HAB-say-3pl to-INTS really=remainder all 1sgH=E-annihilate-3pl They said while they were walking, "We'll start racing, we're 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 ḏeqēnjw 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 deverbal verb seems to be less likely to govern case agreement than a main verb.

018 ḏeqēnjw-e paktir-inequ n-in-lw-qin "okoko koj
h:\ intermediary TR-TR-3sg INTJ
b:\ intermediary TR-TR-3sg because HAB-sweat-DUR-2sg

The bad uncle having approached said to him "Okoko, what are you doing that you are sweating so much?"

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 pirl-inequ aplan-ə n q-a-rayt-ə-ye
h:\ CONSEQ four-3sgABS INT-E-goa-home-E-TH

Once you've got the flour come (straight) home. [nb035.3]

COREFERENCE: S_{sub} = O_{main}:

020 laur emice / anqen jolq-a-ma ejwel-qe-e

suddenly quietly. that.3sgABS sleep-E-SIM orphan-ERG-MIR
n-in-lw-qinet: ange / e-tengatku-1Pet-ke
HAB-TR-say-3PQ 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 1ina t-a-λq̣̃q̣̃yeq̣̃we-a-n para-gp anan pere-ma
volfABS 1sg-TR-shoot-3sg because=EMPH INTS-IMPOSS-have-3sgABS 3sgERG 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 converses these forms are structurally a kind of 'deverbal adverb', they do not form heads of adverbial clauses, and thus they must be distinguished from converses. There are three basic suffixes: the -yta suffix (which is formally identical to the allative case; this suffix also derives verb bases from adjectives, §16.5), the -q adverbialiser suffix, and the -ye 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-.

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There also exist underived verb bases (e.g. layj know); this word class is discussed in §4.8; combination with auxiliaries is discussed in §17.3.2.

- MORPHOLOGICAL FORM. The adverbialiser suffix -yta makes a deverbal verb base in combination with the prefix ḏeqē- (otherwise an adjective stem meaning bad) to form the IMPOSSIBILITIVE CIRCUMFIX ʔaq-a-…-yta, which encodes the notion of impossibility. It often occurs with auxiliaries:

022 ḏeqē-no-g t-e-re-nel-ə
IMPOSS-take-VBase 1SG-E-FUT-become E

[Later] I'll become incredible [ke110]

023 qaram-ewen itak anqenə-t ʔaq-a-tamjen-aŋ wa-l-p-ə-ŋ
NEG-INTS 20 vic-3sgABS IMPOSS-deceive-E-VBase be-NMZR-3sgABS
No way, they're undertakable [an021]

The following example shows the impossibilitive without an auxiliary:

024 geeke-t-qeqə-wm qelunq-ʔam tag-a-nmn-ə-nen qelunq=ʔam
qelunq=ʔam INTS-MIR-3sgABS-EMPH because=EMPH INTS-IMPOSS-have-3sgABS 3sgDUR because=EMPH

The girl though he killed alas, because she was impossible to cure. [kr152]

However, the auxiliary is here retrievable (i.e. wa-l-p-an, as in 023).

Nedjalkov (1994) reports that there is also an ABILITIVE CIRCUMFIX tag-…-g, but this is not attested in my data. This form is morphologically analogous to the impossibilitive (the prefix tag- apparently comes from the stem tag good), but it should be noted that the functional load of forms of tag- in Telqep Chukhli is already very high; in its intensifier function it even occurs with the impossibilitive, e.g. tag-ʔaq-a-tw-aŋ really impossible to translate (INTS-IMPOSS-say-E-VBase, [kr057]). The suffix -yta also occurs with deajectival adverbs in contrastive constructions §16.6).

The verb base suffixes -t(e)-VH and -a(t)-yta-VH share morphological irregularities with case suffixes. The suffix -(t)e has the same allonomy as the ergative and instrumental cases (compare §6.2):

[VERB BASE] →
\[-t(e)-VH / V\]
\[-a(t)-yta-VH elsewhere\]

The suffix -yta shares the same allonomy as the allative case (compare §15.2.2):

[VERB BASE] →
\[-e(t)-VH / C\]
\[-yta-VH elsewhere\]

This suffix -t(e)-ns adverbs from adjective stems; these dejectival adverbs also combine with auxiliaries to make predicative adjectival constructions with tense-aspect-mood different from the grammatically unmarked predicative adjective forms with n-…qin(et) (see also §16.4). Example 025 shows identical constructions with a deverbal verb base (arejwete yen?ellin become healthy < arejwə-ADJ
healthy) and a deverb al verb base (qetpeta yen?ellin became determined < qetpeta), be determined:

025 gan anqora gan kimit?-a-n qonver /
DEICT then DEICT trade-goods E-3sgABS finally
qonwe wa-ggo-yo- / galwal?-eta remik-a-n / layerm=7m
finally be-INC-NM ford.ALL fak-E-3sgABS. really-EMPH
ya-tape?o-ggo-len layen=7m / galwoj-eta ye-n?ell-in
PF-then-E-INC-3sg fak-E-3sgABS really-EMPH
qora-yantet-a-k emto qetp-eta ye-n?ell-in=7m
reindeer-guard.E-INC.F further determined-VBase PF-become=3sgE-3sg ABS

Then trade goods finally started appearing at the herds, so people began living well, the people became fitter in reindeer herding. became more determined. [tie056]

The -(t)c 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 different 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. -Pet 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 do) and ye-. The ye- prefix seems to be a historical comitative (it occurs with the homophonous ye-_ -(t)c comitative case and with the associative case ya- _ma). As a verb base it is used as an alternative universal/habitus aspectual form, and is generally not accompanied by an example. Example 026 shows two forms, with the intensifier prefix telwemegite (< megite grow up) and with the 'comitative' prefix yelejwol?ete (< the durative derivation of the stem lejw rama).

026 ank?am leen gan telwe-megite?o leen qonpa angin /
and really DEICT grows-up-VBase really always thus
[garyan] parwyano-jpo ye-lejwol?ete ginyo-ti
outside.ABL COM-room.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)c. These are also the forms for the associative and the comitative cases, which are functionally extremely similar (§66.5.1-2); the verb base function of ya- _ma is very rare, and may be the result of grammatical interference from the nominal case marking subsystem.

Chapter 13

NON-FINITE DEVERB AL FORMS

CONTRASTING ye-_ -(t)c AND ya- _-ma
027 eyot ye-rewilwe=7m mec-mejget-a-l?at-t=7m eyot
so COM-make.VBase E-3sg ABS mec-look-it-over-all-Th=7m COM-nurse
ye-rew-a-l?u-re
cakwagaqaj-a-n / ya-wapta-tko-ma
COM-come.E-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-e-ta form without auxiliaries: e1 involve simultaneous associated motion, coreferent with A/S (semantic agent) of the main clause. These act as clause modifier adverbs.

realy INV.INTS.E-H.E-TH.3 sgO na离开-ADV.
HAB-say-3pl
"Ilk layl-mak-a-ne re-piri-y-nin
INTJ E-POSS.3sgABS wife
They just cruelly killed him. running away they said "Well then, who'll it be who'll take Cakwagaqaj's wife?" [cy363]

Example 029 shows an adverb mecyannuette by halves formed from the verb yunumet split into two and the -(t)c suffix:

029 lee qonay-te layen ama?e plek-a-t / -1r?o-a-t
excellent trouser=3sgABS really at=3sgABS shoe.E-3pl ABS
eyl-ewl?e=7m / jara-qa-7m ama kaara-n
HAB-EMPH-who.E-EMPH FUT-take.E-TH.3sgO/3sgO
AUTH-exam.ABS home.3sgABS E-POSS.3sgABS
narta-qaj anka layen nemojej / gelwaj layen
sled.DIM.3sgABS here really also herd.3sgABS really
mek-yumonu-te ne-evul?o?-e-t anqen muu-hqat-y-o-t
who1/2 EXIST.E-3pl ABS essen.3sgABS move.white-3plE-3sgO
APPRI-nurse.VBase JAA.e-T-TH.3sgO this caravan.set-off-TH.DUR
[There were] fine trousers, everything, shoes, kuslanka- traditional costume, a jaraa, 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)c 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 layen ciinit : leen na-juyulet-qaqet
realy sell watch-VBase HAB-eat=3plS
All by themselves [by] watching they learn. [ch26]

The stem ciinyta could be a verb think or a noun thought; in the following example acentenamyqota 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).
Chapter 13

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 bun-(_t) 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 ne(=)t to show inception of a state:

036 ana waj layen jPa-naly-a-jg-a-n layen qonp
so DEICT really raw·tide·E·AUG·E·ABS really always
n-a-gatwa-qen I qanwet a-qetatkwa·ka ye-ne(=)t-lin
HAB·E·sit.on.die·E·AUG·E·ABS finally NEG·freeze·REVERS PF·become·E·ABS
naly-a-jg-a-n ya-kakwat-len
hide·E·AUG·E·ABS PF·dry·out·E·ABS
Well that Rawhide simply sat on the sled the whole time. Finally the Rawhide stopped freezing, she dried out.

As with other verb bases, there can be ellipsis of the auxiliary where it is retrievable:

037 bun·t tujwa "waj eyratak anan m-a-lqat-y'ek" NEG·say·NEG DEICT tomorrow FUT 1sg·INT·E·setoff·TH·1sg
[He] didn't say (to himself, i.e. 'he didn't think'): Well tomorrow I'll set off.

Example 038 shows the negative imperfective form used as an imperative:

038 "ana e-leiw-a-tku·Pet·ke" atPa-ta n-in-lw·qin
so NEG· roam·E·ITER·DUR·NEG mother·ERG HAB·E·EF·3sg
"ana e-leiw-a-tku·Pet·ke::" so NEG· roam·E·ITER·DUR·NEG
"Don't wander off all the time", his mother said to him, "Don't wander off..."

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 verb 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 -qgo/-myo, the completive -platku, the resultative -twu) and their duration (the durative -vet, iterative -tku, punctual -equet).

• 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 -rju indicates collective S. There are also verbal intensifiers (e.g. -TV) and approximative (mek-) which quantify the event as a whole.

• MODAL (§14.6). Includes desiderative re- and purposive -eqjv. Diminutive -quet and augment -gvet are also considered with the modal suffixes as their main functions is something about the relation of the attitude of the speaker to reality.

• MISCELLANEOUS (§14.7). The suffix -u derives a verb with the meaning 'consume' or 'process' (for example, 'processing animal hides to make clothing').
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 reverbative *-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 ma-le-tqac-ket'io-jw-a-nat
1sg.IMP-E-INTS-INTS-remember-COLL-E:3pl
I remember them well
```

and

```
002 ank'tam waj anqen w?i-tku-pet-y?i remk-a-n=m
and DETC DIM:3sgABS de-ITER-DUR-TH lokk-E:3sgABS=EMPH
```

The derived verb stem *r?ela-myo- start to gallop with the verb compound *r?ile-lqat-set off galloping when each is combined with the collective suffix *-pu:

```
*r?ela-r?o-myo- (gallop-COLL-INCH) start to gallop as a group
*r?ile-lqat-r?u- (gallop-set-off-COLL) set off galloping as a group
```

If *-myo was to be considered an example of the verb stem start, the predicted form would be *r?ela-myo-r?o- (i.e. [stem-][stem]-[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-qa? j?o-te-pirl-cclw-p-a-n / gelival
sister-DIM:3sgABS 1sg-E-FUT-TURP-SET-E:3sg
```

If *-myo was to be considered an example of the verb stem start, the predicted form would be *r?ela-myo-r?o- (i.e. [stem-][stem]-[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-qa? j?o-te-pirl-cclw-p-a-n / gelival
sister-DIM:3sgABS 1sg-E-FUT-TURP-SET-E:3sg
```

In multiple derivations morpheme order is constrained as shown in figure 14.1.

**FIGURE 14.1 Morpheme order for derivational affixes.**

<table>
<thead>
<tr>
<th>top-</th>
<th>lyi-</th>
<th>re-</th>
<th>ine-</th>
<th>n-</th>
<th>-et-</th>
<th>-ew-</th>
<th>-tku</th>
<th>-tu-</th>
<th>-ju-</th>
<th>-lqat-</th>
<th>-myo-</th>
<th>-myo-</th>
<th>-plqatku</th>
</tr>
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<tbody>
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<td>INTS</td>
<td>INTS</td>
<td>DEDD</td>
<td>AC</td>
<td>PS</td>
<td>stem</td>
<td>TH</td>
<td>AP</td>
<td>DEDD</td>
<td>ITER</td>
<td>COLL</td>
<td>DUR</td>
<td>INCH</td>
<td>COMPL</td>
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</tbody>
</table>

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 *cqctk* (punctual), mec- (approximative), *-qet* (*et*-minitive) 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 *-tw*, the reverbative *-tw* and the purposive *-cqw* 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 circumflex *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 alw. *ys* [stem-][stem]-[DER], and never *stem-[DER]-stem*. The inchoative (*-myo-qqn*) and completive (*plqatku*) derivational suffixes (§14.4.1) are formally identical to verbs with the same meaning (i.e. *start*.
<table>
<thead>
<tr>
<th>Verb</th>
<th>Related Form (without -et/-ew)</th>
<th>Example Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>kaly-&lt;et&gt;</td>
<td>kaly-a-tw- unharness</td>
<td></td>
</tr>
<tr>
<td>tampe-&lt;ew&gt;</td>
<td>tampe-twva- be lost RESULTATIVE</td>
<td></td>
</tr>
</tbody>
</table>

Although kaly- and tampe- 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 with: gulping different words, e.g. *kaly-et- (vi) be born and *kaly-ew- (vi) hole poke out (e.g. person peaking 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 making them look like lexically conditioned (irregular) allomorphs.

The main evidence for these forms is allomorphs occurs with addition of the transitivising *e-i-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.:

<table>
<thead>
<tr>
<th>INTRANSITIVE FORM</th>
<th>TRANSITIVISED FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>cimir7-et break, tear</td>
<td>-n-cimir7-ew break, tear.</td>
</tr>
<tr>
<td>tom-aw- come into being</td>
<td>-n-tom-aw- creste</td>
</tr>
<tr>
<td>me&lt;et- grow up</td>
<td>-n-mejg-ew- bring up</td>
</tr>
</tbody>
</table>

An exception to the above rule is: kaly-et- be tied up n-kaly- et- tie up

This alternation between -et and -ew does not seem to occur in the direction -ew → -et.

<table>
<thead>
<tr>
<th>INTRANSITIVE FORM</th>
<th>TRANSITIVISED FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>temp-aw- be ready</td>
<td>-n-temp-aw- prepare</td>
</tr>
<tr>
<td>ny-ew- wake</td>
<td>-n-ny-ew- wake</td>
</tr>
<tr>
<td>ajoly-aw- be afraid</td>
<td>-n-ajoly-aw- frighten</td>
</tr>
</tbody>
</table>

Forms without either -et or -ew when intransitive almost always add one or the other when transitivised by the *e-i-n- prefix:

<table>
<thead>
<tr>
<th>INTRANSITIVE FORM</th>
<th>TRANSITIVISED FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>talw-1w- burn</td>
<td>-n-1w-et- burn smith.</td>
</tr>
<tr>
<td>ynu- be left over</td>
<td>-n-ynu-w- leave over</td>
</tr>
<tr>
<td>cajo- drink tea</td>
<td>-n-cajo- give tea to</td>
</tr>
</tbody>
</table>

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-systemic valency changes, e.g.

- *pela-t- (vi) remain < *pela- (vi) leave (anticausative: S of pela- corresponds to O of pela, but pela- has no underlying A)

* Iw-aw- (vlab) be unable < Iw- (vt) defeat, be victorious over (S/A of Iwaw-corresponds to O of Iw; the argument structure of Iwaw-does not have an element corresponding to A of Iw; O of Iwaw- 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 tam-/-nm- kill incorporates the O function noun stem qora- reindeer, the resultant complex stem has the form qora-nmnaw- (with -et,-ew), 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 wopqanmnaw- (wopqa- moose) and never *wopqlunmnaw- (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- (vi) 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 mycir-et-work:

<table>
<thead>
<tr>
<th>Example Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-a-meycer-a-myo-gen</td>
<td>n-a-meycer- et-a-myo-gen</td>
</tr>
<tr>
<td>HAB-E-work-E-INCH-3sg</td>
<td>HAB-E-work-VB-E-INCH-3sg</td>
</tr>
<tr>
<td>Both: 'S/he began working'</td>
<td></td>
</tr>
</tbody>
</table>

14.4 Aspectual derivations

Chukchi has a large number of aspectual derivations which occur in addition to inflectional -ve-aspect.

14.4.1 inchoative -ggol-myo and completive -platku

The inchoative has two forms, -ggol 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.

<table>
<thead>
<tr>
<th>Example Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>qylamanyet eyra-t-klo-7m qora-yarke-ggol-ya-t</td>
<td>Truly sunrise-E-SEQ=EMPH reindeer-collect-INCH-PF-3pl</td>
</tr>
<tr>
<td>Truly the next day they started collecting together the reindeer</td>
<td></td>
</tr>
<tr>
<td>[cy081]</td>
<td></td>
</tr>
<tr>
<td>gelwal rapk1r-ea-nin qora-yarke-myo-ya-t</td>
<td>He brought the herd in, they started to collect together the reindeer.</td>
</tr>
<tr>
<td>[cy118]</td>
<td></td>
</tr>
</tbody>
</table>
The -myo suffix is formally identical to the verb myo- begin, shown in the following example:

007 internat-a-k to-myo-7a-k kell-tku-k
boarding school E-LOC 1sg E-begin TH-1sg write ITER INF
In the internat I began to study.

In Standard Literary Chukchi (Skorlik 1977:193) only the -ggo 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 -ggo 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 ecyl goro-mm-at-a-platko-y7a-t ania7a galvoq5-eta an-in
no sooner reindeer-kil-TH-COMPL-TH-3pi then hend ALL 3sg POSS 3sgABS
galvoq5-a-qeq ejmnw-nla ewat tang-en
hend DIM 3sgABS CS approach 3sgABS 3sgO
so stranger POSS 3sgABS
galvoq5-a-jy-y-n
hend E AUG E-3sgABS
As soon as they finished reindeer slaughtering now the herd, he drove his little herd, likewise the strangers' big herd.

[na086:1]

CONVERB

c9j caq-e-platko-k7m pato-y7e anpacy-a lv-nln / [ ]
tea CONS-COMPL-SEQ-EMPH exit TH old man-ERG say 3sgABS 3sgO
He finished drinking tea and went outside, the old man said to him, "..."
[cy201]

VERB BASE

010 ewat [yast...] ya-tew-a-tko-ggo-ta yan julyat-k-en
so COM beat snow E-ITER E-INC-VBASE DETCT nomadise REL 3sgABS
ime-q-e ye-tiv-e ewat cinit leen
cargo sled 3sgABS COM beat snow VBASE so self really
ya-tew-a-tko-myo-ta ye-wincet-e am5po leen remk-a-n
COM beat snow E-ITER E-INC-VBASE COM with VBASE all 3sgABS really 3sgE 3sgABS
ewat yexqek-yq7-ti ya-rawa-wa-Pat7-a
so 3sgDIMA-3sgABS COM house beat snow E-DUR-VBASE
Then (they) begin beating off snow, from the cargo sleds used in nonadizing they beat off snow, themselves beginning to beat off snow, helping the whole camp, the girls beating snow from the houses.
[ch25]

PARTICIPIE

011 amog qem? a-pa6q5jo-ggo-ka-P-ena-t
and INTER NEG have diarrhea E-INC-NEG PCPL-TH-3piABS
And they don't get diarrhoea.
[ch19]

Chapter 14 VERBAL DERIVATION

The complete suffix has exactly the same type of grammaticalisation as the inchoative discussed above. The complete suffix -platku is formally identical to the verb platku-/-platku- finish. They can be distinguished morphologically: if a sequence VERB STEM + platku 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 platku. This is, however, not the case, as example 012 shows:

012 kawratl-a-Pat7-y7e kawratl-a-Pat7-a-platko-y7e
m7E-DUR-TH m7E-DDC-TH E-COMPL-TH
He rolled, he finished rolling.
[vo044]

This can be contrasted to the inchoative marked verb platku- 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 platku- finish, as in the following:

013 ank7am / nonema sawa-ya7a-baR-kan / nev-a-r7a-baR-kan
and baby 3sgABS 1st cry PROG 3sgFUT cry-E-PROG 3sgO
"waj waj qa-n-lowa-y7a-a ana terya-Pat7-a-baR-kan / INTJ INTJ INT E-CS breastfeed TH-3sgO and cry E-INTS E-PROG
reyen q-iw-a-rka-net an7 am-ta7a-platko-ggo-y7a-k
real INT say E-PROG 3sgO yes DETCT 1sgE E-INTS 5sgNINC INC-PF 3sgS
"anj not wa7e jem7a-a-n m-a-tey7a-r7a-eKy-7a-n" INT DETCT dish contents 3sgABS INT 3sgE make E-PP 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 it. finishing this, first I'll dish up the food [lit. make the dish contents]!" [cy041]

14.4.2 Lexically specific inchoatives -t7u and -twi

The meteorological inchoative -t7u 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 -t7u (§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 -t7u refer to the inception of states).

The de-adjectival inchoative -twi (see also §16.5.1) derives an intransitive verb from an adjective meaning 'to become [adjective]', e.g. from the adjective inv- fast:
14.4.4 Punctual -cqaqet

The punctual aspect suffix -cqaqet is a marker of an action occurring in an instant.

Example:

019

But [the bear] was starved and had become very fast [an080]

The temporal adverb wulqatwik in the evening is morphologically a converse formed with this derivation of the adjective stem wulq- dark, i.e. wulq-twi-k (dark-E-INCH-SEQ), literally after it became dark.

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 wetcokajen a terrible plague in example 123, it 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 denominational verb with the meaning 'use [noun] as a tool' (§14.7.2).

Iterative suffix on intransitive verb stems:

022

Once again he went off there, wandered off for some reason. [ot032]

017

layen anko runwinteta-parinqu

So there they made a big cooking fire... [ot094]

018

ce ee gan anqena-t=m an-yta-P=3sg

So anyway, they went home, and slaughtered a lot of reindeer of course. [ke044]

101

ik-wii / g&ttete mat-re-7He-mjot-0 woloka-0a

He said, "We'll run away along here, the wolf will follow me." [ke094]

14.4.6 Durative -Pet

The durative aspect indicates an intensively prolonged action/event within the tense-aspect frame of the verbal inflection.

Example:

015

... by caravan they transported frozen fish from Qyrgepelyn, they [always] went in caravan to the herd. [he058]

The category of durative as- ...: r-tv: ...: addition to any aspectual inflection; it is common with the statically ntlv. ...: verbs, which overlap semantically (duratives focus on the length of a process, ...: 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 static paradigms; examples 118 and 119 show non-future and future declarative forms of the non-native paradigms:

016

ganqen neme ekwet-y?i layen na-leha-parinqu mego

Once again he went off there, wandered off for some reason. [ot032]

017

layen anko runwinteta-parinqu

So there they made a big cooking fire... [ot094]

018

ce ee gan anqena-t=m an-yta-P=3sg

So anyway, they went home, and slaughtered a lot of reindeer of course. [ke044]

101

ik-wii / g&ttete mat-re-7He-mjot-0 woloka-0a

He said, "We'll run away along here, the wolf will follow me." [ke094]

14.4.7 Antipassive -qen

The antipassive aspect suffix -qen indicates an action which is performed to something.

Example:

021

So anyway, they went home, and slaughtered a lot of reindeer of course. [ke044]

Non-antipassive iterative suffix on a transitive verb:

024

He then chased the herd, quickly took some, knocked [their] horns down onto the snow, there they simply struggled/kicked. [ot053-54]
14.4.6 Resultative -twa

The resultative derivation forms a stem which indicates a state which is the result of an action (Nedjalkov & Jaxatov 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, Inenlikje & 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 behaviour of the resultative in Chukchi. The resultative is marked by the suffix rather than the head of the compound head (the second stem of the compound; see §12.4), and that the first element can be a lexicalised part of the stem; the derived verb stem -twa- have something to eat (the transitive verb ru/-nu- eat is formed from a completely different stem):

This verb wak?o- sit is common both with and without the resultative derivation. With the intransitive verb game- eat the resultative is so common as to be virtually a lexicalised part of the stem; the derived verb stem game-twa- have something to eat (the transitive verb ru-/nu- eat is formed from a completely different stem):

Transitive resultatives are somewhat less common:

The following examples show the use of the resultative derivation with the verb wak?o- sit. Without the resultative the verb wak?o- refers to the action of sitting down (examples 026, 027), while wak?o-twa-, the form with the resultative, refers to the state of being seated (example 028):
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 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 -r'ú

There are two collective suffixes, -jw, which only occurs with transitive verbs and indicates collective O, and -r'ú, 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 -jwaw produced according to regular schwala epenthesis rules.

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-yarko-pla-ko-y?e-t=tím ka1yct-y?e-t
  - reindeer-catch.COMPL-TH=3sg=EMPH
  - make-3sg=EMPH

- 039 yekeg-a-j-p-a-ya in=7w=t / eksket-y?e-t
  - drive-E-INV-COLL-3sg=EMPH
  - setoff-COLL-3pl

They finished catching the reindeer; all the drivers harnessed up and they all set off.

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 -y?e- (example 042) and -tep- (043, 044) are both intensifiers. It is unclear how they differ, and they frequently occur together (045).

- 042 gelwal kocekew-a-nin layen ten-tamankoi qa1qen
  - good-E-3sgABS=EMPH white-3sgABS=EMPH
  - good-3sgABS

- 043 gelwal kocekew-a-nin layen ten-tamankoi qa1qen
  - good-E-3sgABS=EMPH white-3sgABS=EMPH
  - good-3sgABS

He simply followed the herd, from all sides far off, they shot at that little wolf, that [one who was actually] a person.

1 The stem of the verb UMIRET-y?e-t is Chukchi pronunciation of the Russian infinitive umeret ‘die’. In standard Russian this has approximate phonetic form [umiret] or [umirejt], which is closest to the Chukchi phonemic sequence [umiret], 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 (Alkhovenfeld pers. comm.).
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-__-q

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-__- and a suffix -q. 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).

#### qalctla

The following example shows the desiderative on a verb base (describing hilltop fortresses of ancient times): 049 ank?am nama qalctla qew-AN.abs=EMPH

And also [they could] look down when [they] wanted.  

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 adjectival derivational suffixes (i.e. except for derivational suffixes which derive verb from stems of other classes). In the following example the verb stem koratalak- is derived from the noun koral.

#### qew-AN.abs=EMPH

In the intentional mood). It is expressed by a prefix meC- and a suffix -q. 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).
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 wane q-a-re-yl q-a-re-yl
INTJ INT-E-consume-TH INT-E-consume-TH
Oh come! Enter!

[Belikov 1961:151]

This shows that recqiw-enter of Te'hmp: 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 *qeet-et (diminutive + verb derivational suffix) and -cyat from *cy-VH-et-VH (augmentative + verb derivational suffix). There is no augmentative based on *jg, the other augmentative suffix which occurs with nouns (§8.9.2). Verbal augmentatives and diminutives are both used to show both formality and disparagement; these functions are distinguished contextually:

**Augmentative showing disparagement:**

055 recq-u ja a-cyat-y?e
what-EQU come-AUG-TH
Why on earth did you come?

[nt034.7]

**Diminutive showing disparagement:**

056 enara? a-gawacqta iw-nin "flu-ke qa-tvac a-ta?rkan
neighbor-E-woman-ERG say-3sgA.3sgO move-NEG INT-E-be-DIM-3sg
The neighbour girl said to him, "Stop it you little [idiot]! ..."

[ot010]

**Diminutive showing affection:**

057 qeylananyet [gleet-qeet-y] pue?e-t
true step-DIM-TH sleeve-3sgABS

[nt035]

In more emotionally neutral contexts augmentative is an emphatic/intensifier and diminutive indicates small amount.

---

### Chapter 14 VERBAL DERIVATION 269.

**Emotionally neutral augmentative + intensifier:-implicative:**

058 qa-cawacqta-v a-cyat-len kolol
INTJ INT-E-consume-TH DEICT INT-E-eat-RESULT-TH INT-E-consume-TH
Oh, drink your tea, have something to eat, drink your tea

[kj039]

060 layen anka?an a-ta?n-ca this-EMPH NEG-locative-CONSUME-NEG 1sg-E-become-E-1sg
It's there I stopped smoking, previously I smoked.

[kr172]

061 ya-y? a-celq-a-lenat PF-hard-E-consume-CONSUME-3pl
They'd eaten lots of porridge

[kj135]

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 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-a-cal-ye wa? a-q-an-ma-ya-ye
INTJ INT-E-consume-TH DEICT INT-E-eat-RESULT-TH INT-E-consume-TH
Oh, drink your tea {nt039}

060 layen anka?an a-ta?n-ca this-EMPH NEG-locative-CONSUME-NEG 1sg-E-become-E-1sg
It's there I stopped smoking, previously I smoked.

[kr172]

061 ya-y? a-celq-a-lenat PF-hard-E-consume-CONSUME-3pl
They'd eaten lots of porridge

[kj135]

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 Utilitative -tku and constructive te-_g

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 pote-nqac ta-y?e ewan apanacy-aan jilly-a-kin
there-SIDE pass-TH INTS old.man-E-3sgABS moon-E-REL-3sgABS

[nt035]
They are net-fishing beside the sea.

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 weyatku- scratch is a transitive:

They scratched him. They killed him.

The circumfix te- helps derive an intransitive verb from a noun with the meaning 'make a [noun]'.

And the bullet People eventually made bullets themselves...

14.7.3 Reversative -tw

The reversative derives a verb meaning to reverse the process referred to by the verb stem, thus from ine-'load' the reversative suffix -tw derives a verb inegetw- meaning unload (compare 067 and 068 below). The reversative derivation does not seem to be used productively.

There are a few instances of this suffix deriving a verb from a noun; in the following example lamy-a-tw- (vi) remove hood is derived from the noun lamy-iقود.
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 reen 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).
The allative case

15.2 The common noun declension:

15.2.Z general location

The locative has the widest range of application of all the spatial clause (spatial adverb or postposition; §4.9, §15.4). Apart from

214. relationship expressed by these markers.

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-a-k hakir-yi / ango wenqora-j gard-n welan-jen

He arrived in the other encampment, then unharnessed the doe. [cy103]

003 rak-wary-a-k-yi ya-renn-ko-kwa-len angen anan-jade-n

In the hole the very last reindeer got its horn caught. [cy419]

15.2.2 Allative -yta•VH

The allative case marks movement towards a referent. It has two allomorphs in the common noun declension:

[allative] → { -yta•VH / C, -eta•VH / elsewhere

These allomorphs are illustrated by examples 004 and 005:

004 al77a-eta "okek oren 7aq renot potenq?"

mother-ALL INTJ then what3sgABS this3sgABS

He went to his mother; [she said] "Oh my, what is this then?" [nl142]

005 layen caq-a-kowa•y
e

really tea-CONSUME/ITER-TH and setaf-TH her-ALL gave/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-jl-a-kua-jw•n ak•kate kante-t

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 anqora neme jawena / neme / Kacayary-a-n

then again my year again person/named-3sgABS

and•q gol / cowqoe-eto jal-nin pelwol [4]

Then in the next year again [it was] Kacayaryan, 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 arge pow-tomy-eta ena•tw•ka

HORT NEG,HORT woman-named-ALL AP•tell/about-E-NEG

Don't you tell your wife! [ke029]
Allative case nominals do not act as verbal arguments except with verbs which take any directional complement; there is no evidence that the allative is privileged in any way as the obligatory complement of any verb.

Although there are two possible endings for personal pronouns in the allative, -(n)ey and -(a)no, these are interchangeable and do not reflect a functional distinction. The -(n)ey suffix is completely regular, and the -(a)no suffix seems to be a truncated form of it which retains the vowel harmony value (see note 14 to fig. 2, §6.2). The high animate plural allative suffix -[a]no is also irregular; the historical source of this form is obscure, but the final schwa and dominant vowel harmony is suggestive of a similar truncation to the -no form.

**HIGH ANIMATE PLURAL**

014 009 qonpen yan ate-yaka t-o-re-qyqt-ye putku  
that.3sgABS DEICT granddad-ALL 1sg-E-FUT-set.of-TH here  
t-o-re-nt-a-a-n reluru?-a-qe] neme qol [reluru?qeq]  
1sg-E-FUT-have.E-TH-3sg chew-E-DIM.3sgABS again one.3sgABS  
neme qol neme qol  
again one.3sgABS again one.3sgABS

"I'll set off there to my grandfathers, here I'll have something to chew, again something more to chew, and again more and more"  [cy398]

The high animate singular allative suffix is -(n)ey, which is identical to the ergative/instrumental and locative case suffixes. Unlike the pronominal and high animate plural forms of the allative, the high animate singular doesn't have dominant vowel harmony (in other Chukchi varieties this may differ, see fig. 2 §6.2, note 7). This suggests that the case syncrétism between ergative/instrumental, locative and allative in the high animate singular is an old feature of the language, pre-dating the -(n)ey allative case form.

**HIGH ANIMATE SINGULAR**

015 019 kolo kolo! mëk-a-nq?  
INTJ INTJ who-E-AN.ALL  [laughed]  
"wane waj jëly-eta  
INTJ DEICT moon-ALL  
"Ho-ho! Where to? (lit. To whom?)" — "Well, to the moon"  [cy170-171]

016 011 t-o-ra-qora-york-e-y?a aqtaq-jol-a-ta Janat t-o-re-qyqt-ye  
1sg-E-FUT-reindeer-catch-TH ant-E-DIM-ALL first 1sq-E-FUT-set.of-TH  
yekg-e=m anqora jara-jpa t-o-re-kwet-ye  
rde-REX=SE EMPH then house-ABL 15sg-E-FUT-set.of-TH

I'll catch the reindeer, first I'll go to aunty's on my team, then I'll go from the house.  [cy175]

---

1 There is also comparative evidence of similar case syncrétism. Stebnicki (1994) shows that the ablative and allative case affixes are recent innovations in Koryako-Chukotian, with the earlier general locational suffix -q (an adverbialiser in Chukchi) fulfilling all these functions.
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.


Those people coming to the herd, he simply took them by the legs they took... that is he in the wolf skin... took them by the legs and broke them from behind. [ot.137]


tam-nen
kill.3sgA.3sgO

He approached the old man, clawed him by the throat, killed him. [ot.138]

In example 016 the third instance of the ablative, nenayotkamlaqeniajaalejpa 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 wane wane-wan wanenwan n-e-pomo-?a-n INTJ NEG.NFUT INV-E-am-around thi.3sg anay-vet-jekwe layen mat-kawra-mak pan nemaqej pan 3sg-path-IFL really 1pl-circle-1pl DEICT also DEICT Oh no, he didn't turn around halfway, we too did the circle following his tracks. [cy.149]

019 tale-neq?ewet waam-jekwe tale-rkan go-TOOL-boat anik-IFL go-PROG

The sailboat is going along the river [ja.11]

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 -y-VH (Skorik 1961:317); in Telqep Chukchi the -y 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 unsegemtable 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 0ara-jjet q-a-te-rkan house-ORIENT INT-E-go-PROG

Go guided by the house/ Go using the house as a landmark. [nb.59]

The orientative is not inherently directional. In example 020 the noun 0ara-jjet 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.


If he were only a bit stronger, right through here is my heart/ you could kill me / you could [skin?] my body. [jo.020]

022 anqora gan [inutkuy?] remic-a-n [tag] smetukle from VERB DETC 1st-ABS=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. [he.018]

15.2.6 Inessive -caku

The inessive marks location inside a nominal. This may be static (as in 023) or dynamic (024).

023 anka-tkan-a-k n-e-wake-twa-qen ranama-caku there-TOP-E-LOC HAB-E-ABST RESULT-3sg hom-ENRESS He was sitting there on top amongst the horns. [cy.220]

024 yanwet qit-a-wa-jet-a-p-a-n n-e-1w-qin "oppora finally freeze.E-die INTs.E-NMZR.E-ABS HAB-TR-say-3sgO must yam-a-caku wil q-a-nel-yit" 1sg-E-TH-ENRESS when INT-E-become-TH

Finally to the one who was always freezing she said "You'd better come inside me for the moment". [cy.009]

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 -jiga

The sublative case -jiga expresses the notion underneath.
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 -tkan- TOP and -gqac(a-) SIDE have a zero-derived absolute form (see example 031, §15.3.2), which can make them look superficially like case markers.

15.3.1 'TO' -tkan-\textsuperscript{\textdagger}

The derivational suffix -tkan-\textsuperscript{\textdagger} derives a word meaning 'the top of [noun]'. The absolutive case of nouns formed by this derivation has no additional suffix, e.g. orw-a-tkan- (stated-E-TOP.3sgABS) \textit{the top of a sled}. Other case forms are added to -tkan- in the regular manner. Example 027 shows -tkan- with the instrumental case, example 028 with the locative:

027 acc,ena-cemyo-ta \textsuperscript{[\textdagger]} t-qepol \textsuperscript{[\textdagger]} orw-a-qen-takan-a \textsuperscript{[\textdagger]}

\textsuperscript{[\textdagger]} 3pl-TH-think-\textsuperscript{\textdagger} house-DEM-TOP-\textsuperscript{\textdagger}

On their own instrument collecting firewood on top of little sleds...

028 garyan \textsuperscript{[\textdagger]} \textit{yama-takan-a-h}

\textsuperscript{[\textdagger]} ram-nen anka

outside heated.snow-E-LOC sick-3sgA.3sgO there

Outside he stuck it into the top of some heated snow.

15.3.2 'SIDE' -gqac(a-)

Nouns with the derivational suffix -gqac(a-) have the meaning 'the side of [noun]'.

029 an-im gelbawp-a-xjej ara-gqac-a-xte angen / 3sg-POSS.3sgABS hand-E-DEM.3sgABS house-SIDE-ALL DEM.3sgABS qanwer pir1-nilim\textsuperscript{[\textdagger]} anara-gqac-a-xte aytau-nen 1be take-3sgA.3sg-DEMPT house-SIDE-ALL 1be-3sgA.3sgO His little herd just up to the house... finally he took it, and drove it up to the house.

Although the terms are clearly related, the derivational suffix -gqac(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, jarak-gqac indicates the side part of a house, and jarak-qaca means 'inside the house'.

Example 030 shows a relational nominal derived from the same stem as above:

030 itake=\textendash \textendash muv-ti jara-gqaca-kena-t layen n-enat-qaenat to-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].

In the absolutive case a form derived with this suffix can be used like a adverb, as in example 031.

031 qara-nam-at-\textendash \textendash / \textit{jaale-gqac} / \textit{ankam cajstraw-nen}

rinderto\textendash TH back-SIDE.3sgABS and smear-3sgA.3sgG
gew-\textdagger\textendash \textdagger\textendash a-xjej gewacqet n-enat-po-twa-a-qen

female-dog-E-DEM.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.

15.3.3 'Edge' -lag-ly and 'edge' -curm-

The suffix -lag-\textdagger\textdagger\textendash 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-a-n the side of a river (elongated entity)

anika-corm-a-n the side, \textit{the sea} (unbounded entity)

yat\textsuperscript{[\textdagger]}-ly-a-n the side of a lake (bounded entity)

The allomorphy of -lag-\textdagger\textdagger\textdagger\textdagger\textdagger\textendash ly- is regular (an underlying form *ly with the realisation determined by syllable structure and phonological alternations) but not always predictable:

\text{(SIDE) \rightarrow \{-lag / \textit{CV} (e.g. example 032)\}

\text{ly elsewhere (e.g. example 033)\}

The unpredictability arises when it combines with case markers which themselves have syllable-structure changing allomorphs. Example 033 has the lag-allomorph with the locative suffix -\textdagger\textdagger\textdagger\textdagger\textdagger\textdagger\textdagger\textdagger\textdagger\textdagger, rather than the ly-allomorph with \textdagger\textdagger\textdagger\textdagger\textdagger\textdagger\textdagger\textdagger\textdagger of the locative; it is unclear why the combination of suffixes is realised -lag-ka rather than -ly-ka. Likewise example 032 has -ly-eta, when -lag-eta seems an equally grammatical realisation of the underlying form.

032 galwalla-v-jag-a-n angen tamp-a-galwalla-v-jag-a-n anka
dead-E-AUG.3sgABS this.3sgABS smudge-E-EMPH.E-DEM.3sgABS here

\textit{yata}-\textit{lag}-ka

\textit{yata}-\textit{ly}-ka

\textit{yata}-\textit{lag}-ka

That big herd, that big stranger-herd there, [was] also on the edge of the lake.

[0093]
The derivation -cukw- on the demonstrative stem an- forms a compound stem ankucukw-. Its basic meaning is 'the inside of [noun]'. In the following example the noun renmek- 'the inside of the lake' can be translated as 'the insides of roofs':

<table>
<thead>
<tr>
<th>Line</th>
<th>Chukchi</th>
<th>English</th>
</tr>
</thead>
</table>
| 033  | yamm-in nomsqej gelval waj gutku | He possess these at the edge of the lake.
| 034  | layen=qm eluyelq cama accanam know.EPR+EMPH simply and 3p.ERG |
| 035  | ankecukw-a-kene=qm DEM-TH-EDGE-E-REL-3pi.ABS+EMPH |
| 036  | n-in-lw-qin / "layen=qm waj yamno / house-PERL·AUG·E-3pi.ABS really & INTS=EPR=EMPH |
| 037  | anqena-t layen tag-wetyara n-ena-yo-kenet | They pull them out directly, they pierce the insides of roofs.

The inessive case suffix -cukw-VH is clearly related in form (historically derived from the same source *jikwi-VH-g-E-INESS·ALL), but is synchronically a distinct morphological class (case suffix, not derivation; §15.2.4).

### 15.3.5 **Inessive -cukw-**

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 renmek- has this suffix to form a complex noun retem-cukw-t (there reflected with the absolutive plural) meaning *inside of roofs*:

<table>
<thead>
<tr>
<th>Line</th>
<th>Chukchi</th>
<th>English</th>
</tr>
</thead>
</table>
| 037  | anqena-t layen tag-wetyara n-ena-yo-kenet | They pull them out directly, they pierce the insides of roofs.
| 039  | layen wenwa-jekwe wonwa-k vervece layen really trail-PERL really above |

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

<table>
<thead>
<tr>
<th>Line</th>
<th>Chukchi</th>
<th>English</th>
</tr>
</thead>
</table>
| 040  | ca-tayrr-at-a-nw-epe t-a-plkr-yo-ek ange yan | "I have arrived from place where (the reindeer) are brought down". In fact, he had come out from inside the doe.

In the following example the inessive + ablative occurs with look, a verb which indicates directed perception:

<table>
<thead>
<tr>
<th>Line</th>
<th>Chukchi</th>
<th>English</th>
</tr>
</thead>
</table>
| 041  | quit-ti jorojeko-jpo n-a-winw-a-nlep-qnet | They others secretly looked out of the sleeping chamber, they were afraid...

The inessive case suffix -cukw- 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:

<table>
<thead>
<tr>
<th>Line</th>
<th>Chukchi</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>042</td>
<td>layen wenwa-jekwe wonwa-k vervece layen really trail-PERL really above</td>
<td></td>
</tr>
</tbody>
</table>
| 043  | ankeckanka-cukw cacik-vvoroq qanut got c'enuj | Right on the top of that yonder there's something...

The most usual position for a spatial adverb in this function is immediately following the locative case nominal (see comments on the grammaticalisation of
Inessive derivations frequently occur with directional cases, such as the allative (038-041) and the ablative (040-043). The inessive derivation does not 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**

038 ana waj layen qaawer omk-a-cako-vta ekwet-yi 
... so DEICT really finally bukh-E-INESS-ALL go-Th
Well then, simply, finally she went into the bushes...

039 gewʔeʔen-e n-in-iv-qin / "iyatam waj yamo /
wife-ERG HAB-TR-say-3sg now-EMPH DEICT 1sg.ABS
revloly-qa-cako-vta ne-r-upanʔat-jiyum
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 ca-tayr-at-ان-wep qa-pikril-yek anpə pan
CS-edge-CS-E-PLACE-ABL 1sg-Em-work-Th-1sg NEG.HORT DEICT
wengera-lp-a-cako-lps 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-cako-lps n-a-winw->lep-qinnet
one-3sgABS sleep,chamber-INESS-ABL HAB-E-secret-E-look-3sg
n-alayaw-a-Pat-qenat ...
HAB-lea-E-INESS-3sg
The others secretly locked out of the sleeping chamber, they were afraid...
[cy420]

The inessive case suffix -caku is discussed in §15.2.6.

**Spatial relationship adverb**

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 layen wenwa-a-jekwe winwə-a kyrveca layen
realy ral-Perl ral-LOC above really
[They smell their way along the trail, above the trail.][ab305]

043 an-ka-tkan-a-k cek-a-VE-heliquan poot cenut / [...]
DEICT-TH-TOP-LOC IND-above like DEICT something-3sgABS
Right on the top of that yonder there's something...
[cy97]

The most usual position for a spatial adverb in this function is immediately following the locative case nominal (see comments on the grammaticalisation of...
The word shows these strategies combined:

\[ \text{kin(e\cdot)} \]

Spatial adverbs can take various case markers as derivational suffixes; most suffixes. Both these adverbs also has a final a when the form is suffixed, which suggests that the two forms upwards.

Spatial adverbs are not always modifiers of nominals; they can modify entire postpositions, §15.5. Example 045 shows the pure postpositional form of qaca:

\[ \text{He galloped past, next to the door Cakwagaqaj stopped} \]

In example 051 the postpositional phrase occurs with a nominalised form of the existential copula/auxiliary verb to form the complex nominal kantorak q:a wall?at the ones beside the officer.

The postpositional form can sometime be marked with a nominal case marker like a locative. There are beside the office. again he was sitting next to his wife.

Examples 049 and 050 show the pure postpositional form of qaca:

\[ \text{Bear Ears, the stones, like the big ones now which are beside the office [of Sovnak Kanchalan], they're that big} \]

The postpositional phrase seems to be functioning as a locative nominal. It is unusual in that it does not have an associated locative nominal.

The relational-derived form qaca:ken in the following example seems to be functioning as a nominal. It is unusual in that it does not have an associated locative nominal.

\[ \text{So that's how it was, because one was missing, one toe from one side, because of the chopping up and scattering.} \]

The intention here seems to be 'because when they disposed of the rest of his remains they missed the toe, Cakwagaqaj was able to return from the dead'. It seems that qaca:ken one from beside and ralysyn finger/toe are both independent nominals in a noun phrase, rather than together forming a postpositional phrase.
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 mig-). The roots of the deictic adverbs are:

- gut- near
- gen- very near
- paan- very far
- mig-, where?, somewhere (interrogative/indefinite)

There are also deictic adverbs derived from the root an-, which is also root of 3rd person singular personal pronouns and of the discourse-specialised, non-distance graded demonstrative. Deictic adverbs formed from an- are partially interchangeable with the gut- here adverbs, but an-forms are also used in organising discourse, acting as conjunctions, etc.

The least morphological particular of the deictic adverbs indicate the same spatial relationships as the non-linear temporal cases LOCATIVE, ALLATIVE and ABATIVE.

<table>
<thead>
<tr>
<th>FIGURE 15.3. Deictic adverbs: locative, allative, ablative.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locative</td>
</tr>
<tr>
<td>Allative</td>
</tr>
<tr>
<td>Ablative</td>
</tr>
</tbody>
</table>

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.
indistinguishable from third person singular personal pronouns). The -te suffix of the perlatiye 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 perlatiye case indicated by the suffix *-kene* ([§15.2.4]).

There is also a form *msikemil* how many?, how much?, which would seem to be a derivative from the indefinite/interrogative locational stem with the manner adverb suffix *-mil*. However, the meaning how many?, how much? for *msikemil* 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 delctic adverbial *thither* with an incorporated adjective *long distance, long time.*

There are three deictic particles, *gan*, *goot* 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-gan < cIt gan*). The conditions for determining the ordering of the particles are unclear (see example 058, which has both orders, *gan*/*goyite* and *goyite*/*goyite*).

The delctic/particle *gan* is also clearly related to the delctic adverb stem *thither*.

In spontaneous texts *gan* is very frequently used with delctic adverbs, where it seems to be emphatic:

The word *goyite* 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.

There is also a delctic particle *goot* this *here*, which has the same sort of locative meaning as the *-kal-* suffix delctic adverbs. This form is frequently used in place of the demonstrative *gotten* this in absolutive noun phrases, and seems to have the same modifier-head relationship with that *gotten* would:

Apart from the interrogative/indefinite stem *mig*- where?, *somewhere*, there exists a spatial interrogative particle *?emi* where?.

Unusually for an interrogative, this word does not also have indefinite meaning (but see *?emiri/*?emici somewhere, below). There also exist several forms of *?emi* fused with 3sg personal pronouns. The form *?emition* (<*?emi-*?i); the use of
atlon 3sgABS as an emphatic particle is discussed in §7.2 makes an emphatic question:

065 lw-nin "naqam ?emitri qol plneqj?"

say-3sgA.3sgO but where? QUANT.3sgABS boy.3sgABS

He said to him "Where-on-earth's the other boy?"

The form ?emitri/?emicci (<atri/acci 3plABS) somewhere is an indefinite spatial adverb.

066 ?emitri yekcp-P-o-t yamecat-lenat

somewhere nice-ECPLE-3plABS PF-disappear-3pl

The sled drivers disappeared from view somewhere

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.**

<table>
<thead>
<tr>
<th></th>
<th>Attributive function</th>
<th>Predicative function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporated Adjective</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Free Adjective</td>
<td>absolute NP only</td>
<td>unmarked TAM only</td>
</tr>
<tr>
<td>Deadjectival Verb Base</td>
<td>no</td>
<td>marked TAM only</td>
</tr>
</tbody>
</table>

• 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 in discussed in §9.4.

• Free Adjectives. Free adjectives have distinctive morphological marking, consisting of the prefix n- 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 (realts, positive polarity, universal stative...
type tense-aspect). Only dejectival verb bases can function predicatively with marked TAM (§16.4).

- Dejectival Verb Base. Dejectival verb bases are marked with the circumflx n-_-mk-1?-in(e-). They form the lexical heads of analytic verbs, with an auxiliary encoding TAM categories. Like other members of the verb base class, dejectival 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 circumflx e-_-ke to make negative verb bases. Dejectival negative verb forms are nominalised by the affixes e-_-ke-1?-in(e-). If adjective markers are nominalised by the affixes e-_-ke-1?-in(e-) (§18.7.2).

- Comparative Verb Base. Adjective stems can form comparative predicates. The adjective stem forms a verb base with the suffix -g (§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 (§12.2).
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 augmentive adjective.

FIGURE 16.3. Adjectives and habitual verbs with derivational suffixes.

<table>
<thead>
<tr>
<th>PREDICATE</th>
<th>ADJECTIVE</th>
<th>HABITUAL INTRANSITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIM</td>
<td>n-—qine-qej</td>
<td>n-—qeeq-t-qin (-qeeq &lt; *-qej-et)</td>
</tr>
<tr>
<td>AUG</td>
<td>n-—qenqa-cya-n</td>
<td>n-—cyat-qen (cyat &lt; *-cyre-et)</td>
</tr>
</tbody>
</table>

006 [...] qeluu—qan n-—ppalu—qine—qej poqy—a—qaj because-EMP ADJ-E-3pl-3sg DIM speak-E-DIM.3sgABS ...because of his spear is a tinу little one. [at108]

007 ut?am—tejiew—et—et—qaj ejippe—qan tay—n—qewre—qena—qaj—o nayen tentpole—bund—TH-DUR TH quickly-EMP INTS-ADJ-qenl-3pl=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—) and augmentatives (-cyre— and -qej—). 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 adjectives.

ADJECTIVES WITH DIMINUTIVE DERIVATION

008 pojy—ett—qaj—o qaj ayen n—tejiew—a—qine—qaj spear—wood E-SING-E-DIM really ADJ-E-SING-3DIM The spearshaft was a short little one. [at037]

1 Such forms are found 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-isq kara—k jeneq—at—kan ADJ-E-new ADJ-LOC house-LOC live-PROG He lives in a new house / It's a new house he lives in/ [Zhukova 1980:65].
16.5 Deidjectival verb bases

When a predicate adjective is marked for aspectual or modal categories an analytic construction with deidjectival verb base and intransitive auxiliary verb (tw= or n=) is used. The usual deidjectival verb base derivation has the circumfix n~tw~ew, as illustrated by the following two examples:

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Annotated Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you were only a bit stronger...</td>
<td>[bel029]</td>
</tr>
<tr>
<td>He just threw his overcoat together narrowly for his eyes like this.</td>
<td>{kr139}</td>
</tr>
</tbody>
</table>

Deidjectival verb bases can also act as sentence adverbs:

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Annotated Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>He still worked hard enough to move.</td>
<td>[kr247]</td>
</tr>
</tbody>
</table>

The related me- 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

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Annotated Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>You were quick, but nevertheless remembered tales of the olden days.</td>
<td>[ka31]</td>
</tr>
</tbody>
</table>
Cardinal and collective numerals are similar to absolute case nominals. They frequently act as modifiers in absolute noun phrases, but can also act as absolute 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 absolute 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.**

<table>
<thead>
<tr>
<th>Numeral</th>
<th>Cardinal form</th>
<th>Ordinal form</th>
</tr>
</thead>
<tbody>
<tr>
<td>annen-VH</td>
<td>one</td>
<td>one</td>
</tr>
<tr>
<td>rireq/niceq</td>
<td>two</td>
<td>two</td>
</tr>
<tr>
<td>garoq</td>
<td>three</td>
<td>three</td>
</tr>
<tr>
<td>garaq</td>
<td>four</td>
<td>four</td>
</tr>
<tr>
<td>matlag-VH(-en)</td>
<td>five</td>
<td>five</td>
</tr>
<tr>
<td>manyat-VH(-ken)</td>
<td>ten</td>
<td>ten</td>
</tr>
<tr>
<td>qlik-VH(-kin)</td>
<td>fifteen</td>
<td>fifteen</td>
</tr>
<tr>
<td>t'ere-VH</td>
<td>how many?/so many</td>
<td></td>
</tr>
</tbody>
</table>

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 *five*, *fifteen* and *twenty* have the ending 

2 In the 1920s, and possibly earlier, there was a base 10 tallying system used by Chukchis and Koryaks (Stebnicki 1994:107). This may be an innovation from after Russian contact. The symbols are:

<table>
<thead>
<tr>
<th>Units</th>
<th>Tens</th>
<th>Hundreds</th>
<th>Thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x</td>
<td>O</td>
<td>Θ</td>
</tr>
</tbody>
</table>
16.8.1 Loan numerals

Loan numerals with numeric meaning are all simple numerals or nominals. The most common is ticoc(u) thousand (< Russian *tisëta*):

028 enaw [8] n-a-qua-mm-inn-at-qenat ולוג galwaʔ-a-cy-o-n / so HAB:Emineêerû all-TH-3pl DEM:3sgABSSER:3sgABS

If they slaughtered reindeer, that huge herd, they wiped out all thousand and more.

Compare the absolutive plural form in example 036. Northern variants of Chukchi use tawone 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 or money. During the period of research the rouble had become so much rrom inflation that it was necessary on a daily basis to talk of sums 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. *' pervyj* first, *'vторoj* second, *'tretjî* third):

029 enemlêk [9] / PEREWE-1'-a-17-o-n=q7=t?

It seems that the numeral têr has Interrogative (example 026) and Indefinite (027) functions:

026 têr ?aloget ja=ya-yan? how many? dsgABSSER:3sgABS ESE=TH-3sgD

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

027 Pelegit aqo- / EM-PAleget têr MERJAC ji=ya-a-n winter.ABS thus REST-winter so.much month month-E-3sgABS

Thus in the winter, all winter, so many months...

Interrogative/Indefinite pronuneral têr 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 16.1 Compound numerals, 6 – 9.**

annan-omatag-en six

ger'a-omatag-en seven

amparoot-ken eight

qon?acyan-ken nine

The numeral amparoókten eight (*em-paro-jut-kin*) is formed from the numeral paro-three with the restrictive prefix em-. numeral distributive derivation -jut (§17.10) and the relational suffix -kin, indicating ‘only the third’, i.e. five plus three, a hand and three more fingers.

The numeral qon?acyanken nine is also morphologically complex. It includes the pronominal element qon-gon- which includes one (§7.5). Skorik (1961:388 note 276) states that middle element of qon?acyan-ken means *in order, next to* relative to the noun acyt line, row (plural ak-yt-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 acyt should gain an initial glottal stop and exchange the final t for an n.

028 wanevan layen i layen mplkemmill ya-naq-q-ewa-kemn=q7=m NEG:NFIUT realy realy how.much PF-stomach remains-E-3sgABS

The plural form can take normal numeral derivation, for example, the ordinal numeral deriving suffix -qew (see example 037, §16.11.2).

Multiples of twenty are also formed by compounding:
Chapter 16 ADJECTIVES AND NUMERALS

FIGURE 16.7. Compound numerals, 40 – 400.

- giqeq-qlik-kin 40
- garaq-qlek-ken 60
- garaq-qlek-ken 80
- matlag-qlek-ken 100
- annan-matlag-qlek-ken 120
- geraq-matlag-qlek-ken 140
- agmeroot-qalek-ken 160
- qon?acyan-qalek-ken 180
- manyat-qalek-ken 200
- kalyan-qalek-ken 300
- qiliq-qalk-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 manyatken ten or kalyonken fifteen, (ii) a numeral from one to five representing the remainder, and (iii) the noun parollpacol extra. remainder.


- manyatken annen parol eleven (ten, one remaining)
- manyatken giqeq parol twelve
- manyatken garaq parol thirteen
- manyatken garaq parol fourteen
- kalyanqen annen parol sixteen
- kalyanqen giqeq parol seventeen
- kalyanqen garaq parol eighteen
- kalyanqen garaq parol nineteenth

Likewise the factors of twenty from 220-280 and 320-380 are broken down into analytic complexes made up of (i) the numeral manyatqlekken 200 or kolyanqlekkken 300, (ii) a compound numeral 20, 40, 60 or 80, and (iii) the noun parollpacol extra.

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:

- bartq-qalek-ken kalyan-ken giqeq parol
  four-twenty NUM fifteen NUM two NUM extra
  Ninety seven

16.11 Numerical-specific derivation

There are a number of derivational affixes which only combine with numerals (including the 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 parollpacol).

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

- panena neme ariqec par?q-ryace / giqeq ra-ymu-w-ninet
  still also all three-COLL two-NUM C5-remain-TH-3sg-3pO

Once again be only left a trio, two.

Human collective suffix -ryeri/-ryeci

- lejw-a-pa-t jet-ye-e-t anqen par?q-ryace
  make-E-PCLP-E-3plABS come-TH-3pl DEM-3sgABS three-COLL bad-uncle-POSS.JABS
  ekke-t
  son-3plABS

Those walkers came, the trio, the bad uncle’s sons

- cot-tayan layen layi-clmir?et-e?-ti anka layen
  cushion-EDGE.JsgABS really INTS-be.knocked.about-TH there really
tag-amal?-eta / matlag-e-ryace amal?o layen anka /
  INTS-all-ADV five-COLL all really there
celmir?et-e?-ti layen
  be.knocked.about-TH-3pl really
The outer chamber was all knocked about, there all the fivesome were all beaten up there.

16.11.2 Ordinal -qew

Ordinals are formed by the suffix -qew-TH. The ordinal form of the numeral is a noun; examples include forms in the absolutive plural (036) and the locative case (037). In example 033 an ordinal numeral appears in an absolutive noun phrase:
The multiplicative -ce\textsuperscript{304} forms a series of denumerical adverbs indicating the number of iterations of an event, e.g. glare-ce twice, matlan-ca five times, manyat-ca ten times.

16.11.3 Multiplicative -ce

The multiplicative -ce\textsuperscript{305} forms a series of denumerical adverbs indicating the number of iterations of an event, e.g. glare-ce twice, matlan-ca five times, manyat-ca ten times.
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** -qi. 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 absolute:

```
042 luur waj qeper poto-γe wokw-a-cako-jpa / suddenly DEICT wolverine.3sgABS appear-TH stone-E-NESS-ALL qatalayi angen anko ej-o-ma=qm luur seems DEM.3sgABS there tea-CONSUME-SIM=EMPH suddenly glreq-ine-qey-tl pintaget-γe-t two-TH-DIM-3plABS show selv-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** teg-

```
043 [...] tepannen qora-qa q-a-nantaget-a-rkan=qm [...] INTS one reindeer.3sgABS INT-E-separate-E-PROG

... separate out only one reindeer... [jo034]
```

• **APPROXIMATIVE** mel-

```
044 wanewan mat-amsproet-kon jep e-jal-ke NEG-NFUT APPR-eight-1OM liq NEG-give=WEG jara-k n-a-twa-qenat house-LOC HAB-E-be-3pl

Na, 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 [w-in-lw-qin cakayet "iyat=qm waj / HAB-TR-say.3sg sister.3sgABS now=EMPH EMPH mat-ra-ra-yt-a-γa glře-murl1 γa-FUT-house-go.1-TH two-1piABS

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.

<table>
<thead>
<tr>
<th>copula function:</th>
<th>predicate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>copula + copula complement</td>
</tr>
<tr>
<td>ABS nominal</td>
<td></td>
</tr>
</tbody>
</table>

he 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 structural 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 fulfills 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 copulahood in Chukchi are:

- it- 'be something' (identity complement)
- twa- 'be in a place, exist' (locative complement or one-place existential)
- n?el- '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 are: 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 twa- has a complement in any of a number of spatial forms. The copulas it- and twa- can be omitted in unmarked tense-aspect-mood contexts (condition ii). The verb n?el- 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 n?el- cannot be omitted. The basic function of a copula is to form some kind of sentence predicate, but n?el- 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 1992:257-260).

(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 tom'ya't-, below).

There is another verb which shows a number of copula-like features:

tom'ya't- 'come to be' (existential only)

The verb tom'ya't- 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 tom'ya't- 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 -twa-. In such a function it is much more common than n?el-, which does however also occur. However tom'ya't- 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 tom'ya't-:

001 ii anan yé-n-tom'ya-t-aw-w-len anqen wa-yáfé-n-i
yes 3sg.ERG PF-CS-became-TH-3sgO DEM.3sgABS be-MAINZER-E-3sg.ABS
Yes, she created that life[style] [ko235]

This is not strong evidence, as there is etymological evidence that the verb rat'w-at-/ntawat- is also a causative: the locative copula be (in a place) has the form -twa-.

002 yi-ge-n-yi-ge mon-a-n-tawat-aw-n net-REDUP.3sgABS 1P/AJT-IN-E-PVPLACE-EX.3sgO
We'll set nets. [na107:4]

However, this is lexicalised to mean putting some kind of culturally relevar: 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 -twa- 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 rat'w-at-/ntawat- is not the causative of -twa-. 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 n?el- do not seem to have any derived forms. Apart from the marginal examples of...
17.1.2 A transitive copula?

The transitive auxiliary verb lag-/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 lag-/ly- has a similar function. It can act as an extended (three place) transitive with the following argument structure:

<table>
<thead>
<tr>
<th>Verb agreement type</th>
<th>Case marking of nominal</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ERGative</td>
<td>‘dative’</td>
</tr>
<tr>
<td>O</td>
<td>ABSolutive</td>
<td>copula subject</td>
</tr>
<tr>
<td></td>
<td>EQUative</td>
<td>copula complement</td>
</tr>
</tbody>
</table>

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 lag-/ly**

004 *smr?aq anqenantuunam-n-u / lag-nin anqen /
then DEM.3sgABS brother.in-law-TH-EQU
ra-yo-wa=jo / porata-ga
CS-reck-1-PASS.PCPL.3sgABS youth DEM.3sgABS

Now then he took that remaining youth as a brother-in-law. [0116]

005 qam=e-t=m waj rem?ik-aa angin n?e=qa-qanamaur-x=kon
se-hen-EMPH DECET fo?k-3sgABS thus COID-EMPH.reind-PROG
wil=q / tekicya-t=2=7m naqam
tradegood-EQU INV.COID-EMPH-E-PROG-3-pPPO meat=3sgABS-EMPH bat
ceqeg ewan [*] willwi-t=li tekicya-t=2=7m [...] all.the.same 2Pl tradegood-3sgABS meat=3sgABS-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...

[0114]

Example 005 shows both transitive and Intransitive copula structures: willu (OBL=EQU) nen?alyorket tekicya (O:ABS) they would have meat as a tradegood.
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 (*2CLT 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 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 f-rams in unmarked TAM contexts, and form copula/auxiliary constructions with -twa- 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 -twa- and a complement in any locational case form or locational adverbial. Occasionally these constructions are made appositionally.

Existence and happening are marked by -twa- 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 n?el- 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 -lqal 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:

<table>
<thead>
<tr>
<th>CLAUSE TYPE</th>
<th>stative</th>
<th>inchoative</th>
</tr>
</thead>
<tbody>
<tr>
<td>existence</td>
<td>&quot;exist, start to exist&quot;</td>
<td>-twa-</td>
</tr>
<tr>
<td>location</td>
<td>&quot;be in a place, come to be in a place&quot;</td>
<td>-twa- + locational</td>
</tr>
<tr>
<td>identity, equation</td>
<td>&quot;be X, start to be X&quot;</td>
<td>(Ø + ABS, EQU)</td>
</tr>
</tbody>
</table>

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 -twa- (word initial form wa-; see 009)
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; Chapter 17 classes) whereas n?el- (inchoative) and a locative complement. Locative complements are formed with the copula stems twa- (stative) and n?el- (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 -caku
- SUBLATIVE -jigka
- spatial adverb, e.g. migka 'where?', genku 'here', wajanqac 'nearby'

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 n?el can function as any form of inchoative copula, locational and identity as well as existential.

011 neme qol / ?let-a-k jawren-a=?m neme also one.3sgABS snow-fall-SEQ next-year-INST=EMPH also annan-matlag qaw n?el-o?=?m one-five-ORD become=TH=EMPH

Also another, when the snow fell, the next year again a sixth [herd] came to be. [he038]
17.2.3 Identity/equation clauses

Chukchi identity and equation copula clauses form a single syntactic class. The stative identity/equation copula is n?el-. The complements or identity/equation copulas are usually in the equative form.

Examples of stative and inchoative it·, n?el-

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>n?el- n?el·y?c-t='m</td>
<td>“Aunt, baby's in the nursery sled. take him”</td>
</tr>
</tbody>
</table>

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 or 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 locative (becoming) copula.

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</tr>
</tbody>
</table>
These zero-copula existentials are distinguished in this way; however, it does seem that third person nominals can be used to the person-marking suffix. Third person nominals cannot be morphologically used in zero-copula existential constructions too, as in

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, -tw- and n?el, the same as the copulas. These auxiliary 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. The include deverbal verb bases, oblique nominals (e.g. private, comitative), adverbs/particles (neither verb nor noun), and del-adjectival verb bases (for adjectives in marked tense-aspect configurations; see §16.5).

VERB BASE: -(Q)e\textsuperscript{\textdagger} (with auxiliary it)

All the people were living the way they wanted [I], like they were competing with their neighbours. [he007]
NEGATIVE VERB BASE: 'onqora-ya-gora-ka t-a-re-n?el-y?c'... onqora-gora-ka t-a-re-n?el-y?c...

OBULQUE NOMINAL—PRIVATIVE

Then that Roslov resettled absolutely all the herding people into houses, all houses, the people came to be entirely with little houses....

SPATIAL ADVERB

The sun came up a little bit, the sun just showed, became a little bit higher. They laughed....

ADJECTIVE

The transitive auxiliaries are distinguished distributionally and functionally. The auxiliaries lag-ly- and ratet/-te- form a semantically distinguished pair which occur with undervived verbal bases indicating mental predicates (such as laka 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, rat-nt- occurs with undervived adverbial heads (such as migkari how, see 041, and sgnin thus; see 042), with verb bases formed with the -(t)e suffix (043-044), and with negative verb bases (045 and §18.2.5).

17.3.2 Transitive

The transitive auxiliaries are distinguished distributionally and functionally. The auxiliaries lag-ly- and ratet/-te- form a semantically distinguished pair which occur with undervived verbal bases indicating mental predicates (such as laka 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, rat-nt- occurs with undervived adverbial heads (such as migkari how, see 041, and sgnin thus; see 042), with verb bases formed with the -(t)e suffix (043-044), and with negative verb bases (045 and §18.2.5).
marked in other ways, such as with the -aj suffix. The following example shows a typical instance of 'its verb in its non-auxiliary function:

046 ganqen pani ate-raka t-e-re-lapt?-ye gutku
DEMT-3sgABS DEICT grandfathers-AblS ALL 1sg-E-FUT-setel6-TH here

-[t-e-re-tse-pa-t] relwu?-a-qe1 neme qol
1sg-E-FUT-here E-TH-3sgQ chewing tobacco-E-DIM-3sgABS again one.3sgABS
[neluwa?qe1] nene qol nene 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.' (p338)

The auxiliaries 1sg-ly- and ratc-/-tc- occur with verbal bases belonging to the semantic domain of emotions and other transitive mental states. The auxiliary ratc-/-tc- indicates a resultative meaning, whereas 1sg-ly- indicates a non-resultative, stative meaning, e.g. yemo ratc- not know smith. and yemo ratc- forget smith., layl 1sg- 1sg- know smith. (047) and layl ratc- learn (048). These verb bases may be underived (047 and 048), or derived with the -u verb base deriv (049).

017 wee?am nemeneji r?enute-tku-t yanan
probably also something COLL-3piABS 2sgERG
layl layl-ap-rkaneji [...] know.VBase AUX-3piPROG
... you probably also know lots of things ...

[ab5,11]

048 ayiyan ten-layl ve-te-a-linet gelwa?-a-t /
3piERG INTS-know.VBASE PF-AUX-3pi hurt-E-3piABS
layl qonur ve-te-a-bet know really PF-AUX-3pi!
... they learnt [the habits of] the herds well, they really learnt them ...

[lin15]

047 tenemkum?u na-jly-o-rkan ajnak
INTS-lok.awhere INT-E-AUX-3piPROG carcass-3sgABS
Really look after [my] carcass!

[jo36]

Other verbal bases of this type include ajaly-o fear, wenn-u envy, cimy?-u think, yicuw-u enjoy, yem-o not know, kory-o delight in, lewlew-u tease/trick, jamal-o believe, pycy-i be curious about, teyjep-u desire, tenta 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-n: ajaly-o - ajaly-at, wenn-u - wenn-et, cimy?-u - cimy?-et etc. The underived form tenta laugh at can make a derived intransitive root tengyo-ku - laugh. The underived verbal base layl know seems to have no intransitive counterpart, although some speakers link it to the discourse particle layen (which is sometimes glossed as the tag question y'know, Rus. znae)

---

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- (he) and ya -ma, all of which can function in the same way (§6.2).

FIGURE 17.2. Possessed predicate.

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>ye-lyam ye-nuri</td>
</tr>
<tr>
<td>2nd person</td>
<td>ye-liyat ye-turi</td>
</tr>
<tr>
<td>3rd person</td>
<td>ye-lin ye-linet</td>
</tr>
</tbody>
</table>

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 ?aman ana kolo ya-wopqaJn anqen 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-wam y?ett?-lyat? / ii
doctor-ERG HAB-say-1sg POSS.PRED.dog-3sg y's
The doctor said to me "Do you have a dog?" - "Yes" [kr164]

052 anqora / i - layen-7m pan gawoq-alcy-a t n-ak-a-qlinetem?m
then really-EMPH DEICT here-E-AUX-3piABS ADJ-E-many-E-3pl-EMPH
pan layen-7m ticoyu ya-pala-lenet towarne
DEICT really-EMPH thousand POSS.PRED-extra-3pi trade here

[y?ett?lyat] (CR) you have a dog is morphologically ye-lya-

[kr029]

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, yawoppajnon (augmentative suffixed directly to the stem) or yawopgalenajon (augmentative suffixed to the whole form, in the same way that it does with predicate adjective form). They accept either as meaningful.
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) uninfl ecting negative derivations (formed with the circumfixes int___(č) and e___ke'č); 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 adjuncs 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 adjuncs 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...
The semantics of the static-non-static distinction in Chukchi is not always clear: many occurrences of the static perfect can be substituted by the non-static. Negative non-static verbs have obligatory markings for the same person, number and syntactic role categories that are marked by non-static positives. In contrast, static negatives do not themselves mark any of these categories, although they can optionally be expressed by an auxiliary.

The semantics of the static-non-static distinction in Chukchi is not always very clear: many occurrences of the static perfect can be substituted by the non-static non-future (aorist) form, and vice versa. Likewise the static universal/habitual aspect is often interchangeable with the non-static progressive form. There is further discussion of functional similarities and differences of the static and non-static for positive polarity verbs in §10.3.

18.2.1 Non-future negative (non-static)

Non-static 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 ąeqe-nįw ı-w-lln “ee ąqen ıa-pange-len ıwawawaw
bad-uncle PF-say-3sg INTJ that PF-sake.shono-3sg NEG.NFUT
n-a-janotw-y-a-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 ıwawawaw miyikori ı-m-a-lat-ak ıyıku ı-n-jalqet-ıyam
NEG.NFUT anywhere 1sg.INT-E-say.REFL-1sg there HAB-sleep-1sg

No, I didn't go anywhere, I was here sleeping. [ot060]

003 ıyıku ıwawawaw-ım ı-m-a-rekpl-ı-ı-yam
EXCL NEG.NFUT+EMPH 1sg.INT-E-say.REFL-1sg NEG.NFUT+EMPH

Oh, I didn't mean to hit you, fine, didn't want to hit you'. [nb074.1]

The particle etla is occasionally used where wanewan would be expected.

Chapter 18  
Negation  

004 etla qejuu man-junr-a-ıv-tam ?
NEG call 1pl.INT-select-E-TH-3sg-EMPH
tag-am-maj-g-a-1a-n n-ıne-junr-a-muru [...]
INTS-REST-1sg E-TH-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 etla is only interchangeable with wanewan in the context of example 004 since wanewan and etla are the least grammatically marked forms (wanewan is non-static, non-future, and etla does not normally indicate any such categories at all).

18.2.2 Future negative (non-static)

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 qaram-qacam (men's and women's variants). Example 005 is intransitive, example 006 is transitive.

005 qaram m-skewet-y-a-k t-a-re-jalqet-y-a
NEG.FUT 1sg.INT-E-got-out-TH-1sg 1sg-E-FUT-sleep-TH

I'm not going out, I'm going to sleep. [ot045]

006 qaram t-a-n-o-nn-a-yam
NEG.FUT 3pi.INT-E-hit-1sg-0

They won't kill me. [ot016]

The negative identity construction uses a marker which is transparently related to the qaram-qacam particle, but which marks certain agreement categories as well (§18.3).

18.2.3 Perfect negative (static)

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 lą-p-_-yow-(q)ie. This form is often accompanied by an auxillary verb to make a full analytic verb which overtly marks its participants §(17.3.1), for example:

007 lą-ram=1m lą-ful-kol-lu-te t-ıt-ı-1a-k teg-am-velal-wa,o-k
REALY NEG-write-ITER-NEG 1sg=E-TH-1sg INTs-REST-here-E-LOC

t-a-miyicer-y-a-k
1sg-E-work-TH-1sg

But I didn't go to school, I was only at the here. 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.
18.2.4 Universal/habitual negative (static)

The universal habitual aspect negative verb base is \(-ke\), for example:

\[ \text{qamet angora} = \text{em-wet-yte} \]

Transitive negative forms behave somewhat erratically, and so are discussed separately in §18.2.5. Non-stative negative verbs (those formed by a negative particle \(-ke\)) do not differ in their argument-taking behaviour from the positive verb (§17.5). The phrase ana eljwotukPetke 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).

The phrase ana eljwotukPetke from example 014 could also be read without the imperative sense, as 'he doesn't wander off all the time'.

The phrase ana eljwotukPetke from example 014 could also be read without the imperative sense, as 'he doesn't wander off all the time'.

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 cakeجل gotemjan-yamal amge ena-phe-ka
DECT show-VOC there-1sgABS NEG.HORT AP-approach-NEG
q-a-rayi-wel
INT-EGO.home-TH
Hey sister! I'm here! Don't approach, go home!

018 tamp-a-nen layen / ana janot tey-ni-ne-ja-wa-nin
st-3sg-3sg-3sgO really so first EMPH-explain-COLL.E-3sg-3sgO
lw-nin ten-ange / ena-pekat2/olyat-ka layen
say-3sg-3sgO EMPH-NEG.HORT AP-spread.sheet-NEG really
?al-a-tkan-a-k q-ine-n-qit-et-y?i
snow-E-RESULT-LOC INT-INV-CS-freeze.CS-TH
Really, he just stabbed him, but first he explained to him, he said to him, "You absolutely mustn't spread out the groundsheet for me; freeze me on the snow...."

This is no more than a tendency—spontaneous examples of wholly transitive negative verb bases do also occur freely; see 019 to 021.

019 enk?am [ŋ] qora-yamket-?-pa-?o-m / layen=7m amnen
and reindeer-cloud-E-NMZR-ERG really EMPH one
qora-ga lap-a-tamgenw a n-ne-t-e-nin / n-ne-t-e-true=7m
reindeer-3sgABS NEG-EC-true=EC-3sing NEG
And the herders didn't lose a single reindeer; we didn't.

020 piri-nin nenena lap-a-nlawat-a layen /
take-3sgA-3sgO child.ABS NEG-E-breastfeed-NEG really
anka-sako-yta kwekutku-y?e-t
there-1SG-ASS-EC look-EC
She took the child, without breastfeeding him, and simply fell inside (the hole)

021 ana enge anam-a-ka anan ce-gupquet-a
so NEG.HORT NEG-?K-NEG FUT FUT-starve-E
"Don't kill him, he'll starve [by himself]!"

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's 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 ena-n-cai-o-w-ka ye-neekwe-ew-lim
AP-CS-tea-CONSUME-TH-NEG PF-CS-depport.'3-3sg
They took him away without giving him (a chance to drink) tea.

18.3 Negation of identity

Relationships of non-identity are marked using a particle which agrees for number and person. The stem is qaramen-a-?m = qacamen-a-?m (men's and women's varieties; compare 025 and 026), which occurs as qaramen = qacamen 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 absolute complement of this form is a predicate nominal and that qacamena(a) + ABS is not an NP, and cannot act as an argument of a verb.

Third person plural:

024 enk?am m?emi-pa-a-n qanwer cinit te-m?emi-g-y?i
and bullet-NMZR-ABS finally self MAKE-bullet-MAKE-TH
qacamena cim m?emip-pa-a-n / te-m?emi-g-y?i
NEG.10.3sg first bullet-NMZR-ABS MAKE-bullet-MAKE-EMPH
The Bullet Folk eventually made bullet themselves, at the beginning they did not have bullets, they made bullets for bows (i.e. arrows).

Many examples in the text are contrastive:

025 angen=7m ato-a-twa-nva-t / qacamena-t jen-t
DEM.3sgABS-EMPH hide-E-RESULT-PLACE-3plABS NEG.ID-3pl house.3plABS
perq-a-twa-nva t qacamena-t jen-t
hide-E-RESULT-PLACE-3plABS ambush-E-RESULT-PLACE-3plABS
They were hiding places, they weren't houses. [they were] places for ambushes.

026 lay-oaraewi7a-tanq-a-t qaramen-t wrucel?-a-t
AUTH.person-stranger-E-3plABS NEG.ID-3pl Russian-E-3plABS
[They were] ordinary-people strangers (i.e. Koryaks), not Russians.

Third person singular:

027 Kromo Qaa-rakm-a-gaw qacamena Lay-oaraewi7a-t
kromo person-name 3plABS reindeer-lock-E-woman.3plABS NEG.ID-3,3sg
Kromo is a Koryak woman [name], not a Chukeny.

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.
The full set of negative identity forms are (in the pronunciation of the woman's variety—for men's variety substitute qacam with qaram):

**FIGURE 18.1. Negative Identity particles.**

<table>
<thead>
<tr>
<th>1st person</th>
<th>qacamena-ajam</th>
<th>qacamena-more</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd person</td>
<td>qacamena-ajat</td>
<td>qacamena-tore</td>
</tr>
<tr>
<td>3rd person</td>
<td>qacamena</td>
<td></td>
</tr>
</tbody>
</table>

If qaram–qacam\(^{WH}\) is taken as the stem, the endings are the same as those of demonstratives (e.g. gotqen\(^{WIN}\) / gotqena\(^{WIN}\), §7.4) and negative O-focus participle e-\(---\)kal\(^{WIN}\) / e-\(---\)kal\(^{WIN}\); §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/-i- alternation), but the syntactic distribution differs in many ways; most importantly, qacamena(\(\_\)) + 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\(^{WIN}\), which is the same as the stative negative verb base (§18.2.4).

**Example 029**

\[
\text{uqnap-}m \quad \text{a-doktor-ka} \quad \text{tep-em-cinlt-ti} \\
\text{NEG.EXI=EMPH} \quad \text{PRV-doctor-PRV} \quad \text{INTS-INTS-sel-3pl} \\
\text{n-a-n-miycl-er-qinet} \quad \text{im-a-\(\_\)tenut} \\
\text{HAB-E-C3-markC3-3pl} \quad \text{REST-E-something} \\
\text{There was no doctor, they did everything all by themselves.} \quad [\text{ch01}]
\]

**Example 030**

\[
\text{an\(\_\)} \text{lw-nin} \quad \text{"nqam\_ ujje} \quad \text{e-miyer-ke} \\
\text{then} \quad \text{say-3sg-3\(\_\)3\(\_\)O} \quad \text{but} \quad \text{NEG.EXI} \quad \text{PRV-gun-PRV} \\
\text{layer-}m \quad \text{moo-qor} \quad / \quad \text{qora-gp} \quad \text{n-lw-qin} \\
\text{really-EMPH} \quad \text{caran-dee-3sgABS} \quad \text{reindee-3sgABS} \quad \text{HAB-say-3sg} \\
\text{"yemo} \quad \text{q-le-pri-y\(\_\)} \\
\text{1sgABS} \quad \text{INT-INV-take-TH} \\
\text{Then she said to him, "But there's no gun", and the harness deer said, "Take me"} \quad [\text{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).

**Example 031**

\[
\text{layer-}m \quad \text{pan renk-\(\_\)a-} \quad \text{w-\(\_\)tku-eru-gp} \quad \text{kolo} \\
\text{real=EMPH} \quad \text{DECT.E-ABS} \quad \text{de-ITER-COLL-TH} \quad \text{INTS} \\
\text{ra-jekwe-jj-\(\_\)a} \quad \text{layen} \quad \text{tag-smal-\(\_\)eta-etje} \quad \text{ujje} \\
\text{house-ROW-AUG-E-3plABS} \quad \text{real=EMPH-ADV} \quad \text{NEG.EXIST} \quad \text{HAB-E-become-3pl} \\
\text{So then masses of people died, households in their entirety passed away [lit. became non-existent].} \quad [\text{ke012}]
\]

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 -\(\_\)P- 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.

**Example 032**

\[
\text{ujje=7m} \quad \text{upal-} \quad \text{orw-a-ka} \quad \text{ujje=7m} \quad \text{a-gora-ka} \\
\text{NEG.POSS-1sg} \quad \text{stred-E-PRV} \quad \text{NEG.POSS-1sg} \quad \text{PRV-ried=PRV} \\
\text{I don't have a sled. I don't have reindeer} \quad [\text{cy016}]
\]

**Example 033**

\[
\text{ujje=7m} \quad \text{req-a-\(\_\)e-\(\_\)n} \quad \text{amgatal} \quad \text{tepv-ujje=7m} \quad \text{a-gora-ka} \\
2\text{L-COND-INTS-DO=what-TH-23\(\_\)sg} \quad \text{PRV-doctor-PRV} \quad \text{INTS-EMPH-NEG.POSS-2sg} \quad \text{PRV-ried=PRV} \\
\text{upal=7m} \quad \text{ivjor-a} \quad \text{ama} \quad \text{orw-a-ka} \quad \text{ujje=7m} \quad \text{req-a-\(\_\)e=7m} \\
\text{NEG.POSS-2sg} \quad \text{and} \quad \text{stred-E-PRV} \quad \text{real=what-PRV-EMPH} \quad \text{DO=what-PRV-EMPH} \\
\text{req-e} \quad \text{q-a-r\(\_\)eta-ya-ye} \\
\text{what-INST} \quad \text{INT-ACE-go.to-TH} \\
\text{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?} \quad [\text{cy055}]
\]

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 upal\(_{P}\) seems like a -\(\_\)P- nominalisation of the particle ujje. It is, however, formed irregularly (with a 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.:
forms are to some extent interchangeable, as the following example shows (from a text on traditional childrearing practices):

And once [there appeared] a toothless wolf with no fangs...

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~w~. 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-modal. 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:

They are never thirsty, they don't go lame...

The aspectually marked and unmarked predicative adjective forms were 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 nounphrase to make what is in effect negative adjectival attribution.

18.7 Nominalisations

Nominalisations of negative forms are all made with the nominalising suffix -ip- (§§5.2-3). These nominalisation 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 absolute nouns (§9.2). Nominalised and non-nominalised
Unambiguously 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 wjat-qora-t unharnessed reindeer [cy052] strongly suggests that the stem is actually labile, since transitive verb forms never form noun compounds with noun heads.

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 this is a transitive example, the verb complex -llep-tku- is intransitive, since the argument -tteota at the road (the object/source of perception) is in an oblique case.

041 e-llep-ta-kol?-a-turi n7-et-e ta-pet /
NEG-look-IMPER-NEG-NMZM-3sgABS read-ALL even
em7-eq-e-r7e-ton-e-ga yekga-pa-ta-k
REST-loc DESID-in DESID-VB base race-3DU-3INF

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----kaP- have an additional 
-lin(e)-e, giving an overall form of e----kaP-lin-e. The -lin ending suggests 
the possessive suffix (which is not itself a case, but which cooccurs with other cases; §§7.1.1). However participles in the lnp----P- 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, aalomkalPen is a participle meaning 'the one) who didn't listen' (plural is aalomkalPenat; underlying morphological composition *n-wal-kol-AP-a-nen-t, which does not have the suffix.

042 "okkoj mej / layi-req?inka angatal tag-wen?am
EXCL EXCL INTS-what? wall of course INTS-INTS
anan n-alom-kaP-en naqam rapatke-kol
FUT NEG-listen-NEG-NMZM-3sgABS but hittarget-INF

Oh, what kind of wolf is this? It's too much! But what a disobedient [it, not-listening] target! [to056]

The -lin(e)-e ending also has something in common with the demonstrative (§7.4), in that the absolute singular form in made by truncation to -lin, while all other forms are made with suffixes attached to -lin-.

Chapter 18

18.7.2 De-adjectival

Nominalised negative forms from adjective stems are morphologically identical to participles in e----kaP-in(e). There are very few examples in the corpus.

043 [...] anqen nemseqj e-walt-kaP-lin
this.3sgABS also NEG-getter-AP-E-NEG-NMZM-3sgABS

... Those ones were also not peaceful. [ka051]

These forms are no longer in the adjective word class, and they act syntactically like other -1?- nominalisations (§8.3).

18.7.3 Denominal (privative)

Nominalisations of the privative case are morphologically identical to participles of the form e----kaP-1, including the mysterious -in(e)- suffix which occurs in the third person (§8.2).

044 wane / naqam ujje e-nanma-kaP-lin
INTJ but NEG-EXI ?TH-name-PRIV-NMZM-3sgABS
atrec Naylo-P-a-qaj
only work.kuxlanka-AP-3sgABS

"Well..." [she says] but she doesn't even have a name, only Work Kuxlanka." [ka159]

045 anqen n-ommacap-qa-ten layen poyj-a / cit=tm
this HAB-embrace-3sg really speak-INST first=EMPH
ujje e-milhil-kaP-lin tigur-e
NEG-EXI PRIV-gen-PRIV-NMZM-3sgABS bow=INST

He just embraced a spear, there weren't guns yet, bows only. [ja01]

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 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 "wane wOj; qejwe qol megain ya-yto-len?"
INTJ DETC only one.3sgABS someone.3sgABS PF-give.birth.to-3sg

"wane wan" ujje
NEG-EXI NEG-EXI

"Is that really true, yo-1 bore no one else?"

"No I don't, there's no one" [to016]

047 I atr?ec-teyan paraqim waj t-1w-a-nat / ujje atr?ec
all LIMIT three=EMPH DETC 1sg=E-EL-3h 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:
Chapter 18 Negation

The negative particle *etla* is sometimes used to answer yes-no questions instead of *wanewan* or *qaram-qacam*. Unlike these, it doesn't encode any tense information, and rarely occurs in analytic constructions with inflecting verbs. See the following:

053 iw-nim qoqwe atcaj-qaj ik-w?e-n  anqen / say-3sg.3sgD indy ant_id-3sg ABS say-th-3sgD b1s-3sgABS
raj-anaka atcaj-qaj-a-na t-a-re-tkhw-a-cqap-w?e? // DEICT-there ant_id-3E-AN-ALL 1sg-E-FUT-stay.night.E-PURP-TH
*etla* //
no a q-lw-a-cqap-l-w-a-n // INTJ INT-say·E-PURP·THE·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 *etla* particle also intermittently occurs in the function of the negative imperative particle *ange* (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 *etla* musku *etla* lev?o-ak *etla* e-lgqeynew·ke
NEG here NEG head·E-LOC NEG NEG-DEET-LOC
[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 *etla* lew?o qalqeynew·wan "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 *cam7am* is an inherently negative modal particle with an impossibility meaning (§4.8.9). It always combines with a verb in the future tense as does its opposite meckana, which indicates ability or possibility.

055 cam7am gutku ra-twa·q?a / gaamre racayl-eta q-a-lqap-y'1
unable·MOD here FUT-be-TH here valley·ALL 2INT·E-set.of·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 / et'am ana r-ile-e'u-y\nI 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-a-lwaw-qcn gelwal r-a-rayt-a-t-a-k
HAB-E-be.unable-3sg hend.3sgABS CS·E-go.home-TH-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 layi 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 layen anko=7m a-taaq-o-ka t-a-n?y-i-a-k
really there=EMPH NEG-tobacco-CONSUME-NEG 1sg-E-become-E-1sg
clt=7m n-a-taaq-o-jyam
first=EMPH HAB-E-tobacco-CONSUME-1sg
It's there I stopped smoking, previously I smoked. [krl72]

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).
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 folk tale 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. Focused elements appear earlier in the sentence than non-focused 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 2emi (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 2yanin 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 focusses on the negative particle, once again the new information-bearing element.

002a Nina wanewan n-a-jet-v-e-n
  personal.name 3sgABS NEG.NFUT 3sg.INT-E-come-Th-3sg
  SPEAKER 1 — Nina hasn’t come [yet, has she]?

002b 2em1 Nina?
  INTER personal.name.3sgABS
  SPEAKER 2 — What Nina?

002c 2yanin Nina
  2sg.POSS.3sgABS personal.name 3sgABS
  SPEAKER 1 — Your Nina.

002d wanewan skjčas 2/n. nikoda
  NEG.NFUT now to.her never
  SPEAKER 2 — No, she doesn’t have time.

• EXAMPLE: CONTRAST

The following exclamation illustrates nominal contrasts; a father is castigating his three sons, whose work ethic contrasts unfavourably with their cousin Cokwagajqaj’s:

003 [...] kakomelj Cokwagajqaj ennecc ya-gawtan-len
  personal.name 3sgABS already PP-many-3sg
  ama ya-nanan-nto-len
  2nd pres:1Sg-3sg
  and 2nd.pres:1Sg-3sg
  turl=2m 2nqen 2jere-2ako enka layen
  2plABS-EMPH always sleeping.chamber-NESS there really
  wa=kat-a-17-a-tore/ //
  be-DUR-EPCL-2plABS

... Oh my! Cokwagajqaj is already married, a child’s even been born! You boys are always in the sleeping chamber, you’re only ever there!  

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 ‘focality’ (according to Lambrecht 1994) and ‘newsworthyness’ (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 nominal affixes), see §19.2.2

(iii) sentence focus — no presupposition, arguments 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 Clape 1976, Lambrecht 1994). The grammatical corollary of this from the Chukchi perspective is that a topic is an
element already established in the discourse in such a way that it is retrievable without overt nominal specification; the presence of the bound argument is evident from the bound pronouns 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 the 'information-heavy' focal elements.

The following polar question establishes a new topic nenena baby's in the sentence initial position:  

```
004a nenena?m ary-in atPa-y reen n-a-twa-qaq? 
  baby-3SGAB=EMPH 3PL-POS3SGABS mother-LOC with.PP HAB-EB-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) atPa-y reen natwaqen it's [they're] with the mother and (ii) ?enqu ninetaqiqen she rejects them. The argument nenena the baby's is now the topic, and so is ever only used etc. (S of natwaqen and O of ninetaqiqen and nenevakcapewaqp?en):

```
005b atPa-y reen n-a-twa-qaq? omen yilk evar jawrena=qm 
  mother-LOC with.PP HAB-EB-3SG one year then next year=EMPH 
  nenevakcapewaqp?en she rejects them, she beats them up ...

INTERVIEWEE — They remain with their mother one year, after one year 
  she rejects them, she beats them up ...  [aa2.27]
```

The orienting elements evar jawrena then next year occur in between the two clauses, icronically 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 affixal pronouns 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 pronouns bound to the verb in preference to free pronouns 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 pragmatically by (explicit or implicit/pragmatic) 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 qanwer?ina pixir-3\n
  finally wolf-3SGABS take-3SGA.3SGP

  Finally, he caught a wolf.  [aa2.07]
```

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:
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 rnnaq‘an 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 is the key piece of information required to get across the correct slaughtering method.

008a wen-compa-jg a-alama

tamed-steer AUG-E-3sg

STORYTELLER — It was a harness steer it seems. [ke127]

008b II layen a-wen compa

yes really=EMPH tamed-steer 3sg

LIStener I — Yes, it was simply a harness steer. [ke128]

008c rann-ly-a-n goto q-a-piri y-a-n qine-piri-yi

antler=ENG=E-3sgABS from here 2INT-take TH-E-3sg 2INT-take=TH

ank?’am NOZHUK qaram m-a-pu?u y-e-n

and knife NEG.FUT 1sp.INT-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 tampa-nen layen / [...] tama=E-3sg=3sg NEG

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 atc?at?: 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 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 atc?at?e:

009a ke?it qork-e waj?am

bear=E-3sg=ADEF-ERG and

INTERVIEWER — And how about the bear? [lit. And the bear how?] [an027]

009b ke?it qork-e waj?am

bear=E-3sg=ADEF-ERG and

INTERVIEWER — 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 (ke?it bear), followed by new information which follows logically on from it (go|ge|jum in the tail), then a minimum of already given information to specify what kind of event (nin|nin pir?in it seizes it).
The first clause (atc??aty?? at?? 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 parents is not as important as the fact that it was bedtime. Thus the first clause has predicate focus. In the second clause (atc??aty?? 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 nemeq 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 anq?am neme qol t-ra-tw-a-gan e?at
and again one.3sgABS 1sg-FUT-lm-TH-E-3sg men
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 layen tongep
previous really story.3sgABS

010d enmen 3emp-e10-e [...] ya-nm-a-lenat
once.upon.a.time badAKER-ERG
SPEAKER.1 — The story I told previously ... Once upon a time, evil-doers killed the father and mother. [ke287-ja001]

The word order in example 011b 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 Hoy, work around the house, you are a woman!

011a [...] naly-$ajp-a-n nangen qu?-?i layen
hide-E-AUG-E-3sgABS DEM.3sgABS stand.up-TH really
ya-pe-lam-a-my-o-y?? //
dohousework-DUR-TH-3pl

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-ajy-ypi-jet-qin
angen j?o-naly-$ajp-a-n //
HAB-INTS-dohousework-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, 'Hoy! 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, 'Hoy! 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 newsworthyness by virtue of its importance to the discourse; the adverb jux-telenjep very long ago indicates the temporal setting for the facts in all the subsequent discourse.

012 jux-telenjep qun · arme-qen cit warat
INTS-long.ago once ADJ-strong-3sg first (the.3sgABS
Long long ago the tribe was strong at first [kr116]

Compare non-newsworthyness spatial orientation in 013. For this question the other speaker has been describing a stone fortification built on top of a mountain.

013 aton n-a-req-qinet anko?
INTER n-am-qen nemaqej pintoqet-q11 nemaqej
so what is it they did there?

The location referred to by anko there is already established, and thus is non-newsworthyness.

Temporal adverbs which advance the flow of the narrative are high in newsworthyness, e.g. luutluur suddenly in the following:

014 luut=1m waq yewen nemaqej pintoqet-q11 nemaqej
suddenly-EMPH DECT with.3sgABS also appear-TH also
tat-eqo qato-qye
door-ABL end-TH

Suddenly the wife also appeared, she also came out from the door [g31:2]

Note that sentence and clause joining elements occur either at the beginning of sentences or at the juncture of clauses. Conjunctions (an-kam 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 jawren-qo-yu?e
next-year-INC/TH

c wane t-a-re-win rơi=q11 / cakayet / man-tan-em-reer-yo-a-n
INTJ INTJ 3sg-E-FUT-help-2sg=EMPH sister.3sgABS 1plNT-bone-see-TH-3sg
It was the next year. "Well I'll help you, we'll seek your sister's bones" [po073-074]

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 suffixes (§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 qeqiqaq=q11 Pu-nilin genku tang-a-warat
because=EMPH see-3sg.A3pO there stranger-tribe.3sgABS

\[\text{"nara-mk-a-jop-a-t"}
house-COLL-E-AUG-E-3sgABS

016b ana arn?qaq genkili cejw-e anqen ott-a-poly-a-qaj
so then stranger-person-COLL.E-3sgABS wood-3sgABS

\[\text{"ra-r-nin"}

Because he saw there the stranger-folk, the group of big houses ... so thus he took that little wooden spear there on foot. [po063-064]

Examples 016a-b are sentences which provide background information for the subsequent episode. The nouns tangawarat stranger-folk and jarakakajit 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 anqen ottapolyaqaj 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 qaty=q11 he/she/it set off is still 'the' or 'this' i.e. 'the little wooden spear' has not become a topic.

016c gen-qa qaty=q11

\[\text{"other-set off-TH"}

He set off to there. [po065]

016d ram-nil \[\text{"31-a-tkan-a-k pojr-a-qaj"

\[\text{"nak-j0-7a-n"

sick-3sg.A3pO snow-E-TOP-E-LOC spear-E-3sgABS INV-approach-TH-3sgO

anqen / tang?oraqwi?Pa-mk-a-jop-a-t

\[\text{"ibik.3sgABS stranger-person-COLL.E-AUG-E-3sgABS

qlawal-a-mk-a-jop-a-t \[\text{"laren}

\[\text{"man-COLL.E-AUG-E-3sgABS 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. [po066]
In 016d the noun *tlatkanak* into the snow has no possibility of being expressed by verbal cross-reference, since it is not a core argument. The noun *pajyerqaj* 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 *tanpmorawetemakajgaq glawolamakajgaq* 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 newsworthyness arguments indicating conceptually unitary events are frequently incorporated (e.g. *qorannamat- slaughter reindeer* and *talannamat close door* see example 017d and §12.1).

The following episode (017a-d) illustrates the use of overt nominals for new topics. Sentence 017a introduces a new topic *mapkaytag* the ritual dancers:

017a  
*cryat-a*  
mapv-te>a-p-t  
jet-y-e-t  
dawn-SEQ  
dance-go.to-E-PCPL-E-3pABS  
come-TH-3pI  

The next day the ritual dancers came.  

In 017b there are three overt nominals. The sentence initial absolute noun *rakwaryajgan 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 *kamyotte 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-nominal:

017b  
*rakwaryajgan*  
*nilye*  
*ya-namptaw-len*  
pierce-NNMZ-ER-AUG-ER-3gABS  
*cord-INST*  
*thru*  
*PF-close-3g*  
*ka:yam-te*  
like  
*walrus parcel-3pABS*  

The big hole they closed up thus with a cord, like a walrus meat parcel.  

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*  
moge-gpa-y-e-t  
*ne-n-went-et-y-e-n*  
when  
dance-INCH-TH-3pI  
INV-SC-go-SC-CS-TH-3gO  
As soon as they began ritual dancing, they opened it [i.e. the hole].  

017d  
tat-h-n-nam-at-y-e-t  
door-INV-CS-close-TH-3pI  
The door closed  

The additional underlying argument *tat-h-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  
*wuteq-am-caku*  
dark-77-NESs  
It was dark inside.

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.

018  
*a:lo-e*  
tejk-a-nin  
*angin*  
wa-l-a-n  
*ott-a-pojy-qaj*  
father-ERG  
make-3gA-3gO  
thus  
be-NNMZ-ER-ABS-5g  
wood-ER-spear-ER-DIM  
layen  
*w?are-yta*  
naqam  
really  
*fol-ALL*  

[His] father had made a *w?are* spear, like this, simply [coming] to a fork.

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:

010a  
*laye-tag-qopa*  
*ye-tumyqiv-inlet*  
yes  
INTS-INTS-always  
*PF-behold-3pl*  
*atri jokwa-jo*  
*?ina*  
3pABS  
duck.3gABS  
*walrus-3gABS*  

STORYTELLER — Yes, and the wolf and the duck befriended each other forever.  

010b  
aman  

INTJ  

LISTENER 1 — Gosh!

010c  
layen  
*ewat*  
*lr-a-l-a-n*  
*gelval*  
*nine-nll-qin*  
really  
immediately  
*bump*-ER-NMZ-ER-ABS  
hear.ERG  
HAB-INV-turn-around-3gO  

STORYTELLER — If the herd took off, he turned it back.  

010d  
*jokwa-ta*  

duck-ERG  

LISTENER 2 — The duck?  

010e  
*?ina jokwa-ta*  

yes  
*duck-ERG*  

STORYTELLER — Yes, the duck.

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 interested 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 pronominal 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 li / anqen anan patqa tapam laye
  yes 3sgABS 3sgERG noneADV INTS know.VBase
  "Yes, she knows even... even me"

The following fragment of 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 yanam tam-a-ko-nal qaram kale n-a-jet-a-al
  2sg.ERG hit-ITER-3plO NEG.FUT spirit.3sgABS 3sg.INT-COME-E-3sg
  "You killed them! No spirit camel!"

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 romajawjo brought up has an instrumental pronoun indicating the agents of the underlying transitive verb stem.
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 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 associated with those of the imaginary speech act participant.

Sample 1 — Otaqpojqayaj

026a anpanacyaqaj qol jare-k n-twa qen old.man-E-3SGABS happened one.3SGABS house-LOC HAB-E-be-3SG

It turned out there was an old man [who] was in the house. [at127]

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.

Chapter 19

Pragmatics of Sentence Form

The overt noun anpanacyaqaj old.man in 026a is focussed because it is new information and a new topic (further specified/discussed in 026b-c).

026a Jare-n uwuqac-in atlay-a-n
  Jare-POSS husband-POSS father-E-3SGABS
  Jare's husband's father. [at128]

026c waj l c'enut anqen?
  DEICT what ?ABS talk.3SGABS
  Now what [was he called...?] [at129]

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 !yan•!y•acaku inside the wolf skin and omka•akoyta into the middle of the bushes provide the spatial orientation of the events (the jare wajak interjections are made to sound like the cry of an animal).

026d !yan•!y•cakuyata omka•akoyta
  wolf-E-skin E-NESS become-TH again set-all-TH bush-ENDNESS-ALL
  He climbed inside the wolf skin, again set off, into the bushes thither, from there he cried out, he said "Jare u-wuk jare u-wuk" [at130]

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 niwqin anpanacya•a•n niwqin-qen "okkoj Jare
  old.man-E-3SGABS old.man-E-3SGABS "okkoj Jare
  HAB-say-3SG old.man-E-3SGABS HAB-say-3SG
  okkojjal personal.name.3SGABS
  etana palgat-•e-p?••e?="
  personal.name.3SGABS said probably in-ING
  what.3SGABS nth StoROG
  DEM.3SGABS probably die-ENDNESS-TH
  "Oh, Jare, what's crying out? Probably something has started starving..."
  Jare husband's father. [at131]

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 yames•nute•kin jokwa-qaj etanaa"
  INTJ DEICT 1sg.under-REL.3SGABS elder.duck-3SG ABS
  "Oh, it's probably a little eider duck from my [home]land [she said] [at132]

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.
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!.

This version of the story has the boy shape-shifting into a duck as well as a wolf.
He flies to the Koyak encampment.

Sentences 027c-d have zero-place intransitive verbs.

In 027e the sister appears 'in person' in the discourse for the first time.

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 (Jareppa, not Jare)
And my... and birds from my homeland cry like that.

She firmly [sent off?] the little brother.

So, "It's me, Jaregga."

The following story was told by ?EJgewgewat, an elderly Telqep Chukchi woman of Tawunjwaam village, in October 1985. She learnt the story in her childhood from her own grandmother.

The rich herder-neighbours had children.

The girl was going for firewood, and there she was kidnapped by someone, evil-doers, by strangers/enemies, like those who live in Vøegi.
Those folk kidnapped the firewood-collector and took her home. [ot006]

Anyway, this was Jare, the old people's daughter. [ot007]

The next day after they made camp that little boy ceased one of the neighbouring girls, did something or other. [ot009]

The neighbour girl said to him, “Don’t do it you little one. sister.3sg ABS DEICT

He went home, he had become despondent [ot011]

The stranger-ERG bakes-3pi ABS 2sg-POSS.3sg ABS

He said to his father, “Daddy! Make me a little spear”. [ot021]

“sister.3sg ABS siblit-3sg ABS 1sg.POSS.3sg ABS 2sg.POSS.3sg ABS

Those enemies will kidnap you too”. [ot024]

“sister.3sg ABS siblit-3sg ABS 1sg.POSS.3sg ABS 2sg.POSS.3sg ABS

“Oh no, it’s bad, she bore someone else, a sister for me”. [ot025]
Once again he went off there, worried.

He could they be it, right there ...
And there is the strangers’ big herd, and a group of big houses, very big houses.

They were ordinary stranger people [i.e. Koryaks], not Russians.

And there is a herd.

He set off there. He chased and chased, but they simply couldn’t manage [to catch him].

So then he took the wooden spear [while] walking there.
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. [0066]

"Ok. ana pan yamn-In k'ella parantet-v'yi!" / INTJ PLC DEICT 1sg POSS.3sgABS n.l>yecat-ten ANQ-DEICT head.3sgABS BF-ty.3sgABS

"Oh, it seems my hat's ripped", but really [their] heads had flown off. [0077]

qaram-ewan layen amaPo n-enal pong-quot NEG-INTS really all.ABS HAB-TR-cut-off.3sgABS

It was hopeless, they cut them all off. [0078]

ewat pipik-a t-lene-ccl-tdwa-quinet so ank1e-3sgABS HAB-TR-cut-ITER-COLL-3pl

Likewise he cut all their ankles apart. [0079]

utt-a-tul-nej-e stick.E-PART-DIM-INST With the little bit of stick. [0080]

c1 alwa NE.EMPH NEG don't

[Interruption] Don't! Don't! [0081]

qanwet ra-ya-gpo-qe antuupare-te lw-nin / finally house-go.to-E-INC.TH brother.in-law-ERG say.3sgABS.3sgPOSS.3sgABS 1sg.E-SEQ 2sg POSS.3sgABS herd.3sgABS INT-E-breath.E-3sg

Finally he got ready to go home; his brother-in-law said to him "Bring your herd tomorrow." [0082]

yamn-In nem-sqej gelwal waj putku rati-a-ypi-eta 1sg POSS.3sgABS also head.3sgABS DEICT here lake-E-EDGE-ALL t-aru-nlPaten-aq-a / penku anqen / mat-ra-polyt-fat-a 1sg.E-FUT-HEAD.E-3sgABS there dbig.3sgABS 1sg.E-FUT-spear.fight.E

amalPo-more angatal ank1e-n-am-a-yat all.1plABS of course there 1pl.E-HEAD.E-2sgABS

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. [0083]

gelwal yan-In muray-gelwal=e herd.3sgABS 2sg POSS.3sgABS 1sg herd-ERG n-a-teni-cqaw-lw-nin* INT-E-stamp.down-PURP.3sgABS 3sgABS.3sgABS.3sgABS Our herd will stamp your herd flat." [0084]
085 moo-qora-t amman-matlegen / tereq weq-qora-t /
caravan-reindeer-3piABS one-fire
anmpar?ootken qora-ga amqen
Dem.3sgABS
eight
reindeer-3sgABS
Ls.
Six harness reindeer, two lead harness does, eight reindeer in all. [ot085]

086 "anmenej man-jalyan-mak gannreda / yawy-a-ly-eta yai
mummy.VOC 1sg.INT-move.camp-1pl youder lake-E-EDGE-ALL
DEICT
"Mummy, let's move camp over yonder, to the edge of the lake.

087 cake-qaj t-re-piri-qajwu-ga-n / gelwal
sister-Dim.3sgABS 1sg-E-FUT-take-PURP-FUT-E-3sg
hand.3sgABS
ana t-re-n P-lan-ga-n
also 1sg-E-FUT-CS-approach-3sg absol
I'll go to take back [my] sister; I'll lead off a herd too." [ot087]

088 "koolo anpatla ana layo-wec-vary-eyot
INTJ it.happens so INTS-amey-MMZQ-1sg.VOC
"Ooh, you're really being annoying"

089 "ana maccassan layen" jalyat-y'a-t
so enough really nunon-3pl
Well let that be as it may. They moved camp.

090 rewiki-w'e-t--m / tayy-nenat-t--m
make.camp-TH-3pl=EMPH build.house-3sga.3pio=EMPH
utt-a-n ejemwej -jaw-a-nine-t--m
wood-E-CS-approach-INTS-E-3sg.3pio=EMPH
They made camp, he put up the house for them, brought them firewood. [090]

091 anqen anmpar?ootken qora-ga moo-qora-t
Dem.3sgABS eight reindeer-3sgABS caravan-reindeer-3plABS
genri haytan-nenat
thance drive.3sg.3pio
And those eight reindeer, he drove those harness reindeer there. [090]

092 yaty-a-jig-a-n
like-E-AUG-E-3sgABS
It was a hugunche lake. [090]

093 gelwal?-a-jig-a-n anqen tampa-galwal?-a-jig-a-n unka
hard-E-AUG-E-3sgABS this.3sgABS strange-3sgABS strange-E-hard-E-AUG-E-3sgABS here
I/meeqaj yaty-a-loz-ka
also lake-E-EDGE-LOC
That big herd, that big stranger-herd there, [was] also on the edge of the lake. [093]

094 layen anka yuwintet-a-ye-t-linet
really there.ADV PF-make.five-E-DUR-3pl
So there they made a big cooking fire... [094]

095 ana jyanit ya-qora-nm-at-a-Pat-lenat
so first PF-reindeer-all-TH-DUR-3ps
But first they slaughtered lots of reindeer. [095]
The sister said to him “You won’t be going home, they’re going to kill you.”

The people set off home, they're going to kill the enemy. But as they were preparing to go home, the stranger who was left as a brother-in-law. He collapsed from exhaustion and died. Now then he took that youth who was left as a brother-in-law. Then that 3sgABS brother-in-law AN-EQU AUX 3sgABS went that boy. CS-RST the others. CS-stay.behind CS-Jpl=EMPH

They said to their sister “Now the two of us will go home”

The sister there was that one was first of all. Well he left the brother-in-law and one, likewise the sister. He killed all the others.

Well so first they simply fought with spears. however he used his with one hand, because of his little tiny spear. 3sgABS one hand-INST because=EMPH 3sgABS spear-wood-INST. He said to his sister “Now the two of us will go home”

Well they simply fought with spears. however he used his with one hand, because of his little tiny spear. He blocked the spearshaft, the spear broke. The people set off home, they called out to the youth's woman. The other also went home, that boy.

Well so first they simply fought with spears. however he used his with one hand, because of his little tiny spear. He blocked the spearshaft, the spear broke. The people set off home, they called out to the youth's woman. The other also went home, that boy.
He said, "As it happens I simply wiped out all the rest", [he said] after arriving home. [at123]

"ana kake! aton Jam req-o-Pet-a-rcokin?" so INTJ INTER INTER do,what-E-DUR-E-PROG.VOC

"Oh my! Why, what on earth are you doing?!" [at124]

ana waj layen so DEICT really

Just like that. [at125]

"enmec w· 1 lyt t·a-re-1qat-y?e" anyway DEICT new 1sg-E-FUT-set-off-TH

"I'll set off now." [at126]

anpanacy-o-qaj qa3tayl qol Jara-k na-twa-agen

old.man-E-DIM.3sgABS however QUANT.3sgABS house-LOC HAB-E-be-3sg

There was one old man in the house however. [at127]

Jare-n uweqac-in atlaya-n

Jare-POSS.3sgABS husband-POSS.3sgABS father-E-DIM.3sgABS

[He was] Jare's husband's father. [at128]

waj / r3enut anqen?

DEICT whatABS thatABS

Now what [was he called...?]? [at129]

" ko-y-a-nely-a-caku g?id-e-y?i" nemo qa-t-y?i omk-o-caku-ya

waskin-E-NESS become-TH again seteb-TH bush-E-NESS-ALL

ganare / anqara n-qa-tags-qin / n-lw-qin "Jare u-wanuk / thence HAB-qay-3sg HAB-say-3sg INTJ INTJ

Jare uwanuk"

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". [at130]

n-lw-qin anpanacy-o-a n-lw-qin "okkoj Jare

HAB-say-3sg old-man-E-3sgABS HAB-say-3sg INTJ personal.name.3sgABS

r3enut y·eqlj-rkam? anqen etana pojtau-o-a-egg-y?e?"

what.3sgABS cry-PROG DEM.3sgABS probably die-E-NESS-TH

He said, the old man said "Ooh! yare, what's crying out?! Probably something has started starving..." [at131]
They went home. He arrived first because he was inside the wolf skin. [ae141]

He went to his mother; [she said] "Oh my, what is this then?" [ae142]

"It's me. Sister. I've taken [my sister] Jare and a fiance for her too; I've also taken a herd. [ae143]

They finished [i.e. they were finished]. He killed them all. Why did they take my sister?" [ae144]

They all lived well; the old people, the sister, and her husband as well. [ae145]

That's all. .. That's all. [ae146]

Bibliography


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