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The Case for Fewer Cases in Pre-Chukotko-Kamchatkan: Grammaticalization and
semantics in internal reconstruction

by

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Thesis

Submitted to the Department of English

Eastern Michigan University

in partial fulfillment of the requirements

for the degree of

MASTER OF THE ARTS

in

Linguistics

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Ypsilanti, Michigan

Dedication

This work is dedicated to my dearly departed little brother Mickey Thor.

I write for you,

I dance for you,

and there is a fluffy pup-shaped hole in my heart where you used to be.

I miss you.

Acknowledgements

First, I would like to thank Beverley Goodman for helping me discover the Chukotko-Kamchatkan family. I don't know if I would have found these amazing languages if we hadn't worked on *that* morphology problem.

I can't possibly thank my thesis committee enough. Anthony Aristar has been nothing short of a full support network all by himself. His experience with historical linguistics and case systems (and his willingness to talk for hours about it) was invaluable – and his moral support throughout the entire thesis process was priceless. Verónica Grondona lent her descriptive and historical linguistic experience to this endeavor, and this piece's presentation is tremendously improved by her comments. Sally Thomason is responsible for many things (all good things, I assure you) – first and foremost being my interest in historical linguistics. She has stood by me even after my graduation from the University of Michigan's linguistics program and has continually been supportive of my interests in historical linguistics throughout the years. Last but not least, I want to thank her for her dedication to this thesis and her thoroughness with her comments – all these pieces have made me both a better writer and a better linguist.

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Abstract

This work internally reconstructs the case system of Pre-Chukotko-Kamchatkan from the comparative reconstruction of Proto-Chukotko-Kamchatkan. Using the comparative and etymological dictionaries by Fortescue (2005), Mudrak (2000), and Zhukova & Kurebito (2004), I demonstrate that in many instances, groups of cases in Proto-Chukotko-Kamchatkan have developed from a single case. I outline the paths of grammaticalization that led to the expanded case system in Proto-Chukotko-Kamchatkan, and I use semantic typology to support the plausibility of these developments. Examples of similar phenomena in other language families are used for comparison as well. I conclude that six grammatical cases (and a more regular case system) can be reconstructed in Pre-Chukotko-Kamchatkan, which has evolved and expanded into the comparatively reconstructed system of eleven cases in Proto-Chukotko-Kamchatkan presented in Fortescue (2005).

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1 Introduction

The comparative method has historically been the principal tool of diachronic linguistics to recover the common ancestor of a language family or subgroup and to accumulate cross-linguistic information on the process and typology of linguistic change. The method's primary function is to establish genetic relatedness of languages and is largely considered "the *sine qua non* of linguistic prehistory" (Harrison 2010:213). However, the comparative method can only extend so far with regard to morphological objects – in comparing sound correspondences, irregularities can be reconstructed. In cases like this, especially when no earlier textual evidence is available, the comparative method has exhausted its ability to see into the past.

Internal reconstruction operates along the same lines as morphophonemic analysis by extracting irregularity and alternations, whether internal or external, "[o]nly the emphasis of the two is different: morphophonemic analysis brushes aside unproductive 'irregular' alternations, whereas internal reconstruction concentrates on them..." (Anttila 1989:264). Where the comparative method compares sound correspondences between languages, internal reconstruction compares paradigms within a single language. Unlike the comparative method, it can be applied to genetic isolates

and within a language of a larger grouping to recreate a state to which the comparative method can be applied. This technique uses inference to go farther back in a language's history, with the underlying assumption that each morpheme had only one form and function across the entire language so grammaticalization theory can be applied retroactively, and an earlier stage of the language can be reconstructed.

In this thesis, I will be using internal reconstruction to venture further back in the prehistory of the Chukotko-Kamchatkan (henceforth abbreviated as CK) languages. Significant work on comparative etymological dictionaries has been done (Fortescue 2005, Zhukova & Kurebito 2004, Mudrak, 2000), though Fortescue (2005) is the only source to have reconstructed inflectional endings. However, little more than basic comparative reconstruction has been undertaken, and this thesis will focus on the internal reconstruction of the case system in these languages. Systematic morphological reconstruction starting from hypothesized Proto-CK forms yields a simpler inflectional structure for case relationships, in both the grammatical (alignment) cases and the oblique cases.

Proto-CK has been reconstructed with eleven cases by the comparative method alone. However, under closer examination, several of these cases show striking similarity to each other and can be broken down into morphemes which have been

grammaticalized through time as new cases. Further evidence for the previous forms from which these formations evolved comes from similar, typologically-common paths taken in other language families with more thoroughly described pasts. I found two instances where several proto-cases can be collapsed into one pre-form with logical stages of grammaticalization to create the reconstructed later proto-cases. I have also found that criteria used to define the behavior of other cases help establish the reconstruction of a genitive case. I also argue that the two comitative cases could have evolved from a combination of proclitics and may not have been present in Pre-CK.

1.1 Criteria of case

This thesis also considers how morphological reconstruction can affect our definitions of case and case systems. Corbett (2008) sets forth three principles¹ to determine the distinct, contrasting, canonical values which the feature, case, has in a language. While these criteria are primarily for synchronic descriptive purposes, I feel that they can be useful for a diachronic account as well. Because these principles are concerned with distinctness, regularity, and invariability, they fit the motivations of an

¹ In Corbett's (2008) paper, Russian was used to compare against these criteria. The author notes that although it is not always possible to satisfy all criteria, estimations which meet the most number are more accurate.

internal reconstruction project also. I will compare these principles to the cases I have reconstructed for Pre-CK; some criteria in Corbett (2008) make no distinction between the Proto-CK and Pre-CK cases with regards to canonicity, but those I discuss below show that the Pre-CK case reconstruction lends itself more towards a better morphosyntactic model of case value. We must keep in mind, however, that these are canonical standards taken to “logical endpoints” (Corbett 2008:3), and typological soundness is only so useful when making judgments about a language, especially in a reconstruction.² The primary argument here is that this internal reconstruction not only posits a more regular case system, but has, along the way, also lent itself towards a more canonical structure with regard to case.

The three principles of case definition from Corbett (2008) are as follows:

Principle I: *Features and their values are clearly distinguished by formal means (and the clearer the formal means by which a feature or value is distinguished, the more canonical that feature or value).* (Corbett 2008:6)

Under this principle, we are looking for several aspects of a one-to-one correspondence between form and function or meaning. Inflectional forms of nouns in

² For example, consider especially the array of stops in Proto-Indo-European. They may be typologically unusual, but this is what the comparative method has nonetheless led us to, and it has withstood the test of time.

CK languages require reference to case, and it is the canonical features of that case and their ability to be expressed that we are most interested in.

Principle II: *The use of canonical morphosyntactic features and their values is determined by simple syntactic rules.* (Corbett 2008:10)

This principle focuses on the value of a case being transparent to the syntax; syntax is largely expected to be independent of any morphological form.

Principle III: *Canonical morphosyntactic features and their values are expressed by canonical inflectional morphology.* (Corbett 2008:14)

This principle focuses on the one-to-one correspondence between morphological form and syntactic function. One of the criteria to satisfy this principle is the idea that, if a case is truly canonical, its syntactic replacement by any other case would be ungrammatical.

These three principles will be revisited in the conclusions (§4), and the internally-reconstructed developments that I have hypothesized will be compared to these criteria of canonical case. In doing this, I attempt to show that historical reconstruction has valuable input for morphosyntactic and typological definitions of case.

1.2 Chapter descriptions

In Chapter 2, I describe the case systems of the present-day Chukotko-Kamchatkan languages. The cases that have prototypical meaning and function in the linguistics literature are noted but not exemplified. Other cases that are less transparent in meaning, have alternate meanings in context, or are otherwise “exotic,” are discussed in the fullest detail possible. The meaning and function of these cases are remarkably consistent across the entire language family, so as each language is discussed in turn, only those not previously described are added.

In Chapter 3, I examine the internally-reconstructable cases considered above. These include the aforementioned reduction of two case complexes into a single pre-case each, the addition of the genitive, and the elimination of the comitative and associative cases, as they were most likely derived from clitics grammaticalized into prefixes and extension of a converb suffix.

In Chapter 4, I outline my conclusions and summarize the changes that took place between the Pre-Chukotko-Kamchatkan stage and the Proto-Chukotko-Kamchatkan stage as reconstructed in Fortescue (2005). I display a chronological account of the progression of grammaticalization leading to the proto-forms from the

pre-forms. This thesis finishes with the possible contributions of this study to one of the ultimate goals of historical linguistics – a theory of language change.

2 Cases in Chukotko-Kamchatkan

The Chukotko-Kamchatkan (Chukchi-Kamchatka) languages are a small language family spoken in the extreme north of the Russian Far East, in the Magdan Oblast and in the provinces of Chukotka, Kamchatka, and a small region in Yakutia. They are neighbored by the isolates Yukaghir and Nivkh as well as by Yakut (Turkic) and Èven (Tungusic) to the west, and by Ainu to the south. Siberian Yupik borders the family to the east. The inland CK-speaking Paleosiberian people are largely hunter-gatherers and reindeer herders, while those along the coast are sedentary, hunting sea mammals and fish. Many of them still practice the traditional shamanistic religion. The CK languages (Chukchi, Koryak, Kerek, Alyutor, and Itelmen) are endangered, and most ethnic CK people are now Russian monolinguals. Kerek is extinct. The CK family tree is shown in Figure 1.

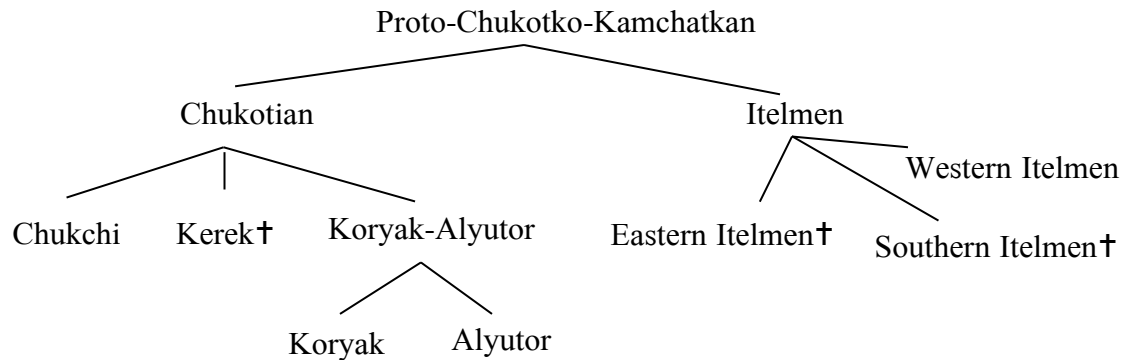


Figure 1: Chukotko-Kamchatkan family tree

There has been significant work on the reconstruction of Proto-CK (Fortescue 2005, Zhukova & Kurebito 2004, Mudrak 2000), though the general scarcity of data and absence of a complete grammar from extinct Kerek makes reconstruction difficult. Also, most primary data come from just a few grammars written in Russian in the 1960s and 1970s, not using modern linguistic descriptive conventions, terminology, or IPA notation.

Fortescue (2005:3) puts the breakup of Proto-CK into the Chukotian (Northern) and Itelmen (Southern) branches at around 4,000 BP, when reindeer herders from the west moved into the CK homeland and the nomadic inland CK people adopted the pastoral lifestyle herding reindeer. The CK homeland is postulated to be around the neck of the Kamchatkan peninsula – numerous words for coastal activities can be

reconstructed for both branches, and these words show systematic sound correspondences so they can be considered part of the proto-language, and are not borrowings. Alyutor was probably a dialect of Koryak, and the two split relatively recently.

In general, the CK languages follow an ergative-absolutive alignment pattern (except for Itelmen, considered to have nominative-accusative alignment in which arguments are generally unmarked), and are considered polysynthetic for their large numbers of morphemes per word as well as their copious derivational processes, including reduplication and noun incorporation. They also all possess noun classes based on animacy. The consonant inventories of the CK languages are very similar, usually consisting of a single series of voiceless stops including uvular /q/ and glottal /ʔ/, a voiceless lateral fricative /ɬ/, as well as a system of height-alternating dominant/recessive vowel harmony.

The three CK ethnic groups “listed separately in Soviet census statistics” are Chukchi, Koryak, and Itelmen (Comrie 1981:240). The Itelmen people are sedentary salmon fishermen near inland rivers; instead of reindeer-pulled sleds, the Itelmen use dog-pulled sleds and they largely lack much of the reindeer-oriented vocabulary of the Chukotian peoples – Itelmen ‘reindeer’ is cognate with ‘domesticated reindeer’ in the

Chukotian branch, but more specialized terms are not present in Itelmen. The Chukotian people can be divided into two main groups, based on geographic location – those inland and those coastal. Coastal Chukotians have large vocabularies pertaining to marine mammal-hunting (such as seals), while those inland took up the reindeer-herding lifestyle and thus have extensive vocabularies pertaining to reindeer (Fortescue 2005:3).

(Western) Itelmen is the most divergent language of the family, but there are clear relations to the other languages, especially correspondences in bound morphemes. Itelmen was a subgroup at one point, with several divergent languages existing prior to the late nineteenth century, including Eastern, Southern, and Western Itelmen. However, only Western Itelmen is spoken today. Only scant documentation of Southern Itelmen exists, and only a few words of Eastern Itelmen have been documented.

In this chapter, I will provide background information as well as a thorough descriptive account of the cases in each CK language – including both the alignment cases and oblique cases. I will give paradigmatic as well as full-sentence examples for a comprehensive account of forms and usage. I also include the reconstructed case systems for Proto-CK.

“Case” can be defined as “a system of marking dependent nouns for the type of relationship they bear to their heads” (Blake 2001:1). Primus (2011:304) adds that there

are two primary categories of case-marked arguments with the inflected verb as the head – those that are “valency-bound,” with semantic roles of agent, patient, and/or subject (also called the alignment cases), and those that are “valency-free adjuncts (or modifiers),” also called the oblique cases. “Oblique case” can be defined as “[d]ependents of verbs that do not have one of the primary syntactic functions” (Farrell 2005), which are marked with case endings (as opposed to adpositions, etc.). The obliques often take on non-core semantic roles, and sometimes a single case marker can convey multiple semantic roles depending upon discourse or morphological context. This makes obliques an important operator in a language’s syntax-semantic interface.

2.1 Chukchi

The Chukchi people are the most populous ethnic group in the CK language area, totaling nearly 16,000 in the 2002 Russian census, with almost 7,500 speakers of the Chukchi language. The people are typically divided into the Reindeer Chukchi and the Maritime Chukchi, with the former being reindeer herders and the latter being coastal hunter-gathers and fishermen. The Chukchi language has also been called Chukot, Chukcha, Chukchee, and Luoravetlan, the last being an endonym. Chukchi has long been a lingua franca of the indigenous people of the Russian Far East. This

member of CK has the most recent and extensive documentary work conducted on it (Dunn 1999, Spencer 1999, Skorik 1961, Skorik 1977). Literature written in Chukchi (in Cyrillic script) exists, both folk stories and translations of Russian literature.

Chukchi has three noun declensions, which are based on morphological distinction of number and which line up semantically with degrees of animacy. It has ten cases: absolutive *-ən/-∅*, ergative *-e*, locative *-ək/-ne* ‘at/on, a stationary point’, ablative *-epə* ‘from’, allative *-etə/-əna* ‘motion towards’, orientative *-əyjit* ‘like X, oriented by X’, comitative *ya-...-e/-ma* ‘with (animate) X’, associative *ya-...-ma* ‘with (inanimate) X’ (only present in the first declension and pronouns), and designative *-u/-ənu* ‘like X, as X’. The dative exists in pronouns only, and there is no genitive case, but there are possessive affixes.

The first declension is for nonhuman nouns. This declension makes no morphological distinction between singular and plural except in the absolutive. The ergative is also called the instrumental and can be used for either role. The two can co-occur (Dunn 1999:113) when one noun is being used as the ergative and the other as an instrumental oblique. These nouns are low in animacy and are often referred to as ‘common nouns’ (Spencer 2006).

The second declension distinguishes between singular and plural in all cases, and is primarily used for human proper names, older relatives, and pronouns referring to people. The comitative case does not exist in this declension, but comitative meaning can be expressed analytically by the postposition *reen* plus the locative case. Also, the ergative is syncretic with the locative case.

The third declension is composed of human nouns, those other than older relatives or proper names. Pronouns like ‘who?’ can be declined like a 3rd declension noun for use of the comitative case (instead of the analytic construction used for nouns of the 2nd declension). Number distinction is optional in non-absolute cases, and these nouns can take special plural forms similar to those of the 2nd declension for emphasis. For some nouns, such as the pronoun ‘who?’, the ergative is the same as the locative, but other nouns, like ‘friend’, the ergative exhibits syncretism with the instrumental. Ultimately, this syncretism is dependent upon the animacy of the referent as perceived by the speaker – high animacy referents have syncretism between the ergative and the locative, while low animacy nouns have syncretism between the ergative and the instrumental.

Table 1 and Table 2 show the declension patterns, and I have highlighted the syncretic cases (adapted from Spencer 1999 – one example was chosen for each declension, rather than separate tables for each declension).

Singular	Decl 1	Decl 2	Decl 3	‘who?’
	‘thong’	proper name	‘friend’	question word
absolute	ηῑɣ-ən	rintə-n	tumɣətum	meɣin
instrumental	ηῑɣ-e	-	-	-
locative	ηῑɣ-ək	rintə-ne	tumɣə-k	mik-əne/mek-əne
ergative	ηῑɣ-e	rintə-ne	tumɣ-e	mik-əne
comitative	ɣe-ηῑɣ-e	(rintəne reen)	ɣa-tomɣə-ma	ɣa-meɣ-ma
associative	ɣa-ηeɣ-əma	(rintəne reen)	ɣa-tomɣə-ma	ɣa-meɣ-ma
allative	ηeɣ-etə	rint-əna	tomɣ-etə	mek-əna
ablative	ηeɣ-epə	rint-epə	tomɣ-epə	mek-ɣəpə
orientative	ηῑɣ-əɣjit	rint-əɣjit	tumɣ-əɣjit	mik-əɣjit
designative	ηῑɣ-u	rint-ənu	-	mik-ənu

Table 1: Chukchi singular nominal declension
(Spencer 1999, Chapter 3)

Plural	Decl 1	Decl 2	Decl 3	‘who?’
absolute	ηiɫɣ-ət	rintə-nti	tumɣə-t	mik-ənti
instrumental	ηiɫɣ-e	-	-	
locative	ηiɫɣ-ək	rintə-rək	tumɣə-rək	mik-ərək
ergative	ηiɫɣ-e	rintə-rək	tumɣə-rək	mik-ərək
comitative	ɣe-ηiɫɣ-e	(rintərək reen)	ɣa-tomɣə-rə-ma	ɣa-mek-ərəma
associative	ɣa-ηeɫɣ-əma	(rintərək reen)	ɣa-tomɣə-rə-ma	ɣa-mek-ərəma
allative	ηeɫɣ-etə	rint-əna	tomɣ-ərəkə	mek-ərəkə
ablative	ηeɫɣ-epə	rint-epə	tomɣ-əɣəpə	mek-əɣəpə
orientative	ηiɫɣ-əɣjit	rint-əɣjit	tumɣ-ərəɣjit	mik-ərəɣjit
designative	ηiɫɣ-u	rint-ənu	-	mik-ənu

Table 2: Chukchi plural nominal declension

(Spencer 1999, Chapter 3)

The allative is also called the allative-dative (much like how the ergative is also called the ergative-instrumental). When used with high-animacy nouns, the allative case can be used to mark a recipient or indirect object and thus takes on prototypical dative roles. The more cross-linguistically common cases (ablative, allative, locative, instrumental, comitative) have the typical meanings with respect to their referent. I will give some examples of the less common, specialized cases such as the associative, orientative, and designative. Examples are from Spencer (1999).

2.1.1 The associative

The associative is typically used to express secondary or passive accompaniment, but it is differentiated from the comitative case usually by animacy.

The comitative is primarily (though not always) used with high-animacy referents, while the associative is used with lower-animacy referents, as in examples (1) and (2).

- (1) miɬyer ʔa-mʔame-ma nəjmetβaqen renmə-k
rifle ASSOC-cartridge-ASSOC hangs wall-LOC
‘A rifle with cartridges hangs on the wall.’ (Spencer 1999, Ch. 3)

- (2) təjələŋ ənaaɬʔ-etə kʔedi ʔa-ɬele-ma
I.gave elder.brother-ALL cap ASSOC-gloves-ASSOC
‘I gave my elder brother a cap with gloves.’ (Spencer 1999, Ch. 3)

2.1.2 The orientative

The orientative case indicates that an entity or event is oriented towards or around the referent. This can have several senses, but is mostly used in an equative sense, in English as ‘like X’, seen in examples (3) and (4) below.

(3) epenin βala-**γʔet** qətejkəγən

grandfather’s knife-**ORIENT** make.it

‘Make it like grandfather’s knife.’

(Spencer 1999, Ch. 3)

(4) ηeekket nəβaηeqenat əmmemerə-**γjit**

little.girls sew mommies-**ORIENT**

‘Little girls sew following their mom’s model.’

(Spencer 1999, Ch. 3)

2.1.3 The designative

The designative case often carries the semantics of a predicative adjective as in (5), and is similar to English ‘as X, like X’ or has a resultative meaning, as in (6) and (7).

- (5) jəŋek βəkβəlyən jaran-o nəperken
 in.mist rock yaranga-DESIG appeared

‘In the mist, the rock looked like a yaranga (tent).’ (Spencer 1999, Ch. 3)

- (6) qənβer qejəqej rʔeβ-u yenʔetʔin
 at.last whale.pup whale-DESIG became

‘At last the whale pup grew up.’ (Spencer 1999, Ch. 3)

- (7) məttenənnəŋən ekək roptən-o
 we.called son Roptyn-DESIG

‘We called our son Roptyn.’ (Spencer 1999, Ch. 3)

The designative is often used with verbs such as ‘to work (as)’, ‘to become’, or ‘turn in to’. This can be seen in (6), where transformation is conveyed by using the designative case *-u* with *rʔeβ-* ‘whale’ and the verb *yenʔetʔin* ‘become’, creating ‘to grow up (into an adult whale)’. The designative is also used with copular *-it-* ‘be’ (8), *ləy-* ‘consider

as' (9), *-ntə-* 'have as' (10) and to indicate that the head is semantically the same as the referent. Examples below are from Fortescue (2005a), abbreviated as F05a.

(8) *mejŋə-wil-u* *n-it-qin*
 big-price-**DESIG** IMPERF-be-3SG
 ‘That was a lot of money.’ (F05a:116)

(9) *əntuulpəre-nu* *ləγ-nin*
 son.in.law-**DESIG** consider.as-3SG > 3SG.AOR
 ‘He had/took him as son-in-law.’ (F05a:116)

(10) *rəjulʔ-u* *tə-ntə-rkəni-γət*
 watchman-**DESIG** 1SG-have.as-2SG.PRES
 ‘I have you as watchman (over my herd).’ (F05a:125)

2.2 Koryak

The Koryak language is spoken by about 3,000 of around 8,000 ethnic Koryak people in the Koryak Autonomous Okrug (an administrative division of the Kamchatka

Krai federal subject in Russia). The language is called Nymylan by the people themselves, from the Koryak word *nəməlan* for ‘town dweller’. There are Koryak language radio and television broadcasts in the region, as well as a newspaper.

Unlike Chukchi, Koryak has a distinction between dual and plural (only present in the absolutive), and it has a voiceless uvular stop /q/ and a voiced pharyngeal fricative /ʕ/. Koryak also only has two declension classes: one for nonhumans (1st declension) and one for humans (2nd declension).

Koryak has ergative-absolutive alignment, and has a different set of oblique cases from Chukchi. The morphologically-marked case inventory of Koryak contains the absolutive, ergative, instrumental, locative, dative, allative, ablative, comitative, associative, designative, prolocative ‘along, through’, and narrative-causal ‘about, because of’.

Table 3 below shows the declension patterns in Koryak using both the common noun meaning ‘bear’ and the human personal name *Kajjən* meaning ‘Bear’. Note the syncretic forms in the 2nd declension ergative and locative cases (bolding mine).

Case	Decl 1	Decl 2
	‘bear’	personal name
	kajŋən (SG)	kajŋən (SG)
absolutive	kajŋə-t (DUAL)	kajŋə-ti (DUAL)
	kajŋ-u (PL)	kajŋən-u (PL)
ergative ³	kajŋ-a	kajŋə-na-k
locative	kajŋə-k	kajŋə-na-k
dative	kajŋə-ŋ	kajŋə-na-ŋ
allative	kajŋ-etəŋ	kajŋə-na-jtəŋ
prolative	kajŋ-epəŋ	kajŋə-na-jpəŋ
ablative	kajŋə-ŋqo	kajŋə-na-ŋqo
narrative-causal	kajŋə-kjit	kajŋə-na-kjit
designative	kajŋ-u	kajŋə-n-u
comitative	ya-kajŋ-a	-
associative	yawən-kajŋ-ma	-

Table 3: Koryak noun declensions

(Zhukova 1972:101)

The cases common to Chukchi have comparable meaning and usage in Koryak.

Following are examples of usage of the prolative and narrative-causal cases, from

Zhukova (1972), abbreviated Z72.

³ The ergative is also called the instrumental case, or the ergative-instrumental. The ergative and instrumental can co-occur with 1st declension nouns, much like in Chukchi.

2.2.1 The narrative-causal

The narrative-causal is used to denote ‘about X’ in the narrative use (example (11)) and the motivation of an action in the causal use (example (12)).

- (11) $\gamma\text{əmnan}$ $m\text{ə-panenatvə-n}$ $l\text{əm}\eta\text{əl}$ $k\text{ətepa-kjet}$ to $\text{ʕi}\gamma\text{ə-kjit}$
I.ERG 1SGA-tell.story-FUT lazy ram-NARR and wolf-NARR
‘I will tell the story about the lazy ram and the wolf.’ (Z72:117)

- (12) $\text{əlla}\eta^i\text{u-kjit}$ $en^i\text{pitʃite}$ $j\text{aa-k}$ $ena-pela-\eta$
younger.brother-NARR parents house-LOC 1SGP-leave-3SGA
‘Because of (my) younger brother, the parents left me at the house.’
(Z72:118)

2.2.2 The prolicative

The prolicative is used with verbs of motion and marks the referent as something being moved through (13) or along (14).

(13) omk-**epəŋ**

forest-**PROL**

‘through the forest’

(Z72:113)

(14) ʎe-lqulli-n ammal^o ʎəmle ʎa-mal^ʰkətʃʃalpəle-n wenv-**epəŋ**

PAST-rise-3SGS Ammaljo he.ABS PAST-break.into-run-3SGS road-**PROL**

‘Ammaljo arose, he broke into a run along the road.’ (Z72:113)

The prolative combines notions of the translative (motion along) and the perlative (motion through) cases. These two types of lateral motion are grouped together (into the prolative case) in all other CK languages with multiple motion cases.

2.3 Alyutor

Until the later part of the twentieth century, Alyutor (Alutor, Olyutor, Nəməlʔən) was considered a dialect of Koryak. It was considered the “settled” dialect of Koryak, but it has been established that Alyutor is mutually unintelligible with the nomadic dialects of Koryak (Kibrik et al. 2000). There are about 150 speakers of the language in a total ethnic population of about 2,000; village schools have recently been teaching the

language to children, though the success of this effort is yet to be seen. Currently, Alyutor is generally considered moribund, as there are no native speakers under 35 (Kibrik et al. 2000, abbreviated K00).

Nouns in Alyutor are split between two morphological declensions and three noun classes. The 1st declension and 1st noun class, like the other languages in the family, are nonhuman nouns. The 2nd declension and 2nd noun class are proper names and elder relatives (much like Chukchi). The 3rd noun class is composed of all other nouns with humans as referents but may belong morphologically to either declension; these are grouped together in a 3rd class because they are declined based on speaker-perceived animacy and there is no other clear-cut semantic grouping available.

Case	Decl 1			Decl 2		
	SG	DUAL	PL	SG	DUAL	PL
absolutive	-∅	-t/-ti	-w/-wwi	-∅	-nti	-w/-wwi
ergative	-a/-ta			-ənak	-ətək	
locative	-k/-ki			-ənak	-ətək	
dative	-ŋ			-ənaŋ	-ətək	
allative	-kəŋ			-		
prolative	-jəŋ/-yəpəŋ					
causal	-kjit/-kjita					
designative ⁴	-u/-nu			-u/-ənu		
comitative	ya-...-a/-ta			awən-...-ma		
associative	yəqə...-a/-ta			-		
contactive	-jit/-jita					

Table 4: Alyutor noun declensions
(Kibrik et al. 2000:251)

Table 4 shows the two morphological declensions, and syncretic case forms are highlighted (bolding mine). Alyutor is like the other CK languages where the ergative case can also be used for instrumental meaning when treated as an oblique (an instrumental of manner, for example). The locative in Alyutor, in addition to denoting stationary position or the direction of a goal, can indicate that the referent is being ‘driven away’, as in (15).

⁴ In Kibrik et al. (2000) the designative case is called the ‘equative’ case. However, this case is analogous in both semantics and phonological form to the designative in Chukchi and Koryak. Thus, I will continue to use the ‘designative’ term for this.

- (15) ənnu ʔilḡatə-tkən uʒatiki-**k**
 he-ABS.SG drive-IMPERF sledge-LOC
 ‘He drove away the sledge.’ (K00:253)

2.3.1 The contactive case

The contactive case is the only case that does not appear in the other languages.

It is used with transitive verbs and marks the point of contact.

- (16) ənki qəməvə-nak akmi:n-ni-n jattiyə-n
 after Qamav-ERG.SG take-3SGA.3P-3SGP Jattigən-ABS.SG
 tilpə-**jit**
 shoulder-CONTACT
 ‘Then Qəməv grabbed Jattigən on the shoulder.’ (K00:255)

Additionally, as one can see in (16), the primary arguments are filled with two personal names, marked in the ergative and absolutive. The verb is also marked for agreement with the agent in the ergative with *-ni-*. This provides evidence that the ergative is a distinct syntactic case that differs in use from the locative.

2.4 Kerek

Kerek is now probably extinct, since there were only three remaining speakers in 1989 (Volodin 2001). The ethnic Kerek were absorbed into the Chukchi people, and now speak Chukchi and Russian. Very few sources on the language exist, largely limited to data collected by Volodin, and that was presented in Skorik (1968). Kerek, like Koryak, has retained the distinction between singular, dual, and plural in nouns. Many cases, however, only morphologically distinguish between singular and nonsingular. Table 5 below has been adapted from Skorik (1968) and shows the differences between the three declensions. The differences between the 2nd and 3rd declensions are minimal; they can only be seen in the absolutive. The epenthesized schwas [ə] seen in the examples for the 2nd declension endings are phonologically conditioned by minimal syllables (CV or CVC); it is only coincidence that they are absent in the 3rd declension because the root *amma* ‘mommy’ ends in a vowel and epenthesis to satisfy the minimum syllable CV(C) is not needed. I have bolded the syncretic forms.

Case	Number	Decl 1	Decl 2	Decl 3
		‘snipe (bird)’	‘Numələn’ (name)	‘mommy’
absolute	SG	itʃʃaku-qa	numəl-ən	amma
	DUAL	itʃʃaku-t	numəl-əntʃi	amma-t
	PL	itʃʃaku-kku	numəl-əkku	amma-kku
ergative	SG	itʃʃaku-ta	numəl-ənaŋ	amma-naŋ
	NONSG		numəl-iik	amma-iik
locative	SG	itʃʃaku-k	numəl-ənaŋ	amma-naŋ
	NONSG		numəl-iik	amma-iik
prolative	SG	itʃʃaku-ŋqu	numəl-ənaŋqu?	amma-naŋqu
	NONSG		numəl-iikaŋqu?	amma-ikkaŋqu
dative	SG	itʃʃaku-jtəŋ	numəl-ənaŋ	amma-naŋ
	NONSG		numəl-iikaŋ	amma-ikkaŋ
allative	SG	itʃʃaku-jtəŋ	numəl-ənajtəŋ	amma-najtəŋ
	NONSG		numəl-ikkajtəŋ	amma-ikkajtəŋ
comitative	SG/DUAL/PL	n-itʃʃaku-ta	na-numəl-a	n-amma-ta
associative	SG/DUAL/PL	n-itʃʃaku-ma	na-numəl-əma	n-amma-ma
designative	SG/DUAL/PL	itʃʃaku-ku	numəl-ənu	amma-nu
vocative	SG/DUAL/PL	?	numəl-e	amma-e

Table 5: Kerek noun declensions

(Skorik 1968:314-5)

The cases common to the other CK languages already discussed (absolute, ergative, locative, prolative, dative, allative, comitative, associative, designative) have the same semantic functions. If fine differences exist, we may not know them nor have any documentary evidence for them. Kerek is evidenced to have a vocative case, but there is

little attestation so it is unknown whether it has different forms in different declensions.

It is morphologically distinct from the other cases, as shown in (17), from Volodin (2001:149).

- (17) tʃakk-ə ə-nan q-ine-jələ-j aŋaqimtəllə-n
sister-VOC you-ERG IMP.2SG-1SGO-give-PERF belt-SG
‘Sister, you give me the belt!’ (Volodin 2001:149).

2.5 Itelmen

Itelmen (also known as Kamchadal) is generally considered a group in the CK family, and at least three Itelmen languages/dialects are known to have existed. Because of the extremely limited documentation of the Southern and Eastern varieties, it is unclear whether these should be considered dialects or separate languages, and only the Western variety still survives. Henceforth, when referring to the “Itelmen language,” it is specifically the remaining Western variety unless otherwise noted. Itelmen is the most divergent of the CK languages with considerable phonological and lexical differences between it and the rest of the family. However, the high number of correspondences between inflectional morphemes on verbs, case endings, pronouns, kinship terms,

regional flora and fauna, weather, body parts, and significant other basic vocabulary lends strong evidence to Itelmen’s proper inclusion in CK.

Ejective consonants and phonemic post-alveolar /s, z/ are unique to Itelmen within CK. The prototypical vowel harmony in the CK family is no longer productive in younger speakers, and only the oldest of the speakers still retain the harmony. Itelmen, also unlike the other CK languages, lacks noun incorporation as a derivational process and does not have ergative-absolutive alignment. The subject, agent, and patient are all marked with a zero ending; the literature generally calls the zero-marked case ending the ‘absolutive’ regardless (Spencer 1996:3), as illustrated in (18).

- (18) kma mił knin i?-Ø t'-il-ał-tfen
 I.ABS.SG all your water-ABS.SG 1SG-drink-FUT-1 > 3SG
 ‘I will drink all your water’ (Spencer 1996:3)

The case endings in Itelmen are not fusional (combining both number and case into a single morpheme) like in other CK languages. The number affix generally follows the root and always appears before the case ending, and it is in this morpheme that the declensions are distinguished. The 1st declension is used for inanimate nouns, the 2nd for

nonhuman living nouns (such as animals), and the 3rd for human nouns. The affix *-al-* ‘area’ is classified with number affixes in Volodin (1976:144), and an example is shown in (19a-c), with *sīs-* ‘grass’ inflected for absolutive, locative, and prolative cases.

Case	Num	Decl 1	Decl 2	Decl 3
		‘sled runner’	‘mosquito’	‘friend’
absolutive	SG	sxli-ŋ-Ø	k’ettʃu-m-Ø	ipʌx-Ø-Ø
	PL	sxli-ʔn-Ø	k’ettʃu-ʔn-Ø	ipʌx-ʔn-Ø
vocative	SG	-	-	ipʌx-Ø-e
	PL	-	-	ipʌx-sx-e
instrumental	SG	sxli-ŋe-ʈ	k’ettʃu-me-ʈ	-
	PL	sxli-Ø-ʈ	k’ettʃu-Ø-ʈ	-
locative	SG	sxli-ŋ-enk	k’ettʃu-m-enk	ipʌx-Ø-enk
	PL	sxli-ʔn-k	k’ettʃu-ʔn-k	ipʌx-ʔn-k
ablative- prolative	SG	sxli-ŋ-xʔal	k’ettʃu-m-xʔal	ipʌx-Ø-xʔal
	PL	sxli-Ø-xʔal	k’ettʃu-Ø-xʔal	ipʌx-Ø-xʔal
allative- dative	SG	sxli-ŋ-anke	k’ettʃu-m-anke	epʌx-Ø-anke
	PL	sxli-ʔn-ke	k’ettʃu-ʔn-ke	epʌx-ʔn-ke
comitative	SG	k-sxli-ŋe-ʈ	x-k’ettʃu-me-ʈ	k’-ipʌx-Ø-ʈ
	PL	k-sxli-Ø-ʈ	x-k’ettʃu-Ø-ʈ	k’-ipʌx-Ø-ʈ
associative	SG	k-sxli-ŋ-tʃom	x-k’ettʃu-m-tʃom	k’-epʌx-Ø-tʃom
	PL	k-sxli-Ø-tʃom	x-k’ettʃu-Ø-tʃom	k’-epʌx-Ø-tʃom
narrative- causal	SG	sxli-ŋ-kit	k’ettʃu-m-kit	ipʌx-Ø-kit
	PL	sxli-Ø-kit	k’ettʃu-Ø-kit	ipʌx-Ø-kit
purposive	SG	sxli-ŋe-ʔsx	-	ipʌx-Ø-ʔsx
	PL	sxli-Ø-ʔsx	-	ipʌx-Ø-ʔsx
abessive	SG	qaʔm sxli-ŋ-aq	qaʔm k’ettʃu-m-qi	qaʔm epʌx-Ø-aq
	PL	qaʔm sxli-Ø-aq	qaʔm k’ettʃu-Ø-qi	qaʔm epʌx-Ø-aq
designative ⁵	SG	sxli-ŋ-k’i	k’ettʃu-m-k’i	ipʌx-Ø-k’i
	PL	sxli-Ø-k’i	k’ettʃu-Ø-k’i	ipʌx-Ø-k’i

Table 6: Case endings in Itelmen
(Volodin 1976:141-3)

⁵ The designative is called the ‘transformative’ in Volodin (1976), but the semantics are extremely close if not identical to the designative case in Chukchi.

- (19) a. sis-**al**-∅
 grass-**area**-ABS
- b. sis-**al**-enk
 grass-**area**-LOC
- c. sis-**al**-xʔal
 grass-**area**-PROL
- ‘a grassy area, area of grass’

It should be noted that the use of the instrumental case in Itelmen is purely instrumental in its semantics; it indicates manner or method, denoting that the referent is used somehow in the event. It does not double as an ergative marker opposing the absolutive case in transitive sentences as in the other CK languages. While the instrumental does not overtly mark arguments of a verb, it does not pattern elsewhere in its syntax as an ergative-absolutive system.

2.5.1 The abessive

In addition to some of the cases shown in §2.1-4 in the other CK languages, Itelmen has an abessive case and purposive case. Examples are from Volodin (1976),

2.6 Proto-Chukotko-Kamchatkan

Despite the enormous differences in both phonology and the lexicon between the two main branches of the CK family, most inflectional morphemes can be reconstructed in the proto-language including case endings. Several cases can easily be reconstructed, but not all of them from across all languages. Many cases have been merged in the proto-language, and then split semantically as the daughter languages diverged. In this thesis I am relying on Fortescue's (2005) reconstructions of Proto-CK. A full-scale analysis would replicate the reconstruction process, and of course there might be differing opinions about the best reconstructions of the case system; but re-reconstructing the data is beyond the scope of this thesis.

Proto-CK is thought to have had a nominative-accusative alignment, and ergativity is considered an innovation in the Chukotian branch, possibly due to influence from contact with Eskimo-Aleut speakers (Fortescue 1997, 2003; Comrie, pers. comm.), with whom Itelmen speakers had no contact. Evidence for this comes from the highly developed inverse system in the Chukotian branch; the CK languages all have suffixes carrying both subject and object agreement, and a prefix is also required. However, the loss of a complex system such as ergativity rather than innovation is much more probable, especially when the larger portion of the family has ergative alignment. The

alignment system in Proto-CK will not ultimately affect the final results of my reconstruction, but it will be discussed later. Because the ergative case (in those CK languages exhibiting ergative alignment) is syncretic with the instrumental or locative cases, it cannot be morphologically reconstructed purely by the comparative method. Consideration of both hypotheses (nominative-accusative alignment and ergative-absolutive alignment) will be treated later in my final internal reconstruction, though it will primarily concern where the innovation or loss of ergativity occurred. Otherwise, I will be operating under the assumption that ergativity was an innovation of the Chukotian branch.

Noun classes are also reconstructed in Proto-CK. The two reconstructed by Fortescue (2005:426) include a 1st declension that encompasses inanimates and nonhuman nouns as well as common human nouns, and a 2nd declension that consists of individualized persons. Individualized persons include personal names, “given names of domestic animals... kin terms, demonstratives, and question words referring to humans (Fortescue 2005:427)”. Table 7, adapted from Fortescue (2005:426), shows the reconstructed forms for cases in CK. The ablative, vialis, allative, and attributive cases are reconstructable only in the Chukotian branch. The syncretic cases are highlighted (bolding mine).

Case	Decl 1 SG	Decl 2 SG	Decl 1 PL	Decl 2 PL
absolutive	-Ø/-(-ə)n/-ŋæ/-lŋən	-(-ə)n	-t	-(-ə)nti
dative	-(-ə)ŋ	-(-ə)naŋ		-(-ə)ðγənaŋ
locative	-(-ə)k	-(-ə)næk		-(-ə)ðæk
instrumental	-tæ	-(-ə)næk		-(-ə)ðæk
comitative	kæ- -tæ	-		-
associative	ka- -ma	-		-
referential	-kjit	-(-ə)nækjit		-(-ə)ðækækjit
ablative	-ŋqo(rəŋ)	-(-ə)naŋqo(rəŋ)		-(-ə)ðəkəŋqo(rəŋ)
vialis	-jəpəŋ	-(-ə)najpəŋ		-(-ə)ðəkəjpəŋ
allative	-jətəŋ	-(-ə)najtəŋ		-(-ə)ðəkəjtəŋ
attributive	-nu	-(-ə)nu		-(-ə)ðγənu

Table 7: Noun declensions in Proto-Chukotko-Kamchatkan

Fortescue (2005:426)

The absolutive is used as in Itelmen as the case marker for the primary arguments of a verb (subjects in intransitive sentences, both agents and patients in transitive sentences). The dative, locative, instrumental, comitative, ablative, allative, and associative cases retain their semantics and function found in the daughter languages; otherwise, Fortescue (2005:426) uses new terminology for the other cases to capture meaning and form across the CK languages. The referential case here captures the Chukchi orientative, the narrative-causal and contactive found in Koryak, the narrative-causal in Itelmen, and the causal in Alyutor, meaning “oriented towards,

about, concerning, because of” (Fortescue 2005:435). The vialis case indicates ‘past X or via X’ and is mainly connected with the prolative case found in most of the CK languages; it is not explicitly called the prolative because it corresponds to the ablative function in Chukchi. The attributive case is the predecessor of the designative case found in most CK languages; it indicates “equative... in capacity (as), being” (Fortescue 2005:434).

Fortescue (2005:427) also claims that the oblique cases are demonstrably related to suffixes used to create subordinate non-finite verbs with additional, adverb-like semantics. For example, the cognate of instrumental *-tæ* in Chukchi is used for indicating manner when affixed to a non-finite verb form; likewise, the associative *-ma* indicates ‘while’ when similarly affixed (cf. nominal associative *ka-* *-ma* ‘in presence of’). Fortescue (2005) also suggests that the *-k* locative suffix is analogous to the infinitive marker *-k* in CK. In Itelmen, this suffix usage has been reduced to use with intransitive verb with complement clauses.

A comparison of case inventories across the CK languages can be seen in Table 8. Morphological cognates are not marked; the table is intended to illustrate semantic purpose.

Case	Chukchi	Koryak	Alyutor	Kerek	Itelmen
absolute	x	x	x	x	x
ergative	x	x	x	x	
instrumental	x	x	x	x	x
locative	x	x	x	x	x
dative		x	x	x	x
allative	x	x	x	x	x
ablative	x				
prolative	x	x	x	x	
narrative-causal		x	x		
comitative	x	x	x	x	x
associative	x	x	x	x	x
designative	x	x		x	
orientative	x				
contactive			x		
purposive					x
abessive					x
vocative				x	x

Table 8: Case inventories of the CK languages

3 Internal reconstruction

In this chapter, I will look at possible explanations for different evolutions in the case system of the CK languages. The comparative method is only able to take us back so far in CK history; however, there are clear common morphological origins for certain

groups of cases. My proposed developments in the case system from Pre-CK to Proto-CK are not unusual cross-linguistically; both typological and historical accounts of double case marking, case displacement, and animacy marking will be used for comparison.

I will compare similar instances in the case systems of other language families to the situation in the CK languages and suggest how a similar analysis may explain what we observe in CK. This chapter consists of further reconstruction, though not comparative but internal. This will allow us to look further back to a Pre-CK state. First, I find that we can collapse several cases into two ‘case complexes’ (defined below in §3.1), due to large morphological similarities between them. I then justify their later evolution to Proto-CK (as hypothesized in Fortescue 2005) with typological evidence as well as well-known and well-understood patterns seen in languages and language families with more extensively documented textual history or more historical linguistics literature.

3.1 Animacy in Pre-Chukotko-Kamchatkan

Just as argument case systems have been shown to be linked to animacy (active-stative alignment), non-argument cases also respond to animacy hierarchies. Certain

cases may take nouns of only a particular level of animacy, or a certain case may have a different, separate semantic interpretation depending upon the noun's level of animacy. This can give us insight into the possible history of these cases “[s]ince the new forms appear in atypical contexts, they are prone to being pragmatically reinterpreted” (Aristar 1997:289) and subsequently “the combination of marking and reinterpretation will produce new cases in the language.” If we view case as a cumulative sum of morphological marking and the semantics of the referent, then some sort of grammaticalization must have happened to create a new case. Here I argue that this animacy marker in the CK languages has created semantic reinterpretation of certain prototypical ‘low-animacy’ cases when used with high animacy nouns. For structure and comparison, I use the criteria set forth in Aristar (1997) regarding this hierarchy-related case system evolution. Though the primary languages examined were Australian, there are numerous parallels between the semantics and morphology of these and CK.

The main argument in Aristar (1997) is based on the premise that the semantics of a noun phrase ultimately determine the case marking, and that a particular morphological form of a case can have fixed semantic and pragmatic interpretation - by altering the semantics, alteration of the morphological form can follow. This can lead to new case formation.

The case systems in the CK languages respond to an animacy hierarchy: not only are the noun/declension classes delimited by animacy, but certain case interpretations are only available to certain declensions, and these declensions directly translate into animacy. In fact, the animacy marker is most explicitly present in Koryak; the difference between the two declensions of nouns in non-syncretic cases is the sequence *-na-* (1st declension allative *kajŋ-etəŋ*, 2nd declension allative *kajŋə-na-jtəŋ*; 1st declension ablative *kajŋə-ŋqo*, 2nd declension ablative *kajŋə-na-ŋqo*; etc.). This phenomenon also appears in Fortescue's (2005) reconstructed case endings for CK; though he does not overtly call these animacy markers nor separate them from the base case ending, there is a distinct *-nA-* sequence in the 2nd declension singular that differentiates the cases from the (lower animacy) 1st declension (cf. 1st declension vialis *-jpəŋ*, 2nd declension *-(ə)najpəŋ*; 1st declension *-kjit*, 2nd declension *-(ə)nækjit*).

Likewise, in Dyirbal, an Australian language, high-animacy referents cannot take local cases (locative, ablative, etc.) directly, but can only occur in these cases with a 'bridge' morpheme. This morpheme does not occur with cases that are non-prototypically inanimate (that is, cases typically used with inanimate referents), and low-animacy cases never take these bridge morphemes (Aristar 1997:296). This is again similar to the CK languages on both accounts – the comitative and associative are not

available to 2nd declension nouns (highest animacy) in all languages. In Chukchi in the 3rd declension (mid-animacy – common human nouns), the comitative and associative are available only in the plural with the addition of an extra *-rə-* morpheme, signifying higher animacy. This morpheme, much like the Proto-CK *-nA-* morpheme mentioned above, is not available to inanimate and nonhuman nouns.⁶ The 2nd declension nouns *can* express a comitative or associative relationship, but it is done through periphrastic construction: noun plus the postposition *reen* ‘with’.

3.2 The dative case complex

Following from this discussion of animacy and the animacy marker in Proto-CK, I will now discuss the case complexes in Proto-CK. These ‘case complexes’ are groups of case endings that, through both semantics and morphological form, can be shown to have originated from a single case (per complex) in Pre-CK. There are two such complexes – the dative complex and the locative complex. The group of Proto-CK cases in the dative complex evolved from the Pre-CK dative, and the group of Proto-CK cases in the locative complex evolved from the Pre-CK locative. These internally-

⁶ The only known exceptions to this general semantic rule are animals given personal names in domestic life, traditional stories, etc. These tend to decline as human personal names.

reconstructed cases in Pre-CK have, through various routes of grammaticalization, expanded into the reconstructable Proto-CK cases. Both the semantics of the animacy hierarchy as well as the morphological form **-nA-* interacts with these case complexes. Now, I will discuss the origins and evolution of the dative complex.

Case	Proto-CK	Chukchi	Koryak	Alyutor	Kerek	Itelmen
dative	<i>*-ŋ</i>	-	-ŋ	-ŋ	-naŋ	-
allative	<i>*-jətəŋ</i>	-etə	-etəŋ	-kəŋ	-najtəŋ	-anke
prolative	<i>*-jəpəŋ</i>	-	-epəŋ	-jpəŋ	-naŋqu	-xʔal
ablative	<i>*-ŋqorəŋ</i>	-epə	-ŋqo	-	-	-xʔal

Table 9: Correspondences in CK lative cases

Even when high-animacy referents are given these local inflectional endings in CK languages, the semantics have a particular interpretation. When used with the locative, ablative, or allative cases, the noun gains the interpretation of ‘X’s place’, or some territory/domicile owned by the referent as opposed to their physical place in space; this includes pronouns referring to people. This can be seen in (22) through (25).

(22) inʔe mətəkβenmək ɣemalqotə-r-gəpə

morning we.left Gemalqot-PL-ABL

‘In the morning we left the Gemalqot family (their dwelling).’

Chukchi, Spencer (1999, Ch. 3)

(23) nəkitə mnə-ɬxas-iki ɲautxatsi-jitəŋ

at.night IMP.1.NON.SG-go-IMPF girl-ALL

‘Let us visit girls (where the girls are) at night.’

Kerek, Volodin (2001:151)

(24) **makii-k** ko-tva-ŋ

who-LOC PRES-be/live-PRES

‘At whose place are you living?’

Kerek, Volodin (2001:157)

- (25) **mizwi-nk** ʃhi-te-∅-z-en
we-LOC spend.night-DISCONT-ASP-PRES-3SG
 ‘From time to time he spends the night in our place.’
 Itelmen, Volodin (1997:115)

If a speaker wishes to express a high-animacy noun as a point in space, the appropriate case ending *plus* an additional postposition expressing positioning is required. This is evident across all CK languages, and this is illustrated in (26) through (28).

- (26) **ənpəŋeβ-ək** **eβətʃa** turnetʃən ɣatβatən
old.woman-LOC **under** new.hide was
 ‘Under the old woman there was a new hide.’
 Chukchi, Spencer (1999, Ch. 3)

- (27) q-ina-jna-la-tək xopta umŋu **təi-k** **umakam**
 IMP.2P.1SG-accept-PL-A2PL too I **you-LOC** **jointly**
 m-nalxiju-k
 IMP.1SG-sit-S1.SG
 ‘Accept me, you (pl), too, let me sit with you!’
 Kerek, Volodin (2001:149)

- (28) **miti-na-k** **eŋyeiŋa** vaɣaɬəkən
Miti-ANIM-LOC **close** he.sits
 ‘He sits close to Miti...’
 Koryak, Bogoras (1917:15)

While Koryak, Alyutor, and Kerek have morphologically distinct dative cases, Chukchi and Itelmen do not. In the two latter languages, the allative case functions as the prototypical dative when used with a high-animacy referent. The link between the allative and the dative is very strong; while the allative has the semantics ‘to X’ meaning ‘towards a goal or point in space’, the dative ‘to X’ is used with animate nouns for an indirect object, a recipient. This is not entirely surprising, looking back at the

languages and the reconstructions. The CK languages have a bound morpheme generally in the form of **jtə-⁷* meaning ‘go for something’, reconstructed as this in both Fortescue (2005) and Mudrak (2000:224), signifying additional motion towards a goal. It also can be found incorporated into verbs. Combining this morpheme with the reconstructed **-ŋ* for the dative case yields the reconstructed allative case **-jətəŋ*, and the corresponding animate form **-najtəŋ*. Thus, there is a grammaticalized symmetry between the periphrastic constructions found with the local cases and the historical analysis of the allative/dative alternation. The case ending **-ŋ* is historically the dative, used with high-animacy referents to indicate an indirect object or a recipient. Analogous to the other cases where a postposition is required to indicate an animate referent as a point in space, the morphological form of the allative **-jətəŋ* is essentially the dative **-ŋ* plus an incorporated directional postposition **jtə* ‘towards, go for something’.

Incorporation of postpositions, especially as a mechanism of case development, is not an unusual phenomenon in the least – it has been evidenced in several language families and has been extensively investigated in the case of Indo-Aryan (Kulikov 2006) as well as in Hungarian (Heine 2009:462). Harris & Campbell (1995:89) say “[c]ases

⁷ The underlying form of these bound morphemes is most likely **-jtə/*-jpə/*-nqor*, but due to minimal syllable constraints found in all CK languages of CV(C), schwa epenthesis has occurred in forms such as the singular allative **-jətəŋ*.

develop from postpositions when the postposition is felt to be so closely connected to its attribute noun that together they are reinterpreted as one word; semantic and morphophonemic changes (e.g. vowel harmony) often take place which conceal the word boundary and change the status of the elements, resulting in new case suffixes.”

While it may be unusual, in the Proto-CK allative form **-jətəŋ*, that the former postposition morpheme in the allative **-jtə-* attached to the noun between the head and the dative suffix **-ŋ*, we see this commonly in the present-day CK languages with inflected postpositions. Examples (29) through (31) are in Chukchi, from Spencer (1999).

- (29) *γətγə-k* **qatja-jpə** *ʔireyʔi ilβətu*
 lake-LOC **near-ABL** rushed wild.deer
 ‘Wild deer rushed out from by the lake.’ (Spencer 1999, Ch. 3)

- (30) *γatʃyamkən* *riŋekβetərkən* *ŋejə-k* **γiryotja-γtə**
 flock flew hill-LOC **over-ALL**
 ‘The flock of birds was flying towards the other side of the hill.’
 (Spencer 1999, Ch. 3)

(31) tirkə-k eβətʃa-γjʔet βətretγʔi riɲeneɲ

sun-LOC **under-ORIENT** appeared plane

‘A plane appeared, flying a course beneath the sun.’

(Spencer 1999, Ch. 3)

These illustrate that the dative forming the new allative could have been produced from the dative attaching to the postposition **jətə* ‘to go for something’, then subsequently reanalyzed as a case marker on the head noun as per Harris & Campbell (1995:89).

Stage	Form	Semantics
A) Pre-CK	<i>*-jtə</i> ‘towards’	<i>*-ŋ</i> dative (indirect object)
B) Proto-CK	<i>*-jətə-ŋ</i>	allative (‘to a goal’)
C)	↓	reinterpret allative as dative
D) Pre-Present day languages	<i>*-na-jtəŋ</i>	animate dative
E) Present day languages	animate dative + postposition	animate allative

Figure 2: Evolution of the animate allative from the dative

Figure 2 is a flowchart of the evolution of the animate allative from the historic dative case. In (A) Pre-CK, the indirect object and motion to a goal were indicated simply with the dative. To distinguish between a goal from a recipient, the directional marker **jətə-* is incorporated into the allative (B). In Chukchi and Itelmen, this complex form was reinterpreted as the dative (C). Now, to distinguish a recipient from a goal, the animacy marker is incorporated to the previously grammaticalized allative form (D). This gave the case indirect object semantics. Because of the specific semantic extension of this new form, the speakers devised a way to express an animate referent as a point in space – the process has come full circle and a postposition indicating placement is used along with the animate allative (E). In the other CK languages (Koryak, Kerek, Alytuor) where the dative and allative have distinct case endings, the animacy marker is simply a noun class marker and distinguishes the low-animacy allative (a point in space) from the high-animacy allative (someone’s owned area). The step that is missing in these languages is (C) where the allative becomes reinterpreted as the new dative.

The same can be said for the prolativ case – this is most easily seen in Koryak and Alyutor. The CK prolativ (vialis) **-jəpəŋ* ‘past X or via X’ is the same dative

ending **-ŋ* plus the directional stem **-jəpə^s*- (also found in **jəp-* ‘to put on’ and **æjəpə-* ‘close or cover’), and referents of high animacy (2nd declension) also gain the **-na-* animacy marker. This can also follow the argument above shown with examples (29) through (31) – the vialis was formed by the dative attaching to the former postposition **jəpə*.

The ablative can also be considered part of this complex. It follows the same pattern of marked animacy and dative-like ending (**-ŋ*) as the allative and vialis, and Fortescue (2005) notes that this case ending is similar to the postposition expressing ‘from X’ in the CK languages, reconstructed as **ŋqal*.

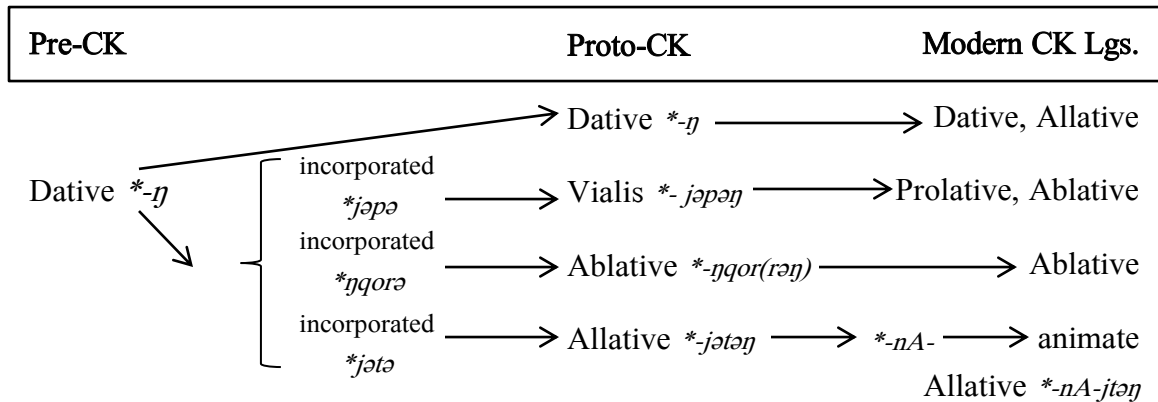


Figure 3: Development of the dative complex

⁸ The form **jəpə* is also reconstructed in Mudrak (2000:224).

The allative, prolativ, ablative, and dative can therefore be considered more of a “case complex” (Aristar 1997:323), as seen in Figure 3. The CK languages clearly show two case patterns with regard to type-congruent and type-incongruent nominals – type-congruence assumes that high-animacy nouns are most likely to take high animacy-cases such as the dative, causal, and agent roles, while lower-animacy nouns are most likely to take lower-animacy cases such as the instrumental, local (lative cases, locative, directional case). Type-incongruence occurs when a referent of a particular level of animacy is paired with a case that prototypically takes the opposite animacy (a high-animacy noun taking a low-animacy case and vice versa). The patterns found in many languages that have an animacy hierarchy and a case system can be seen below (from Aristar 1997:318):

Pattern 1: Case with type-congruent nominal:

Form: NOMINAL + CASE¹

Interpretation: VALUE OF NOMINAL + VALUE OF CASE¹

Pattern 2: Case with type-INcongruent nominal:

Form: NOMINAL + MARKER + CASE¹

Interpretation: VALUE OF NOMINAL + EXTENDED MEANING OF CASE¹

These two patterns would indicate that the form CASE¹ can take on either a primary interpretation or an extended interpretation depending upon its congruence of the referent. The marker found in the CK languages (like many other languages which share this pattern) is the animacy marker, which in the CK languages is *-nA-*. This allows the case to have an acceptable interpretation when used with a high animacy noun, such as the case in Chukchi and Itelmen where it allows the allative to be interpreted as a dative. In the other CK languages which have both a dative and an allative, a high-animacy referent would be prototypically congruous with the dative and the animacy marker would not contribute an extended meaning, while the allative with a high-animacy nominal would be prototypically incongruous and thus the animacy marker *would* extend the case meaning. Thus, in a Pre-CK system, the dative and animacy markers could simply be reconstructed and the allative and prolativ (vialis) formed later from directional incorporation.

3.3 The locative case complex

The ergative, locative, and instrumental could also be considered a case complex. With low-animacy referents, the ergative is syncretic with the instrumental

case; with high-animacy referents, the ergative case is syncretic with the locative.

Evidence for the existence of a separate ergative case exists in sentences where the ergative and instrumental co-occur with clearly different syntactic functions, as in (32) and in sentences where all three cases (ergative, instrumental, and locative) co-occur, as in (33):

- (32) ajwe muri na-n-qame-twa-a-mək tekiçy-e
yesterday 1PL.ABS 3A-CAUS-eat-RESULT-CAUS-1PLP meat-INS
ņewəçqet-te
girl-ERG
‘Yesterday the girl fed us with meat.’ Chukchi, Dunn (1999:113)

- (33) Rintən-ERG shot the seal-ABS with a spear-INS on the ice floe-LOC
Chukchi, Spencer (2006:7)

We can see this in the Chukotian branch (the 1st declension exhibits the ERG-INS pattern, while the 2nd (and 3rd) follow the ERG-LOC pattern), as it is only this branch that has developed ergativity. The ergative and instrumental have collapsed in all of the

Chukotian branch – it is only shown separately in Chukchi to illustrate that the instrumental is not used with high-animacy referents and forms are absent in the 2nd and 3rd declensions. In Spencer (2006), a synchronic account of this phenomenon analyzes this syncretism as a differentiation of mapping syntactic case to morphological case. Because the morphology must be sensitive to the animacy class, the syntactic category ‘ergative’ is mapped onto the morphological form ‘instrumental’ for low-animacy referents and mapped onto the morphological form ‘locative’ for high-animacy referents. I find looking at this problem diachronically presents a simpler solution – one can reconstruct all cases in the complex (ergative, instrumental, locative) to one form, and reanalysis and grammaticalization result in the distribution of the ergative forms. The locative and instrumental have been reconstructed to the same form **(ə)næk* (singular) and **(ə)ǰək* (plural), and now the question is: which case carries original meaning and which is the extension? Correspondences among the CK languages in these cases are shown in Table 10.

Case		Proto-CK	Chukchi	Koryak	Alyutor	Kerek	Itelmen
locative	DECL 1	*-(ə)k	-ək	-k	-k/-ki	-k	-k
	DECL 2	*-(ə)næk	-ne	-na-k	-ənak	-naŋ	
instrumental	DECL 1	*-tæ	-e	-a	-a/-ta	-ta	-ɬ
	DECL 2	*-(ə)næk	-	-na-k	-ənak	-naŋ	
ergative	DECL 1	-	-e	-a	-a/-ta	-ta	-
	DECL 2	-	-ne	-na-k	-ənak	-naŋ	

Table 10: Correspondences in (singular) locative complex cases

The ergative can emerge from the instrumental (Palancar 2009:567), which is often used for the oblique agent in passive or inverse constructions, and the ergative-absolutive alignment of the Chukotian branch is likely an innovation. Also, there is significant cross-linguistic evidence showing a unidirectional development from instrumental to agent (ergative) function, and not vice versa (Narrog 2009:600). If all three cases (ergative, locative, and instrumental) are syncretic, this would indicate that the locative **-(ə)k*/*-(ə)næk* and instrumental **-tæ*/*-(ə)næk* existed prior to the emergence of this alignment system. This is already in line with the reconstruction for Proto-CK; there is an absolutive and an instrumental, which eventually became the ergative.

The locative can also be collapsed into a case complex along with the ergative and instrumental. The locative is strongly linked to the instrumental in Afro-Asiatic and

Nilo-Saharan languages (Narrog 2009:598), and this link is strengthened when non-prototypical referents are used with the instrumental. The prototypical referent for the instrumental is an inanimate or low-animacy referent; Palancar (2002:32) defines the instrumental as “the role played by the object the Agent manipulates to achieve a change of state on the Patient.” High-animacy referents are not typically used as instruments indicating either manner or as a physical instrument. The instrumental is strongly linked with a comitative function (the locative is regarded as a type of comitative function when the locative is used to mark a referent as being part of accomplishing an action), especially when used on a high-animacy noun (Narrog 2009:595-8), thus the syncretism between the instrumental and locative in high-animacy referents (2nd declension) **(ə)næk*, in Proto-CK is not surprising.

Cross-linguistically, it is not uncommon to see the locative extended to the instrumental and thus the ergative (Heine 2009:467). Additionally, while the instrumental is so widely regarded as an inanimate referent-taking case, diachronic analyses widely agree “that the instrumental is derived from a comitative function and not vice versa” (Narrog 2009:599). In this case, the Proto-CK instrumental has been derived from the Pre-CK locative function by pragmatic necessity – the high-animacy referents required the locative case to express an instrumental function.

However, this analysis of the 2nd declension (high-animacy) instrumental begs the question: from where was the independent instrumental marking for the 1st declension (low-animacy) derived? Fortescue (2005:434, note 8) claims that the Proto-CK 1st declension singular instrumental **-tæ* is related to the non-finite converb form used for manner **-tæ* in Chukotian. This becomes a natural extension of verbal **-tæ* to become the low-animacy true instrumental; Kulikov (2006:24) formulates a list of other grammatical forms that yield case endings, including “non-finite verbal forms, in particular, converbs.” These non-finite markings can be reanalyzed as new postpositions and then begin to take hosts from other word classes, namely nouns. A non-finite converb marker that indicates adverbial manner is a likely candidate to become a prototypical instrumental marker.

Thus, in Pre-CK it is possible to have only an original locative case **-tæ* (though its semantics were likely broader than simple point-in-space location). Later, the Chukotian converb manner marker **-tæ* became a postposition **tæ* that then marked nouns of manner – this became a proto-comitative case, which then split into the comitative and instrumental (this split of the comitative is discussed below in §3.5). The comitative gained its prefix **kæ-*, while the postposition **tæ* finally grammaticalized as the 1st declension low-animacy instrumental case-marking suffix. While this form was

used for prototypical low-animacy instrumentals, the locative extended to high-animacy instrumental usage; this is reinforced by the fact that both the singular and plural forms of the animate instrumental are syncretic with the locative. After this grammaticalization occurred, the ergative-absolutive alignment emerged in the Chukotian branch, using the newly formed instrumental as the basis of the agentive ergative case – the high-animacy ergative was adapted from the high-animacy instrumental (formerly the locative), and the low-animacy ergative was taken from the low-animacy instrumental, formerly the non-finite verbal manner suffix. Now, all three are able to co-occur in the same sentence with different functions (Dunn 1999:113, Skorik 1961:159, Spencer 2006:7). The evolution of the locative case complex is shown in Figure 4.

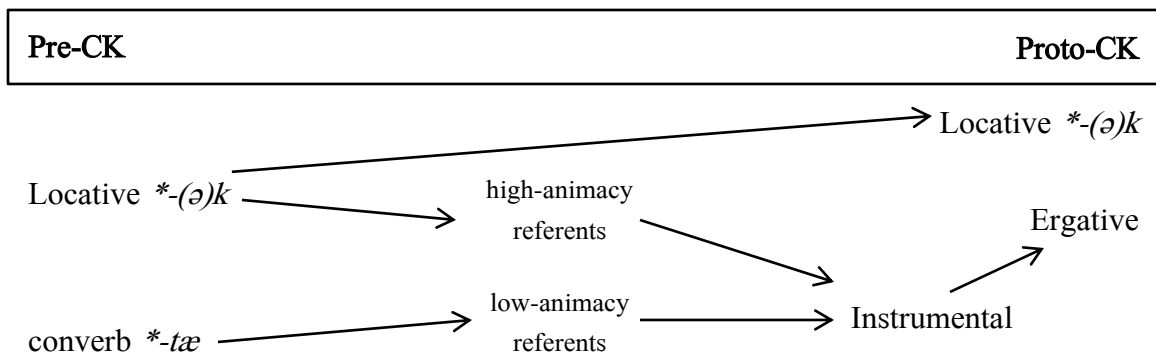


Figure 4: Development of the locative case complex

Here in §3.2-3.3 I have hypothesized an expansion of cases from Pre-CK to Proto-CK through internal reconstruction. The dative-allative-vialis complex can be reduced to one case, the dative, and the extension of the dative **-ŋ* to the allative **-jətəŋ* and vialis **-jəpəŋ* follows a logical trend of grammaticalization. The ergative-instrumental-locative complex can be reduced to a pre-locative-like case, where the instrumental **-tæ/(ə)næk* grew from a disparity in the animacy-linked declensional classes, grammaticalizing a verbal suffix **tæ* eventually into a case marker for low-animacy referents, while the locative **(ə)næk* was extended to high-animacy referents.

3.4 The origin of the genitive

In the CK languages, there exists a possessive/relational morpheme reconstructed as **-inæ* ‘pertaining to’ (Fortescue 2005:409). This morpheme (henceforth referred to as the genitive⁹) is largely regarded as a derivational affix in the present-day forms of the CK languages; in Chukchi, it has split into two different derivational suffixes: the possessive *-en-* and the relational *-ken-*. They are both adnominal affixes

⁹ I will be referring to the affix **-inæ* as a genitive due to its similarity to the European genitive in function and behavior. These affixes are called ‘possessive’ or ‘relational’ in the grammars of each CK language (except Kerek, for which extremely little data exists), but these are primarily synchronic terms to describe the affix’s behavior, while I will be examining this phenomenon in a diachronic perspective and thus ‘genitive’ will be more appropriate.

noun head via concord” (Primus 2010:305) so theta roles are not violated by way of embedded agreement. In diachronic discussion of this phenomenon in Aristar (1995), it was found that the genitive in these cases tends to have an affiliation with pronominal agreement, and this is the case in CK. This pattern of semantic and morphological behavior can be considered a feature of the genitive and is also found in the behavior of the reflexes of the reconstructed genitive **-inæ*. This lends further evidence for the presence of a genitive case in Pre-CK. In Koryak, the 2nd declension genitive *-nin* is used for the 3rd person singular agreement on verbs, and Itelmen has *-nen*. Nedyalkov (1961:261) finds the source of this agreement from *ənin* ‘his’ in Chukchi. Like other cases, we also see the high-animacy *-na-* suffix on pronouns. This is illustrated in (38) through (40).

(38) a. *γəmnin*

1SG.GEN

‘mine’

b. *γəm*

‘I’

Chukchi, Fortescue (1997:403)

- (39) a. $\gamma\text{ə}n\text{in}$
 2SG.GEN
 ‘yours’
- b. $\gamma\text{ət}$
 ‘you’ Chukchi, Fortescue (1997:403)
-
- (40) a. $kn\text{ə}n$
 1SG.GEN
 ‘mine’
- b. $k\text{ə}z(z)a$
 ‘I’ Itelmen, Fortescue (1997:403)

The two genitive suffixes *-in* and *-kin* illustrated in (34) through (40) are closely linked, but are also semantically and morphologically distinct. The possessive meaning primarily has the form *-in(V)* in the modern CK languages, and the relational meaning has the form *-kin(V)*. The /i/ in both forms is subject to change by vowel harmony.

I believe the genitive could be reconstructed for Pre-CK as a genuine case. The form and semantics of the reconstructed genitive **-inæ* are primarily linked to the

present possessive affixes (with the general form *-in V*) in the CK languages. While the possessive and relational are very similar in form, it appears that the relational suffix was formerly an adverbial suffix. Also, what is referred to as the ‘relational’ suffix in CK is much more restricted but also more productive; the relational suffix is primarily restricted to the semantics of time and location, as well as comparative adjective constructions. Both Fortescue (2005) and Koptjevskaja-Tamm (1995) acknowledge that the relational suffix is clearly related to the non-finite suffix used for relativizing adverbial phrases pertaining to time, location, or manner – more generally ‘pertaining to, for the purpose of’. This is not unlike how the instrumental case formed (see §3.3 above), and Koptjevskaja-Tamm (1995:308) remarks “[t]his usage with both nominal and verbal stems is... ..fairly common for suffixes... which generally shows a neat correspondence between the system of non-finite verbal predication and the nominal system of oblique cases.” As the extension of a verbal affix to nominals is a tremendously common path to case formation, the development of the relational suffix was probably a later development in CK.

Furthermore, the current possessive most likely came from the Pre-CK genitive for paradigmatic reasons. The possessive has different forms in the different declensional classes; compare Chukchi 1st declension possessive suffix *-in* and 2nd

declension possessive suffix *-nin(e)*. In addition to animacy class agreement, the possessive suffixes also agree in number with the referent. Itelmen distinguishes between the 3rd person singular possessive *-nen* and the 3rd person plural possessive *-ne?n*. The fact that these distinctions are also present in Itelmen are telling as well: their presence in both branches of the language family, especially the branch that had little to no contact with Eskimo speakers (Itelmen), gives plausibility to the idea that this genitive was present in the proto-language.

Additional evidence comes from the behavior of the genitive; the genitive exhibits the same morphological patterns as other cases in addition to animacy marking. These include overt morpheme loss when incorporated into a verb stem – when a case-marked noun undergoes noun incorporation into a verb, the case ending is lost and not incorporated. Compare examples (41) through (43) from Koryak with incorporated oblique cases, such as the instrumental in (41), locative in (42), ablative in (43), with the incorporated genitives in (44) and (45). Examples are from Kurebito (2004), abbreviated K04.

- (41) a. **qap1-a** tʰ-ujitʃivet-ək-∅
ball-INS 1SGS-play-1SGS-PAST
- b. tə-**qap1**-ujitʃivat-ək-∅
1SGS-**ball**-play-1SGS-PAST
‘I played with the ball’ (K04:283)
- (42) a. **vutq-ək** tə-ʕeveq-ək-∅
darkness-LOC 1SGS-go.out-1SGS-PAST
- b. tə-**vutqə**-ʕeqev-ək-∅
1SGS-**darkness**-go.out-1SGS-PAST
‘I went out at dark’ (K04:284)
- (43) a. **qepjo-ŋqo** tʰə-lʰap-ək-∅
hole-ABL 1SGS-look-1SGS-PAST
- b. tʰə-**qipju**-lʰap-ək-∅
1SGS-**hole**-look-1SGS-PAST
‘I looked through the hole’. (K04:284)

sea-animal-ABS.SG

‘a marine animal, regardless of physical position’ (KT95:308)

b. aŋqa-ken ɣənni-k

sea-GEN animal-ABS.SG

‘an animal in the sea or from the sea’ (KT95:308)

(47) a. lʔeleŋ mitʃyir

‘winter work, work that happens to occur during winter’

b. lʔeleŋ-kin mitʃyir

winter-GEN work

‘work that must be done in winter, regardless of nature’

(KT95:308)

I argue that incorporation is a derivational process, **not** the genitive as argued in Koptjevskaja-Tamm (1995). Noun incorporation is well-established as a derivational process that creates the fundamental semantics of the newly-formed noun or verb (Mithun 1984, 1986; Rosen 1989; Baker 1988). The genitive expresses a regular relationship between the genitive-marked noun and its head. In (46a), the incorporation

has created a new subclass of animal, specifically a sea animal. Example (46b) can be interpreted as ‘the sea’s animal’, which is not a semantically distinct subset. Likewise, (47b) can be interpreted as ‘winter’s work’, or work that can only be done in winter (work “belonging” to winter).

Due to the symmetry between the possessive/relational suffixes and the other cases in the CK languages, I believe we can reconstruct a genitive case for Pre-CK as **inæ*. Considering the discussion in Fortescue (1997) and (2005), the genitive had expanded and diversified by the time of Proto-CK, so it can be internally reconstructed further to a single form. The genitive parallels the animacy distinction and incorporation behavior, as well as having expanding domains and features of the other Pre-CK cases. The CK genitive also patterns like genitives in other languages, both semantically (external vs. incorporation) and morphologically (double case). Thus, a genitive case could be reconstructed for Pre-CK as **-in(æ)* for the 1st declension (low animacy) and **-ninæ* (**-n(A)-inæ*, animacy marker + **inæ*) for the 2nd declension (high-animacy), as shown in Figure 5.

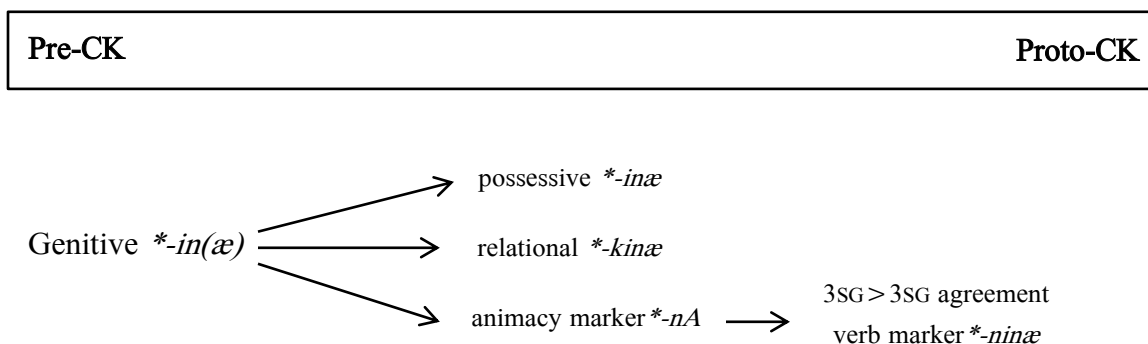


Figure 5: Development of the genitive

3.5 The comitative and associative cases

The comitative and associative cases that occur in all CK languages are closely linked; the comitative (reconstructed as **kæ- -tæ*, Fortescue 2005:426) is defined as having the meaning “together with X”, as a volitional accompaniment, while the associative (reconstructed as **kæ- -ma*, Fortescue 2005:426) has more the semantics of “in the presence of X”, as a passive accompaniment. These meanings can be considered transparent and significantly different from one another – in each CK language, there are both an associative *and* a comitative, never only one or the other. The interesting conundrum surrounding these two cases is that their morphological forms are very similar, yet they always appear in contrasting distribution. This indicates the possibility of a common thread (due to morphological similarity) but a strong divergence (due to

semantic or pragmatic necessity). Correspondences among the CK languages are shown in Table 11.

Case		Proto-CK	Chukchi	Koryak	Alyutor	Kerek	Itelmen
comitative	DECL1	<i>*kæ- -tæ</i>	ye- -e	ya- -a	ya- -a/-ta	-itʃtʃi	k- -t
	DECL2		-	ya- -ma	-	awən- -ma	
associative	DECL1	<i>*ka- -ma</i>	ya- -ma	yawən- -	yeqə- -a/-	na- -	k- -
	DECL2		-	ya- -ma	ma	ta	ma

Table 11: Correspondences in the comitative and associative cases

By looking at related parts of the reconstructed case morphemes, we can tease apart both the semantics and morphology behind the formation of these cases. Both cases are centered on a common meaning of accompaniment; not surprisingly, then, is the relation of the common prefix part of the case marking **kæ-* to the Proto-CK proclitic **kənmæ(l)* ‘together’. Fortescue (2005) notes that this may be the source of the Proto-CK comitative/associative prefix. Most likely, this clitic shortened to a monosyllable due to its inability to bear stress. This was a very versatile clitic, which can be found in the present-day languages attached to verbs as well, or used

derivationally as in (48). Example (48a) shows the Koryak reflex of Proto-CK

**kənmæ(l)*; while (48b) illustrates a derivational use of this clitic to turn *tumyən* ‘friend’ into ‘partner’.

- (48) a. yənmə
 ‘together’
- b. yənmə-tumyən
 together-friend
 ‘partner’
- Koryak, Fortescue (2005:149)

Due to the common prefix **kæ-* of the two cases, we can now infer the common semantics as well. The difference between the two cases is the suffix, which in the CK languages is where we see all other case affixation. The first lead that we have is Fortescue’s (2005) suggestion that the associative suffix **-ma* stems from the postposition **omak(aŋ)*, meaning ‘together’, as well as ‘group, gather, gathering’ across the CK languages. However, the associative case tends to mark an accompanying noun with lower (pragmatic) prominence than the head, so treating the reconstructed **-ma* as a coordinator is a more reasonable path. The marker *-ma* in Chukotian languages is also

used on gerunds to coordinate clauses; when the main verb has the same subject as the gerund as in (49), only the suffix *-ma* is used. When the gerund has a different subject from the main verb as in (50) and (51), both the prefix *ya-* and the suffix *-ma* are used. Examples are from Chukchi (Comrie 1981:252).

(49) *nevətʃqet-ti* *meytʃeran-ma* *tamenɲəra-k* *amqenʔetʃo*

woman-ABS.PL work-GER workshop-LOC always

nə-tipʔejɲe-qinet

IMPERF-sing-3PL

‘The women, while working in the workshop, always sing’

(50) *ya-ratʃqev-ma* *ənpənətʃy-ət* *ʔaatʃek-ət* *qut-yʔet*

GER-enter-GER old.man-ABS.PL youth-ABS.PL rise-3PL

‘When the old men entered, the youths rose’

(51) *yem-nan* *ya-lqaynav-ma* *atʃʔeq tʃəpet-yʔi*

I-ERG GER-shoot-GER duck dive-3SG

‘When I shot [it], the duck dove’

I argue that the comitative suffix **-tæ* comes from the same suffix as the Proto-CK instrumental **-tæ*, which ultimately (as discussed in §3.3 above) came from the converb manner marker **-tæ*. The comitative being derived from this adverbial suffix is not a stretch; the use of the comitative in the present-day CK languages is similar to that of an adjunct rather than a grammatical case. This usage is illustrated below in examples (52) with the comitative and (53) with the associative.

(52) ʒoro jalʸət-ʸəʒət qajəʕʒinnə-ŋ ʒaqaniŋvitə-nti
 after.that wander-3DUS.PERF Khayilino-DAT Aqaniŋvit-ABS.DU
 ʸa-ŋavʒan-a
 COMIT-wife-COMIT

‘After that, Aqaniŋvit with (his) wife traveled to Khayilino.’

Alyutor, Kibrik et al. (2000)

(53) miʸyer ʸa-mʒame-ma nəjmetʒa-qen renmə-k
 rifle ASSOC-cartridge-ASSOC hang-3SG.PRES wall-LOC

‘A rifle with cartridges hangs on the wall.’ Chukchi, Spencer (1999)

In (52), the number agreement marker on the subject (the dual) is marked on the noun in the absolutive case, even though the marked noun is not plural in itself. This absence of marking shows that the noun ‘wife’ is treated more as an adjunct (as opposed to a core argument). Example (53) shows a stronger tendency towards functioning like an adjunct; even though the cartridges are associated ‘in the presence of’ the rifle, the agreement marking on the verb is in the singular (which would indicate that the cartridges are not part of the core argument of the verb).

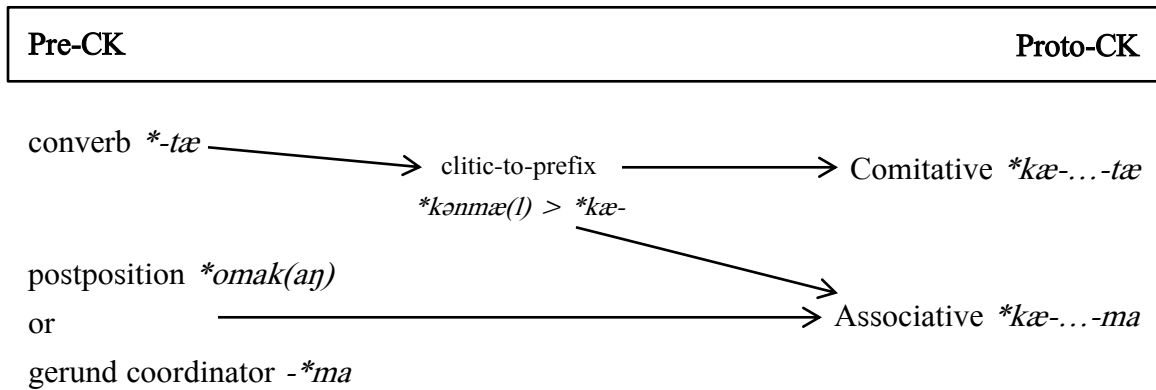


Figure 6: Development of the comitative and associative

Thus, the comitative and instrumental in Proto-CK share a common origin morphologically, as seen in Figure 6 above. This is not unusual; in studies on the comitative, the comitative and instrumental are intimately connected semantically. If both cases co-occur in a language, the frequency of syncretism is high and it is often

difficult to determine where the difference in semantics lies between them (Stolz et al. 2009:601-2). Because of this, it is not surprising that the comitative and instrumental share the same origin for the suffix. The comitative **kæ-...-tæ* gains its additional clarifying semantic function from the clitic-now-prefix **kæ-*. Additional evidence suggests that there is a unidirectional relationship between the comitative and instrumental cross-linguistically – the instrumental “is derived from the comitative function and not vice versa” (Narrog 2009:599). This would indicate that in Proto-CK there was some stage that was a type of proto-comitative-instrumental, with just the suffix **-tæ*.

If we can account for this kind of grammaticalization from a primarily verbal derivational suffix, we could conceptually eliminate the comitative and associative cases from a reconstructed Pre-CK. This would indicate that the grammaticalization happened before Proto-CK, and the link between the comitative and instrumental morphology lend strong evidence to this. The reduction of the clitic **kənmæ(l)* ‘together’ to a monosyllabic prefix is reasonable, and both cases also gained a suffix from one of two sources. The pre-CK-comitative started with the same **-tæ* as the adverbial suffix indicating manner, which, after gaining its prefix, split into the proto-comitative **kæ-...-tæ* and its un-prefixed counterpart, the proto-instrumental **-tæ*. The associative

gained its suffix from the gerund coordinator **-ma*, lending itself to the final semantics of ‘in the presence of X’ with the final form **ka-...-ma*.

3.6 The other cases

The other reconstructed cases (the absolutive, the referential, and the attributive) appear to be solid and cannot be fit into another case complex or internally reconstructed further. They gained their new or expanded meanings in the present-day languages through internal divergence and, in the case of Chukotian languages, possibly through language contact.

Case	Proto-CK	Chukchi	Koryak	Alyutor	Kerek	Itelmen
absolutive	<i>*-∅/-(ə)n/-ŋæ/-lŋən</i>	-ən/-∅	-ən/-∅	-∅	-ən/-∅	-∅
referential	<i>*-kjit</i>	-əɣjit	-kjit	-kjit/-kjita	-	-kit/-ket
attributive	<i>*-nu</i>	-u	-u	-u/-nu	-nu	-

Table 12: Morphological correspondences in the other cases

Itelmen has a case not found in other CK languages. The Itelmen abessive *qaʔm* –*aq* is a recently developed case; it evolved in Itelmen after the breakup of the two branches of CK, and it is formed with the clitic *qaʔm* ‘without’ followed by the noun with the adverbial negative formant suffix –*aq*. This was apparently not a pattern found

in Proto-CK, or even in the Chukotian branch. In Chukotian, only the $-q$ is present as an adverbial suffix and is further limited to quantitative (as in Chukchi $-qew$ ‘for the Xth time’) and temporal expressions (Fortescue 2005:420). Also, $qaʔm$ ‘without’ is not a cognate. Otherwise, the other cases reconstructed for Proto-CK (the attributive $*-nu$ ‘in capacity as, being’ and referential $*-kjit$ ‘oriented towards, about, concerning, because of’) have distinct morphological forms and semantics, as well as cognates in all of the CK languages (regardless of their semantic shifts, as shown in Table 13).

Proto-CK Case	Chukchi	Koryak	Alyutor	Kerek	Itelmen
referential	orientative	narrative-causal	causal, contactive	-	narrative-causal
attributive	designative	designative	designative	designative	-

Table 13: Semantic correspondences in the other CK cases

4 Summary and Conclusions

In this thesis, I have discussed several internal reconstructions that can further modify our picture of the Proto-CK language. I have shown that Pre-CK could have had fewer cases than Proto-CK, and I have added the genitive as a possible case for Pre-CK.

These hypotheses go beyond comparative reconstruction; internal reconstruction from comparatively reconstructed forms simplifies the case system significantly. Once the comparative method has exhausted its reconstructive ability, the examination of irregular paradigms and other internal patterns can lead farther back into a language's history and development.

4.1 Summary

Figure 7 below graphically illustrates this summary of changes to the grammaticalized, comparatively reconstructable cases in Proto-CK. This encompasses the divergence of the cases, and animacy, where relevant, is noted.

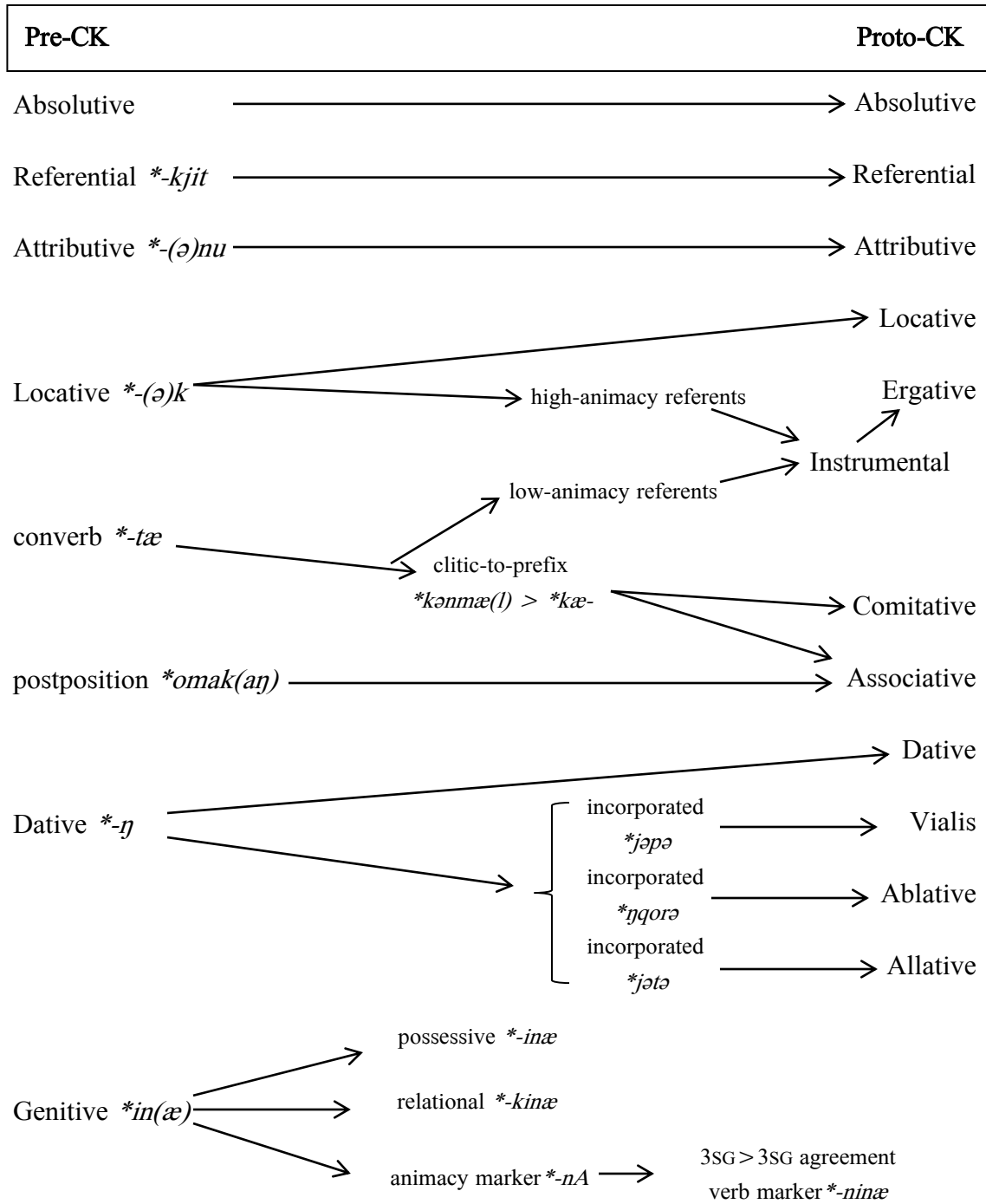


Figure 7: The evolution of the Proto-CK cases from Pre-CK cases

As we can see from the diagram in Figure 7, the grammaticalization of the Proto-CK cases was a significant array of morphological splits and mergers. The

common form between the Proto-CK dative, vialis, ablative, and allative was the Pre-CK dative marker **-ŋ*. The common form shared by the comitative and associative was the prefixed ‘together’ morpheme **kA-*, where the comitative merged this with the converb suffix **-tæ* and the associative merged with the postposition ‘together’ **omak(aŋ)* or the gerund coordinator **-ma*. The Pre-CK non-finite converb of manner marker began marking the comitative, which then split to form the low-animacy instrumental **-tæ* once the comitative gained a prefix. The locative **-k* split to form the traditional Proto-CK locative **-k* as well as the high-animacy instrumental **-næk*, which eventually took on the additional syncretic role of the ergative marker. The Pre-CK genitive **in(æ)* split into the possessive **-inæ-*, the relational **-kinæ-*, and after incorporating the 2nd declension high-animacy marker **-nA-*, became the 3SGA + 3SGP verbal agreement marker **ninæ* in all tenses.

I have argued that Pre-CK had only six cases (absolute, dative, locative, attributive, referential, genitive) instead of the hypothesized eleven in Proto-CK (Fortescue 2005:426). The ablative, allative, and prolativ (vialis) can be seen as later innovations using the common dative marker **-ŋ*. Likewise, the locative and instrumental (and from the instrumental, the Chukotian ergative) can be boiled down to the locative and expanded semantically, with inanimate instrumental suppletion from an

adverbial suffix. Especially the locative evolution has been shown to be related to the animacy hierarchy in CK – not only can the animacy markers be faithfully reconstructed and extracted from the case endings, but the syncretism between the animate locative and instrumental have given us clues for the possible origins of the new instrumental forms.

Pre-CK also probably had a prototypical genitive case expressing possession and relation from one NP to another. This follows from the behavior of the possessive and relational suffixes in the present-day CK languages, which follow the grammatical patterns of the other cases (as in incorporation and predication) and has a relationship to verbal agreement like the genitives of other languages (Aristar 1995).

The comitative and associative most likely were derived from a shortened form of the proclitic ‘together’ **kənmæ(l)*, plus respective suffixes from the converb of manner **-tæ* and the gerund coordinator **-ma*. Because these two cases can be reconstructed comparatively and are present with transparent semantics across all CK languages, it is clear they were present in Proto-CK. This would have been a development before Proto-CK, where the comitative and associative were fully grammaticalized. The full evolution from Pre-CK to the modern CK languages is shown in Figure 8.

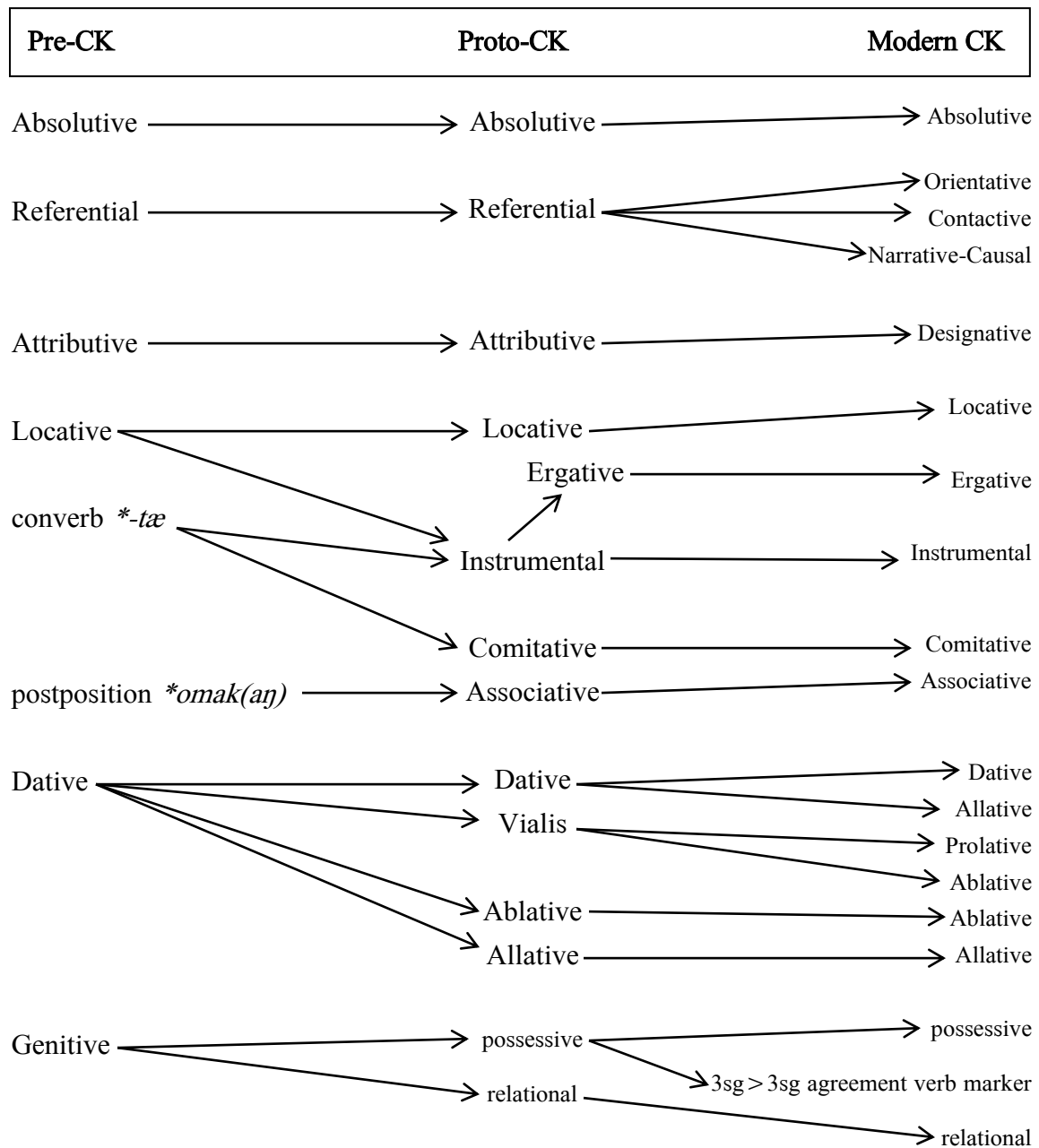


Figure 8: Cases from Pre-CK to Modern CK

4.2 Conclusions

While I have shown that the eleven Proto-CK cases evolved from only six in Pre-CK, it has required a large amount of semantic leeway. Even Fortescue's (2005)

description of his reduced cases (the vialis, attributive, and referential) was forced to be broadly defined; the cognate case endings in each of the CK languages spanned a certain semantic breadth, even with similar morphological forms. For example, the referential case **kjit* encompassed ‘oriented by (Chukchi orientative)’, ‘because of (Koryak/Alyutor/Itelmen narrative-causal)’, and ‘in contact with (Alyutor contactive)’. This is a large amount of semantic latitude for one case suffix. While all of the reflex cases carry some underlying semantic meaning of ‘concerning’ or ‘referring/with reference to’, with comparative morphology comes expanded semantic scope. Interestingly, however, other cases such as the comitative and associative have surprisingly consistent, transparent meanings throughout the language family’s history, from Proto-CK to present day.

In the internal reconstruction of the case system in Pre-CK, I have reduced the need for such a broad semantic scope by eliminating cases and tracing their origins from a single case. Due to significant cross-linguistic evidence considered above, extension of certain cases to others does not require large amounts of semantic breadth. Because a locative or comitative case can logically extend to an instrumental meaning, the pre-CK-locative and pre-CK-comitative do not require additional semantics nor expansion of meaning; they are encapsulated in the primary case already. Additionally,

several of the cases have a developmental history from other affixes (or affixes from grammaticalized or incorporated postpositions) within Pre-CK. These affixes are separate morphemes that have their own meaning which became an additional part of the meanings of the case endings.

The struggle to delimit how many cases a given language has is just as much a diachronic question as a synchronic one. This is an important typological question, “given the imperative for the typologist to compare like with like” (Corbett 2008:1). If case is considered a feature of a language (as I have done in this thesis), the primary concern is the value of this feature, which manifests as the difference cases in a language. The completeness of this internal reconstruction of the case system of Pre-CK lies in the ability to satisfy the criteria used to define case values in both semantic and morphosyntactic characteristics. A case system is based on the fact that cases can be distinguished from one another; while this seems simple, we must recognize that all aspects of grammar must be used to distinguish them – syntactic function, semantic function, morphophonological form, and so on. Syncretism makes cases indistinct morphologically, certain syntactic slots can take the same case, and different cases under certain conditions will have the same meaning as other cases; this means we must define cases not by one of these traits but as a combination of them all.

Now, I will revisit the three principles of canonical case as laid out by Corbett (2008) and compare these to what I have hypothesized in my reconstruction.

Principle I: *Features and their values are clearly distinguished by formal means (and the clearer the formal means by which a feature or value is distinguished, the more canonical that feature or value).* (Corbett 2008:6)

First, we look for autonomous prototypical values – values of case which have a dedicated form. By this definition, the Proto-CK referential case **-(ə)nu* is autonomous (any noun ending in **-(ə)nu* could not be interpreted as any other case than referential singular), while the Proto-CK 2nd declension locative is not; it is syncretic with the instrumental. Because in the present-day CK languages these two cases can appear in the same sentence and have no additional required distinguishing markers (postpositions, syntactic arrangement, etc.), there is no further way to distinguish the two, since they are also 2nd declension and both would also be marked for animacy in the same way. Reduction of the instrumental into the locative complex (and by the same token, reduction of the dative complex) eliminates syncretism and at the same time does not complicate the semantics of the case; this allows Pre-CK to have six cases with canonical forms. In addition, the relative ease in which the morphologically complex cases in Proto-CK break into their Pre-CK ‘pieces’ lends plausibility to the

reconstruction. All of the hypothesized grammaticalizations are well-attested cross-linguistically. The only other issue of syncretism is the absence of distinction in number in the 1st declension in Proto-CK; however, this is not entirely unexpected, since the 1st declension is composed of low-animacy nouns.

Principle II: *The use of canonical morphosyntactic features and their values is determined by simple syntactic rules.* (Corbett 2008:10)

This gives preference to the Pre-CK forms over the Proto-CK forms in two ways – the elimination of the comitative and associative and the addition of the genitive. The elimination of the Proto-CK comitative and associative cases (or at least their reduction to analytic constructions of clitic + noun + postposition) allows the syntax to have transparency to semantic meaning. While both grammaticalized cases express some kind of association, in an analytic construction these shades of meaning can be more explicit with regard to the syntax. The genitive case in Pre-CK has both distinctive form and distinctive meaning – this is most easily seen when the genitive is used predicatively in the CK languages. Because the genitive had split into the relational and the possessive suffixes in Proto-CK as well as the 3SGA + 3SGP verbal agreement marker, only in Pre-CK as a case ending is its meaning apparent to the syntax. This is the difference

between Gvin + LOC + 1SG and Gvin + GEN + 1SG predicatively – the former means ‘I am at Gvin (a place)’ and the latter ‘I am from Gvin’.

Also, the Proto-CK system with its syncretism between the locative and instrumental also is not transparent to the syntax and admits a lexical condition – animacy. The morphological ambiguity between the instrumental and locative in Proto-CK does not allow canonicity in the syntax. If an intransitive verb has an external high-animacy argument, neither syntactically nor morphologically can it be distinguished between the locative or instrumental case. The cases reconstructed in Pre-CK are able to “stand alone to fill various syntactic slots” (Corbett 2008:14). Cases that are present in Proto-CK but not in Pre-CK can be considered analytic constructions that have not been grammaticalized into new case forms; this eliminates syncretism and promotes transparency to the syntax *and* morphology.

Principle III: *Canonical morphosyntactic features and their values are expressed by canonical inflectional morphology.* (Corbett 2008:14)

Both systems in Proto-CK and Pre-CK satisfy this principle, largely due to the agglutinating nature of the languages in the family. There is very little fusion in both systems, since animacy in the singular is marked by a particular morpheme **-nA-* and

number/animacy (only expressed beyond the absolutive in the 2nd declension) is marked by a fairly salient morpheme **(ə)ðəka*. While animacy and number might be fusional, case is not. The Proto-CK cases show all three features to be fusional – case, number, and animacy. However, there are large amounts of syncretism in the Proto-CK system, which is non-canonical with regard to this principle – there is, in many cases, no one-to-one ratio between form and fully-expressed meaning. The canonicity is higher in the Pre-CK cases, though. Syncretism has been reduced by elimination or collapsing cases, non-transparent meaning is no longer a problem in the syntax – instead it is expressed through analytic construction (in the case of the comitative and associative meanings), and the genitive allows explicit interpretation in predication.

This comparison of an internally-reconstructed case system and typological ideals for defining case as a feature as well as its values has shed light on reconstruction as a tool for helping define canonicity for the typologist. Because internal reconstruction's purpose is to reconstruct regularity within a single language and extract exceptions (no matter the source), the results of such a reconstruction may be able to help define what is canonical (as well as criteria for canonicity) for different typological features. As we have seen in the discussion above in §3, cross-linguistic examinations lend huge amounts of evidence towards internal reconstructions (that have no more

comparative evidence or textual history) in terms of ‘naturalness’ or common evolutionary paths of grammaticalization. In turn, applying ‘naturalness’ as a concept in internal reconstruction can assist definitions by using answers to the question ‘why have we come to/settled on this reconstruction?’ This could be applied to other features of the grammar, such as verbal agreement. Investigating the nature of the passive and inverse in Pre-CK could shed more light on the development of the ergative system seen in Chukotian, as well as the complex obligatory prefixing and suffixing for agreement of verbal arguments.

Ultimately, this thesis has aimed to posit a more regular case system in Pre-CK by using other forms for postpositions, clitics, and verbal affixes to reduce the pieces of these reconstructed cases to their meaningful parts. While the comparative method can reveal linguistic prehistory, internal reconstruction can help demonstrate or reinforce particular paths of grammaticalization.

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APPENDICES

Appendix A: Abbreviations Used

		GEN	genitive
		GER	gerund
1	first person	IMP	imperative
2	second person	IMPERF	imperfective
3	third person	INF	infinitive
A	agent	INS	instrumental
ABESS	abessive	LOC	locative
ABL	ablative	MULT	multiple (iterative)
ABS	absolutive	NARR	narrative-causal
ALL	allative	NEG	negative, negation
ANIM	animate	NONSG	nonsingular
AOR	aorist	ORIENT	orientative
ASP	aspect	P	patient
ASSOC	associative	PAST	past
CAUS	causative	PERF	perfective
COMIT	comitative	PL	plural
CONTACT	contactive	POSS	possessive
DAT	dative	PROL	prolative
DESIG	designative	PURP	purposive
DISCONT	discontinuous	REL	relational
DIST	distributive	S	subject
DUAL	dual	SG	singular
ERG	ergative	VOC	vocative

Appendix B: Phoneme Inventories of the Individual CK Languages

A brief note on vowels: The CK languages have a system of vowel harmony where all phonemic vowels in a word agree in height. Itelmen has lost this system in all but the oldest native speakers. The recessive vowels are /i, e¹, u/ and the dominant vowels are /e², a, o/. If one dominant vowel is present in a word, all recessive vowels become their dominant counterpart. Because /i/ (recessive) alternates with /e/ (dominant), and /e/ (recessive) alternates with /a/ (dominant), the two varieties of /e/ (recessive and dominant) are considered separate phonemes by the linguistic literature.

Chukchi:

Consonants	Labial	Alveolar	Palatal	Velar	Uvular	Glottal
Stops	p	t		k	q	ʔ
Fricatives		ʈ		ɣ		
Affricates			tʃ			
Nasals	m	n		ŋ		
Liquids		ɹ				
Glides	w		j			

Vowels: /i, e¹, e², a, o, u/

(Spencer 1999, Ch. 1)

Koryak:

Consonants	Labial	Alveolar	Palatal	Velar	Uvular	Pharyngeal	Glottal
Stops	p	t	tʲ	k	q		ʔ
Fricatives	v	ɬ		ɣ		ɕ	
Affricates			tʃ				
Nasals	m	n	ɲ	ŋ			
Liquids		l	lʲ				
Glides	w		j				

Vowels: /i, e¹, e², a, o, u/

(Zhukova 1972:22-3)

Alyutor:

Consonants	Labial	Alveolar	Palatal	Velar	Uvular	Pharyngeal	Glottal
Stops	p	t	tʲ	k	q		ʔ
Fricatives	v			ɣ		ɕ	
Affricates			tʃʲ				
Nasals	m	n	ɲ	ŋ			
Liquids		l, r	lʲ				
Glides	w		j				

Vowels: /i, i:, e, e:, ə, a, a:, o, o:, u, u:/

(Kibrik et al. 2000:182)

Kerek:

Consonants	Labial	Alveolar	Palatal	Velar	Uvular	Pharyngeal	Glottal
Stops	p	t		k	q		ʔ
Fricatives		ɬ		ɣ		ɕ	
Affricates			tʃ				
Nasals	m	n		ŋ			
Glides	w		j				

Vowels: /i, a, ə, u/

(Skorik 1968:310-11)

Itelmen:

Consonants	Labial	Alveolar	Palatal	Velar	Uvular	Glottal
Stops	p	t		k	q	ʔ
Ejectives	p'	t'	tʃ'	k'	q'	
Fricatives	ɸ, β	s, z, ʃ		x, ɣ	χ	
Affricates			tʃ			
Nasals	m	n	ɲ	ŋ		
Liquids		ɹ, l				
Glides			j			

Vowels: /i, e, a, o, u/

(Volodin 1976:26,32)

Proto-Chukotko-Kamchatkan:

Consonants	Labial	Labiodental	Alveolar	Palatal	Velar	Uvular
Stops	*p		*t	*c	*k	*q
Fricatives	*v	*ð			*ɣ	*R
Nasals	*m		*n		*ŋ	
Liquids			*ɹ, *l			
Glides	*w			*j		

Vowels: /*i, *e, *æ, *a, *o, *u/

Fortescue (2005:6)