

# **Baja California Languages: Description and Linguistic Prehistory**

**Southern California Pacific Linguistics, Part 1**

David Leedom Shaul

Center for the Study of Origins and Department of Anthropology  
University of Colorado, Boulder

School of Anthropology, University of Arizona

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## Abbreviations

Abs	absolute	pl.	plural
Adj	adjective	pl.o.	plural object marker
Atr	attributive	Poss	possessive
caus.	causative	postp.	postposition
Cl.	classifier	pref.	prefix
coll.	collective	Prep	preposition
Conj	conjunction	Pres	present tense
Dat	dative	Prox	proximal
dem.	demonstrative	purp.	purposive
Distr	distributive	Q	question marker
DS	different-subject	Rel	relative marker
Dur	durative	rela.	relational
dv.	ditransitive verb	res.	resultative
Erg	ergative	S	stative
Fut	future	sg.	singular
Ger	gerund	Sp.	Spanish
Imp	imperative	Spec.	specifier
iv.	intransitive verb	SS	same-subject
lit.	literally	Stat	stative
loc.	locative	Sub	subordinate
m.sp.	man speaking	Subj	subjective
n.	noun	suf.	suffix
Nah.	Náhuatl	tv.	transitive verb
Nom	nominalization	v.	verb
Obj	objective	var.	variant
Opt	optative	Ver	verative
Pas	passive	w.sp.	woman speaking
Perf	perfective		

## Chapter 1

### Introduction

The purpose of this volume is to gather all of the data on the native languages of Baja California together, with "Baja California" being understood to be the territory below the areas where Paipai and Kiliwa are/were spoken. The languages include Cochimí, Robinia, Waikura, Seri, Monqui, and Pericú.

The testimony of the Jesuits, the initial contact in the southern half of Baja, is uniform in agreeing on at least four distinct languages: Cochimí, Waikura, Monqui, and Pericú (Clavijero 1970:50; Baegert 1952; del Barco 1973). To these may be added Seri (see "Seri on the Eastern Baja Coast" in Chapter 10), and Robinia (Chapter 6, Appendix H) formerly counted as a variety of Cochimí, but noted by Troike (1976) as a separate language as "Cochimí II." Mixco (1978a, 1979) grouped all the Cochimí data together as "Cochimí," treating it as a union Cochimí written with regularized morphemes, but in Mixco (2006) he recognized the Cochimí varieties as "Cochimían." Cochimían includes the Cochimí dialects and Robinia, but probably not Monqui.

Major summaries of the tribes and languages of Baja California (for example: Massey 1949; Laylander 1997) have proposed Baja language families based on very little or no real linguistic data. This book is different because I only look at real language data that has come down to us. We can be thankful that the Jesuits expelled from New Spain in 1767 took care to preserve some of what they knew about Baja languages and cultures, after their papers and books were confiscated in Havana, Cuba, before their return to Europe.

Mixco noted that "the available Jesuit sources on the extinct indigenous languages of Baja California have been virtually exhausted" (2006:37). All data is subject to reanalysis, and I hope he is happy with the results presented here.

The Jesuits had a fairly broad outlook on the languages of Baja. If there was no case marking (as in Waikura nouns), they didn't mention it. If there was tense-aspect marking, they gave the major details. A cosmopolitan outlook is shown by the following comment by Baegert, whose comments on Baja and its peoples are usually quite acerbic.

I can say that it [the Waikura language] is savage and barbaric in the highest degree. When I use the terms "savage and barbaric," I do not mean a hard pronunciation or a succession of many consonants, for these things are not essential and innate characteristics of a language but are, it would seem, purely accidental and superficial. They are imagined by those who do not understand the so-called savage language. As everyone knows, the Italians and the French accuse the Germans, and the Germans the Bohemians or the Poles, of speaking a barbaric tongue; but they do so only until they are able to converse with each other (1952:95).

Baegert goes on to explain that the Waikura language reflects the needs and cultural interests of its speakers, which he considered to be savage in terms of simple technology and social organization.

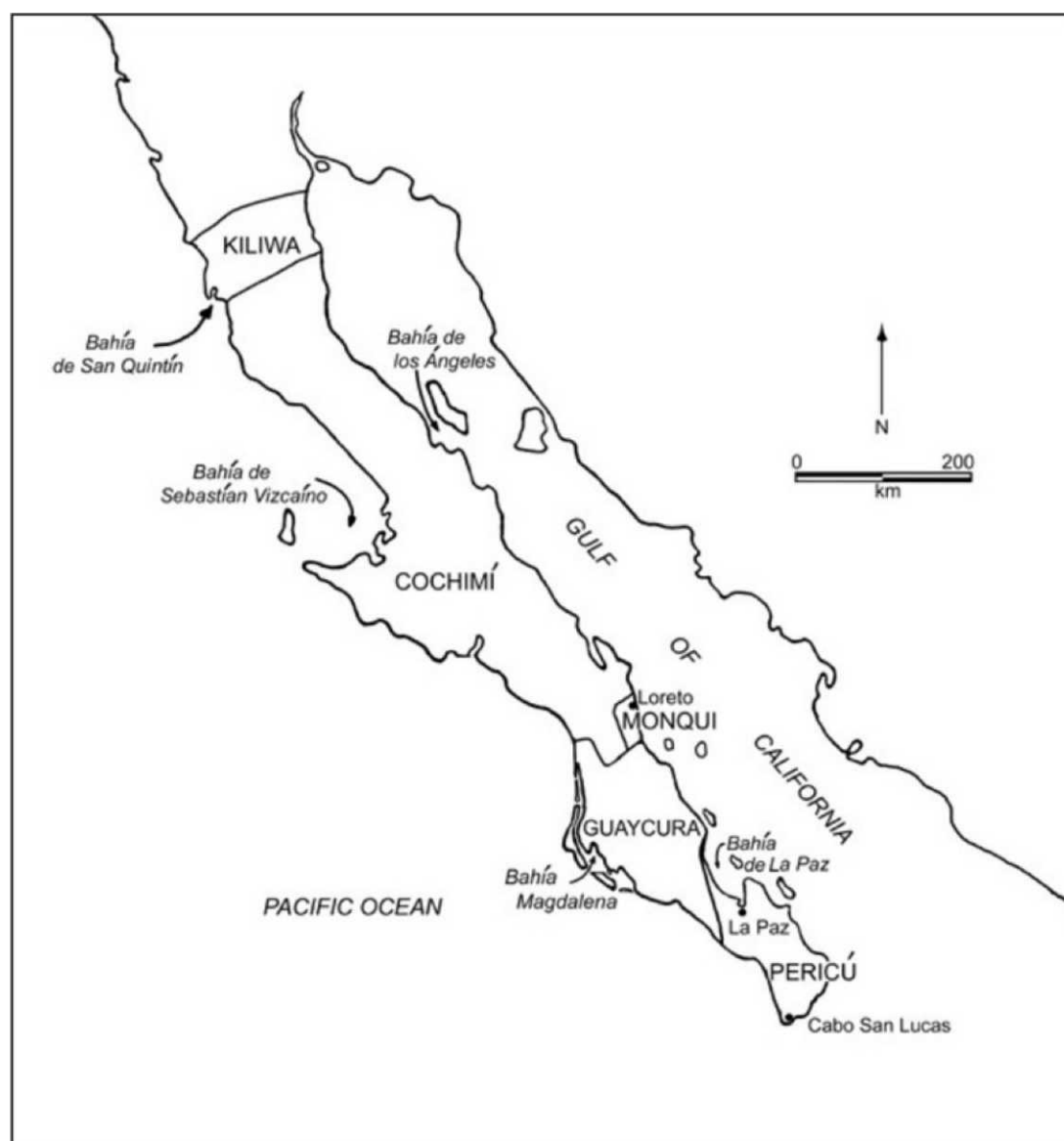
The five languages that occupy our attention here as Baja languages are: Robinia, Cochimí, Waikura, Pericú and Monqui. In addition, we must pay some attention of the Yuman languages and Seri.

Robinia is a language recorded from a speaker in Hermosillo, Sonora, as "Cochimí" -- but it is clearly a separate language from Cochimí (Troike 1976). Waikura is reported from a Jesuit source (Baegert 1771 and 1772, 1952; 1982), and has received some treatment (Zamponi 2004). Seri was spoken on the eastern Baja coast opposite Tiburon Island (Casanova 2012), as shown in a loan word into Northern Cochimí. Only a few lexical artifacts are reported for Pericú (Leon-Portilla 1976). Each of these languages are discussed in their own chapters, except for Seri which is treated extensively in resources that are readily available elsewhere. For Monqui, see the section below and Appendix K.

Most of the data that we have for Baja California languages is for Cochimí. There is already a summary (Mixco 1978) -- so why another book that deals with Cochimí? One major reason is that Cochimí is different from the analysis of Mixco (ergative case marking; case marking and tense-aspect marking are added at the phrase level, not at the word level; ergative case for grammatical control; double predicates; complementation). Two, there is fuller treatment (the inclusion of the Northern Cochimí data recorded by Gabb and Hervas), and fuller and clearer discussion of Cochimí dialects. A third reason for a new treatment of Cochimí is a format that is easier to follow (separate treatment of each Cochimí data set; word and sentence grammar more clearly shown).

The Cochimí reported by del Barco and Clavijero initially appears to be more diverse than it actually is; the four example texts of the Lord's Prayer (Clavijero 1970) are actually more or less elaborate uses of the same language. The sound pattern (Chapter 2) and most of the grammar (Chapters 3, 4) are common to all of the Cochimí texts, and the texts share the same assemblage of lexical artifacts. This is to be expected because language is an adaptive tool in areas as arid as the central desert of Baja California: the local forager patrilineal family may be dispersed to neighboring groups allied in kinship and language. These chapters must be tempered with the Cochimí variety reported by Hervas, which has its own chapter and data appendix.

Two Americans (William Gabb, John Bartlett) were able to find speakers of Cochimí and Robinia in the middle of the 1800s. By the early 1900s, only a few handfuls of words were remembered by descendants of the last speakers -- indeed, of the Cochimí data collected by John Peabody Harrington (Mixco 1977a), only a few items are clearly recognizable as Cochimí.



**Map 1. Baja California and its native languages. (After Laylander 1997).**

The languages and their relative positions are located on Map 1. The linguistic prehistory of Baja California has involved two discussions:

- a) that Cochimí and Seri are related to the Yuman language family;
- b) that Baja was a bottleneck of the earliest speech communities to migrate from Eurasia and settle in the Americas.

These previous discussions are taken up in Chapter 10, where the Pacific Rim Linguistic Area is also considered for Baja languages.

Yuman, Cochimí, and Robinia are Hokan languages. Hokan has been robustly defined by Kaufman (2015), who presents regular sound correspondences in a body of nearly a thousand cognate sets. His work has been confirmed by work with Esselen (Shaul 2019) and Salinan (Shaul 2020a, 2020b), two Hokan languages of the central coast of California Alta. The concept of a Hokan Common Core [of lexical and grammatical artifacts] is applied to Proto-Yuman, Cochimí and Robinia to show their Hokan affiliation in Chapter 9.

Some remarks need to be made about the Monqui language.

## **The Monqui Language**

Fourteen Monqui place names survive, without translation. The Monqui speech community extended along the eastern Baja California coast for perhaps forty miles north of Loreto, and a few miles inland. North of the Monquis were the Didiu, of unknown linguistic affiliation, whom the Monquis often fought. Although scholars have guessed that Monqui was related to Cochimí or Pericú, there is no real evidence for either proposal. The linguistic artifacts of Monqui that can be identified (Appendix K) suggest that the few Monqui similarities to Cochimi are loan words. Jesuit testimony is that Monqui was distinct from Cochimí and Waikura. Monqui territory as seen on the map, was quite small and suggests a refuge area of a remnant population.

The Jesuits reported eight rancherías of Monquis, with a total population of about 400 people. Their geographic location suggests that the sea provided much of Monqui resources and food, with the desert probably supplementing the food supply (agaves, pitahaya cactus). Trade with Cochimí neighbors could have involved exchange of marine products for skins and meat from deer and bighorn sheep, which the Cochimís hunted. By 1698, most Monquis lived at the Loreto Mission, which for them was perhaps a *pax hispanica* in the milieu of the internecine warfare of southern Baja.

By 1733, the Indian population of Loreto was 134. By the time the Jesuits left in 1767, the process of assimilation into Hispanic culture -- the goal of the missions -- must have been complete. The founder of the Loreto Mission was Piccolo, an Italian Jesuit, who wrote a history of Baja with a handful of cultural observations. Among the latter are a few native words. These have been assumed to be Cochimí. However, Piccolo's store of lexical artifacts play no part in Mixco's linguistic analysis of Cochimí (Mixco 1978), so they probably represent the Monqui language.

Piccolo speaks of "our Monqui language," and since he spent most of his mission years in the Monqui speech community, it is reasonable that his linguistic data is in fact Monqui, and not Cochimí or Waikura. In Appendix K, Piccolo's linguistic data is shown to represent a separate language.

Massey suggests that the Monqui tribe spoke a Cochimí dialect.

Padre Copart, who accompanied Kino to San Bruno [1683], compiled a catechism in the Nebe [Cochimí] language ... ; several years later Padre Salvatierra used this catechism at Loreto [the Monqui epicenter] with complete comprehension by the Monqui at Conchó [the Monqui name for Loreto] in 1683 was called "Ibo," the sun" (1949:290).<sup>1</sup>

The data in Appendix K shows that Monqui, as it can be inferred from the linguistic artifacts recorded by Piccolo, is a distinct language. Monqui fits into the Baja California phonological area, an patterns in terms of word order with Waikura) to the immediate south. A single sentence left by Piccolo allows a glimpse of Monqui grammar (Appendix K).

## **Bottleneck Linguistics**

The linguistic prehistory of Baja California involves multiple entries of speech communities. The first speech community that entered and survived is Pericú; the Pericús had no tradition of having entered Baja from the north. Cochimí was spread from the north of Baja over about two thirds of the peninsula, and had the most dialect variation. Both the Waikuras and Cochimís had the tradition that their ancestors had entered from the north.

Baja California was inhabited during the late Pleistocene, around 12,000 years BCE. At that time, Baja was wetter and had lakes. Around 8,000 years BCE, Baja California became the desert it is today. Burials from the Waikura and Pericú areas date from this time, and burials from both historic territories are notably short in stature and hyperdolichocephalic (long-headed). Both the historic Waikuras and Pericús had these characteristics, which set them apart as a biological population from most groups in the Americas -- so, the biological ancestors of the Waikuras and Pericús were around from at least 8,000 BCE.

Hokan is a language phylum (family of language families) that is robustly defined by cognate sets defined by regular correspondences and inherited irregularities (Kaufman 2015; Shaul 2019, 2020). The Hokan languages were clustered in central Alta California around the San Francisco Bay area, and dispersed from there to peripheral (mostly mountainous) areas. Languages like Esselen that were near

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<sup>1</sup>This linguistic artifact 'sun' is the same in Monqui and Cochimí and represents language contact.

the Hokan epicenter (Shaul 2019) retain more Hokan linguistic artifacts than Hokan languages to the south of Esselen: Salinan, the Yuman language family, and Cochimí in Baja (Chapter 11).

Because the Hokan spread only penetrated two thirds of the Baja peninsula, we can estimate that it happened at around or after 8,000 BCE. This means that Cochimí varieties postdate the desertification of Baja.

Waikura and Cochimí ethnohistory state that after the Waikura and Cochimí ancestors entered Baja, that a gigantic race entered, made the pictographs in the caves in the Central Desert of Baja, and were eventually defeated by the Waikuras and Cochimís. The Seris, whose main territory is on the Sonoran coast opposite Baja, had a tradition of a gigantic race invading their territory from Baja; there was a community of Seris historically on the northeastern Baja coast (Chapter 11), and the Seris are of short stature, like the native peoples of southern Baja. The identity of these giants remains an enigma. The question about the linguistic prehistory of Baja that naturally comes up is: is Baja California a linguistic area? A **linguistic area** is a naturally defined region (such as a peninsula!) where unrelated languages share common traits, especially ones not common cross-linguistically. The idea is that speech communities over long periods of time interact and that some linguistic artifacts come to be shared across languages in the linguistic area.

Baja California, in terms of phonological artifacts (the consonant array; the vowel array; main stress placement; [m] alternating with [mb]; [w] alternating with bilabial [v]; /t/ becoming the affricate [č]; the flap [r] coming from other consonants), is a **phonological area** (Chapter 10). These seven phonological traits are found in almost all varieties for which there is a quantity of data (Cochimí, Robinia, Waikura, and Pericú).

Baja, in terms of grammatical/structural artifacts, had two **grammatical areas** (Chapter 10). The sampled languages for which there is adequate data (Proto-Yuman, Cochimí, Hervas Cochimí, Monqui, Waikura) belong to the two grammatical areas defined on the following factors:

- (a) nominative-accusative case marking (using the same case-marking morphemes); switch-reference (using the same markers for same-subject and different subject);
- (b) ergative-absolutive case marking; case marking and tense-aspect marking at the phrase level (not word level); conjunctions consistently attached at the end of a simple sentence.

Languages belonging to grammatical area (a) include: Yuman and Hervas Cochimí. Languages belonging to grammatical area (b) include: southern Cochimí (non-Hervas Cochimí), Monqui, and Waikura.

The Pacific Rim Linguistic Area hypothesis (hereafter, PRLA) is the idea that during the last Ice Age, there were people and hence speech communities in the Beringia land expanse that linked Eurasia and North America. People moved south along the coast of North and then South America, with languages eventually expanding into the interior of both continents. There may have been more than one migration along the Pacific coast of North America. While in Beringia, speech communities kept linguistic artifacts that their ancestors had brought from East Asia. Some of these linguistic artifacts are present in the languages dispersed along the Pacific coast of the Americas.

It is not clear if the PRLA hypothesis postulates only a single migration. The major diagnostics of PRLA include the following:

- verb initial word order (and therefore prepositions);
- first person markers in n-;
- second person markers in m-;
- determiner-classifier-noun order;
- part of speech flexibility (same root as a noun or verb).

The bottlenecked languages in Baja California are a natural test of the PRLA hypothesis, since these languages arrived from the north into Baja, creating a stratigraphy of speech communities of great antiquity. Only the person marking and word order parameters exist in the data of Baja languages.

Diagnostic	Proto-Yuman	Cochimí	Robinia	Waikura
first forms in n-	*n-	n-, ergative/possr.	bu-(no)	be— m-
second forms in m-	*m-	m-, ergative/possr.	mu (yes)	ey ~ e
VSO	no	no	?	yes

If Waikura had all three traits, it would then be clear that PCLA happened before the Hokan spread. While Waikura has VSO word order and prepositions, it lacks the person marking forms. It also has postpositions of more specific meanings than the multivalent prepositions (/me/, /pe/, /te/). Proto-Yuman and Cochimí fit the person marking parameters, but have SOV word order/postpositions. It is hard to make any conclusions about PRLA and Baja languages.

## Chapter 2 The Sound Pattern of Cochimí

### Sources for Cochimí Data

There are seven sources for Cochimí data, which may be divided into regional varieties. The actual variations are slight.

Dialect	Missions	Sources
Hervas Cochimí	[next to Kiliwa]	Hervas (1785); Mixco (1979)
Northern Cochimí	Santa Maria San Francisco Borja Santa Gertrudis	Northern Cochimí texts in Clavijero; Northern Cochimí texts in del Barco; Gabb vocabulary
Central Cochimí	San Ignacio Guadalupe (?)	San Ignacio Pater Noster (Clavijero)
Southern Cochimí	Santa Rosalia Purísima San Jose Comundu San Javier	Ducrue's example sentences; Southern Cochimí text in Clavijero; Southern Cochimí texts in del Barco

The Clavijero data is presented in a modern edition in Leon-Portilla (1970), and treated in Mixco (1978). The del Barco data is presented in a modern edition edited by Leon-Portilla (1973), is sampled lexically in Troike (1976) and is transcribed and treated in Mixco (1978). The del Barco material is further identified by Troike: "This material, which is an anonymous supplement to an account of the work of Father Konsag in [Baja] California (Ms. Gesuit. 1413/1414 (3542-3543), Biblioteca Nazionale, Roma) comes from the area of San Bruno near the 26th parallel" (1976:161).

The Gabb vocabulary (Gabb 1867) is presented in Gatschet (1877) and discussed in Troike (1976). Hervas Cochimí, which differs grammatically in several major ways from the rest of Cochimí, is treated in Chapter 5. Salvage linguistic work by John P. Harrington in the 1920s produced a body of Cochimí data (edited in Mixco 1979); Mixco notes "due to their paucity and indeterminate nature, Harrington's data contribute little to Cochimí dialectology" (2006:29).

### Sound Pattern

Cochimí has a compact array of consonants, with little phonetic variation. There are five vowels, with vowel clusters that end in /y/. There does not appear to be contrastive vowel length. There is some indication of vowel alternation, but no data for consonant variation. Morphemes have the shapes: V, CV, or CVC, where the vowel may be a vowel cluster and the final consonant is either /n/ or /ŋ/. Epenthetic vowels appear after consonants prefixed to roots, or in compounding. Epenthetic vowels spelled as <a e i o u> are typical of the Jesuit recordings of Cochimí. Indeed, Clavijero noted that

la lengua Cochimí, que es la mas extendida, es muy diicil, esta llena de aspiraciones" [the Cochimí language, which is the most widespread, is very difficult, and is full of aspirations] (1970:50),

referring to the staccato sound of a language with many glottal stops and epenthetic vowels.

Phonological words/close-knit phrases are defined by a strong stress on the last syllable. Stress may spread an epenthetic vowel preceding a stressed syllable.

## Consonants

The following are the consonants noted in the Cochimí data.

p	t	(č)	k	kw	'
b	d		g		
	s		x	xw	
	l				
m ~ mb	n	(ñ)	ŋ		
w		y			

[y] occurs as an off glide in vowel clusters (below) and as the second member of one consonant cluster: [by], as well as an initial consonant (see the Cochimí lexicon in Appendix D). Final /t/ becomes [č] when another consonant follows.

/kawit-ta/, 'ascend-Perfective'	>	[kawiča] (NC-C)
/git-da/, 'see/look at/judge-Future'	>	[giča] (NC-C)
/git-'ami/, 'see-well',.	>	[gič-ami] (SC-D)
/git-xwa/, 'see-Abs'	>	[gič-xwa] (SC-D)
/git-xi/, 'see-and'	>	[gič-xi] (SC-D)

This occurs in both Northern and Southern Cochimí data. Mixco (1978:18) believes that this change is not triggered by a following consonant, but by tense epenthetic vowels following /t/.

There is also a group of lexical artifacts in the Northern Cochimí data collected by Gabb which have [c] initially, medially, and finally in contact with /a e i/.

'a-čak,	'throat' [mouth-?]
k-ača,	'my brother/sister' [my-sibling]
-xčay,	'to cry'
ayečač,	'to run'
yupi-ča,	'eye' [face-?]
čakwi,	'one'
či,	'mother'
ičera,	'cold'
ičihi,	'meat'
mač(i),	'enemy'
wanču,	'small'
'čaŋ,	'to laugh'
wič,	'to give'
yač,	'yesterday'

The 'mother' form is found in Northern and Southern Cochimí, and the 'enemy' form is shared by Northern and Central Cochimí. There is no Southern data to compare to most of these lexical artifacts, which come mostly from the largest assemblage of Northern data (the Gabb list). It is reasonable to accept /č/ as a phoneme -- at least in Northern Cochimí -- that developed from the phonetic change noted above.

There is possible contrast between /b d g/ and /p t k/ -- all six occur before most of the five recorded vowels<sup>2</sup> -- although no minimal pairs obtain. Mixco (1978:18) noted that /b d g/ are more frequent in the data than /p t k/, and found that both series of stops were found in initial, intervocalic, and final position in roots. However, there are variants of the same lexical artifact which seem to show allophones.

gaye ~ kaye,	long time
wayp,	healthy
wayib,	arise (sg.)

Most of the recordings of Cochimí distinguish between both series of stops, so I have preserved their spellings, thus creating a broadly phonetic orthography for Cochimí used in this book.

It should be noted that [v], presumably bilabial, could appear for /w/. This variation is a feature of Northern Cochimí.

vahi ~ wahi,	'be done' (CC; in the same text
vit (NC) ~ wit (CC),	'all'
vixi (NC) ~ wixi (SC),	'and'
vičip ~ wičip,	'distribute/remit' (NC-P; same text)

<sup>2</sup>/t/ occurs initially before /i e a/ while /k/ occurs initially before /a e o u/.

This change seems to be more typical of Northern Cochimí. It is found only before /i a/.

A segment <r> appears in the Gabb data. The following items have [r] which only occurs between vowels, or (in one case) after another consonant (in 'island').

baray witi,	'alive'
iče:ra,	'cold'
ix:ara,	'black'
karay,	'pipe'
kaxpara,	'to see'
miŋra,	'island'
ramaray,	'yellow'
ta iriwar,	'to steal'
urap,	'to eat'
'para,	'tongue'
xir,	'to see'
uŋa-ra,	'was born' (NC-C; with /-ra/ for /-ta/, perfective)

Gabb's ['para] compares with <mabel> = [m-bel], 'tongue', with [r] as a variant of /l/. Gabb's [xir] is clearly related to [git], 'see'; [x] is fricated from /g/, and [r] is a tap version of /t/, a common phonetic change cross-linguistically. So, [r] is an allophone of both /l/ and /t/. Note, however, that /l/ appears only morpheme-initially, and as a final consonant.

/l/	>	[r] /V _ V
/l/	>	[r] /C _
/t/	>	[r] /C _

/l/ become [r] between vowels or before another consonant. I have maintained writing <r> in my transcription of Cochimí.

### Nasals

Nasal stops in Cochimí contrast. (As noted above, [ɲ] appears to be an allophone of /n/.

/-ma/,	'verb suffix' [probably stative]
/-na/,	'resultative'
/-ŋa/,	'locative'
/man-/,	'hot'
/maŋ/,	'verative'
/met/,	'earth/place/time'
/net/,	'yesterday'

Two linguistic artifacts suggest neutralization of /n/ and /ŋ/.

ŋa:saj ~ n-goso,	'love/believe (sg.)'
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There is too little data to explore this.

An alternation exists between [m] and [mb]. This is a characteristic of Southern Cochimí, but is found in the northern varieties.

[mo] ~ [mbo],	'name'
[bat] ~ [mbat],	'body'

The forms with [m] are historically basic: compare Proto-Yuman \*ma:t, 'body' with the above (Mixco 1978:19). There are certain circumstances when [mb] appears before /a/; see the section "The Collective Marker /-l/" in Chapter 3.

The palatal nasal is restricted in distribution to final position in phonological words or to final syllables. Following is the total data for this segment.

-añ,	'for a certain amount of time'
-ñi,	'not'
pwe-xi-ñ,	'[bring/distribute] [?-caus.-pl.]
godo-ño,	'love/believ (pl.)' [love/believe-pl.]
waxiñ,	'women' [woman-pl.]

It is clear from the last data group that /n/ marks plurality. Its appearance in the first data set suggests that it might come from palatization in contact with/a/ or /i/. It is reasonable to accept /ñ/ as a phoneme.

### Consonant Alternation

There is a consonant alternation apparent in two datums given by Clavijero.

bel ~ ben [hunger, famine; the Cochimí year is named according to food scarcity]

maxi-bel, winter (part of December, January, part of February) (Cl.);  
<majibel>[great-hunger];

maxi-ben, late winter (February, March, part of April);  
<majiben> [great-famine];

maxi-ben-ma:yi, spring (some of April, May, early June; time of no food  
available) (Cl.) [great-famine-evil]

Kaufman (2015) reconstructs the following variation for Proto-Hokan: #/l ~ n ~ r/. He states that

In the etymologies I have found acceptable, there are numerous instances of multiple or discrepant reflexes among the apical resonants \*l, \*n, and \*r ... the alternation among apicals seems to be associated mainly with size and respect (2015:60).

#/l/ is neutral, and #/n/ greater in size or magnitude. Under this reading Cochimí /bel/ means 'hunger', while /ben/ means 'famine', a greater hunger.

### Vowels

The vowels are: [i], [e], [u], [o], [a]. There are minimal pairs in the regularized data that suggest phoneme status for all of these.

/-xa/,	'plural marker'
/-xi/,	'causative'
/xo/,	'adverbial'
/'xu/,	'to go'
/wa/,	'sit/dwell'
/we/,	'salt'
/wi/,	'very'
/wi/,	'be/become'
/ya/,	'demonstrative/relative marker'
/yi/,	'to be'
/yo/,	'into/below'

A few vowel alternations suggest an original three vowel system for Pre-Cochimían: /i u a/.

/kwe/ ~ /kwi/,	'hear/obey'
/we-/ ~ /wi-/,	'third person marker'
/'wi/ ~ /we/,	'to go'
/-mo/ ~ /-mu/,	'locative'

Other vowel alternations in semantic equivalents are perhaps dialect variation, or else true vowel alternations from Proto-Hokan (Kaufman 2015).

/(m)bo/ ~ /(m)baŋ/,	'name'
/ŋa:san/ ~ /n-goso/,	'love/believe (sg. obj.)'
/ibo/ ~ /ibaŋ/ ~ /ibuŋa/,	'sun/day'
/git-/ ~ /gad/,	'to see'
/wigya/ ~ /wagya/,	'arise (sg.)'
/dala-/ ~ /del-/,	'to speak'
/'mat/ ~ /'met/,	'earth'
/-no/ ~ /-naŋ/,	'locative'

Double vowels seem to record phonetic vowel length. The most frequent example of this is <yaa> and <yaâ>; this is phonetically [yá:], where the length is a part of the stress placed on the last syllable of a phonological word (see below).

There are three vowel clusters: [ey], [uy], and [ay]. They are equivalent of a single vowel in the syllable canons (immediately below). del Barco and other Jesuits used a Latinate digraph <ae> often joined as <æ> (Mixco 1978:15). This spelling is equivalent to a tense or lax [e].

### Syllable Structure and Prosody

The possible syllable shapes are: V, CV, and CVC. The vowel may include one of the vowel clusters ending in /y/. Consonant clusters in the Cochimí data are: [mw], [mwy], [nw], [by]. The consonant clusters occur in second syllables of bisyllabic morphemes. It seems that root-final consonants are only /n/ and /ŋ/.

There is consonant length: [-m:-], [-n:-], [-s:-]. These occur in the middle of a root, before the final stress. Medial consonant length is not always recorded.

A number of roots have an initial glottal stop, usually written as a (epenthetic) vowel. These contrast with roots without the initial glottal stop.

/-ak/,	'[from]'
/'ak/,	'bone(s)'
/mat-/,	'season'
/mbat/ ~ /mat/,	'body'
/'mat/,	'earth'

Roots with initial glottal stops appear to have come from Proto-Hokan #a-, 'absolute'.

del Barco notes that in his notes on Cochimí, "I left accents out because it is enough to tell the uninitiated that the accent [stress] is always on the last syllable" (Mixco 1978:105). The grave accents in other Cochimí data from the Jesuits mark this final stress, which serves to distinguish phonological words. However, sometimes a semantically close-knit phrase may be treated as a phonological word.

/am:abaŋ mi[y]a-mú/,	'in Heaven' [sky + loc.-loc.]
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Sometimes the final stress may spread to a preceding epenthetic vowel.

mã-majá-xwá	wit	maxa	texem
2-name-Abs	all	people	[honor]
'all people honor Thy Name'			

Other instances of both of these stress-related patterns may be found in the texts.

It remains to note that Cochimí, like Yuman, has many epenthetic vowels, the quality of which depends on the phonological context. Mixco notes "the quality of the epenthetic vowel can be determined by the quality of the surrounding consonants" (1978:15). In the transcriptions here, the following have been used to mark epenthetic vowels: <ã ě ĭ õ ũ>. del Barco states that he often writes epenthetic vowels with a circumflex accent (Mixco 1978:105), although I did not find any such spellings in the Mixco transcription of del Barco's Cochimí (only in Hervas).

### Transcriptional Practice

All of the texts have their original spelling, along with my phonemic transcription. Original spellings for items in the Gabb vocabulary appear in the Cochimí lexicon in Appendix D. The key to Gabb's spellings is given in the introduction to that appendix. My transcription of Cochimí data is used for examples of Cochmi word structure and sentence structure (Chapters 2 and 3), as well as the basis of entries in the Cochimí lexicon (Appendix D and E).

The vowels have their Spanish/Italian values. Vowel clusters ending in /y/ appear in the recording of Cochimí as <Vi> or <Vy>. I have transcribed the latter.

Double vowels are common in the recordings of Cochimí. I have transcribed them as long vowels. Mixco (1978:15) thought that there was an intervening glottal stop between the two vowels,. Where there is an epenthetic vowel, I have transcribed the vowels with a breve, to preserve the vowel quality: <ã ě ĭ õ ũ>.

Consonant spellings have their Spanish and Italian values. The spellings <gc> and <gk> appear "to render an acoustically intermediate sound somewhere between a fortis/lenis [k] and a lenis/lax [g]" (Mixco 1978:17); this spelling occurs most often for the imperative prefix /k-/. <dt> and <td> represent the same thing. These digraphs have been transcribed as /k/ and /t/ respectively.

<d> versus <dd> were probably used by Spanish/Italian speakers to render "a sound more tense"

than a regular [d] (Mixco 1978:17). Double <d> has been transcribed as /d/.

Cochimí /g/ and /w/ in front of front vowels may be spelled in different ways.

<gh> plus front vowel (Italian)	g
<gu> plus front vowel (Italian)	w
<hu> plus vowel (Spanish)	w
<u> plus vowel (Spanish)	w
<gu> plus front vowel (Spanish)	g

The Italianate spellings are unambiguous, while the Spanish use of <gu> must be compared with other recordings of the same lexical artifact (Mixco 1978:16-17). I have followed Mixco's transcriptions with respect to Spanish spellings with <gu>. Note, however, that the prefix <gui->, 'third person (ergative, possessor)' could be /gi-/ or /wi-/ -- I have consistently transcribed the latter, while Mixco transcribed [gi/wi]. In the del Barco data, the third person marker /wi-/ is often spelt <gui>, while the /wi/ meaning 'very' usually appears as <hui>. So, it would seem that some of the Jesuit spellings disambiguate homophones. The spellings <x> and a single <h> have been transcribed as /x/. Spellings <ju> plus vowel and <cu> plus vowel have been transcribed as /xw/ and /kw/, respectively.

## Chapter 3

### Word Structure in Cochimí

Despite the usual European prejudice that American indigenous languages were primitive, reflecting the lack of advanced intellectual culture, the Cochimí process of creative compounding contradicts this. Nouns were freely derived by compounding, but also by nominalizations. At least some nouns had non-singular forms (by adding a suffix), and nouns could carry possessor marking. There were three nuclear cases (ergative, absolutive, dative); the markers were added to the noun phrase, not to a noun or head noun. Independent pronouns and demonstratives were used to disambiguate subjects or possessors. Numerals and quantifiers show compounding.

Verbs were derived by suffix. There was also a set of classifiers that are the closest prefixes to the verb stem; they indicated unspecified objects or entities, and referred to animate and inanimate referents. A set of person marking prefixes marked four categories on verbs (ergative, absolutive, dative) and nouns (possessor). The personal prefixes marked subject and object in this order:

object-subject-classifier-VERB-negative.

The syntactic object is coded on the verb by either an absolutive or dative personal prefix, while the syntactic subject was coded by either an ergative personal prefix (for transitive agents and possessors) or absolutive personal prefix (for intransitive agents or experiencers). Number is not distinguished by the personal prefixes referring to subjects or possessors; this could be disambiguated by the use of independent pronouns and/or by number marking in the verb stem. Plural dative objects were marked by /n-/ and plural transitive objects were marked by /pa-/; both of the plural object markers occupied the object slot in the verb word. Tense (non-future, future) and aspect (imperfective, perfective) were not marked on the verb, but at the end of a verb phrase by particles. Passive and imperative categories were marked syntactically, not solely by word structure.

#### Noun Derivation

There is abundant evidence for compounding morphemes to produce nouns in the Gabb vocabulary (Appendix D).

etadwatchitibawaha,	coyote
watchtibatcha,	deer
manichipera,	forehead
retaraye,	forest
werumbatum-hutchitch,	lightning
machikang-iuga,	near
werumbatum-wech <sup>h</sup> kang,	thunder
tadishtatch,	to work

The whole of 'deer' is the second member of 'coyote'. The first element of 'lightning' and 'thunder' is the same. Analysis beyond this is not possible, other than to note Cochimí, at least the Northern Cochimí sampled by Gabb, used rich and complex metaphorical compounds for the elements of nature around them.

One example of a Cochimí compound that has been broken down into its parts by Mixco (1978) is below.

ke-'met + t-kwi-ñi, 'eternal' [S-time/place + Cl.-cease-not]

The noun /'met/, 'earth' is used in Cochimí to refer to 'place' in general, and by extension to 'time'. This compound means 'big, ceaseless time'. Further examples of Cochimí metaphors will be found in the last section of this chapter on superlatives. The compound given above and those in the section of superlatives contradict the usual Jesuit attitude to native languages of the Americas.

This language [Cochimí] is very scarce or should I say defective, not only in intellectual matters but also in other concepts to which these people are not used; for example, to judge, to propose, perfection, perfect, to pray, supplicate and other innumerable things, such as heat, whiteness, love and all other abstractions (del Barco; Mixco translation in Mixco 1978:101).

The Jesuits denigrated Cochimí, and yet give evidence of the intellectual capacity of the people who used this language. Indeed, it seems that it was common for Cochimí speakers to coin new words with compounds.

In speaking among themselves [they] commit much apocope so that even for those raised among them it is difficult to understand everything they say: it seems that they drop the last half of one word and the first part of the next, joining what remains, yielding new words almost unintelligible except to those who create them when and how they wish (del Barco; Mixco translation in Mixco 1978:101).

This contradicts del Barco's judgment of their intellectual culture.

Another way of deriving nouns from verbs is by nominalization with /xwa/ the absolutive case marker, and with /ta/ the perfective marker. In the examples below, each nominalized clause is bracketed.

[pen:ayu	n-wi-ambi-ñi-xwa]	mbe-da-udugu	n-'-goso
our/we	1-very-good-not-Abs	2-1 (Dat)-forgive pl.o.-	1-believe
"I believe your forgive our sins."			

[kase-ta-xwa-ŋa]	mwe-k-n-it pa-ku-m
tempt-Perf-Abs-loc.	[some]-Imp-1-[remove] pl.o.-[remove]-Sub
'remove us from temptation'	

In the Cochimí texts, both of these nominalizations are common. There is a partial /xwo/ which is used to designate holy or sacred referents.

I-xwo,	'the Living One' [yi, 'live' + -xwo]
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Yesu Keristo	m-gododo-wi-ta	xwo
J.C.	Cl.-[bury]-be-Perf	holy
'Jesus Christ was buried'		

Dios Espiritu Santo-xwo	n-'-goso
G.H.S.-holy	pl.o.-1-love/believe
'God the Holy Spirit I believe'	

### **Noun Inflection**

Nouns in Cochimí were inflected for person of possessor, and in at least in some nouns for number (see the last sections of this chapter). The case system of Cochimí is ergative-absolutive, but case markers are a property of noun phrases, and attach at the end of a noun phrase.

Non-singular nouns are modified by quantifiers (below), and plural verb forms imply non-singular nouns. There is one pair of nouns that mark a singular and plural.

wáxki ~ wakwe,	'woman' (Gabb, Duc)
waxi-ñ,	'women' (Ave Maria text)

The plural marker is /-ñ/. It is not known the extent of the use of this tactic.

Nouns in Cochimí may be marked for possessor. There are two systems for marking possessors on nouns. One uses prefixes, and the other uses suffixes. The prefixes are:

'- ~ n-,	first person (often spelled with epenthetic [ã])
m-,	second person
wi-,	third person

These may be preceded by a stative marker /k-/.

k-a-'ay,	'my father'
k-'a-čay,	'my sibling'
k-'a-tay,	'my mother'
'a-bit-yay,	'my son/daughter [1-body-be.certain.way]
kě-n-asa,	'my sister' (Duc)
kě-n-eda,	'my father' (Duc)
m-ú-xwa,	'thy word/will (SC) [with Abs]
xě-m-ú-xwa,	'thy word/will' (NC-P) [with Abs]
mĩ-mbáj,	'thy name'

wi-wuktu,	'his wife' (Duc)
wi-wisa,	'his son'

The suffixed forms are:

-bapa ~ -ba ~ -papa ~ -pa,	first person
-maba ~ -mapa,	second person
wa-bap:á,	'our father'
'mbayuxup-mba,	'thy heaven'

Since the prefixes do not distinguish number, the possessor may be distinguished by using an independent pronoun to disambiguate (below in the section on pronouns).

buxu m-mo,	'thy name' (thy + 2-name) (subject use)
pen:ayu n-wi-ambi-ái-xwa,	'our sins' [our + 1-very-good-not-Abs] (possessor use)
kě-ně-da-bapa,	'my father' (Duc) [S-1-father-1]

Note in the last datum, both prefix and clitic mark the possessor.

### **The Collective Marker /-l/**

There is a collective/plural marker in the Cochimí reported by Clavijero (1970:50). The marker, /-l/, is usually an infix, but in Cochimí, it is a suffix.

-l	[plural, collective, aggregate; from Proto-Hokan; differs in the quality of the vowel or epenthetic that appears with it]
	iñim-ěl, whole/entire [whole-pl. marker]
	naganá texweg iñim-ěl, five (Cl.), <naganna tejuég ignimel> [hand + one + whole/entire]
	iñimb-āl, entire/whole [whole/entire-pl. marker]
	naganá iñimb-āl t-mwe-xweg, ten (Cl.), <naganna ignimbal demuejuég> [hand + entire/whole + both]

One variant shape occurs with a front vowel, while the other occurs with the vowel /a/ and causes the preceding /m/ to change to its variant [mb].

### **Pronouns and Demonstratives**

The independent pronouns are the following, according to del Barco. Independent pronouns are used to code subject or exact possessor.

daxa,	'I/my'
buxu,	'thou/thy'
pen:ayu,	'we/our'
buxu-mayeg,	'you/your'
ya-bya,	's/he, they/her, his, their'

/ya-bya/ is actually a demonstrative, which could be used as a third person pronoun. For comparison, here is the set collected by Gabb.

ya,	'I'
ba,	'thou'
e'é,	'we'
me'é,	'you'

Gabb does not list third person pronouns, only demonstratives. Gabb's set is quite different than that given by del Barco. The del Barco pronouns are used in the texts which we have, including those assembled by Clavijero from different Jesuits.

Demonstratives include the following.

butel,	'this' (Duc)
ku,	'this' (Gabb)
kwum-b[y]a,	'that' (near) (Gabb)
ya-bya ~ ya-pyaŋ,	'that' (far) (del Barco ~Gabb)

There is a specifier that may be attached to demonstratives: /-bya ~ -byaŋ/.

### Numerals

Cochimí had basic morphemes for the first three numerals.

'one'	čakwi (Gabb) te:-xwe(g) (NC, SC)
'two'	kowak (NC, SC) gowok (Duc)
'three'	kabyak (Gabb) kamywek (Duc) gombyo (SC)

Dialect variation must account for the differences in form of basic numerals. In 'one', there is vowel variation and the typical northern change of /t/ to /č/ in the Gabb form. Vowels vary in 'two' and 'three', with the /m/ to /mb/ change in the southern form for 'three'. The forms for 'three' also suggest that <g> and <k> both record a voiceless, unaspirated stop. Given that epenthetic vowels could be present, we have the following set.

te-,		'one'
k-wak,	'two'	
k-myak,		'three'

Of these, /k-wak/ or /kowak/ 'two' resembles a Uto-Aztecan form: Proto-Tepiman \*go:k, 'two' (from Proto-Uto-Aztecan \*wok, 'two' via a sound change that distinguishes Tepiman, \*\*w to \*g).

For 'four' and 'five', Ducrué gives Nahuatl forms (Mixco 1978:63) for his local variety of Southern Cochimí. On the other hand, there are native forms in Gabb for 'four' and 'six'.

ixkyum-kwak ~ ixkhum-kowak,	four' [times-two]
ixkyum-kabyak,	'six' [times-three]

One might expect that other numerals could be added to these forms to produce other numerals. The forms given by Gabb have partials in common.

ñaki-vam-pay,	'five' [two-with-three]
ñaki-vam-ivapay,	'eight' [two-with-six]

Going out on a limb, /vam/ seems to mean 'and/with'. If /pay/ is a Uto-Aztecan loanword for 'three', then /ñaki/ must mean 'two'. The form /ivapay/ in this interpretation is the reduplication of /pay/, 'three' to produce 'six'. This analysis breaks down with the Gabb lexical artifact for 'nine'.

kwačera-vam-pay,	'nine' [six-with-three]
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This form uses /kwačera/ for 'six' instead of /vapay/. The Gabb lexical artifact for 'seven' adds to the confusion.

čakwera-vam-ay,	'seven'
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Assuming that /kwačera/ and /čakwera/ are related and mean 'six', 'seven' would be 'six with one', yielding /ay/ another lexical artifact for 'one'. Gabb's form for 'ten' adds another unknown element.

nyavanitchaqui>	=	[ñavani-čakwi], 'ten' (Gabb) [?-one]
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Speculative analysis of the Gabb numerals gives the following additional numerical artifacts.

ay,	'one'
ñaki,	'two'
pay,	'three'
vapay,	'six'
vam,	'with/also'

Of these, /pay/ looks like Uto-Aztecan \*pahi, 'three' with /vapay/ being a reduplication of /pay/. The Tepiman form of \*\*pahi is \*vahi/vay which would reduplicate as /vapay/ (Tepiman \*v reduplicates as /p/, the consonant that Tepiman \*v came from). The Cochimí form /vam/, 'with/also' looks very much like Tepiman \*vəm, with the same meaning. For comparative Uto-Aztecan, see Stubbs (2011) and Shaul (2014).

## Quantifiers

The quantifiers recorded for Cochimí are several ways of coding 'all'.

dě-mwe-xweg,	'all' (NC, SC) [Cl.-some-specifier]
gã-mwe-g,	'all' (NC, SC) [Cl.-some-specifier]
xwanja-mwe,	'[all]' (CC) [?-some]
lebyeŋ,	'all' (Duc; Misco suggests: /yebyeg/) [demonstrative-pl.]
wit,	'all' (NC, CC)
amayben,	'many' (Duc)

In the first three forms, /mwe/ clearly indicates an amount ('some'). The specifier /-xweg/ ~ /-g/ is also found in one of the numerals for 'one': /te:-xweg/. Of the other two lexical artifacts for 'all', /-byeŋ/ is segmentable -- it is a non-singular marker (see "Non-Singular Marking in Cochimí," below, this chapter) -- with /ye/ being the demonstrative also recorded as /yi/.

The following form also has /mwe/.

kã-mwe,	'other' (Duc) [Cl.-some]
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The prefix /ka-/ (/k-/ if the vowel is epenthetic) matches a prefix of the same shape used as an indefinite object marker referring to people on verbs (see below); the form /ga-/ > /g-/ noted above could be the same affix. The /de-/ (d-/ would then be inferrably /t-/, the indefinite object marker that refers to inanimate unspecified objects. This would give the following.

tě-mwe-xweg,	'all' (inanimate) [Cl.-be.an.amount-specifier]
kã-mwe-(xwe)g,	'all' (animate) [Cl.-be.an.amount-specifier]

Usage in the texts bears this analysis out.

A quantifier may be used after a verb as an adverb.

te:gyi + axa	kã-mwe-g-xwa	wi-la	we-dede-pil	tě-mwe-xweg-ta
thing(s) + ?	Cl-some-Spec-Abs	3-Erg	3sg-collective-make	Cl-some-complete-Perf
'all things He made completely in their entirety'				

In the example above, /t-mwe-xweg/, 'all (inanimate)' is used as an adverb for 'completely'.

## Verb Derivation

Cochimí verbs have prefixes that code unspecified objects, as well as other categories. There are also three suffixes that are derivational.

## Verb Prefixes

There is a series of verb prefixes that refer to indefinite referents. They may also appear on stems that do not immediately seem to be verbs. While they may be semantic objects of the verb they appear with, they may also refer to unspecified referents or conditions that are not semantically objects.

/l-/ and /t- ta- te-/ refer to inanimate and abstract referents; it is not certain which of the two will appear with a given verb. These "classifiers" are different from the definite object marking prefixes /-n- / and /pa-/ (see "Verb Inflection," below).

l-,	inanimate indefinite or unspecified object or referent	
l-0-si,	's/he/ drinks' (Duc) [Cl.-3-drink]	
l-wi-xi,	'be done' (NC-P) [Cl.-be-caus.]	
l-wa-xi,	'be done' (CC) [Cl.-be-caus.]	
wi-l-wiwi,	's/he needs' (SC) [3-Cl.-need]	
t-, ta-, te-	inanimate indefinite or unspecified object of referent	
t-wa,	'to eat' (NC-P)	
t-kwi-ñi,	'ceaseless/eternal' (SC) [Cl.-cease-not]	
t-vise'e,	'evil' (NC-P)	
ta-si,	'drinking water' (Gabb) [Cl.-drink]	
ta-wa-p,	'food' (CC) [Cl.-eat-purp.. ]	
te-va-p,	'food' (NC)	
ta-xi-p,	'good' (Duc, Gabb) [Cl.-be.certain.way-purp.. ]	

ta-daba,	'will/rule' (CC) [Cl.-will/rule]
ta-mada,	'food' (SC) [Cl.-eat]
tě-mwe-xweg,	'all' (inanimate) [Cl.-be.an.amount-specifier]

k- refers to animate unspecified objects or referents

kă-mwe-(xwe)g,	'all' (animate) [Cl.-be.an.amount-sepcifier]
kũ-kwe,	'hear/obey' (your commands) (NC-P) [Cl.-hear]
g-gwo,	'abiding in people' (NC-C)
ka-mwe,	'other' (Duc) [Cl.-some]

m- refers to non-singular or collective animate objects or referents

mõ-dono,	'they love others' [others-3-love (pl.)]
m-gododo,	'to bury' (NC, SC)
b-m-gwolo,	'abide in you' (NC-A) [2-Cl.-abide.in]
m-wo,	'abide in' (tv.) (NC, SC)

These prefixes, glossed as "classifier" (Cl.) do not position the same as the object prefixes (below).

wi-l-wiwi,	's/he needs' (SC) [3-Cl.-need] [subject-Cl.-verb]
b-m-gwolo,	'abide in you' (NC-A) [2-Cl.-abide.in] [object-Cl.-verb]
b-'-goso,	'I love thee' (N) [2-1-love] [object-subject-verb]
pa-'-kabayaxwe-m,	'forgive them (our sins)' [pl.o.-1-forgive-Sub]

That is, the classifiers are next to the verb, and any subject or object prefixes are in front of the classifier.

There is an element /-dede-/ that appears as a second position prefix.

we-dede-na,	'reason' [Cl.-X-resultative]
pwe/we-dede-pil,	'create' [?-X-make]
dida-vay,	'[order/command]' [X-(verb ?)]

The glosses above suggest a meaning for /-dede-/ as 'do/be a certain way', or implying a quantity or plurality of results. I have glossed this partial as "collective."

### Verb Suffixes

Three verb suffixes are evident in the Cochimí data that are derivational.

#### -pa

kano-pa,	'to sing' (Duc)
kano-pay,	'to sing' (Gabb)

#### -ma

del-ma ~ dala-ma,,	'to speak'
gala-ma,	'to rain' (Gabb)

#### -na, 'resultative'

waka-na,	'babies' (Duc) [pregnant-resultative]
wi-dede-na,	'reason' [3sg-coll.-resultative]

#### -p, 'purposive'

ta-wa-p,	'food' (CC) [eat-purp.]
te-va-p,	'food' (NC)
ta-xi-p,	'good' (Duc, Gabb) [Cl.be.certain.way-purp.]
'pe-p,	'dead' (Duc, Gabb) [die-purp.]
yagawa-xi-p,	'impregnate' (SC) [begat-caus.-purp.]
wičip ~ vičip,	[bring, remit, distribute] (NC) [give-suf.]
baŋ-naŋ k-n-axit-vičip,	give us today [day-loc. Imp-1-give-X]
vičip iyewa k-n-kas-yuwe-n,	just as you forgive our temptations [carry just.as Imp-1-tempt-forgive-suf.]
tama wičip-xwa 'mey-t-yan,	(His) sending of men to Heaven (Hervas) [man bring/carry-Nom sky-?-loc.]Q

There is a suffix in the data below.

k-n-kas-yuwe-n,	'You forgive our sins' [Imp-1-tempt-forgive-?]
ka-n-duwa,	in: 'to a large degree'

kom-n-da,                      '[honor]'  
 kom-n-on,                     'know'

### **Verb Inflection**

Verbs in Cochimí inflect for person and number of subject. Tense-aspect is marked by particles that come at the end of the verb phrase (which is: inflected verb + optional adverbial + tense-aspect). The order of the inflected verb is:

object-subject-classifier-VERB,

OR

/k-/, 'imperative'-object-classifier-VERB.

The following are the prefixes for first, second and third person.

Person	Ergative	Absolutive	Possessor	Dative
first	'-	n-	n- ~ '-	d-
second	m-	b-	m-	b-
third	wi-	(zero)	wi-	(zero)
plural object	(not possible)	pa-	(not possible)	n-

Cochimí is an ergative-absolutive language, and both ergative (transitive agent) and absolutive (intransitive agent) fill the subject slot. The possessor markers are prefixed to nouns, while other possessor markers follow the noun (see above).

There are two prefixes that mark plural objects. One is /n-/ which marks indefinite plural entities with the dative case; examples of this are directly above, with the verb /n-goso/, 'love/believe someone'.

The second is /pa-/, which refers to plural objects marked with the absolutive case.

kas-ta-xwa-ŋa            mwe-k-n-it            pa-ku-m  
 tmpt-Perf-Abs-loc.    sme-Imp-1-remove    pl.o.-remove-Sub  
 'remove us from temptation'

Dios-mo    pen:ayu    n-wi-ambi-ñi-xwa    pa-k-udugu            k-'i-m  
 G.-Dat    our/we    1-very-good-not-Abs    pl.o.-Imp-forgive    Imp-ask/say-Sub  
 'ask God to forgive our sins'

tawap    ibañ    wal    wíña-vi-tá-xwá    ibáña-naŋ    pa-k-axit  
 food    today    all    [nd]-be-Perf-Abs    today-loc.    pl.-Imp-give  
 'give today the food which (will) be needed today'

mači    wayeg-xwá    pa-'-kabayaxwe-m  
 enemy    [plural]<sup>3</sup>-Abs    pl.o.-1-[forgiv]-Sub  
 '(just as) we forgive them -- our enemies'

del Barco, in his note on Cochimí (Mixco 1978:104, 105) gives an intransitive verb and a transitive verb conjugation. The intransitive verb is /wayip/ > /wadeg/, 'arise/revive', which has ergative markers.<sup>4</sup>

'-wayip,                      'I arise'  
 m-wayip,                    'thou arisest'  
 0-wayip,                    's/he arises'

<sup>3</sup>Cf. /buxu-mayeg/, 'you (pl.)'.

<sup>4</sup>The ergative marking shows **grammatical control**: the ergative marks an agent that acts volitionally.

'-wadeg,	'we arise'
m-wadeg,	'ye arise'
0-wadeg,	'they arise'

The post-clitic /ta/ follows the verb for perfective aspect, and the post-clitic /daka/ ~ /da/ follows for future or irrealis. The clitics attach to the end of a verb phrase, so if an adverbial is present, they follow the adverbial, not the verb.

The imperative forms are as follows.

k-wayip,	'get up (sg.)'
k-wadeg,	'get up (pl.)'

The transitive (actually dative) verb used by del Barco for illustration is /n-goso/ > /n-godono/, 'love, believe in'. In the conjugation, /n-/, 'unspecified object (animate)' appears.

n-'-goso,	'I love someone'
n-m-goso,	'thou lovest someone'
n-0-goso,	's/he loves someone'
n-'-godoño,	'we love someone'
n-m-godoño,	'you love someone'
n-0-godoño,	'they love someone'

The imperative forms are as follows.

n-go-k-so,	'love someone (sg.)'
n-go-kō-doño-m5,	'love someone (pl.)'

In this instance, the imperative marker is infix, and a suffix (/m/) is added to the plural form. To add to the complexity, this particular verb, when a specific person is loved, requires dative forms as the object markers.<sup>6</sup>

b-'-go:só,	'I love thee' [2 (Dat.)-1-love]
d-m-go:só,	'thou lovest/you love me' [1 (Dat.)-2-love]
b-go:so,	's/he loves thee/ye' [2 (Dat.)-3-love]
[d]-godoño,	'they love me/us' [1 (Dat.)-3-love (pl.)]
mo-dono,	'they love others' [others-3-love (pl.)]

### **Verb Number**

Plural subject is marked by a change of verb stem. Below is all of the extant data. Based on the available data, verb number appears to be an obligatory category, and is suppletive. The singular forms are given first.

wayip > wadeg,	'arise/revive' (iv.)
ibi > wigya,	'die' (iv.)
egeg > 'xu / iteg,	'go/come' (iv.)
wa > 'sa,	'sit' (iv.)
gade(y) > git,	'see' (tv.)
n-goso > n-godoño,	'love/believe in' (dv.)
wic(i) > axit,	'give' (dv.)

The plural transitive and dative verbs refer to plural objects rather than plural subjects.

### **Non-Singular Marking in Cochimí**

Three plural markers have been found in the Cochimí data.

-n(V)	
n-goso > n-go-dono,	'love/believe in' (d.v.) [pl.oCl.-love-pl.]
waxi-ñ,	'women'
amayben meta-n,	'for many years' (Duc) [many + year-amount]
-m	
n-go-ko-dono-m,	'love someone (pl.)' [pl.o-love-Imp-love-pl.]
-mayeg ~ -wayeg	

<sup>5</sup>This plural marker (?) reminds one of Uto-Aztecan and central Alta California.

<sup>6</sup>del Barco calls the dative markers "passive pronouns" (Mixco 1978:105).

buxu-mayeg,	'you (p.)'
mači-wayeg-xwá,	'enemies' [enemy-pl.-Abs]

The marker /-m/ reminds one of Uto-Aztecan and central Alta California. It is not known the extent to which these were used, due to the small amount of data.

Number of subject and object is coded by different verb stems (above), and by plural object prefixes on verbs.

Dios-mo	pen:ayu	n-wi-ambi-ñi-xwa	pa-k-udugu	k-'i-m
G.-Dat	our/we	1-very-good-not-Abs	pl.o.-Imp-forgive	Imp-ask-Sub
'ask God to forgive our sins'				

See also the section "The Collective Marker /-l/" (above, this chapter).

### Comparative and Superlative

del Barco states that Cochimí "lacks comparatives, even while it has superlatives" (Mixco 1978:102). Yet it does have a comparative, which is made syntactically the same way as superlatives (just below).

waxin-xwa	wi-tě-mwe-xweg xi
women-Abs	3-Cl.-some-Spec. = all [of, among, etc.]
'Of all of the women,'	

buxu	m-mo	ke-m-mbi	m-ami ibaxa
thy	2-name	S-2-[blessed, holy, etc.]	2-good + much = more
'thy name is more holy/blessed'			

wixi	m-wisa	Yesus-xwa	kě-0-mi	[i]baxa	luxu
and	2-sn	J.-Abs	Stat-3-[good]	much	.more
'and thy Son Jeesus is even more so'					

The lexical artifact /kě-mi + ibaxa/, 'more than' [S-good + much] is used as a predicate. The adverb /luxu/, 'still/yet' may be added to the comparative construction, with the meaning 'even more'.

/luxu/ may also be used alone to form a comparison.

ibuja-xwa	ganexmaxen	ka-luxu
sun-Abs	moon	big-more.than
'The sun is bigger than the moon!'		

Superlatives in Cochimí are built in much the same way. The doctrinal text from del Barco abounds with superlatives. The following are the constructions which are placed after the verb as an adverbial.

ka-l wi-ami ibaxa,	most [big-coll.-very-good-much]
ka-l wi-ami ibaxal n-duwa wi-ñi,	"most-est"
	[big-coll. + very-good + much + pl.o-extent + be-not]

Examples of comparative and superlatives abound in the doctrinal text in the Southern Cochimí texts (Appendix C).

**Chapter 4**  
**Phrase and Sentence Structure of Cochimí**

I began my Cochimí study with Ducrué's sentences because they are a small, but fairly diverse data set of (mostly) simple sentences. I made a lexicon, set of glossed sentences, and a partial grammar. I then added data from the Lord's Prayer texts (there are five; three are localized in Southern Cochimí territory). I then added del Barco's grammar notes, and finally analyzed and worked in del Barco's texts.

Hervas Cochimi (Chapter 5) differs from the language reported here in several ways.

**Simple Sentence**

A simple sentence in Southern Cochimí is SOV:

Subject-Object-Verb.

This basic order implies postpositions and relative clauses that followed the modified noun; both of these occur in Southern Cochimí. These are indeed found in Cochimi.

Intransitive sentences in Cochimí may have a double predicate, and the subject may be marked for absolutive case.

buxu	m-mo	kě-m-mbi	m-ami	ibaxa
thy	2-name	S-2-[blessed, holy, etc.]	2-good + much = more	

'thy name is more holy/blessed.'

Dios-xwa ibi-ñi  
G-Pat. die-not  
'God does not die'.

tama	amaybe	'met-añ	agina-ñi
man	many	year-pl.	live-not

'Man does not live forever'.

Transitive sentences in southern Cochimí have ergative case marking on the subject; recall that in Hervas Cochimí, there is nominative-accusative case marking. The presence of a postposited determiner may block ergative marking. A "heavy" object [one longer than three syllables] may appear in front.

Dyos-la	kě-mb-go:so	ibaxa mu-wixi
God-Erg	S-2-love	much conjunctive-and

'God loves thee very much'

wami-butel	wi-wuktu-xwa	na-zero-ga:sag
husband-this	3-wife-Pat	Obj-3-love

'This man loves his wife'.

wixi	te:gyi + axa	k-mwe-g-xwa	wi-l:a	we-dede-pil	t-mwe-xweg-ta
and	thing(s) + ?	Cl.-some-Spec.-Abs	3-Erg	3-coll.-make	Cl.-some-Spec. = completely-Perf

'and all things he made in their entirety.'

mã-maja-xwa	wit	maxa texem
2-name-Abs	all	people [honor]

'all people honor Thy Name'.

**Ergative Case for Marking Control**

The grammatical category of **control** is the use of a grammatical marker to indicate that the subject of a simple sentence has deliberate control over a state of being (Mithun 1999:127-131, 215-217). In southern Cochimí, the ergative case may be so used, to show that the subject which ordinarily would get absolutive case, is in control of a situation or state.

tam:a	ya:	wigya-ta-xwa	wi-l[:]	awadag
man	Rel	die (pl.)-Perf-Abs	3-Erg	arise (pl.)

'people who have experienced death (will) arise/revive'

pen:ayu-lá	bo-godoño	ka-xi-m
we/our-Erg	2-love (pl.)	Imp-ought-Sub

'We should love/believe in Thee'

## Noun Phrase

The noun phrase is as follows:

(possessor)-**NOUN**-(possessor OR demonstrative OR adjective)-**case**.

The prefixed possessor marker(s) are third person ('her/his/their') and the suffixed possessor markers are first and second person. Instead of a possessor marker, there may be a demonstrative ('this'/'that') suffixed. Case marking is required. Southern Cochimí is ergative, meaning that the two basic categories are: **ergative** (actor/agent with a transitive verb), and **absolutive** (intransitive actor/agent, experiencer, direct object). The absolutive case marker is /-xwa/, which Mixco glosses as "Patient," but this label excludes the role of intransitive actor, and does not really capture the role of object.

'met ya: **tam:a** **wi** **ambi** 'sa xi  
earth Rel people very good sit (pl.) and  
'and (by) **the good people** (on) earth'

**ibo** **kambyo** zero-wayipe-ta  
day(s) three 3-arise/revive-Perf  
'and arose (after) **three days**.'

**us:i** **maxel** **kě-'m:ite** **de-kwi-ni-mo** iteg-xi  
fire huge S-time/place Spec.-[cease]not-to [go]-caus.  
'(He) will send **to the eternal conflagration**'

## Verb Phrase

The verb phrase is as follows:

(object)-**VERB** or **STATIVE**-truth value OR tense/aspect + **ADVERBIAL**

Objects are present with a transitive verb. The difference between a verb and a stative is that the absolutive case marker /-xwa/ is used with subjects of intransitive verbs, but does not occur with subjects of stative predicates (statives end in /-ku/). Common verb suffixes include /-pa/ and /-ma/; /-pa ~ -p/ has a purposive value. Truth value markers include:

-ñi, 'not' (negative);  
maŋ, 'verative' (Mixco: emphatic).

/maŋ may be recorded as a suffix of independent word. Where there is no truth value marking (zero marker), a **nomi**c value is implied (implies general conditions; ex. 'birds fly'). Tense-aspect includes the following:

-ta, 'perfective' (Mixco: preterite);  
luxu, 'imperfective' (Mixco: durative);  
-ga, 'durative' (Mixco)

The marker /luxu/ may be also used as 'more than' in making comparisons. It is not clear if tense-aspect markers could follow truth value markers.

Adverbials may include adverbs or adverb phrases. A heavy adverbial does not shift position in the clause.

wixi te:gyi + axa k-mwe-g-xwa wi-l:a we-dede-pil **t-mwe-xweg-ta**  
and thing(s) + ? Cl.-some-Spec.-Abs 3-Erg 3-coll.-make Cl.-some-Spec-Perf

'and all things he made **in their entirety/completely**'

texwe zero-kanopa taxp-maŋ (Duc)  
one 3-sing well-Ver  
'One [of them] can sing well'.

keneda-bapa urap wag l-zero-si **wimib texunwey**  
father-1 eat and Obj-3-drink but little  
'Your father eats and drinks, **but very little**'

'mey-nku-we Dyos-ak wixixi-xwa xu myen tamaka wa-k (Her)  
sky-[to]-go G.-father powerful-Nom + Perf Ver side sit-SS  
'went to Heaven at the side of God-Father being all powerful'

## Double Predicates

The repetition (exact or paraphrase) of a predicate is probably a rhetorical device for emphasis or focus.

<b>komě-n-da + ami</b>	gič-ăxi	<b>komě-n-on + ami</b>	uda:xi
know-?-? + well	see-and	know-?-? + well	when/where

'when **knowing well**, seeing **and knowing well**'

wixi	Santa Kelus-mo	<b>ibi-ta</b>	<b>'pe-p</b>	<b>luxu-ta</b>
and	S. C.-loc.	die (sg.)-Perf	die-suf.	more.than-Perf

'and **died** on the Holy Cross, **dying totally.**'

### Non-Verb Predicates

Equational predicates juxtapose two nouns or noun phrases. There may be no copula or equational marker.

wi-wisa	texweg	du:ñip-omwi	wawa-papa-xwa
3-son	sole/only	indeed-Ver	chief/lord-our-Abs

'His only son (is) indeed of our lord'

A locative predicate is made of a postposition phrase used in place of a verb.

cahay	apa	ameing	mia (CC)
k-'ă-'ay	apa	'm[b]yeŋ	miya
S-1-father	our	sky	loc.

'Our Father (who is) in Heaven,'

### Imperatives and Related Structures.

Imperatives have the imperative prefix /k-/ and a subordination marker, suggesting that imperatives involve a higher clause and a lower (subordinate) clause which contains the actual verb (Mixco 1978a:24-25). Imperatives may have a double predicate or complementation. In the case of either, the /k- ... -m/ pattern appears on both predicates.

Santa Malya	k-'uy-ibaxa-m
S. M.	Imp-happy-much-Sub

'Holy Mary, rejoice!'

bagă-năŋ	k-nă-k-axit:ě-viči-p
day-loc.	Imp- 1-Cl.-give-distribute-purp.

'give us today'

kasě-ta-xwa-ŋa	mwe-k-n-it	pa-ku-m (NC-P)
tempt-Perf-Abs-loc.	[some]-Imp-1-[remove]	p.o.-[remove]-Sub

'remove us from sin'

Dyos-mo	pen:ayu	n-wi-ambi-ñi-xwa	pa-k-udugu	k-'i-m
G.-Dat	our/we	1-very-good-not-Abs	pl.o.-Imp-forgive	Imp-ask/say-Sub

'ask God to forgive our sins'

Similar in structure and semantics are clauses expressing obligation.

pen:ayu-lá	bö-godoño	ka-xi-m (SC)
we/our-Erg	2-love (pl.)	Imp-ought-Sub

'We should love/believe in Thee,'

zero-nö-godoño	t-mwe-xweg	ka-xi-m (SC)
3-1-love (pl.)	Cl.-some-Spec = 'all'	Imp-ought-Sub

'we should love (it) completely/wholeheartedly.'

### Questions

There are several yes/no questions in the corpus. A question marker (/wan/, /e/, or nothing) is put after the tense-aspect marking on the verb phrase. In the latter case (no marker), intonation must have served to indicate a question. Most of the questions in the data set come from Hervas Cochimí (Her).

temya ayimbyo	Dyos-la	tam:a[-xwa]	uyi-pil-ta-wan (SC-Doc)
what [purpose]	G.-Erg	humanity-Abs	happy-make-Perf-Q

'What is the purpose of God's having made humanity?'

dyosi	kombye-k (Her)
gods	three-Stat

'Are there three gods?'

Kistyano	vaxě-t	m-yi-e? (Her)
C.	dem.-Subj	2-be-Q

'Are you a Christian?'

Information questions (from the Hervas text, which is a catechism conveniently capturing WH-word equivalents) have the indefinite/interrogative form and the question marker /e/. Note that in Cochimí the indefinite-interrogatives do not move to the front of the clause (no WH-fronting).

	'kwi,		'wjho/what/which'
	'twi,		'how many'
	'twi-duwe,		'why'
	'iŋaŋ,		'where'
	udaxi,		'when/where'
kistyano	va-xwa	'kwi-e (Her)	
C.	dem.-Nom	what/who-Q	
'What is being a Christian?'			
duxwenidi	bu-t	'kwi-e (Her)	
one	that-Subj	who/what-Q	
'The One, who is that?'			
pesona	kombye-k	'kwi	tama
person(s)	three-Stat	who/which	human
'Which of the three persons became human?'			
dyosi		'twi-e (Her)	
god(s)		how.many-Q	
'How many gods are there?'			

### Passive

Passive sentences in Cochimí are made by attaching /wi/, 'to be' and the perfective marker to the main verb. Recall that the subjects of passive constructions are in the ergative case. Instead of an agentive phrase expressing the former subject, in Cochimí there is an agentive clause.

Santa Kēlus-mo	wi-l:a	kawaba	wi-ta (NC-C)
S. C.-loc.	3-Erg	[hung, tied, etc.]	be-Perf
'He was fastened to the Holy Cross			

'met	ya:	tam:a	wi	ambi	'sa	xi
earth	Rel	people	very	good	sit (pl.)	and
'and (by) the good people (on) earth'						

Yesu Kēristo	m-gododo-wi-ta	xwo (NC-C)
J.C.	Cl.-[bury]-be-Perf	[holy, honored, etc.]
'and (by) the good people who were on earth, holy Jesus was buried'		

There are also passive verbs which are formally verbs, but which have a passive meaning. The subject of a passive verb is in the ergative case.

kem:u-xwa	am:a-baŋ	vaxi-ānaŋ	'matā-naŋ	lā-waxi-m (NC-P)
[will, rule]-Abs	sky-loc.	be.done-loc.	earth-loc.	Cl.-be.done-Sub
'Thy Rule/Will be done in Heaven (and) and be done on earth.'				

### Relative Clauses

Relative clauses are preceded by the relative marker /ya:/ which is always written as <yaa>. The noun modified may be a subject or object in the relative clause.

wixí	tam:á	yá:	k-mxe-xu-la	kě-puxuy	ambi-ñi-xwá (NC-P)
and	people	Rel	Cl.-some/other-one.who-Erg	S-[do]	Sgood-not-Abs
'and other people who all do big badness (to us)'					

n-'-gos:o	Dyos	ya:	Ixwo	tegyi-xwa	xi	yi-xwa	de-mwe-xweg
Cl-1-believe	G.	Rel	Living.One	certainly-Abs	and	be-Abs	?-some-? = all
'I believe [also: 'believe'] God who (is) certainly the Living One and is completely'							

ya:	ambayuxup-mo	wixi	'met-mo
Rel	sky-loc.	and	earth-loc.
'in the heavens and on earth'			

wixi	te:gyi + axa	k-mwe-g-xwa	wi-l:a	we-dede-pil	t-mwe-xweg-ta (NC-C)
and	thing(s) + ?	Cl.-some-Spec-Abs	3-Erg	3-coll.-make	Cl.-some-Spec.-Perf
'and all things he made in their entirety.'					

tam:a ya: wi ambi-ñi-xwa  
 man Rel very good-not-Abs  
 'and the people who are very bad'

us:i maxel kě-'m:itě dě-kwi-ñi-mo iteg-xi (NC-C)  
 fire huge S-time/place ?-[cease]-not-to [go]-caus/  
 '(He) will send to the eternal conflagration'

Some examples, which may be appositives, appear without the relative marker.

wa-bap:á am:abaŋ mi[y]a-mú (NC-P)  
 father-our sky loc.-loc.  
 'Our Father, (who is) in Heaven,'

Yesu Kěristo m-gododo-wi-ta xwo (NC-C)  
 J.C. Cl.-[bury]-be-Perf [holy, honored, etc.]  
 'Jesus Christ (who) was buried.'

Santa Malya Dyos či  
 S. M. G. mother  
 'Holy Mary, God's mother,'

### Nominalization

The absolutive case marker is used for nominalization.

k-gwo wigya-ñi-daka-xwa n-'-goso (NC-C)  
 Cl.-[abiding] die (pl.)-not-Fut-Abs pl.o.-1-believe  
 'I believe in their not ever dying again'

kasě-ta-xwa-ŋa mwe-k-n-it pa-ku-m (NC-P)  
 tempt-Perf-Nom-loc. [some]-Imp-1-[remove] pl.o.-[remove]-Sub  
 'take, remove us from having been tempted'

nă-mb[a]t wadag-daka-xwa n-'-goso wadag uda:xi (NC-C)  
 1-body arise/revive (pl.)-Fut-Abs pl.o.-1-believe arise (pl.) when  
 'I believe in our bodies arising/reviving'

### Complementation

Complementation in Cochimí involves a double predicate whereby the two verbs used are not synonymous. There is no switch-reference in examples from Cochimí varieties other than Hervas Cochimí. The subordinate marker in the second example is due to the fact that the complement is also an imperative.

teváp yikwé tĩ-mye tĩ-wá (NC-P)  
 food Rel (?) Cl-[needed] Cl-eat  
 'food needed to eat'

Dyos-mo pen:ayu n-wi-ambi-ñi-xwa pa-k-udugu k-'i-m (NC-A)  
 G.-Dat our/we 1-very-good-not-Abs pl.o.-Imp-forgive Imp-ask/say-Sub  
 'ask God to forgive our sins'

n-wi-ambi udem:i  
 1-very-good if  
 'if he is very good,'

'mbayuxup-mo Dyos-la uxu puxuy tě-wewi  
 sky-loc. G.-Erg [one.who] Mixco: do Cl.-[take]  
 'God is the one who does and takes him to Heaven'

### Conjunction

del Barco notes that the conjunction in Cochimí goes at the end of the clause, instead of the beginning as in European languages (Mixco 1978a:104).

giyó Dyos-mo git-ami > gič-ami uda:xi  
 there G.-to see-well when/where  
 'and when he looks on God there'

kě-'uy-ibaxa ibal ka-n-duwa gu-ñi  
 S-happy-much [much] big-?-? [end]-not  
 'he is very, very happy without end'

te:gyi xi ya: buxwet xi[l] ud:emi (SC-D)  
 thing(s) holy Rel rather keep if  
 'if (he) respects the things that are holy,'

ibi uda:xi  
 die (sg.) when/where  
 'when he dies,'

ambauxup-mo ege-xi ayimbyo xi  
 sky-into go-caus. purpose and  
 '(He) sends him to Heaven'

ibi muwetě-ta do:mo  
 die (sg.) just.now-Perf though  
 'Though it just now died,'

gaye-ñi wayi-p omwi  
 long.time-not upright-purp. Ver  
 'soon it arises/revives'

### Conjunction in Hervas Cochimí

Hervas Cochimí makes a distinction between action done by the same subject or a different subject. This is called **switch-reference**, and is typical of the related Yuman languages to the north of the Cochimí dialect chain. As in Yuman languages, the same-subject marker in Hervas Cochimí is /-k/ and the different-subject marker is /-m/, the latter having the same shape as the general subordinate marker in other Cochimí varieties.

In the following two examples, the same-subject marker links two predicates with the same subject.

'mbey-ŋ ya-k met-aŋ val ya  
 sky-loc. lie-SS earth-loc. all > everywhere lie  
 'He is in Heaven, He is everywhere.'

tama-l 'metě-waŋ Dyos-0 udip- wiče-k  
 man-Subj earth-loc. G.-Obj [love, adore]- diffuse-SS  
 '(so that) mankind on earth would love God,'

wi-l mi-di-duway  
 3-Subj good-?-very  
 'do/be very good and'

In the following examples, the different-subject marker shows a difference in subject between the two predicates.

waway mi-daway-m wa-k pet ya-k  
 lord good-expanse/very-DS sit-SS self lie-SS  
 'Of very good chiefs/lords, the one existing by Himself (s)

thing(s)/what wal učan uxu Dyosi-wa wi  
 things all do/make [one.who] G.-dem. be  
 'the One who created all things; that is God.'

## Chapter 5 Hervas Cochimí and Cochimí Variation

The extended patrilineal families which formed the macro Cochimí speech community varied from north to south. Miguel del Barco, a Jesuit who spoke Cochimí for thirty some years, reported that

at which one [Cochimí] dialect ended and another began, we could speak in terms of distinct languages, as we call distinct the Italian, French, and Spanish or at least the Castilian, Portuguese and Galician (1973:223; Mixco translation, 197:39).

Part of the basis of del Barco's report is shown in this chapter. The Cochimí data published in Hervas y Pandruo (1785) is substantially different from the varieties considered in Chapter 2 through 4. I distinguish this variety as "Hervas Cochimí."

A re-publication and an analysis are presented in Mixco (1979). The sound system is similar to those of the Cochimí reported by Jesuits and by Gabb. Mixco (1979:43) states that the variety of Cochimí sampled here is from the region north of the Northern Cochimí of Chapters 2 through 4 in this book.

The sound system and syntax of Northern Cochimí and Hervas Cochimí are similar, but case marking in Hervas Cochimí is radically different: it is nominative-accusative and similar to Yuman, while the "Cochimí" of the chapters above is ergative-absolutive. The linguistic artifact of nominative-accusative case marking - plus its cognate status with Yuman -- does place Hervas Cochimí to the north of the "Northern Cochimí" reported by the Jesuits.

### Sound Pattern of Hervas Cochimí

Cochimí has a three vowel system: /e ~ i, u, a/. There appears to be a minimal pair separating [i] and [e]: /w/, 'come/go' and /wi/, 'do/become'. However, 'come/go' shows the [i] ~ [e] variation (sentences 15, 23). There is a vowel alternation in one lexical artifact (/dala-/ vs. /dele-, 'say/speak'). This three-vowel system is significant, for the Yuman languages to the north of Hervas Cochimí (Cocopa, Kiliwa) have three vowel systems, and a three vowel system is reconstructed for Proto-Yuman (Langdon 1976). The following consonants occur in the Hervas data.

p	t	[č]	k	kw
b	d		g	
m ~ mb	n	ñ	ŋ	
my			ky	
	s		x	xw
w		y		

Of the consonants, [č] appears only between vowels, suggesting that it is an allophone of /t/. Unlike the restricted distribution of Cochimí [ñ], the palatal nasal in Hervas Cochimí may occur the beginning as well as end of roots. /m/ may alternate with [mb]. Other than including /ñ/ in the phoneme roster, Hervas Cochimí is like Cochimí in its consonant array. One also finds [v] alternating with [w] in Hervas Cochimí. In both arrays, /b d g/ may actually be extremely unaspirated stops, sounding like voiced stops to European recorderers.

The syllable shapes are: V, CV, CVC. There is no indication of stress or long vowels or consonants.

### Structural Sketch of Hervas Cochimí

Word structure and sentence structure are very similar in Hervas Cochimí and Cochimí. There are some major differences which link Hervas Cochimí with the Yuman languages to the Hervas Cochimí speech community's north.

There is not much to note about Hervas Cochimí noun derivation, other than an attributive suffix /-y/ which may appear on nouns as well as derive nouns from verbs (/dala-ma-y/, 'word, teaching' from 'to speak'). Also, there is an agentive participle /uxu/ (sentences 6, 10).

Unlike Cochimí noun inflection (which is ergative-absolutive), Hervas Cochimí is nominative-accusative (like Yuman to the immediate north). The case markers in Hervas Cochimí are /-l/ ~ -/t/ for nominative, and zero for accusative. These markers are cognate with the equivalent case markers in Proto-Yuman. There is no trace of the Cochimí dative case /-mo/, which might be expected to occur with Hervas Cochimí /nagawa/, 'to love'.

The subjective case does not appear in Hervas Cochimi in two instances. One is with the verb 'be' (sentences 1, 2). The other is with 'become' (sentence 16).

The absolutive case marker /-xwa/ of Cochimí appears in Hervas Cochimí as an imperfective nominalizer (sentences 3, 19). The Hervas Cochimí perfective particle may also be nominalized (sentence 23).

One example of possessor marking occurs in the Hervas Cochimí data: /waway-apa/, 'our lord' [lord-our]. This is exactly like Cochimí. There is also an example of a possessive noun phrase, which has the order possessor + possessed: /Dios + wi-sa-y/, 'God's Son' [G. + 3-son-Atr].

Verb inflection in Hervas Cochimí is like that of Cochimí. Person markers /m/, 'second person subject' (and zero for third person subject) are prefixed to the verb. Tense-aspect particles may follow the verb: /taxa/, 'future' (sentences 25, 26) and /xu/, 'perfective' (several examples).

Word order is Subject-Object-Verb (see sentences 6, 14, 15). Modifiers follow their head word, and there are postpositions. Like Cochimí, conjunctions in Hervas Cochimí like /wixi/, 'and' follow the clause which they link. A question particle /-e/ or /-i/ may also follow a clause (see sentences 3, 5, 20, 23, 26); a particle /wan/ is used in a similar way in non-Hervas Cochimí.

Unlike Cochimí, Hervas Cochimí (like the Yuman languages to its north) has a same-subject marker /-k/ and a different subject marker /-m/<sup>14</sup> to link predicates (numerous examples). The Hervas Cochimí and Yuman markers are cognates.

Lexically, Hervas Cochimí does not differ substantially from other varieties (see "Comparison of Cochimí Varieties" in Appendix F). It has a /e/ and /a/ vowel variation ('body', 'earth', 'sky'). Where there is data, Hervas Cochimí resembles the Cochimí reported by Gabb. Six ('all', 'father', 'good', 'one', 'son', 'three') out of the forty comparisons (15%) are substantially different in all three, well within an expected range of dialect lexical variation.

**Chapter 6**  
**The Robinia Language**

The "Cochimí" collected by John Russell Bartlett (ca. 1862) and published in Gatschet 1877) is actually a different language than Cochimí, although obviously related. Aschmann (1959) and Troike (1976) state that the lexical assemblage collected by Bartlett as Cochimí was obtained from one Mr. Robinia "of Guaymas, Sonora." I refer to the language sampled by Bartlett as Robinia, after his consultant.

The variety collected by Bartlett is distant from Cochimí varieties; Troike (1976:160) found that Cochimí and Robinia had a cognate rate of 34%. The sound pattern of Cochimí and Robinia is similar, but the independent pronouns (below) are different. Unfortunately we lack sentence or text examples to document Robinia grammar. Robinia was spoken in Baja California, in the vicinity of the northern Cochimí varieties -- somewhere in the northern third of the peninsula. We have no more exact location. The dataset for Robinia is in Appendix H.

**Sound Pattern of Robinia**

Robinia appears to have the following consonant phonemes.

p	t	č	k	'
b	d		g	
m	n		x	h
f	s			
	l			
w		y		

Initial contrast potentials before initial consonants:

/p/ vs. /b/:	before /i u a/;
/t/ vs. /s/ vs. /č/:	before /i e a/;
/k/ vs. /g/:	before /u o a/;
/m/ vs. /n/:	before /i e u o a/.

/l/, /f/, /x/, /w/ and /y/ occur before /i e o a/; I presume phoneme status for these consonant segments. [h] is probably an allophone of /x/. [v] alternates with /w/ (as in northern Cochimí varieties), and [mb] alternates with /m/ (as in Cochimí varieties). /f/ is notable and probably bilabial.

The following vowels may occur initially: [i u a]. The five vowels recorded in the data all can appear in other positions: /i e u o a/.

The syllable shapes in the Robinia data are: V, CV, and CVC. There are consonant clusters with /w/: /fw/, /nw/, /sw/. These clusters pattern as a single consonant. Two-part compounds are clearly combinations of roots of both shapes (see the compounds under /kal/, 'water' in Appendix H).

Final stress is marked by acute accent, and where no stress is marked it is perhaps on the next to last syllable. Stress seems to be a property of roots

bu,	'I'
bú,	'bow'
ka,	'to speak'
ká,	'be lying down'
u-,	'demonstrative stem'
ú,	'arrow'

However, these putative contrasts are artifacts of where these recordings appear (final or not).

**Grammatical Notes on Robinia**

A full set of pronouns (presumably independent pronouns) follows. The regularized Cochimí (from Mixco 1978:100) is given in parentheses after the Robinia forms.

bu,	'I'	(daxa)
mu,	'thou'	(buxu)
u-gu-tá,	'he'	(yabya)
ké-l-baya,	'we'	(penayu)
mu-gu-ti,	'you'	(buxu-mayeg)

u-gu-lti, 'they' (yabya)

There is a plural/collective marker (-l, -ti, -liti) which reconstructs for Proto-Hokan. See Chapter 9 for more on this.

There is also a possessor marker, /na-/, 'my'. It appears with kin terms. The lexical artifacts glossed as 'my daughter/son' and 'my father' are quite different.

### **Comparison of Robinia with Historic Neighbor Languages**

The language recorded in Hermosillo by Bartlett is contrasted in the "Contrastive List" (in Appendix H, after the "Morpheme List"). Basic morphemes of Robinia are compared to Kiliwa (Mixco 1985), normalized Cochimí (Mixco 1978), Waikura (this volume), and Seri (Moser and Marlett 2010). The data for this comparison is in Appendix H.

Robinia shows some similarities to Cochimí. Troike (1976:160) found that Cochimí (his "Cochimí I") shared 39% of cognates with his Yuman list, while Robinia (his "Cochimí II") shared 29% -- demonstrating a classic dialect chain. Troike also found that Cochimí and Robinia share only 34% of possible comparisons (47/135 comparable items), concluding that two varieties "must be considered to represent quite separate and distinct languages" (1976:160). This agrees with a statement made to me by Mauricio Mixco that Bartlett's Cochimí resembles "no Cochimí that I know" (Mixco, p.c.).

Comparison of Robinia and Cochimí with Seri shows almost no resemblances, other than a few that probably represent a common Hokan descent. Casanova (2012) relates that an extinct band of Seris lived on the Baja Coast, and that their location, Hast Quita, could be seen as a pyramid shape in the setting sun from Desemboque on the Sonoran Coast, placing the Baja Seris about ten or twenty miles north of Puento San Francisquito on the eastern Baja Coast. The Seri presence in Baja California is shown by one obvious lexical artifact ('tooth/teeth' in Gabb's Northern Cochimí and Seri), and another lexical artifact for 'star'.

A comparison of Robinia with Kiliwa, the southern-most and most divergent Yuman language, shows a few likely Hokan cognates. Of all of the comparisons, Cochimí and Robinia share the most resemblances -- suggesting that they belong to a small language family (Cochimian) in the continuum of Yuman, Cochimí, and Robinia.

There are regular sound correspondences that show Robinia is a Hokan language. There are also some cognate sets that resulted from a test of the correspondences (see Appendix H). Robinia has two inherited (irregular) linguistic artifacts from Proto-Hokan (/n ~ l ~ r/ alternation; collective/plurality infix), which guarantee the Hokan status of Robinia (see Chapter 9).

## Chapter 7 The Waikura Language

The sparse materials on the Waikura language come from Johann Jakob Baegert, an Alsatian Jesuit who worked for seventeen years in the Waikura speech community (Baegert 1771 and 1772, with English translation 1952; 1982). His methodical presentation allows for detailed description of this language. His materials are partially treated in Zamponi (2004). From 1751-1768, Baegert worked at San Luis Gonzaga Mission, one of the most isolated places in a land of isolation.

I worked directly from the Baegert data, using the careful transcription in Zamponi, and then I compared my analysis to Zamponi. Major differences to emerge from my work include: discovery of ergative-absolutive case marking in Waikura, description of phrasal/clausal pitch-accent intonation, improved treatment of phonology, and refinement of verb derivation and morphology.

'Baegert "postponed" a chapter on the language of the Californians in his memoir so that readers could absorb the cultural situation of the Waikuras. He states

A people without government, police, religion and laws, without honor and shame, without clothing and dwellings; a people which occupies itself with nothing, speaks of nothing, thinks and meditates about nothing, cares for nothing except for food and other things which they have in common with the animals; a nation which cultivates no friendships with other nations, has no common interests and no trade with others, never moves out of its own small district inhabited by a few hundred souls, and where nothing is seen but thorns, stones, wild animals, and vermin -- of such a nation, I say, it is easy to imagine what kind of graceful language, rich in words and beautiful expressions, it must have (1952:95).

Countering this, Baegert states the following.

they are very shrewd in inventing names for things they have never seen before; for instance, they call a door, "mouth"; bread, "light" (weight); iron, "heavy"; wine, "bad water"; a gun, "bow"; the officials, "bearers of canes"; the Spanish captain, "wild or cruel"; oxen and cows, "deer" (1952:99).

It is important for comparative purposes to note that comparatives in Waikura involve circumlocution. To say 'Peter is taller than Paul', one must say (Baegert 1952:98).

'Peter is tall and has much; Paul is not tall and has not much'.

Baegert unfortunately does not give the Waikura equivalents of the above, but the semantic artifact for comparatives is important because of its similarity to the neighboring southern Cochimí language.

Baegert states that there are five languages in Baja California that he knows of (1952:95):

Waikura;  
Laymona [Monqui] at Loreto;  
Cochimí at San Xavier and northward;  
Uchiti and Pericú south of Waikura;  
the unknown language that Father Linck met on his trip.

He suggests that Uchiti and Pericú are the same or related languages. Monqui is thought to be a dialect of Cochimí.

### **Sound Pattern of Waikura**

Baegert used a consistent orthography for Waikura, based on German conventions. This got rid of the problem of rendering /k/ with Hispanic conventions, for example. The consonant array of Waikura follows. zzx

p	t	č	k	kw	'
b ~ mb <sup>7</sup>	d ~ nd <sup>8</sup>				
m	n	ñ			
	r, ř				
w ~ v		y			

/w/ > [v]/V\_V

Of the rhotics, <r> is interpreted as a tap [r], and <rr> as a trill [ř]; they are in complimentary distribution: [r] is found only in suffixes, so it is never word-initial; [ř] is found elsewhere. [m] and

<sup>7</sup>[mb] and [b] are both found between vowels in phonological words (Raoul Zamponi, p./c.).

<sup>8</sup>[nd] and [d] are both found between vowels in phonological words (Raoul Zamponi, p./c.).

[mb] are found initially and medially in phonological words. Remarkably, there are no fricatives at all.

There are two consonant clusters: /dw/, /ky/.

There is a change from /t/ to [č].

ku-tipa-,	'they hit' [3pl (sg)-hit/beat]
čipa-ke,	'to beat' [hit/beat-transitive]
-tu ~ -ču,	'one who'
ti-č-ania,	'her/his word' (< ti-t-ania, [3sg-Atr-word])

The conditioning factors of this change are not immediately clear.

Waikura has a four vowel system: /i e u a/. [o] is not even recorded. There are ample minimal pairs to show phoneme status.

-ra,	'not'
-re,	'present'
-ri,	'optative'
če,	'and'
ču,	'go up'
ti,	'person'
te	'of'
tu-	'distributive'
-ka	'stative'
-ke,	'transitive'
ku,	'come'
-ma,	'plural;'
-me,	'future'
pe,	'alive'
pu,	'all'

There are four vowel clusters: /ey uy ay; aw/.

There is one instance of a vowel alternation.

yeba-,	'be obeyed'
yebi-,	'command'
cipa-ke,	'to beat'
čipi-ču-re,	'one who has been beaten' <ts[c]hipits[c]shüree>

Both of these related, ablauted stems have derivational suffixes.

The possible syllable shapes are: V, CV, CVC. The only recorded morpheme-final consonant is /n/. Stress does not define a phonological word. Instead, two stress patterns define a phrase or simple sentence (clause):

weak-strong-(weak);  
strong-weak.

Strong stress is marked (as Baegert did) with an acute accent. Secondary is marked (as Baegert did) with a grave accent. Convenient examples from the beginning of the Pater Noster follow.

kepè-d-áre,	'our father' [1pl (Abs)-Atr-father]
e-kùn <i>gracia</i> -ri atú-me katè,	'may w have your grace'
	[2sg (Abs)-Poss + gr.-Opt. + have-Fut + 1pl (Erg)]

Interpretation of acute accents as marking strong stress is supported by nasal consonants acquiring phonetic length after strong stress.

tém:e,	'while/as'
apán:e,	'great/huge'

Strong stress be on a part of the root, or a suffix (Zamponi 2004:160).

ataká-ma-ra,	'not good' [good-pl.-not]
amukiri-méye,	'will play' [play-Fut]

In the first example above, the (clitic?) /ra/, 'not' is disregarded in stress placement, while in the second example, strong stress is on the next to the last syllable of what must be a phonological word.

Following is the intonational analysis of the first five numbered lines of the Lord's Prayer in Waikura.

Line	Intonation Units
WP 1	noun phrase, verb-object
WP 2	clause, clause
WP 3	clause, noun phrase
WP 4	clause, noun phrase
WP 5	noun phrase, verb-verb

As may be seen, the Waikura stress patterning resembles a pitch-accent language like Japanese, Swedish, Salinan, or Keresan -- except that the prosodic unit is not a phonological word, but a phrase or clause. The root/word that does have the strong stress usually has that strong stress on the next to last syllable.

### Word Structure of Waikura

Nouns in Waikura do not mark any sort of gender or class, nor is there case marking on nouns. Non-singular nouns are marked by modifiers or by reference from plural predicates. There is one noun prefix in the data.

d-atemala,	'earth'
d-are,	'father'

/d-/ is a determiner, because it can be replaced with a possessor marker.

ti-are,	'his father'
---------	--------------

Zamponi and others have reported a prefix /k-/ as a noun plural, following Baegert's suggestion that the word for 'woman' has a plural.

ánay,	woman'
k-ánay,	women' [3pl (Abs)-woman]

Actually, the second form means 'they are women'.

Possessor markers (the absolutive case forms of personal pronominals) are prefixed to nouns.

akúñu untáyri,	'three days' [three + day]
ti pu,	'all people' [people + all]
tí-are,	'his father'
kepè d-áre,	'our father'
e-kùn <i>gracia</i> ,	'thy grace'
kepe-kùn búy,	'our food'

Baegert's partial paradigms for 'father', 'forehead', 'nose', and 'pain' are given in the glossary.

Case markers do not appear on nouns. Case marking does appear on personal pronominals (see section below on "Sentence Structure").

The shape of demonstratives overlaps with those of personal pronominals, but not completely.

Demonstratives include the following (Zamponi 2004:165).

táw-pe,	'this one'
káva-pe,	'these ones'
tu-táw,	'that one'
tu-káva,	'those ones'

Waikura verbs may be derived transitives, may derive from a causative, or may be nominalizations with the tense-aspect marking suffixes.

čaka-řake,	'to praise'
kwiča-řake,	'to forgive'
yeba-řake,	'be obeyed' (object in ergative case)
ibi-če,	'be made to suffer' (cf. /yibi/, 't die')
keri-če-w,	'descend'
pi-če-w,	'be the credit/fault of'
yebi-če-ne,	'obey'
čipa-ke,	'to beat' (tv.)

čipi-ču-ře,	'one who has beaten'
pe-da-ra,	'be born' [alive-caus.-compl., related to /-ri/, 'perfective']
untay-ri,	'day' [dawn-completive]
ku-mbate-didi-re,	'their hating completely' [3pl (Erg)-hate-coll.-Ger]
ku-teve-didi-re,	'their confessing completely' [3pl (Erg)-confess-coll.-Ger]

Remarkably, Cochimí (this volume) has a morpheme of exactly the same shape and meaning as the 'completely/collective' in the last two examples above.

A closer look at the structure of Waikura verbs reveals a transitivity system.

VERB +	-da, causative +	-ra, transitive	
		-ra, transitive +	-ke, transitive
VERB +		-re, imperfective	
		-ri, perfective	
VERB +		-če, causative +	-ne, ?
			-w, ?
VERB +		-ču, 'one who' +	-re, resultative

Two verbs in this system alternated final stem vowels (/yeba-/ ~ /yebe-/; /čipa-/ ~ /čipi-/); others (unrecorded) probably did as well. This system was obviously complex, and goes a long way in fulfilling Zamponi's characterization of the language as agglutinative (2004:162).

Waikura has the following tense-aspect markers. The first two are probably imperfective and perfective aspect markers, given that the "preterit" has perfective meanings (see above and glossary).

-re ~ -reke,	"present"
-rikiri ~ -ruyére ~ -rawpe ~ -ráwpere,	"preterite" [perfective]
-me ~ -meye	"future"

Zamponi (2004:169) suggests that /-rikiri/ was used for the remote past, and that perfective markers were optional (as in some of the clauses in the Credo text). Clearly, Waikura verb morphology must have been complex, possibly with some complicated morphophonemics.

### **Sentence and Phrase Structure of Waikura**

Baegert (1772) gave in German word-by-word glosses of his two texts, and are faithfully reproduced in Zamponi (2004). To save space, examples are cited in the Waikura texts in Appendix I. These are cited by text (WP = Waikura Pater Noster; WC = Waikura Credo) and line number.

The noun phrase in Waikura is as follows. A determiner may be a possessor marker, a demonstrative, or a numeral. A modifier may be an adjective, quantifier, or a relative clause. In a possessive noun phrase, the possessed noun appears first.

(determiner) +	NOUN +	(modifier)
yatú-pe untáy-ri,	'this day' [dem.-Prox + dawn-completive]	
akúñu untáy-ri,	'three days' [three + dawn-completive]	
čanu ibe,	'only son' [son + only/alone]	
ti pu,	'all people' [person + all]	
t-enembéw apán:e,	'his great pain' [3sg-pain + great]	
čanu ibe te ti-áre,	'sole son of his father' [sib + only + 'of + 3sg-father]	

Relative clauses are discussed below.

The verb phrase in Waikura is as follows.

object + VERB-(quantifier)-tense/aspect/modal (TAM)
akátuykè-pu-me,
'all will know' [know-all-Fut]
katè kwičarakè téy,
'forgive us' [us + forgive + imperative]
pè tí-are ureti pu pudwén,

in His Father (who) can make everything' [Prep + 3sg-father + make + all + capable]  
Imperatives (WP 6, WP 7) have no tense-aspect-modality (TAM).

It is hard to say what the default word order of Waikura was. The following are found with complete simple sentences with subject, object, and verb present.

SVO (WC 2)  
OVS (WP 3)  
VSO' (WP 8, WP 9, WC 6).

Default word order is made more difficult because once an subject is established, it is omitted in Waikura discourse; examples include 'I' in the Credo (the equivalent for 'I' never even appears), and the reference to Jesus in the same text (such as the gapped subject chain in WC 8-9-10).

One of the corollaries of VO versus OV word order is type of adpositions. In the data there is one postposition (/ti-na/, 'on/') and multivalent prepositions of similar shape (/pe/, /me/, /te/). Perhaps Waikura at the time it was recorded was in the process of changing to VSO, from, presumably, SOV. One of Baegert's acerbic comments fits here.

Instead of all the other prepositions, like: out, in, before, through, with, for, against, by, etc., they manage with me, pe, te, which have the same meaning, or they omit them entirely.

This implies that Waikura, like Salinan in Alta California, had one single preposition. The attested meanings of the three forms given by Baegert is as follows.

me	1. from (ablative and partitive) 2. in (duration of time) 3. at (locative)
pe	1. from (ablative) 2. in (as in 'believe in') 3. by (agentive) 4. in (locative) 5. at (beside)
te	of (possessive)

These meanings overlap, and the shape of the three prepositions do not seem to vary according to phonological context (preceding or following consonants) or case (ergative or absolutive). We can only take Baegert's word -- that there really is only one preposition in Wakura. The following postpositions have more specific meanings.

ti-píče-w,	'on account of'
ti-na,	'on/upon'
buñu,	'under/below'
déve,	'on account of'

The first element of both of the first two is /ti-/ which is an indefinite marker that comes from /ti/, 'person'. Is it worth speculating that the more generic preposition was put in front of a noun and more specific postpositions (including those above) appeared after the noun?

In some examples, there is no adposition at all.

atembà tí[y]e, 's/he lies on the earth' (is sick; Zamponi 2004:175)

The nuclear functions of nominals in Waikura (agent, experiencer, patient, goal) are coded by personal pronominals. While nouns have no case, pronominals do, and it is ergative-absolutive.

Person	Ergative	Absolutive
first person singular	be	be ~ m
second person singular	ey	e
third person singular	taw	ti
first person plural	kate	kepe
second person plural	pete	[pepe]
third person plural	ku	ki

Of the first person singular absolutive: /be is used before consonants, /m-/ before vowels (Zamponi 2004:171).

The ergative forms are used as:

transitive agents (WP 3, WP 9, WC 2, WC 7, WC 14);  
 objects of imperatives (WP 7, WP 9);  
 subjects of passive verbs or passives (WP 5, WC 3, WC 5);  
 subjects of optatives (WP 2-4).

The absolutive forms are used as

possessor marker with nouns or /-kun/, 'possessive' (examples above);  
 intransitive agents and experiencers (WC 3, WC 4, WC 5, WC 16);  
 patients (direct objects; WP 7, WP 10);  
 goals (indirect objects; WP 6).

Negation is by /-ra/ added to the verb. Baegert adds that /-ya/ or /-ra/ negates; there are no examples of the former marker.

There is an optative marker /=ri/ which attaches to the first constituent in a clause. Examples include single personal pronominals or a noun phrase used as subject (WP 2-3-4). Baegert also left two additional sentences with this marker (Zamponi 2004:171).

be-ri                      amukiri-rikiri-ká-ra  
 1sg (Erg)-Opt              play-Perf-?-not  
 'I wish I had not played.'

be-ri                      amukiri-ruyerá-ra  
 1sg (Erg)-Opt              play-Perf-not  
 'I wish I had not played.'

Relative clauses are headless, and follow the noun they modify (WP 1, WP 8, WC 8, WC 13, WC 14, WC 15). Baegert notes that a *relativum* (relative marker) is missing.

There is one example of complementation, in which the lower verb comes first, and there is no apparent complementation marker (WC 11).

aypúreve      tenkyé      utewri      ku-méye  
 from.there      payment      hand.out      come-Fut  
 'from there He will come to hand out/dole out payment'

There is a general conjunction /če/ which follows the simple sentence in which two items are conjoined. It may conjoin two noun phrases or two predicates, but it occurs at the end of the clause.

The examples below have only the glossing and sentence translation.

predicates

you + know-all + praise-all + people + /ce/ (WP 2; see also W 2)  
 'may all people know and praise you'

noun phrases

your-grace + have + we + heaven + /ce/ (WP 3)  
 'may we have your grace and heaven'

A series of predicates (including a verb and its object) may be chained together with /če/; examples include WP 7 and following, and most of WC (where predicates are a chain of what 'I believe').

## Chapter 8 The Pericú Language

The Pericú language is little known by some lexical artifacts assembled by León-Portilla (1976). This chapter explores these lexical artifacts in comparison with Cochimí, Robinia, Waikura, and Monqui. Scholars have related Pericú to other languages or names of languages without using the available data. Miguel del Barco, who spent 30 years in the Jesuit missions in Baja California, states clearly that Pericú was a distinct language.

Por los jesuitas se conocian tres lenguas, muy diversas, en todas las naciones californias ... La primera lengua diversa es la Pericú, la cual se hablaba desde el Cabo de San Lucas (que se halla a 22 grados de latitud boreal, poco mas o menos, y forma la extremidad austra de la California), por el espacio de 30 leguas que al principio ocupaba la nacion Pericú ... Las pestes y las desgracias han casi extinguido la nacion Pericú, que al principio de este siglo [1700s] constaba de tres mil almas, y al tiempo de nuestra expulsion [1767] de los dominios espanoles, podia tiene trescientas, las cuales hablaban el espanol y, por tanto, la lengua Pericú se debe contar ya entre las extinguidas (Del Barco 1973:440).

The Jesuits knew of three languages, very diverse, among all of the California nations [tribes] ... the first diverse language is Pericú, which was spoken in the vicinity of Cabo San Lucas (which lies at 22 degrees of latitude north, more or less, and forms the southern extremity of California), and, where the Pericú nation occupied a space of some 30 leagues ... Disease and disgrace [war with the Spanish intruders] have almost extinguished the Pericú nation, which at the beginning of the 1700s numbered about 3,000 souls, and at the time of our expulsion from Spanish dominions [1767], perhaps numbered some 300, who spoke Spanish, and so the Pericú language should be considered among the extinct (languages).

Pericú culture is known from information from early traveler accounts (Laylander 2000; Mathes 2006), and from English privateers who lived in Cabo San Lucas in the heart of Pericú territory in 1709-1710 and in 1721 (Andrews 1979). Pericú culture was based on a maritime adaptation, supplemented by agave, cactus fruit, and game (rodents, deer). The Pericús had wooden rafts with double-bladed paddles. Nets, harpoons, atlatl and darts (along with bow and arrow) supported the quest for marine food resources. Containers included fiber bags, baskets, and gourds. Requirements for clothing and shelter were minimal in the hot climate, men going naked and women wearing skirts of fiber or skins.

Each territorial band of Pericús was independent, and leaders were hereditary, with women sometimes inheriting. War with other Pericú groups or non-Pericú communities was common.

Religion was shamanic. Funeral and mourning ceremonies were elaborate. Venegas (1970[4]:524-525) gives an outline of Pericú mythology. The all-powerful Niparaya created the heavens and earth. With his wife Amaicoyondi, he had three sons: Quaayayp created humans and was then killed by them; the second was Acaragui; the third, Wac or Tuparan, who opposed the first. The similarity to the Yuman mythology of a creator of humans who is later killed by his creation is notable -- the motif of a dying and reviving god must have resonated with Pericús when confronted with European religion. Yet they fought the Spanish invaders with a vigor unparalleled by other Baja Indians.

The occupation of southern Baja California extends to 10,000 years BCE, perhaps into the Pleistocene (Fujita 2006). The short, hyperdolichocephalic burials of the region are distinct from most of the peoples of the Americas. Continued use of the atlatl and darts (Massey 1961) supports the idea that the historic peoples of southern Baja represent some initial settlement of the Americas, conserving culture and language in isolation -- yet sharing a mythological complex with the intrusive Yumans in the far north of Baja.

Following are the lexical artifacts culled by León-Portilla (1976:93-95) as Pericú. The spelling are as in the sources. Where available, Cochimí, Robinia, Waikura, and Monqui have been added.

Blank cells indicate that there is no comparable data.

Gloss	Pericú	Waikura	Monqui	Cochimí	Robinia
arroyo, green	caduaño				
axe	ipiri-ka [knife-?]			kon-xakwa [stone-knife]	kas-oka [stone/cut-?]
big	ka			ka	ka
chief/captain	itaurigui			waway	degna-moyhi [name-?]
conch	nacui				
give	unoa	ken		axt, wič	
fish	aynu			kada-wa [reed-live]	kal-bewá [water-live]
friend <sup>17</sup>	guaxoro				
go/come	uriuri			egeg, guxki	guliwa
knife	ipiri			xakwa	kas-ná [stone/cut-?]
pearl	boox, boxo				
sit	utere	day, kea		wa	<quilla>
sky/heaven	miñicari	terekeka atemba		'mba	máy
water	eni			kaxal	kal

The only thing remarkable about this array is the huge differences among the linguistic artifacts being compared -- with the exception of Cochimí and Robinia, which were neighboring speech communities speaking possibly related languages. Some of the Pericú items are probably compounds. It is possible to offer a limited study of the sound pattern of Pericú.

Transcription	Original Spelling	Gloss/Notes
aynu	aynu	fish
boxo	boox, boxo	pearl
eni	eni	water
ipiri	ipiri	knife
ipiri-ka	ipiri-ka [knife-big]	axe
itawriwi	itaurigui	chief/captain
ka	ka	[big] ipiri-ka, axe [knife-big]
kadwaño	caduaño	green arroyo
miñikari	miñicari	sky/heaven
nakwi	nacui	conch
unoa, unwa	unoa	give
uri		uriuri, go/come [rdp.]
utere	utere	sit
waxoro	guaxoro	friend

There may be two prefixes: /i-/, /u-/, meanings unknown. There was reduplication with a verb of motion ('go/come'). In 'axe', there is a compound, the second element of which is perhaps 'big' ('knife-big' = 'axe').

Five vowels appear in all positions: /i e u o a/. There are two vowel clusters: /aw oa/. The following array of consonants obtains.

p	t		k	kw
b	d			
m	n	ñ	ŋ	
			x	
	r			
w				

The resulting array is not unlike those of other Baja languages. Despite the stress mark on the language's name, there is no other record suggesting that stress in Pericú was on the final syllable of a phonological word, but the possibility of this is likely.

One of the English pirates who waited at Cabo San Lucas in the early 1700s for Spanish ships coming to Mexico from the Phillipines, Woodes Rogers, noted the following about Pericú speech.

The language of the [Pericú] natives was as unpleasant to us as their aspect, for it was very harsh and broad, and they pronounced it so much in the throat as if their words had been ready to choke them.

So, the articulation of Pericú must have been retroflex in orientation.

**Chapter 9**  
**Hokan Affinity of Baja California Languages**

Hokan Common Core (HCC) is a group of slightly more than 300 cognate sets which reconstruct for Proto-Hokan that might be present in a local Hokan language, since they are pan-Hokan in distribution. The Hokan material and reconstructions are from Kaufman (2015), which use the same Americanist transcription as used in this volume. Proto-Hokan reconstructions are preceded by #. The range of distribution is included in parentheses after the gloss. Cognate sets included have a "N/S" distribution; that is, they are found in both northern and southern Hokan languages. Sets that Kaufman considers weak have not been included, nor have sound-imitative terms for birds. Editorial comments by me are inserted in square brackets and labeled with "DLS."

A set may be made up of a single northern and a single southern reflection. For example, Salinan /t-ap/, 'deer' is a cognate of Seri /a:p/, 'deer'. As such, one must assume that this lexical artifact existed in Proto-Hokan in order for it to appear in two geographically separated languages. (This set also shows that the Salinan determiner is not a part of the root, and this has implications for cognate sets involving Salinan.)

The idea of HCC is based on regular correspondences of Hokan reflections in a local (sampled) language. A score is calculated by dividing the number of lexical artifacts reflected by the total number possible. One hundred percent would be 1.0, indicating that all possible core cognates appear in the local language. Details of work with Hokan may be found in Appendixes D and G.

**The Hokan Spread into Baja California**

Of the focal languages of this book (Cochimí, Robinia, Monqui, Waikura, Pericú), only two belong to the Hokan phylum (Cochimí, Robinia). Details of this relationship are in Appendix J. This implies a Hokan spread in the ancient past, one which penetrated Baja California from the north. It follows that the farther the Proto-Hokan tool kit spread from its epicenter of central Alta California, the fewer linguistic artifacts would remain in the linguistic repertory of descendent speech communities.

The Hokan homeland is generally considered to be in central Alta California, in the vicinity of the San Francisco Bay area (Golla 2011:242 and following). This means that Hokan varieties near this epicenter, such as Esselen (Shaul 2019), should retain more linguistic artifacts from Proto-Hokan than Hokan affiliates further to the south of Esselen. This is indeed the case; for methodology, consult Appendix J, which also has the relevant data.

Language	Grammatical	Lexical	Total Artifacts
Esselen	1.0	.983	.987
Salinan	.761	.421	.421
Yuman	.615	.739	.694
Cochimi	.500	.390	.415
Robinia	.555	.366	.410

The Esselen speech community (originally extending to the San Francisco Bay area) shows the most continuity of Hokan linguistic artifacts. As might be expected, as Hokan speech communities expanded to the south of Esselen, the amount of traceable Hokan linguistic artifacts declines. More grammatical artifacts are conserved over time and space than lexical artifacts.

The data also implies that the Salinan speech community was originally farther away from the epicenter than Esselen, and that it moved into its historical position (south of Esselen) at some more recent point in prehistory. In a larger HCC sampling of Hokan:Salinan data, the score was .451, which is comparable to the score of the smaller sample size.

**Inherited Grammatical Artifact from Proto-Hokan**

The Hokan character of Cochimí and Robinia are guaranteed by an inherited grammatical artifact, the collective/plurality infix. Langdon (1979:629) describes an infix that is inserted "between an instrumental prefix and the verb root" (she posits a CV-CV stem from Proto-Hokan, where the first syllable is a prefix, after Sapir). In Yuman, the infix is /-t-/, and in Pomoan it is /-l-/. In Esselen, it is both.

This infix occurs abundantly in Salinan, where it appears as /-t-/ or /-l-/. The structure posited for Proto-Hokan by Langdon is

CV- {-t-, -l-} CV(C)

where stress is on the second syllable. The /-l-/ and /-t-/ variation goes all the way back to Proto-Hokan; the Salinan the basis for distribution (dissimilation of /l/ to /t/ if /l n k x/ are before or after in infix) may also go back to Proto-Hokan.

This infix is found in Pomoan, Yuman, Esselen, Yanan, and Salinan. Existence of the Proto-Hokan collective infix in Esselen (as well as its discovery in Salinan), as well as its phonological peculiarities, are an inherited irregularity, the sort of hallmark that shows Hokan is an ancient language family, and not a linguistic area.

This infix may occasion phonological changes. In Salinan, for example, the infix gets a vowel inserted before or after it, depending on which pitch-accent a given root has. Consider the following derivation.

stem-suffix	kaxó-ta, 'to smoke an animal out of its hole'
insert -l-	kaxó-l-ta
vowel copy	kaxo-l-ó-ta
-l- > -t-	kaxo-tó-ta

The Robinia language has the collective/plurality infix.

-lti~ -ti ~ -l	plural marker
u-gu-lti,	they [3-abs.-pl.]
mu-gu-ti,	you (pl.) [2-abs.-pl.]
ké-l-baya,	we [1-pl.-?]

Cochimí also has the infix in the form /-l/, which is plural, collective, or aggregate.

iñim-ěl,	'whole/entire' [whole-pl. marker]
naganá texweg iñimel,	'five' (Cl.), <naganna tejuég ignimel> [hand + one + whole/entire]
iñimb-ăl,	'entire/whole' [whole/entire-pl. marker]
naganá iñimb-ăl t-mwe-xweg,	'ten' (Cl.), <naganna ignimbal demuejuég> [hand + entire/whole + both]

No further data is available, but this infix had to be inherited from Proto-Hokan.

### **Yuman-Cochimí-Robinia**

The spread of Hokan into Baja California is complicated by the fact that the Yuman language family and Cochimían (Hervas Cochimí and southern Cochimí) are grouped together as a larger language family (Mixco 1978). Mixco (1978, 1979) has shown that Yuman and Cochimí are related as a small family. Mixco's data is a set of cognates for Yuman-Cochimí defined by a set of regular sound correspondences, as well as syntactic evidence. I will not review that evidence here.

There is a problem because this relationship is not a clearly bifurcating family tree. Hervas Cochimí groups with Yuman in two major grammatical features, although it is otherwise like southern Cochimí (sound pattern; lexical artifacts; most morphosyntax).

Complicating this picture further is the fact that the Robinia language, located somewhere in northern Baja probably near the coast, is logically part of a larger extension of the Hokan expansion into Baja. Is Robinia a part of the Yuman-Cochimí family, or a separate Hokan spread into Baja (with some similarities due to contact with Yuman-Cochimí)?

There is not a uniform spread of lexical artifacts across Baja California. Consider the following datums.

Gloss	Proto-Yuman	Cochimí	Robinia	Proto-Hokan
fire	*-'aw	usi	usi	#a
good	*han ~*xan	ami ~ ambi	ami	#yisi ~ #yasi
hand/arm	*i:-□aly	gan:á	-ñak	#i-/a-taly
man/male	*ma:y	wami	wami, 'husband'	#tama
person	*i:-pa(y)	tama	dema-	#i-/a-px.a
salt	*si'r	we	a-wi	#(i-)si-yV
stone/rock	*wi(:)(y)	kon-	kum-	#a-xya

Proto-Yuman continues Hokan 'fire', 'hand/arm', 'person' and 'salt'. Cochimí and Robinia continue Hokan 'man/male' as 'person'. To document the Hokan lexical spread in Baja as fully as possible, one must have as complete an assemblage of Proto-Yuman lexical and grammatical artifacts -- a task that is a book project in itself. The detailed examination of the extent and nature of Yuman-Cochimí-Robinia is a future project, beyond the scope of this initial survey of Baja California languages.

## Chapter 10 Linguistic Prehistory of Baja California

Baja California has been seen by scholars as a bottleneck territory where speech communities and cultures entered the peninsula and migrate southward, preserving linguistic and physical artifacts in isolation. For example, the atlatl and dart technology was still in use in southern Baja (along with bow and arrow) in the 1600s (Massey 1961).

The Central Desert that occupies the northern two thirds of Baja has a prehistory reaching back to late Pleistocene and early Holocene (10,500 to 8000 BP; Willis 2016:224). During that horizon, Baja was not arid, but by 7900 to 3000 BP, it became a desert as its lakes dried up. There is physical artifact continuity from 3000 BP to historic contact. There is a complete review of Baja archaeological prehistory in Laylander and Moore (2006).

The southern third of Baja has evidence of the same antiquity of human occupation (Fujita and Ainis 2018; Ainis and Fujita 2019). Humans were in southern Baja in the late Pleistocene and early Holocene, at least 11,000 BP. Burials in the southern third of Baja suggest that the short-statured, hyperdolichocephalic (long-headed) population represented a surviving population of Paleoindian settlers (Gonzales-Jose et al. 2003).

Because Baja California has had human occupation for at least 10,000 BP (maybe longer), it is possible that the historically attested speech communities of the southern tip (Waikura, Monqui, Pericú) do represent those earliest inhabitants. However, it is just as plausible that the initial settlers died out (or migrated out as the climate dried), and newer cultural groups filled the void, or that earlier settlers were absorbed into new waves of migrants who brought new languages.

For these reasons, we can make no accurate determination as to how long the southern languages (Waikura, Monqui, Pericú) have been in Baja. We do know that they were some of the oldest speech communities documented for North America. It is interesting that Cochimí and Waikura ethnohistory and mythology have much in common. Mathes observes (2009:1) that

Origin myths of the Cochimí and Guaycura included wars and told of the ancients leaving their old lands to the north due to a great conflict that erupted during a meeting of several groups. All took up arms, and the weakest fled to the south, pursued by the strongest until they were able to hide in the mountains. Others stated that the conflict was between two opposing groups, and the victorious group, after much killing, forced the losers to seek refuge in the mountains and on the islands. Further, the Cochimí related that in ancient times people of extraordinary stature arrived from the north, fleeing others. They were the painters of pictographs [found in the mountains of the Central Desert], and they died by the hand of their pursuers and by the [Baja] Californians [Cochimí, Waikura] who did not tolerate such strange peoples in their lands (Clavijero 1970:51; del Barco 1973:211-213; Venegas 1979:1:70-72).

From this expert summary by the expert on Baja ethnohistory, we may observe the following:

- the Cochimís and Waikuras were immigrants from the north;
- because the ancient losers sought refuge in environmentally poor zones, this ancient conflict probably took place after the desertification of Baja was well underway;
- after their entry, there was another immigration of giants, people who were taller than the short statured Cochimí and Waikura;
- there has been more than one immigration into Baja.<sup>9</sup>

Clavijero notes that they [Cochimís, Waikuras] state that their "ancestors came from regions in the north" (1970:51), and that there was a previous race, larger than the Cochimís and Waikuras (1970:49). The Pericús, on the other hand, present a different picture, which seems to be an in situ creation.

The Pericú recounted that the creator had three sons, one of whom lived in the world and was murdered by people, and in the heavens they had great wars because two lords allied against the great lord [creator] who defeated them. This great lord, Niparaya, opposed war because all who died from arrows did not go to heaven, but the lords Wac and Tuparan [the other two sons] favored war because people who died from arrows go to their realm (Venegas 1979:1:70-72, 102-104; [4:524-525]) [Mathes 2009:1].

The Pericús had no recollection of having arrived in Baja. Their mythology locates them there. So, it is

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<sup>9</sup>This calls to mind the Giants of Seri mythology, who represent the ancestral Seri who crossed the Gulf of California from Baja to the mainland.

reasonable that the Pericú speech community represented an older, pre-Cochimí/Waikura immigration into Baja.

### Cochimí Dialects

Clavijero (1970:60) noted that "uniformity of language is the sole thing that unites the diverse tribes of each nation," while noting that the Cochimí language "conserve their language in four dialects with differences that one not versed in them would seem to be different languages" (1970:50). del Barco suggests that the Cochimí dialect chain may have consisted of separate languages (1973:441). Ducrué grouped (Aschmann 1966:32-330):

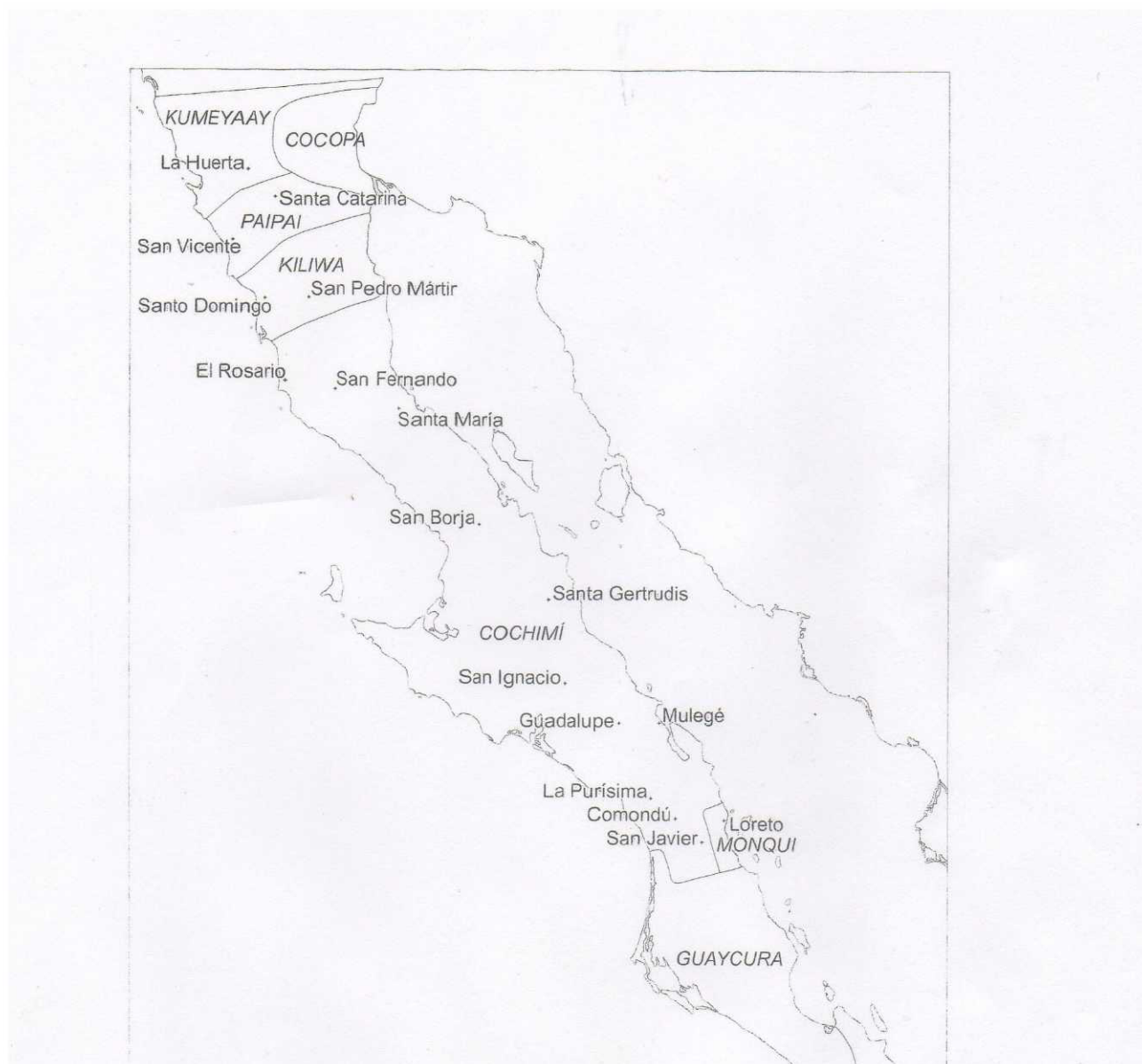
- San Javier and Comondu together;
- La Purísima by itself;
- Mulege, Guadalupe, and San Ignacio together;
- Santa Gertrudis by itself.

Later, Clavijero grouped Santa Gertrudis and Santa Maria together (Laylander 1997:41). del Barco's four Cochimí dialect divisions included (1973:441):

- San Javier;
- Purísima;
- San Ignacio;
- Santa Maria.

Please refer to Map 2 (after Laylander 1997) to note the locations of the different Jesuit missions. The southern Cochimí missions were founded first.

Map 2. The Cochimi missions.



The dialect variation shown is differences in pronunciation, not different words.

'one'	čakwi (Gabb) te:xwe(g) (NC, SC)
'two'	kowak (NC, SC) gowok (Duc)

'three'	kabyak (Gabb)
	kamywek (Duc)
	gombyo (SC)

The two linguistic artifacts for 'one' are probably related, though differing in vowels and in the change of /t/ to [c] (a Northern Cochimí trait). Forms for 'two' are definitely related, varying in the last vowel; if <k> and <g> represent the same phoneme (presumably an unaspirated [k]), then the two forms are nearly identical. The trio of lexical artifacts for 'three' vary in vowels and <k> vs. <g>; the variation of [b], [m] and [mb] is found more in Southern Cochimí.

Another obvious dialect difference is the lexical artifact for 'love (singular object)'.

n-goso, ɲas:aŋ,	'love someone (sg.)' (Northern and Southern Cochimí) (same) (Duc)
--------------------	----------------------------------------------------------------------

In the second form, /n/ and /g/ have merged, but the vowels are still different; the second datum is from Ducrue, which is supposed to be Southern Cochimí.

There are major phonetic differences to be noted between north and south in Cochimí speech.

t > č/_C	prevalent in Northern Cochimí, Central Cochimí;
[v] for /w/	Northern Cochimí, Central Cochimí
[m] ~ [mb] for /m/	prevalent in Southern Cochimí

Unfortunately, we lack Southern Cochimí datums to compare to the largest lexical stock recorded in Gabb to see just how extensive Cochimí phonetic variation might have been.

There were also, of course, grammatical artifacts which distinguished dialects. This included tense-aspect particles.

Other villages [rancherías], instead of *te*, use *ta* ... to either form [a singular or plural verb stem] can be added a particle to denote tense, such as *ta* or *te*, for the preterite (del Barco; Mixco translation in Mixco 1978:101).

Another example of dialect variation in Cochimi is the different verative particles /maŋ/, /myeŋ/, and /omwi/ which appear after the verb in the adverb position.

If one compares the independent pronouns and demonstratives reported for Cochimí, there is a striking difference between del Barco/Ducrue lexical artifacts (Southern Cochimí) and the variety sampled by Gabb (Northern Cochimí).

Gloss	del Barco	Gabb	Hervas
I/my	daxa	ya	(wanting)
thou/thy	buxu	ba	(wanting)
we/our	pen:ayu	e'é	(wanting)
you/your	buxu-mayeg	me'é	(wanting)
this (near)	butel (Duc)	ku	bu
that	(wanting)	kwum-b[y]aŋ	(wanting)
that (far)	ya-bya	ya-pyaŋ	(wanting)

Phonetic and differences in high frequency grammatical artifacts did not impede communication south to north in the Cochimí speech community. Language is an adaptive tool in forager adaptations in arid regions (Hill 1978; Shaul 1986, 2014:311 and following): in the case of local food failure, the local group (a patrilineal extended family) can be dispersed to kin in neighboring groups. In this way, language intelligibility is conserved over vast areas of desert, yet some differences in high frequency words served to distinguish local varieties within the same macro speech community.

### Seri on the Eastern Baja Coast

The Seri language isolate, spoken on the western coast of Sonora across the Gulf of California opposite Baja, was also spoken on the eastern Baja Coast. This is attested in one Seri loan word in Gabb Cochimí.

hasta'á, 'tooth' (Gabb Cochimí) = hatsa:st, 'tooth/teeth' (Seri)

There is another set of lexical artifacts that strongly suggests contact of the Seri macro speech community and languages of northern Baja.

'star'	amiči (Cochimi)
	amigi (Robinia)
	'amak (Seri)

Kaufman (2015:105) lists the following Hokan forms for 'star'.

#(a)mu, 'star' (northern Hokan)
#xya-mu, 'star' [water-star] (northern and southern Hokan)

If Seri is a Hokan language, it is very distant from the model of Proto-Hokan that comes out of Kaufman's work, so it is easier to think of the 'star' set above that includes Seri as being the result of language contact.

One historic Seri archaeological site is known on Isla San Lorenzo off the Baja eastern coast (Bowen 2005, 2009). The Seris have names for most of the islands in the Gulf of California (Moser and Marlett 2005), and in the 1800s documents state that the Seris used the San Lorenzo island chain for staging raids on the Baja coast (Bowen 2000:231-233). Seri mythology suggests a very ancient migration of Seris from Baja via the islands in the Gulf of California (Sheridan 1996:187-188). There is also a tradition of a resident Seri population on the eastern Baja coast who would visit the Seris on Tiburon Island every three or four years (Casanova 2012).

So, there is the possibility that the macro Seri speech community contributed to the linguistic prehistory of the northern half of Baja California.

### **Cochimian and Tepiman Linguistic Area**

The possibility of loan words from the Tepiman subfamily of Uto-Aztecan is mentioned in the section on numerals in Chapter 3, and mention has been made of resemblances between Cochimi and Uto-Aztecan (hereafter, UA) elsewhere. All of this is reviewed in this section. The Gabb numerals are reviewed first.

Given that epenthetic vowels could be present, we have the following set.

te-,	'one'
k-wak,	'two'
k-myak,	'three'

/k-wak/ or /kowak/ 'two' resembles a Uto-Aztecan form: Proto-Tepiman \*go:k, 'two' (from Proto-UA \*wok, 'two' via a sound change that distinguishes Tepiman, \*\*w to \*g).

On the other hand, there appear to be native forms in Gabb for 'four' and 'six'.

ixkyum-kwak ~ ixkhum-kowak,	'four' [times-two]
ixkyum-kabyak,	'six' [times-three]

One might expect that other numerals could be added to these forms to produce other numerals. The forms given by Gabb have partials in common.

ñaki-vam-pay,	'five' [two-with-three]
ñaki-vam-ivapay,	'eight' [two-with-six]

Going out on a limb, /vam/ seems to mean 'and/with'. If /pay/ is a Uto-Aztecan loanword for 'three', then /ñaki/ must mean 'two'. The form /ivapay/ in this interpretation is the reduplication of /pay/, 'three' to produce 'six'. /vam/ also appears in the Gabb lexical artifact for 'nine'.

kwačera-vam-pay,	'nine' [six-with-three]
------------------	-------------------------

This form uses /kwačera/ for 'six' instead of /vapay/. The Gabb lexical artifact for 'seven' adds to the confusion.

čakwera-vam-ay,	'seven'
-----------------	---------

Assuming that /kwačera/ and /čakwera/ are related and mean 'six', 'seven' would be 'six with one', yielding /ay/ another lexical artifact for 'one'. Gabb's form for 'ten' adds another unknown element.

nyavanitchaqui> = [ñavani-čakwi], 'ten' (Gabb) [?-one]

Speculative analysis of the Gabb numerals gives the following additional numerical artifacts.

ay,	'one'
ñaki,	'two'
pay,	'three'
vapay,	'six'
vam,	'with/also'

Of these, /pay/ looks like Uto-Aztecan \*pahi, 'three' with /vapay/ being a reduplication of /pay/. The Tepiman form of \*\*pahi is \*vahi/vay which would reduplicate as /vapay/ (Tepiman \*v reduplicates as /p/, the consonant that Tepiman \*v came from). The Cochimí form /vam/, 'with/also' looks very much like Tepiman \*vəm, with the same meaning. For comparative UA, see Stubbs (2011) and Shaul (2014).

Another linguistic artifact that is the focus of a diffusion area is the perfective marker /ta ~ te/. A particle of the same shape (/ta/) and meaning is also found in the languages of the Tepiman subfamily of UA. The Tepiman varieties of southern Arizona and northwestern Sonora (O'odham, Altar Piman, Sonoran O'otam, Nevome; see Shaul 2000) all have /ta/ as a perfective marker. Oob No'ok (Shaul 1994) does not have it, and only vestiges of it are found in Northern Tepehuan (Bascom 1982) and Southeastern Tepehuan (Willett 1991). /ta/, 'perfective' is found nowhere else in Uto-Aztecan, so this grammatical artifact is peculiar to Tepiman (within UA), and is most productive in the varieties closest to the language of Baja that use /ta/, 'perfective' (Cochimi, Robinia; it is also present in Monqui, but this probably diffused into Monqui from Cochimi).

The Gabb Cochimi pronoun for 'you (pl.)' is /me'é/. This is similar to UA \*/ëmë/, 'you (pl.)' (Stubbs 2011: no. 2659b). If this is a valid comparison, Gabb Cochimi speakers substituted /e/ for Tepiman /ë/ (an unrounded central vowel).

At this point, it is reasonable to propose a linguistic area in the general location of the Colorado River Delta where Baja California, Alta California, Sonora, and Arizona meet. The members of this linguistic area are Cochimi (but not Robinia) and Tepiman. There is one fact about Tepiman linguistic prehistory which supports this hypothesis.

Ati Piman (which was spoken just north of the Seri speech community on the coast opposite Baja) used reduplication to form perfective stems (Shaul 2018:128-139). This is reconstructed as the way perfective stems were made in Proto-UA (Heath 1977). In addition, Ati Piman has other features that are found outside Tepiman in other UA languages, but nowhere else within Tepiman. Thus, Ati Piman is the most archaic Tepiman variety and this in turn suggests that Ati Piman was spoken in or near the location of the Proto-Tepiman homeland.

### **Overlap Between Kiliwa and Cochimí**

Golla noted of the Kiliwa language (Yuman family) that

in phonology and grammar, Kiliwa is quite distinct from all other Yuman languages, and only a small number of Kiliwa stems have clear Yuman cognates. Cultural connections with Cochimí speakers to the south seem to have been of considerable long-term importance (2011:118).

Mixco (1978) gives a number of examples that show Kiliwa sharing a root with Cochimí instead of with Yuman.

Gloss	Kiliwa	Cochimí	*Yuman
feces	waq	wak	*cerk
salt	kw'iy	we	*s'iR
nephew	'wi	'wi	*pi

This is not a complete list. There are also two grammatical **isoglosses** (dividing lines between two areas having different or variant linguistic artifacts for the same referent or function) that separate Hervas Cochimí from the rest of Cochimí.

- Hervas Cochimí has switch-reference like the Yuman languages to its immediate north, and the markers are the same (-k, same subject; -m, different subject).

- Hervas Cochimí has nominative-accusative case marking for nouns, just like the Yuman languages to its immediate north, and the markers are cognate with Yuman (-c in Yuman and -t in Hervas for subject, zero suffix in both for objective case).

The Cochimí varieties other than Hervas Cochimí lack switch-reference, and have an ergative-absolutive case marking system on noun phrases (-la, ergative; -xwa, absolutive; -mo, dative), Details on these are in previous chapters.

These linguistic artifacts show that Yuman/Kiliwa and Cochimí speech communities overlapped in the past, and that Yuman-Cochimí (Mixco 1978; Mithun 1999:577; Golla 2011:125-126) is not a straight-forward, bifurcating family tree. Golla states (2011:126) that

Clouding this picture, however, is the uncertain status of Kiliwa ... there is reason to believe that before this time [establishment of the northern Kiliwa mission of San Pedro Martir in the late 1700s] that other Kiliwa dialects or Kiliwa-like languages were spoken further to the south and that these may have shaded into the northernmost Cochimí varieties (Joel 1964:102; Mixco 1977b).

What emerges is a picture of gradual linguistic change over time and space, a classic dialect chain "cooling down" into a continuum that passes from a distinct variety in the north (attested Kiliwa) to an equally distinct variety in the south (the Southern Cochimí of the texts relayed by del Barco and Clavijero).

Mixco (2006:27) notes the following major sound correspondences in comparative Yuman-Cochimían.

Proto-Yuman	Cochimían
*č	t ~ č
*p	p ~ m ~ w
*xm-, *sm-	m-
*l	l ~ ŋ
*m	m ~ mb

A detailed comparison of Yuman and Cochimían is in Mixco (1978a, 1979), but more work on comparative Yuman and Cochimian is needed.

Mixco (2006:34-36) gives a list of lexical artifacts that related to the marine environment which prehistoric Baja residents were familiar with and which they exploited. He notes that in some "semantic shifts from originally non-aquatic to aquatic referents" (2006:35), and that "there are no reconstructable proto-forms [Yuman] that are unambiguously marine in origin" (2006:34). In short, the Yuman linguistic homeland -- discerned by names in Proto-Yuman for key biological species of the natural environment -- was not a marine adaptation, inferring an inland location for the Proto-Yuman speech community, and probably the Proto-Cochimían speech community as well.

### **Hokan Affinity of Baja Languages**

Of the languages explored in this book (Cochimí, Robinia, Monqui, Waikura, Pericú), only two may be considered as belonging to the Hokan phylum (Cochimí, Robinia). Details of this relationship are elsewhere in the book (Chapter 9, Appendix J). This implies a Hokan spread in the ancient past, one which penetrated Baja California from the north. The farther the Proto-Hokan tool kit spread from its epicenter, the fewer linguistic artifacts remained in the linguistic repertory of descendant speech communities.<sup>10</sup>

The Hokan homeland is generally considered to be in central Alta California, in the vicinity of the San Francisco Bay area (Golla 2011:242 and following). This means that Hokan varieties near this epicenter, such as Esselen (Shaul 2019), should retain more linguistic artifacts from Proto-Hokan than Hokan affiliates further to the south of Esselen. This is indeed the case; for methodology, consult Appendix J, which also has the relevant data.

<sup>10</sup>The concept of Hokan Common Core (HCC) is explained in my Salinan book (Shaul 2020a). There are about 350 grammatical and lexical cognate sets that have a robust pan-Hokan distribution. The data on Proto-Yuman is very limited, so I tailored the application of HCC (Appendix J, this volume) to the amount of available Proto-Yuman reconstructions published by Yumanists. The scores are the number of Hokan cognates conserved in a local language divided by the total number of Hokan linguistic artifacts in the HCC list used in Appendix J.

Language	Grammatical	Lexical	Total Artifacts
Esselen	1.0	.983	.987
Salinan	.761	.421	.421
Yuman	.615	.739	.694
Cochimí	.500	.390	.415
Robinia	.555	.366	.410

The Esselen speech community (originally extending to the San Francisco Bay area) shows the most continuity of Hokan linguistic artifacts. As Hokan speech communities expanded to the south of Esselen, the amount of traceable Hokan linguistic artifacts declines. More grammatical artifacts are conserved over time and space than lexical artifacts.

The data implies that the Salinan speech community was originally farther away from the epicenter than Esselen, and that it moved into its historical position (south of Esselen) at some more recent point in prehistory. In a larger HCC sampling of Hokan:Salinan data, the Salinan score was .451, which is comparable to the score for the smaller sample size.

Having shown the gradual Hokan spread into Baja California, it now remains to see if Baja California speech communities interacted in the remote past to produce linguistic convergence, despite the pervasive internecine warfare that characterized the peninsula's prehistory.

### **Baja as a Linguistic Area**

Baja California is a culture area (see further below in this section) -- so is it also a linguistic area? We can explore this idea using phonological data, and to a lesser extent with grammatical data. Turning to the phonological data, we will start with the consonant arrays of Cochimí, Hervas Cochimí, Gabb Cochimí, Robinia, Waikura and Pericú.

### **Cochimí Consonant Array**

p	t	[č]	k	kw	'
b	d		g		
	s		x	xw	
	l				
m ~ mb	n	ñ	ŋ		
w		y			

Final consonants in CVD roots are /n ɲ/.

/ñ/ does not occur initially.

/t/ > [č]/\_\_C.

/l/ > [r]?V\_\_V

/l/ > [r/C\_\_

### **Hervas Cochimí Consonant Array**

p	t	[č]	k	kw	'
b	d		g		
m ~ mb	n	ñ	ŋ		
my			ky		
	s		x	xw	
w		y			

Final consonants in CVC roots are /n ɲ/.

/ñ/ may occur initially.

### **Gabb Cochimí Consonant Array**

p	t	č	k	kw	'
b	d		g		

	s		x	xw
	r			
m	n	ñ	ŋ	
w		y		

Final consonants in CVC roots are /n ŋ/.

/ñ/ occurs initially.

/ŋ/ occurs initially.

### Robinia Consonant Array

p	t	č	k	'
b	d		g	
f	s		x	
	l			
m	n	ñ		
w		y		

/f/, probably bilabial, is unusual and unique in Baja languages.

/ñ/ occurs between vowels.

Coda consonants include /l m n g/.

### Monqui Consonant Array

	t		k
b	d		
		(š)	(x)
m	n	ñ	
w		y	

Final stress on last syllable of the head word of a phrase or single-word utterance.

Lengthn segment (consonant or vowel) immediately preceding stress.

Syllables are CV or CVC.

### Waikura Consonant Array

p	t	č	k	kw	'
b ~ mb	d ~ nd				
	-r-				
m	n	ñ			
w		u			

/t/ is found only in suffixes, so it is never word-initial.

/w/ > [v]/V\_\_V.

Remarkably, there are no fricatives at all.

### Pericú Consonant Array

p	t		k	kw
b	d			
			x	
	r			
m	n	ñ		

The Pericú array is probably incomplete. One might expect /xw/ and /s/, perhaps /ŋ/.

All of the Baja consonant arrays considered are fairly simple. The three Cochimí arrays are identical, thus showing that this language tradition was a single functioning language, despite grammatical differences (case marking, switch-reference; Hervas Cochimí is like the Yuman languages to its immediate north). There are also other phonological artifacts that may be compared.

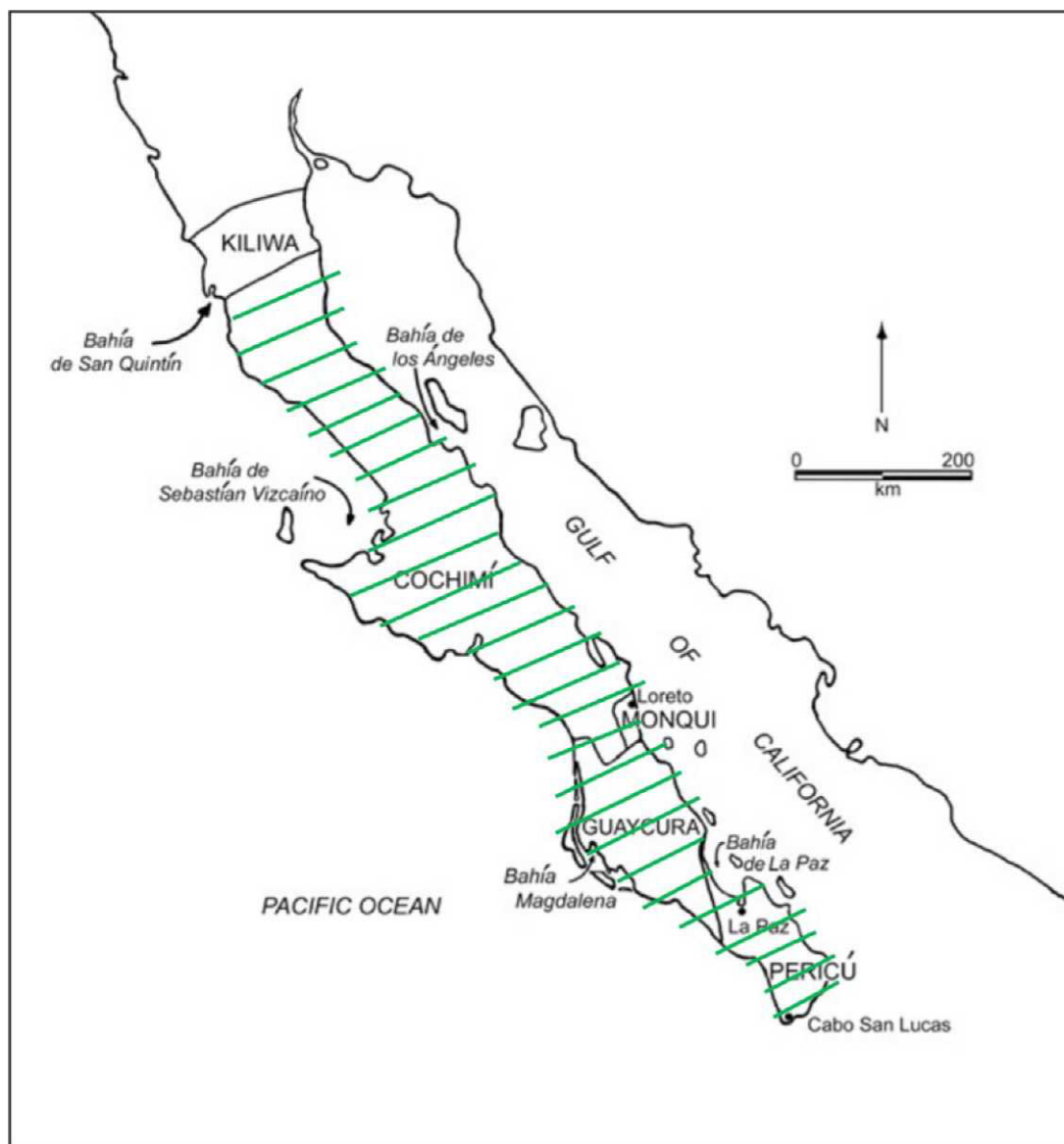
Language	Vowels	Syllable Shapes	Stress	[m] ~ [mb]
Hervas Cochimí	/i ~ e u a/	V, CV, CVC	[probably final]	yes
Cochimí	/i e u o a/	V, CV, CVC	final	yes
Gabb Cochimí	/i e u o a/	V, CV, CVC	[probably final]	yes
Robinia	/i e u o a/	V, CV, CVC	final	yes
Monqui	[i e u o a]	CV, CVC	last syllable head word of phrase	?
Waikura	/i e u a/	V, CV, CVC	phrasal, not on word: weak-strong-(weak); strong-weak.	yes; [nd] ~ [d] also
Pericú	[i e u o a]	V, CV, CVC	[perhaps final]	no

In these four phonological artifacts, the known Baja languages are very similar. On the basis of these, it is quite reasonable to accept Baja California as a phonological area. Two corollary factors strengthen this idea:

- (a) the vowel position in the syllable canons may be a cluster ending in /-y/ (Hervas, Cochimí, Gabb, Robinia, Waikura);
- (b) the final consonant of a morpheme is either /n/ or /r/ (Hervas Cochimí, Cochimí, Gabb Cochimí, Robinia, Waikura).

Please see Map 3.

Map 3. Baja California as a phonological area.



There are four grammatical artifacts which may be compared across the known Baja languages.

Language	Word Order	Adpositions	Case	Tense-Aspect
Hervas Cochimí	SOV	postposition	nominative	after verb
Cochimí	SOV	postposition	ergative	after verb
Robinia	?	?	?	after verb
Monqui	VSO	?	?	after verb
Waikura	VSO	prepositions, postpositions	ergative	after verb
Pericú	?	?	?	?

Both Cochimí (del Barco, Clavijero) and Waikura have ergative-absolutive case marking, postpositions, and tense-aspect marking after the verb, suggesting that these two neighboring speech communities interacted over a long time to produce a grammatical linguistic area. A tendency for VSO word order in Waikura (and a set of phonologically similar prepositions) suggests that Waikura word order was changing from SOV (the postpositions and relative clause after the head noun) to VSO. Yet Cochimí (not Hervas Cochimí) and Waikura share a number of other structural artifacts:

- case markers attach to the noun phrase, not nouns (Cochimí only); Waikura lacks case marking on nouns);
- tense-aspect-modality attaches to the verb phrase, not verbs;
- conjunctions attach to the end of a simple sentence/clause.

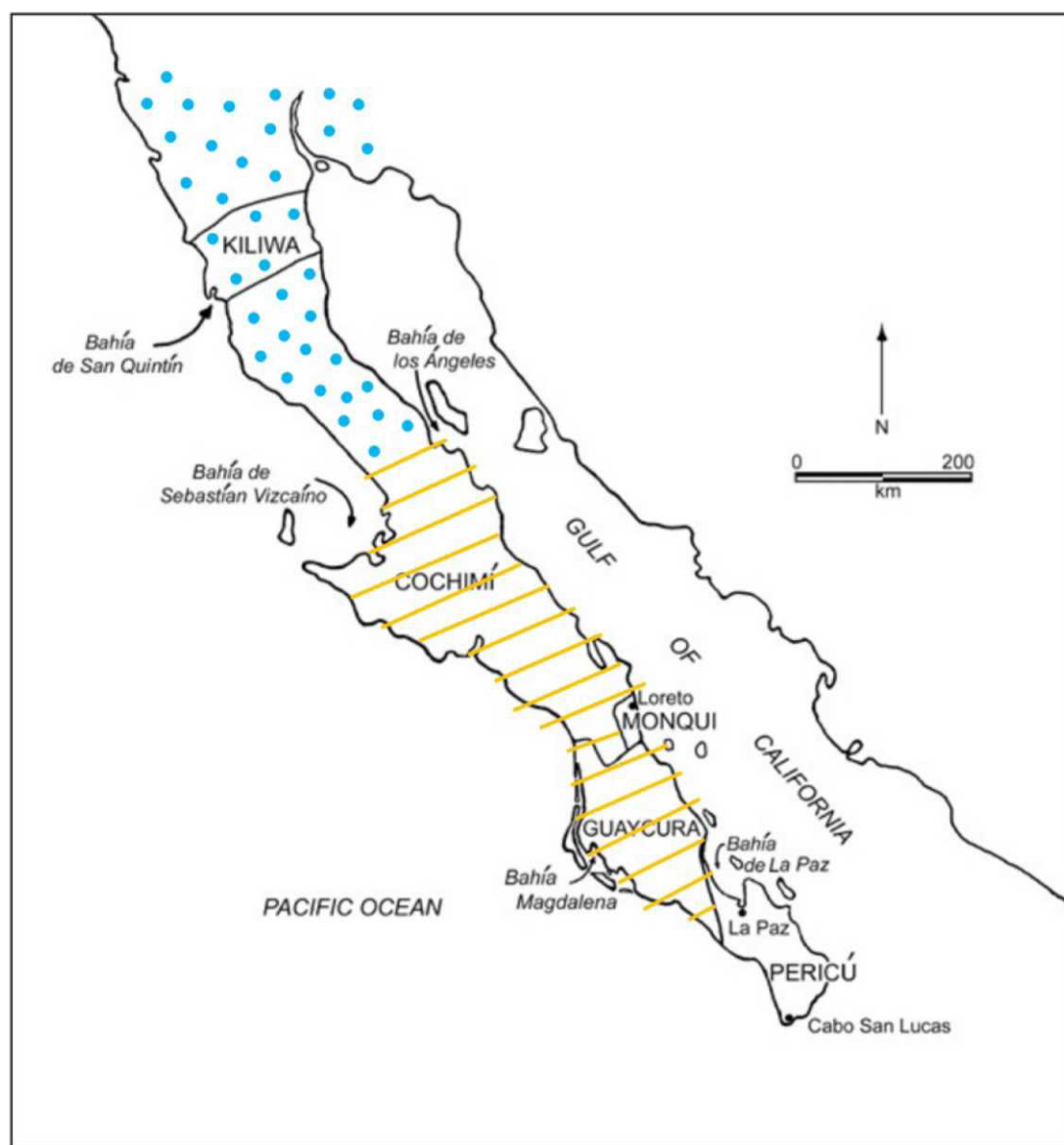
These aspects of deep grammar further suggest that southern Cochimí and Waikura formed a grammatical area. The following linguistic artifacts show that indeed the two formed a grammatical area.

<b>Gloss</b>	<b>Cochimí</b>	<b>Waikura</b>
die	y-ibi, die ibi-če, make suffer	ibi, suffer
totally, completely	-didi-	-dede-, -deda-, -dida-
stative marker	-ku ~ -k	-ka
one who	-ču	-tu ~ -ču
locative (adessive)	-na(ŋ)	-na
mother	či	ča
attributive	-y, attributive; ya:, relative marker; ya-, demonstrative	-ya, attributive

These linguistic artifacts are too close (if not identical) in shape and meaning to have occurred in two adjacent speech communities purely on the basis of chance.

There is another major factor that divides Baja California into linguistic areas: case marking. To review, Yuman languages (including Kiliwa) and Hervas Cochimí have nominative-accusative case marking, whereas southern Cochimí varieties and Waikura have ergative-absolutive case marking. Please see Map 4.

Map 4. Case marking as a grammatical area in Baja California.



The dotted area is the area of nominative-accusative case marking. The striped area is the area of ergative-absolutive marking. The status of Pericú is not known. A smaller grammatical area may be provisionally distinguished joining the Monqui and Waikura areas (VSO basic word order).

There is also ethnographic information supporting a southern Cochimí:Waikura linguistic area. Macfarland and Henrickson (2010) compiled detailed comparable cultural traits for the Southern Cochimí, Waikura, Pericú, and Seri cultures, as reported in Jesuit and explorer eye-witness accounts. It is the best summary of the native cultures of the southern half of Baja California by far. Using cluster analysis and statistics, they found that Southern Cochimí and Waikura cultures "appear to have been culturally homogenous" (2010:62). Both were clearly distinct from the Pericú culture, and both were more similar to the culture of the Seris.

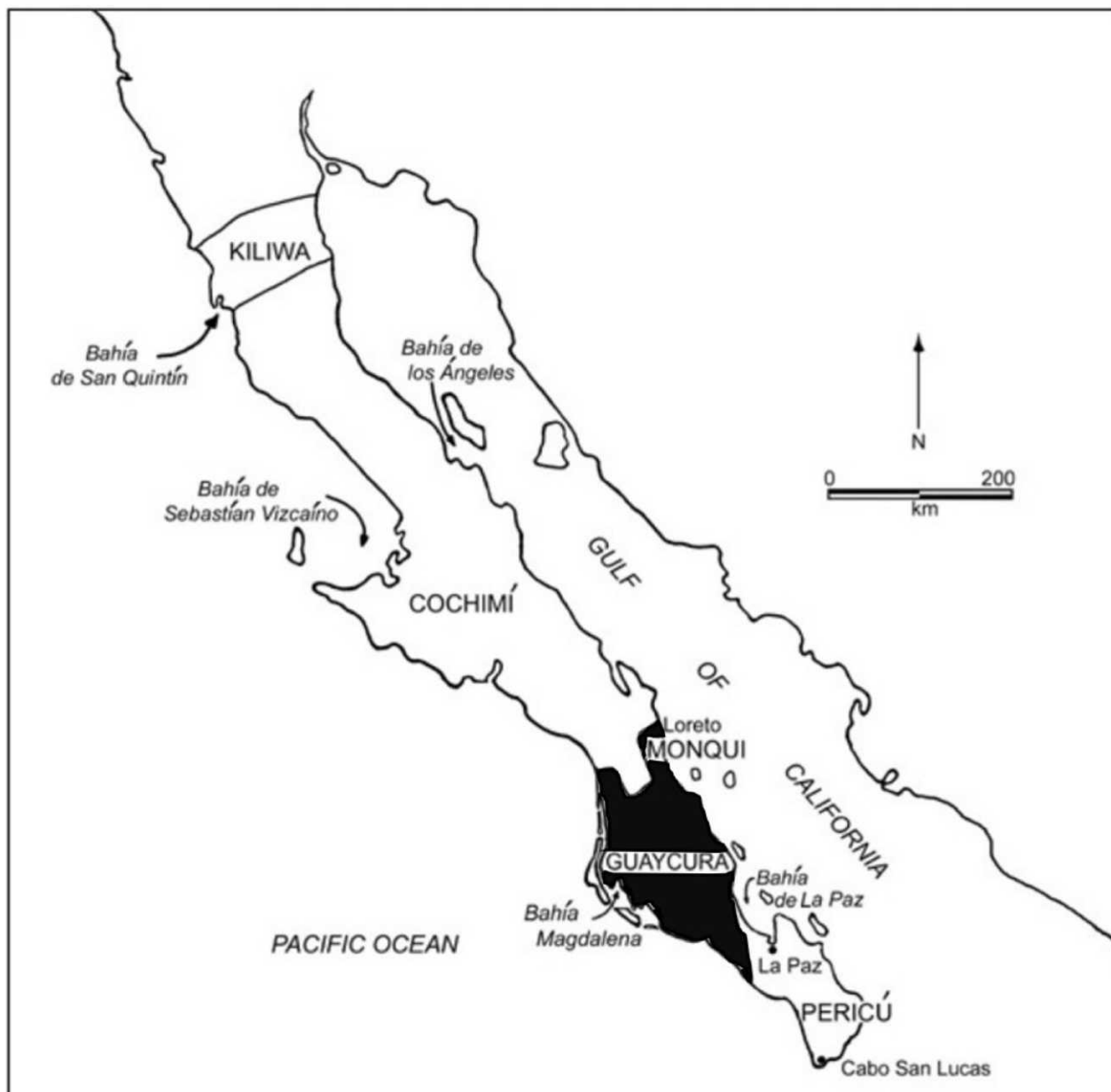
In foraging adaptations, the local groups/bands are typically extended patrilineal families who exploit a territory. This means that marriage must be outside the local group.

Interestingly, the Guaycura and Southern Cochimí share all religious and female dress traits. This suggests that females may have moved exogamously between groups, thus possibly sharing religious ideas and female attire (Macfarlan and Henrickson 2010:62)

They remark that women performed religious rituals (del Barco reports that Waikuran basketry was made by men!). Being a culture area, the Southern Cochimís and Waikuras also were part of a larger phonological area. However, they were not a linguistic area on the basis of grammatical artifacts.

Another possible grammatical area is the Verb-Subject-Object basic word order implied in Waikura and Monqui. Both languages have this word order, and both have postpositions, which is a corollary of VSO word order.

Map 5. VSO word order in Baja California.



The solid area shows languages with Verb-Subject-Object word order and prepositions. Basic word order is a trait that is commonly spread in a natural geographic region. Another plausible grammatical area is most of Cochimí and Waikura, which both attach inflections at the end of phrases and conjunctions at the end of clauses.

There is another factor that shaped Baja native cultures: war. In a rich, detailed survey of reported ethnographic and archaeological evidence for warfare in the southern half of Baja California, Mathes (2009) concluded that all of the indigenous inhabitants "lived under the perpetual threat of attack, warfare, and violent death ... when there was peace, it was due to isolation and adequate sustenance; common culture and language did not prevent conflict" (2009:9).

### **Pacific Rim Linguistic Area**

The Pacific Rim Linguistic Area hypothesis (hereafter, PRLA; Bichel and Nichols 2006; Erlandson and Braje 2011; Erlandson et al. 2007, 2008, 2011; Hoffecker et al. 2016; Madsen 2004; Nichols 2015, 2017; Nichols and Bentz 2019; Nichols and Peterson 2014; Sicoli and Holton 2014; Urban 2009, 2010; Urban et al. 2019) is the idea that during the time of Beringia (while the last Ice Age endured), there were people and hence speech communities in the Beringia land expanse. Some of these people moved south along the coast of North and then South America, with languages eventually expanding into the interior of both continents. There may have been more than one migration along the Pacific coast of North America.

The PRLA hypothesis claims that the Pacific coast from East Asia down through the Pacific coast of South America is a linguistic area, with unrelated languages sharing certain traits in common. It is not clear whether the PRLA hypothesis postulates only a single migration associated with the major diagnostics, which include the following:

- verb initial word order (and postpositions);
- first person markers in n-; second person markers in m-;
- numeral or possessive classifiers with nouns;
- part of speech flexibility;
- true case marking;

- suffixed person agreement (where agreement is marked).

The bottleneck of languages in Baja California is a good place to test the PRLA hypothesis, since these languages arrived from the north into Baja, creating a stratigraphy of speech communities of great antiquity. Only the person marking and word order parameters exist in the data of Baja languages.

Diagnostic	Proto-Yuman	Cochimí	Robinia	Waikura
first forms in n-	*n-	n-, absolutive/possr.	bu-(no)	be— m-
second forms in m-	*m-	m-, ergative/possr.	mu (yes)	ey ~ e
VSO	no	no	?	yes

Suppose Waikura had all three traits -- it would then be clear that PRLA happened before the Hokan spread. However, while Waikura has a trend for VSO word order and has prepositions, it also lacks the person marking parameters, and it also has postpositions that have more specific meanings than its trio of multivalent prepositions (/me/, /pe/, /te/). Proto-Yuman and Cochimí fit the person marking parameters, but have SOV default word order (and postpositions). It is hard to make any conclusions about PRLA and Baja languages.

There is another wrinkle in the PRLA hypothesis and the northern-most part of Baja. Recall that one of the traits of PRLA is the use of a classifying element to distinguish kinds of nouns. The English sentences below have classifiers.

Put in one **teaspoon** sugar.

He sold two **head** of cattle.

Notice that the classifiers have a numeral with them. In other languages, the determiner used with the classifier may be a personal possessor marker or a demonstrative in addition to a numeral.

Many languages to the north of Kiliwa (and the core Baja languages) have a morpheme often glossed as 'pet' which is used as a classifier of domestic animals, slaves, or other animate beings which are controlled by another animate being (Miller 1987; Mixco 1991, 1994). This classifier appears in the rest of Yuman, in Uto-Aztecan, and in Keresan. According to Johanna Nichols (p.c.) this linguistic artifact is

a classifier, but not a numeral classifier. Both possessive classifiers and numeral classifiers happen in NPs but they are different (some Amazonian languages have both, with different classes and different classifiers). Possessive classification is definitely a Pacific Rim feature ... I think this is the ultimate minimal classifier system: one classifier, and all the nouns that don't refer to domestic animals, etc. take no classifier and just use ordinary possessive morphology (genitive case, possessive affixes, or whatever). It's really remarkable.

Other Pacific Rim features appear in Uto-Aztecan and non-Kiliwa Yuman.

Linguistic Artifact	Uto-Aztecan	Yuman
VSO	innovative <sup>11</sup>	no
n- first person markers	yes	some
m- second person markers	yes	yes
classifier	yes <sup>12</sup>	yes
part of speech flexibility	no	no
true cases	yes	yes

So, Uto-Aztecan and Yuman have some key indicators of PRLA -- matching PRLA indicators found in Baja languages (except for VSO).

<sup>11</sup>Innovative in some Tepiman varieties, and in Uto-Aztecan languages spoken in Mesoamerica, where VSO is an areal trait that spread to Uto-Aztecan.

<sup>12</sup>The 'domestic animal/slave' classifier \*\*puNku is reflected in Tubatulabal, Hopi, the Numic subfamily, Tarahumaran, Opatan, and Yoemian/Cahitan, so it reconstructs for Proto-Uto-Aztecan. However, the Uto-Aztecan languages closest to Yuman -- the Takic grouping -- do not have it. For Uto-Aztecan see Shaul (2014) and Stubbs (2011).

## Appendix A: Northern Cochimí Texts

### Pater Noster

There are three versions in Northern Cochimí of this text. Two are given in Clavijero, and one is from del Barco. The del Barco text and one of the texts in Clavijero are similar. All three texts differ only substantially in one line, which is the line next to the last. Both versions are reflected here.

cahay	apa	ameing	mià
k-ǎ'ay	apa	'm[b]yeŋ	miyá
S-1-father	our	sky	loc.

'Our Father (who is) in Heaven,'

mimbang-ajua	val	vuit-maha:
mĩ-mbaŋǎ-xwa		
2-name-Abs	[honor]	all-people

'all people honor Thy Name;'

amet	mididavai-juà	cucuèm:
'met	mĩ-dida-vai-xwá	kũ-kwé-m
earth	2-coll.-[order]-Abs	Cl-hear > obey-Sub

'(on) earth (they) hear/obey Thy Command;'

jemmu-juà	amabàng	vihi	mièng,
xě-m:-u-xwa	'mbáŋ	vixi	myéŋ
S-2sg-word-Abs	sky	and	Ver

'(Thy) Will in Heaven and/also

ame tenang	luvihim.
'metě naŋ	lu-vi-xi-m
earth loc.	Cl.-be-caus. = be.done-Sub

'on earth is caused to be.'

The-vàp	yicuè	timiei:	di-guà
teváp	yikwé	tĩ-mye	tĩ-wá
[food]	?	Cl-[needed]	Cl-eat

'food needed to eat'

bang-anang	gnacahittevichip
baŋǎ-náŋ	k-nǎ-k-axit:ě-viči-p
day-loc.	Imp-1-Cl.-give-distribute-purp.

'today give us.'

nuhigua	aviuveham
n-uxi-[x]wa	'-v-yuve-m
1-enemy-Abs	1-Cl-forgive-Sub

'We forgive our enemies/foes,'

vi chip	iyegua	gnakaciiven:
viči-p	iye-[x]wa	k-nǎ-kas-yuve-n
distribute/remit-purp.	?-Abs	Imp-1-transgression-forgive-suf.

'just as you forgive our transgressions;'

{ cassetasuang	mamenit-gna-kum
kas: -ta-xw-aŋ	mǎ-mě-n-it-k-nǎ-ku-m
tempt-Perf-Abs-loc.	?-?-1-[lead]-Imp-1-[remove, save, etc.]-Sub

'lead away (and) remove us from sin/temptation,'

OR

kazetajuanga	muegnitpacum	
kasě-ta-xwa-ŋa	mwe-k-n-it	pa-ku-m
tempt-Perf-Nom-loc.	[some]-Imp-1-[remove]	pl.o.-[remove]-Sub

'remove us from sin' }

guang	tevisée	gna cavignaha.	
waj	tě-visé	k-nă-kavi	k-nă-xa
and	Cl-[evil]	Imp-1-[save]	Imp-1-[save]

'and save us from evil.'

### Ave Maria

This text in Northern Cochimí is from del Barco (Mixco 1978:56-57). The Ave Maria text is important for showing the prefix forms for second person (ergative, absolutive, possessor).

Santa	Maria	gkouyibajam
Santa	Malya	k-'uy-ibaxa-m
S.	M.	Imp-happy-much-Sub

'Holy Mary, rejoice!'

Dios-la	kaembogooso	ibaha	muguihi
Dyos-la	ke-mb-go:so	ibaxa	mu-wixi
God-Erg S-	2-love	much	conjunctive-and

'God loves thee very much;'

Dios	bomoguolo	deegyí
Dyos	b-m-wolo te:gyi	te:gyi
God	2-Cl.-abide.in	indeed/things

'God abides in you/you manifest God.'

huaegiñ ejua	guidemujueg	hi
waxiñ-xwa	wi-tě-mwe-xweg	xi
women-Abs	3-Cl.-some-Spec. = all	and

'Of all of the women'

buhu	mo mo	kaemombi	mami	ibaha
buxu	m-mo	ke-m-mbi	m-ami	+ ibaxa
thy	2-nameS-2-[blessed, holy, etc.]	2-good + much = more		

'thy name is more holy/blessed.'

guihi	muisa	Jesusjua	kaemi	baha	luju
wixi	m-wisa	Xesus-xwa	ke-zero-mi	[i]baxa	luxu
and	2-son	J.-Abs	S-3-[holy]	much even.more	

'and thy Son Jesus is even more holy.'

Santa	Maria,	Dios	chi,
Santa	Malya	Dyos	či
S.	M.	G.	mother

'Holy Mary, God's mother,'

Dios mou	pennayu	nuhuiambiñijua	pagkaudugu	gkaim
Dyos-mo	pen:ayu	n-wi -ambi-ñi -xwa	pa-k-udugu	k-'i-m
G.-Dat	our/we	1-very-good-not-Abs	pl.o.-Imp-forgive	Imp-ask/say-Sub

'ask God to forgive our sins'

anajuamo	guihi	nuhnigya	deehueg	udaahi.
anaxwa-mo	wixi	n-wigya	te:xweg	uda:xi
now-loc.	and	1-die (pl.)	at.specific.time/one	when/where

'now and at the very time/point we die.'

### Credo

Nogosso	Dios	yaa	Ijou	ttegyijua	hi	yehua	demuejueg
n-'-gos:o	Dyos	ya:	Yi-xwo	tegyi-xwa	xi	yi-xwa	de-mwe-xweg
Cl-1-belive	G.	Rel	live-holy	certainly-Abs	and	be-Abs	?-some-Spec = 'all'

'I believe in God who (is) certainly the Living One and is completely'

yaa	Ambayu	jupmou	guihi	amet e mou
ya:	ambayuxup-mo	wixi	'met-mo	
Rel	sky-loc.	and	earth-loc.	

'in the heavens and on earth'

guihi	ttegyi aja	gamuegjua	guilla	huededepil	demueg juegta
wixi	te:gyi + axa	k-mwe-g-xwa	wi-l:a	we-dede-pil	t-mwe-xweg-ta
and	thing(s) + ?	S-sme-Spec-Abs	3-Erg	3-coll.-make	Cl-some-Spec-Perf

'and all things He made in their entirety.'

Nogoso	Jesu Christo	ya	Dios	ya	Ijuo
n-'goso	Yesu Keristo	ya[:]	Dyos	ya[:]	Ixwo
pl.o.-1-believe/love	J.C.	Rel	G.	Rel	Living.One

'I believe Jesus Christ who is God who is the Living One.'

guiguisa	tejueg-duuñip	omui	uagua	papajua
wi-wisa	texweg	du:ñip omwi	wawa-papa-xwa	
3-son	sole/only	indeed	lord-our-Abs	

'His only son (is) indeed our lord'

yaa	Dios Espiritu Santo	yagahuajip	udaahi
ya:	Dyos Spiritu Santo	zero-yagawa-xi -p	uda:xi
Rel	God the Holy Spirit	3-pregnant- caus.-purp.	where/when

'who as God the Holy Spirit begat Him and

Santa Maria Virgin	kalepen e mo	taemma	huita	udaahi
Santa Malya Virëxin	kalëpenë-mo	tam:a	wi-ta	uda:xi
S. M. V.	womb-loc.	man	become-Perf	where/when

'in St. Mary Virgin's womb where He became human.'

unghara.  
uñ-a-ra  
be.born-Perf  
'and was born.'

Taemma	huita	udaahi
tam:a	wi-ta	uda:xi
human	become-Perf	when/where

'When He became human'

Poncio Pilato	Guagua	huihi
Ponsyo Pilato	wawa	wixi
P. P.	lord/chief	and > under/by

'(under/by) Pontius Pilate

Santa Cruz mo	guil la	gkahuaba	guita
Santa Këlus-mo	wi-l:a	kawaba	wi-ta
S. C.-loc.	3-Erg	[hung, tied, etc.]	be-Perf

'He was fastened to the Holy Cross

guihi	Santa Cruz mo	ibita[,]	u pep	lujuta
wixi	Santa Këlus-mo	ibi-ta	'pe-p	luxu-ta
and	S. C.-loc.	die (sg.)-Perf	die-suf.	more.than-Perf

'and died on thee Hly Cross, dying totally.'

amet e	yo	huagambita
'metë	yo	wagambi-ta
earth	[under]	zero-descend-Perf

'He went below the earth'

amet	yaa	taemma	hui	ambi	usa	hi
'met		tam:a	wi	ambi	'sa	xi
earth	Rel	people	very	good	sit (pl.)	and

'and (by) the good people (on) earth'

Jesu Christo	mogododohuita	juo
Yesu Keristo	m-gododo-wi-ta	xwo
J.C.	Cl.-[bury]-be-Perf	[holy, honored, etc.]

'Jesus Christ was buried;'

ghio egheg e  
 giyó egeg  
 there go  
 'went there (below the earth)'

ibo gkambio huayip e ta:  
 ibo kambyo zero-wayipě-ta  
 day(s) three 3-arise/revive-Perf  
 'and arose (after) three days.'

guimma Ambayujup gkahuih eta:  
 wim:a 'mbayuxup-mo kawitě-ta  
 ? sky-loc. ascend-Perf  
 'ascended into Heaven'

ghio nya Dios yaa Ijuo mo-guo  
 giyó ya: Dyos ya: yi-xwo m-wo  
 there Rel G. Rel live/be-holy Cl-abide.in  
 'abiding in the God who is the Living One'

guihi ghio egueg daka  
 wixi giyó 'xweg daka  
 and there go fut.  
 'and (they) will go up to Heaven.'

Amet e no huaha udaahi,  
 'metě-no wa-xa uda:xi  
 earth-loc. sit-? where/when  
 'where He sits'

Amet e no huaha udaahi,  
 'metě-no wa-xa uda:xi  
 earth-loc. sit-? where/when  
 'where He sits;'

taemma yaa huig yatajua guil la huadag  
 tam:a ya: wigya-ta-xwa wi-l[:]a wadag  
 man Rel die (pl.)-Perf-Abs 3-Erg arise (pl.)  
 'People who have experienced death (will) arise/revive'

demuegjuoggi daka Hui udaahi  
 t-mwe-xwegxĩ daka wi uda:xi  
 Cl.-sme-Spec fut. be when/where  
 'all of them will be'

ghich a hi,  
 git-[d]a > gič-a [t > č/\_d] xi  
 see/look.at-fut. and  
 'will judge and'

yaa hui ambinyijua  
 ya: wi ambi-ni-xwa  
 Rel be good-not-Abs  
 'those who are the evil ones.'

guihi yaa hui ambijua  
 wixi wi ambi-xwa  
 and Rel very good-Abs  
 'and the very good'

yahmou uita udaahi[,]  
 yax-mo wi-ta uda:xi  
 [heaven]-to be/have-Perf where/when  
 'where they have abided.'

taemma yaa hui ambinyijua  
 tam:a wi ambi-ñi-xwa  
 man Rel very good-bad-Abs  
 'People who are very bad'

ussi	mahel	kae ammit e	decuinyi mo	iteg hi
us:i	maxel	ke-'m:itě	de-kwi-ñi-mo	iteg-xi
fire	huge	S-time/place	Cl.-[cease]-not-to	[go]-caus.

(He) will send to the eternal conflagration;'

yaa	hui	ambijua	ambayujupmo	uhu	ji	daka
ya:	wi	ambi-xwa	ambayuxup-mo	'xu-xi		daka
Rel	be	good-Abs	sky-to	come/go-caus.		fut.

'The ones who are the good ones (He) will send to Heaven.'

Espiritu Santojuo	noogoso
Dios Espiritu Santo-xwo	n-'-goso
Dyos 'Spiritu Santo-[everlasting, divine	pl.o.-1-believe/love

'God the Holy Spirit I believe'

Taemma	leyo	dakajhua	noogoso.
tam:a	leyo-daka-xwa		n-'-goso
people	foretell-fut.-Abs		pl.o.-1-believe

'what people will foretell,'

yaa	hui	ambi	yaa	taemma	leyo-híjua	taemma	leyo la
ya:	wi	ambi	ya:	tam:a-[mo]	leyo-xí-xwa	tam:a	leyo-la
Rel	be	good	Rel	people-Dat	foretell-caus.-Abs	people	foretell-Erg

'(and) that which is good of people's foretelling of what people were caused to foretell.'

kaeluut	demuejuegjua	noogoso
ke-lu:t	t-mwe-xweg-xwa	n-'-goso
S-[assembly]	Cl.-some-Spec= all-Abs	pl.o.-1-believe

'All of the big [assembly] (church) I believe/love.'

Pennayu	nuhuam binyijua	pedaudugu	noogos[o].
pen:ayu	n-wi -ambi-ñi-xwa	mbě-dă-'udugu	n-'-goso
our/we	1-very-good-not-Abs	2-1 (Dat)-forgive	Cl.-1-believe

'I believe You forgive our sins.'

Nambtd	huadag	dakajua	noogoso[,]	huadag	udaahi
nă-mb[a]t	wadag-daka-xwa		n-'-goso	wadag	uda:xi
1-body	revive (pl.)-fut.-Abs		pl.o.-1-believe	ariae (pl.)	when/where

'I believe our bodies will revive;'

huadag	udaahi
wadag	uda:xi
arise (pl.)	when/where

'when they arise/revive'

goguo	huigyanyi dakajua	noogoso.
k-gwo	wigya-ñi-daka-xwa	n-'-goso
Cl.-[abiding]	die (pl.)-not-Fut-Abs	pl.o.-1-believe

'I believe that they will not ever die again.'

## Appendix B: Central Cochimí Text

This Pater Noster text is from the San Ignacio Mission which was just south of the Northern Cochimí area (north to south: Santa Maria, San Francisco Borja, Santa Gertrudis). This is the only linguistic sample from an intermediate area. The text comes from Clavijero (Leon-Portilla, ed. 1970:241), and is partly treated in Mixco (1978:53-56).

Ua-bappà,	amma-bang	miamù,
wa-bap:á	am:abaŋ	mi[y]a-mú
father-our	sky	loc.-loc.

'Our Father, (who is) in Heaven,'

ma-mang-a-jua	huit	maja	tegem
mã-mañá-xwa	wit	maxa	texem
2-name-Abs	all	people	[honor]

'all people honor Thy Name'.

Amat	mathadaba-juà	ucuem:
'mat	mã-tadaba-xwá	'-kwe-m
earth	2-[will, rule]-Abs	1-hear > obey-Sub

'(On) earth we hear/obey Thy Will/Rule'.

Kem-mu-juà <sup>13</sup>	amma-bang	vahi-a-nang	amat-a-nang	la-uahim.
kem:u-xwá	am:a-baŋ	vaxi-ãnaŋ	'matã-naŋ	la-waxi-m
[will, rule]-Abs	sky-loc.	be.done-loc.	earth-loc.	Cl.-be.done-Sub

'Thy Rule/Will be done in Heaven (and) and be done on earth.'

Taguap	ibang	gual	gùeng-a-vit-á-juá	iban-á-nang	packagit:
tawap	ibaŋ	wal	wiŋa-vi-tá-xwá	ibaŋá-naŋ	pa-k-axit
food	today	all	[need, want]-be-Perf-Abs	today-loc.	pl.o.-Imp-give

'Give today the food which (will) be needed today.'

muht-pagi-juà	abadakegem,
mu't-paxi-xwá	'-b-adakexe-m
[our.sins]-Abs	1-2-[forgive]-Sub

'You forgive [our sins],'

machi	uayaecg <sup>14</sup> -juà	paokabaya-guem:
mači	wayeg-xwá	pa-'-kabayaxwe-m
enemy	[plural]-Abs	pl.o.-1-[forgive]-Sub

'(just as) we forgive them -- our enemies.'

Kazet-a	juangamuegnit-pacum:		
kasē-ta	xwaŋa-mwe	k-n-it	pa-ku-m
tempt-Perf	?-some = all	Imp-1-[lead.away]	pl.o.-[turn.away.from]-Sub

'Lead us to turn away from (all of ?) what is tempted,'

guang	ma-yi-acg	packabanajam
waŋ	mayi-ak	pa-k-abanaxa-m
and	evil(s)-[from]	pl.o.-Imp-[save, remove, take away, etc.]

'and remove/take us away from evils.'

<sup>13</sup>If this contains /u/, 'word', the following obtains: /k-m-u/, 'stative-second.person-word'.

<sup>14</sup>Cf. /buxu-mayeg/, 'you (plural)'.

## Appendix C: Southern Cochimí Texts

Most of the data is attested in Southern Cochimí. The sentence from del Barco's note, and the sentences produced by Ducrue are especially important in that they are **citation speech acts**,<sup>15</sup> designed to show the structural properties of the language. One Pater Noster text given in Clavijero and repeated in del Barco is prolix, showing elaborate compounds and fancy language suitable for sacred usage. The doctrinal statement from del Barco, is equally elaborate. The Ave Maria and Credo texts given for Southern Cochimí by del Barco are simple in wording and structure; they parallel their Northern and Central Cochimí equivalents extremely closely, suggesting a pan-Cochimí scribal tradition on the part of the Jesuits.

### Sentence from del Barco's Note

This sentence was quoted from an anecdote that reports a trick Father Eusebio Kino used in an ill-fated expedition to Baja California in 1684 (Venegas 1944). He drowned some flies in water and when they came back to life, he sought to get the Cochimí translation of 'they have just died, but now they revived'. The response he got was in the singular.

Ibi	muhuet e ta	doomo		
ibi	muwete-ta	do:mo		
die (sg.)	just.now-Perf	though		
'Though it just now died,'				
	gaiyenyi	huayib	omui.	
	gaye-ni	wayip	omwi	
	long.time-not = soon	upright-purp.	Ver	
	'soon it arises/revives.'			

del Barco adds that instead of putting conjunctions at the head of the the clause they mark, that in Cochimí they are put at the end after the verb (Mixco 1978:101).

### Sentences (Ducrue)

Benito Decrue's *Specimina Linguae Californicae* (Specimens of [the] California Language) presumably reflects the Southern Cochimí usage of the area around the San Javier Mission, where he was stationed. The version here is from Burrus (1967:136-139), as edited by Mixco (1978:63-68). The numbers after the original spelling are the numbering of Ducrue. The first five (numerals) and number (23) are lexical items, and are treated in the Cochimí lexicon.

(6)

Diosjua	ibiñi.
Dios-xwa	ibi-ñi
God-Abs	die-not

'God does not die.'

(7)

Tamma	amayben	metañ	aguinañi.
tam:a	amayben	'met-añ	agina-ñi
mankind	many	time/place/earth-for	live-not

'Man does not live forever.'

(8)

Uamibutel	guiwuctujua	nangassang.
wami-butel	wi-wuktu-xwa	na-(zero)-ña:saj
husband-this	3-wife-Abs	Cl.-3-love

'This man loves his wife.'

(9)

Wakoebutel	wakameta.
wakwe-butel	wakame-ta

<sup>15</sup>Citation speech acts are complete simple sentences produced to illustrate grammatical or semantic properties of a given language.

woman-this          pregnant-Perf  
'This woman became pregnant.'

(10)  
Whanu          wamijua          wangata.  
xwanu          wami-xwa          waŋa-ta  
baby          male-Abs          bear-Perf  
'She gave birth to a son.'

(11)  
Uybetel          luhu.  
(zero)-uybetel          luxu  
3-sick          still/yet  
'She is still sick.'

(12)  
Tammabutel          gadeki.  
tam:a-butel          gade-ki<sup>16</sup>  
man-this          see-not  
'The man does not see.'

(13)  
Wahanu          awiangga.  
wa-xwanu          awia-ŋa<sup>17</sup>  
Dem.-infant          cry-Prog  
'The baby is crying.'

(14)  
Guiwuctuejua          decuiñi.  
wi-wuktu-xwa          t-kwi-ñi  
3-wife-Abs          Cl.-hear-not  
'His wife does not hear.'

(15)  
Uamibutel          nutmang.  
wami-butel          nut-maŋ  
man-this          mute-Ver  
'This man is mute.'

(16)  
Wakanajua          lebieng          waypmang.  
wakana-xwa          yebyeg          wayp-mag  
babies-Pat          all          well-Ver  
'All the babies are well.'

(17)  
Tejoe          kanpa          tahiŋomang.  
texwe          (zero)-kano-pa          taxip-maŋ  
one          3-sing-suf.          well-Ver  
'One (of them) can sing well.'

(18)  
Kamoe          dalama.  
kã-mwe          dala-ma  
Cl.-some          speak-suf.  
'The other is speaking.'

(19)  
Kenas:a          maba          guimma.  
kenas:a-maba          wi-m:a

<sup>16</sup>This is probably a mistranscription for /-ñi/, 'not'.

<sup>17</sup>Ducrué has other examples with a progressive or imperfect meaning; this is the only such example with a marker, which must be /-ŋa/, with a homoorganic nasal.

sister-2                      3( Abs)-sleep

'Your sister is sleeping.'

(20)

Kenedapaba	urap,	guang	lizi,	guimib	tejuney.
keneda-bapa	urap	waŋ	l-isi	wimib	texunwey
father-2	eat	and	Cl.-drink	but	little

'Your father eats and drinks, but very little.'

(21)

Mabelajua	dalama	may.
mbel-xwa	dala-ma	may
tongue-Abs	speak-suf.	evilly

'The tongue speaks evilly.'

(22)

Kadagua	gadey	iguimil	decuiñi.
kada-wa	gade-y	iwimil	t-kwi-ñi
reed-dwell	see-Atr	but	Cl.-hear-not

'Fish see, but do not hear.'

(24)

Nupi	ua.
nupi	wa
chest	hurt

'(My) chest hurts.'

(25)

Juetabajua	tahipeñi.
xweta-ba-xwa	taxip-ñi
blood-2-Abs	be.good-not

'My blood is not good.'<sup>18</sup>

(26)

Kotajua	kamang,	gehua.
kota-xwa	ka-maŋ	gewa
stone-Abs	big-Ver	hard

'(The) stone is big (and) hard.'

(27)

Maka	hauiley [for: huailey ?]	mang.
maka	wayley	maŋ
stomach	be.full	Ver

'(The) stomach is certainly full.'

(28)

Ussi	mancu.
us:i	man-ku
fire	hot-Stat

'Fire is hot.'

(29)

Kalal[for: kahal]	bemalcu.
kaxal	bemal-ku
water	sweet-Adj

'The water is sweet'.

(30)

Ibungjua	ganchmajen	kaluhu.
ibuŋ-xwa	ganxmaxen	ka-luxu
sun-Abs	moon	big-more.than

<sup>18</sup>This should mean: 'thy blood is not good'.

'The sun is bigger than the moon.'

(31)

Annet	andemajuong	galamata.
an:et	andemã-xwoŋ	gala-ma-ta
yesterday	evening-[late]	rain-suf.-Perf

'It rained last night.'

### Pater Noster

Compared to the other two Pater Noster texts, this one from del Barco (Mixco 1978:5356) is prolix. It is said to represent San Jose Comundu and San Javier Missions. Several reasons may account for the wordiness of this text. One, the fancy language suited the sacred status of the text. Two, Southern Cochimí had a high register which is represented in this text; this is a corollary of the first reason. Three, it is hard to imagine that the Jesuit translator would go out of his way to be wordy in displaying mastery of the language, so the first two reasons must obtain.

pennaya	nakaenambà	yaà	ambayujùp	miya	mò
pen:aya	nakena-mbá	yá:	ãmbayuxúp	miya-mó	
our/we	father-our	Rel	sky	loc.-loc.	

'Our Father who is in Heaven,'

buhu	mombo-juà	tamma-là	gkomendà	hi
buxu	mõ-mbo-xwá	tam:a-lá	komě-ndá	xi
thy/thou	2-name-Abs	man-Erg	know-Fut (?)	and

'Mankind knows Thy Name and'

nogodogño	de	muejueg	gkajim:
zero-nõ-godoño	t-mwe-xweg		kã-xi-m
3-1-love (pl.)	Cl.-some-Spec = 'all'		Imp-ought-Sub

'we should love (it) completely/wholeheartedly.'

pennayu-là	bogodogño	gkajim,
pen:ayu-lá	bõ-godoño	kã-xi-m
we/our-Erg	2-love (pl.)	Imp-ought-Sub

'We should love/believe in Thee,'

guihi	ambayujup mabà	yaà	Kaemmet è	decuinyi mò	puegiñ
wixi	'mbayuxup-mbá	yá:	ke-'met	t-kwi-ñi-mó	pwexin
and	sky-thy	Rel	S-earth	Cl.-[cease]not-to	[bring, distribute]

'and Thy Heaven bring to that which is the great, ceaseless earth,'

yaàm buhu-la	mù-jua	ambayujup-mo	amet è nò	guilugui	hi	pagkajim.
yá:-mbuxu-la	m-ú-xwa	ambayuxp-mo	'metě-nó	wi-lũ-wi	xi	pa-kã-xi-m
Rel-thy-Erg	2-[word]-Abs	sky-to	earth-loc.	3-Cl.-be/do	and	pl.o.-Imp-ought-Sub

'(and) that which is Thy Word ought to be done into Heaven (and) on earth.'

Tammadà	yaà	ibo tejuèg	guiluguigui	ibò yanno	pwegiñ:
tam:adá	yá:	ibó texwég	wi-lũ-wiwi	ibó-ya-no	pwexiñ
food	Rel	day + one/time = today	3-Cl.-[needed]	day-that-loc.	[bring, give]

'Food which is needed this (very) day bring/give today.'

guihi	tammà	yaà	gambujula	Kaepujui	ambinyi-juà
wixi	tam:á	yá	k-mwe-xu-la	ke-puxuy	ambi-ñi-xwá
and	people	Rel	Cl.-some-one.who-Erg	Stat-[do]	good-not-Abs

'and other people who all do big badness (to us),'

pennayu-la	dedaudugu-jua	guilugui	pagkajim:
pen:ayu-la	deda-udugu-xwa	wi-lũ-wi	pa-kã-xi-m
we/our-Erg	coll.-forgive-Abs	?-Cl.-be/do	pl.o.-Imp-ought-Sub

'we should forgive;'

guihi yaà tagamueg-là hui ambinyi-juà hi doomò pujueg-juà  
wixi yá: ta-ka-mweg-lá wi ambi-ñi-xwá xi do:mó puxwg-xwá  
and Rel Cl.-big-sme-Erg very good-not-Abs and though (verb)-Abs  
'although that which [lads to] all big sins'

hi doomo pogounyim:  
xi do:mo pogow-ñi-m  
and though (verb)-not-Sub  
'while also [leading]

guihi usi mahel Kaemmet è decuin yamò,  
wixi usi maxel ke-'met tẽ-kwi-ñi-mó  
and fire great/huge S-time/place Cl .-[cease]-not-into  
'into eternal hell fire -- '

guihi yaà hui ambinyi yaà gambueg-juà pakgaudugum.  
wixi yá: wi ambi-ñi yá: ka-mbwe-g-xwá pa-kã-udugu-m  
and Rel very good-not- Rel big-some-Spec-Abs pl.o-Imp-forgive-Sub  
'forgive all of (these/the) big sins which are huge.'

### **Ave Maria and Credo**

The Ave Maria and Credo texts in Southern Cochimí in the del Barco data (Mixco 1978:56-57) are virtually identical to that of the Northern Cochimí versions, with minor spelling differences. These may be accessed in the Mixco treatment referenced above.

### **Doctrinal Text**

This is by far the most difficult text (Mixco 1978:47-53). It abounds in the Cochimí love (or Del Barco's love) of superlatives, and has roots that are not found elsewhere, the meanings of which must be supplied according to context or multiple occurrences. The text is in Southern Cochimí, although some scraps of the text are given in Northern Cochimí in the Mixco edition. Moreover, the Spanish translation (and Mixco's rendering of it) are not exact semantic fits with the Cochimí text, but Mixco's own English translation of the text is very helpful in understanding this complicated text. I have not always agreed with Mixco, and my rendering has support from the text itself. Several outside texts contribute to the translation, and these are noted in footnotes. There are some places where it is not possible to make a reasonable inference as to what is actually there in the text and, in those instances, what is meant. The numbers refer to sentences (often complex) of the Mixco edition. My lines are simple sentences and occasionally large phrases which group into long units one might term paragraphs.

(1)  
temia aymbio Dios la taemma uyipiltahuan  
temya ayimbyo Diyos-la tam:a=uyi-pil-ta-wan<sup>19</sup>  
what purpose G.-Erg humanity=happy-make-Perf-Q  
'Why did God create humanity for happiness?'

(2)  
Dos-la taemma uyipil nagaal-taja amete mo guinna udaahi  
Diyos-la tam:a=uyi-[pil naga:l-ta-xa 'metẽ-mo gin:a uda:xi  
G.-Erg humanity=happy-make [purpose]-Perf-s.that earth-loc. alive when/where  
'God made humanity for happiness so that while they were alive on earth'

<sup>19</sup>In (1) and (2) the logical object/patient /tama/, 'humanity' has no case marking, so I assume that it is an incorporated noun.

(3)

Diosmo	uyipunjo	kaenogooso	iba hi	kaehuimaha	iba hi
DYos-mo	uyi-pun-xo	ke-n-0-go:so	iba:xi	ke-wi-maxa	iba[:xi]
G.-to	happy-make-?	S-pl.o-3-love	much	S-very-huge	much

'to rejoice wholeheartedly very very much in[to] God,'

yaa	Dios la	kgaji	huijua	jil
ya:	Dyos-la	kaxi	wi-xwa	xil
Rel	G.-Erg	[command]	3-Abs	see > observe/keep

'observe/keep what God commands (and)'

deegyi	hi	yaa	bujuet	hi[1]	uddemi
te:gyi	xi	ya:	buxwet	xi[1]	ud:emi
thing(s)	holy	Rel	really/truly	keep	if

'if (he) respects the things that are truly holy,'

(4) ibi udaahi

ibi	uda:xi
die (sg.)	when/where

'when he dies,'

(5) ambayu	jupmo	egheji	ayimbio	hi
'mba[y]uxup-	mo	ege-xi	ayimbyo	xi
sky-into		go-caus.	purpose	and

'sends him to Heaven and'

(6) ghio	Dios mo	ghich ami	udaahi
giyó	Diyos-mo	git-ami > gič-ami	uda:xi
there	G.-to	see-well	when/where

'and when he looks on God there'

(7) kaeuyibaha	ibal	kandugua	gunyi:
ke-'uy-ibaxa	ibal	ka-n-duwa	gu-ñi
S-happy-much	[much]	big-?-extent	[end]-not

'he is very, very happy without end'

kaeuyibaha	iba	bujuen	kae ammet e decuinyi	omui
ke-'uy-ibaxa	iba	buxwen	ke-'metě-tě-kwi-ñi	omwi
S-happy-much	[much]	truly	S-time/place-Cl.-cease-not	Ver

'very much happy eternally'

hiet	guimuguihi
xyet	wi-muwi-xi
?	3 (?)-?-caus.

(8)

Dios la	puededepil	nagaal-lata	amet e no	nuhuaja	udaahi
Dyos-la	pwe-dede-pil	naga:l-ta	'met-no	n-wa-xa	uda:xi
G.-Erg	diffuse-coll.-make <sup>20</sup>	purpose-Perf	earth-loc.	1 (Abs)-sit-and	when/where

'God made (people) for that purpose for our being on earth (and)'

nuhuiambi	udemmi	IF SC-D
n-wi-ambi	udem:i	
pl.o.-very-good	if	

'if we are good,'

ambayujup mo	Diosla	uju	pujuy	dehuehui
'mbayuxup-mo	Dyos-la	uxu	puxuy	te-wewi
sky-loc.	G.-Erg	[one.who]	Mixco: do	Cl.-[take]

God is the one who will take (us) into Heaven;'

(9) guihighio	nuusa	hi	Dios	guaguapamo	at	udaahi
wixi-giyó	nu-sa	xi	Dyos	wawa-pa-mo	a[x]t OR it	uda:xi
and-there	1-sit/be (pl.)	and	G.	lord-our-Dat	give OR behold	where/when

'and there he (will) behold God our Lord'

kae uyibaja	ibal	kaenduguaguinyi	yijual	deegyi	omui
ke-uyi-baxa	ibal	ke-n-duwa-wi-ñi	yixwal	de:gyi	omwi
S-happy-much	much	S-?-limited-very-not	[must]	thing/what> surely	Ver

'(with) unbounded rejoicing indeed.'

(10)

Huidehuena	Dios-homo	kaehui ami	iba hi	kaemeaba hui	ibal	kanduguagunyi	muguihi,
widewena	D.-mo	ke-wi-ami-baxi		ke-menaba-wi	ibal	ka-n-duwa-ku-ñi-m-wixi	
Mixco: reason	God-Dat	S-very-good-much	S-beautiful-very	much	big-?-limit-Adj-not-Sub-and		

<sup>20</sup>/pwe-dede-pil/, 'create' [here.and.there-collective-make = make collectively or as an aggregate].

'Because God is of unlimited good and beauty'

yaa	ambayujupmo	ayahi	Dios mu	guich-jua	kauyibaja iba
	ambayuxup-mo	ayaxi	Dyos-mu	git-xwa git > c/xw	ke-uyi-baxa iba
Rel	sky-loc.	?	G.-Dat	see-Abs	S-joy-much ?

'those who are in Heaven (upon) looking at God must certainly rejoice much;'

(11)

guihi	ghio	uyiajalcu	najua	duuñip	omui
wixi	giyó	uyi-axal-ku-na-xwa		du:-ñi-p	omwi
and	there	joy-without-Adj-Res-Abs		exist-not-purp.	Ver

'and there sorrow certainly has no existence.'

(12)

guihi	Dios	guaguapapa	kaekka iba	hi	kaehui ami iba
wixi	Dyos	wawa-papa	ke-ka-'ibaxi	xi	ke-wi-ami-'iba
and	G.	lord-our	S-great-much	and	S-very-good-much

'and our lord God great and good'

kaemenaba hui iba muguhi

ke-menaba-wi-'iba-m	wixi
S-beauty-very-much-Sub	and

'and beautiful'

yaa	Dios	kae ami iba	bujuet	[gh]ich	ahi
ya:	Dyos	ke-ami-ba[xi]	buxwet	git > gič	axi
Rel	G.	S-good-much	truly	see	and

'that those who see God's goodness and'

cgomenda ami	guichahi	kgomnon ami	udaahi
komě-n-da + ami	gič-axi	kom-n-on + ami	uda:xi
know-?-? + well	see-and	know-?-? + well	when/where

'when knowing well, seeing and knowing well'

kaeuyibaja	yijual	degyi	omwi
ke-uyi-baxa	yixwal	de[:]gyi	omwi
S-joy-much	must	certainly	Ver

'must certainly rejoice;'

(13)

uyipunjuo	Dios mo	kaenogooso	ibal	degyi	yijual
uyi-pun-xwo	Dyos-mo	ke-n-go:so	ibal	de[:]gyi	yixwal
joy-heart-?	G.-Dat	S-pl.o.-love	much	truly	must

'(they) The /n-/ classifier refers to an indefinite animate entity; could this refer to the people in Heaven? must truly, truly love God,'

(14) guihi	ghio	yaa	ambinyi jua	nogooso	na-jua	duuñip
wixi	giyó	ya:	ambi-ñi-xwa	n-go:so-na-xwa		du:-ñi-p
and	there	Rel	good-not-Abs	Cl.-love-resultative-Abs		exist-not-purp.

'and there those not loving evil which does not exist there'

(15) yaa	bujuet	kanogoosonyi	iba	yijual	degyi	omui
ya:	buxwet	ke-n-go:so-ñi	iba	yixwal	de:gyi	omwi
Rel	though	S-Cl.-love-not	much	must	truly	Ver

'rather truly do not love it (evil);'

(16) yao	hui ambijua	guihi	yaa	Dios la	nogoosojua	guimma
ya:	wi-ambi-xwa	wixi		Dyos-la	n-go:so-xwa	wim:a
Rel	very-good-Abs	and	Rel	G.-Erg	Cl.-love-Abs	Mixco: 'only' (?)

'that which is good and that which God loves'

kaenogoodono	yijual	deeyi	omui
ke-n-go:doño	yixwal	de:[g]yi	omwi
S-Cl.-love (pl.)	must	truly	Ver

'they must truly love;'

(17) yaa	ambayajup mo	usa	hi
	'mbayhaxup-mo	'sa	xi
Rel	sky-loc.	sit (pl.)	and

'and those who are in Heaven'

kaeuyibaja	iba ita
ke-uyi-baxa	iba-ta
S-joy-much	greatly-Perf

'have rejoiced greatly'

bujuet	chinanyi	luju:
buxwet	čina-ñi	luxu
truly	[ingore]-not	still/yet

'while not unaware'

huidehuena Xpto-guaguapapa bat kae ami ibajua:  
 wi-dewe-na Kisto-wawa-papa bat ke-ami-ba[x]-xwa  
 3/very-(verb)-res. Ch.-lord-our body/self S-good-much-Abs  
 'in order to (behold, appreciate, etc.) Christ our lord's excellent Body;'

(18)

guihi Gui-chi Santa Maria guaguapapa jua:  
 wixi wi-či S. M. wawa-papa-xwa  
 and 3-mother S.M. lady-our-Abs  
 'and His mother our Lady St. Mary'

wuihi angeles hi santos gambugjua ich ami uddahi  
 wixi anxeles xi santos k-mweg-xwa [g]ič ami ud:axi  
 and angels and saints Cl.-some-Abs see well when/where  
 'and all of angelry and sainthod -- when (the) see (all of it) clearly;

kaeuibaja iba nagaala luju muguihi  
 ke-uyi-baxa iba naga:la luxu m-wixi  
 S-joy-much [greatly] purpose more/still ?-and  
 'they rejoice even more so and'

huideguana angeles hi tama ambayujup usajua  
 wi-dewa-na anxeles xi tama 'mbayuxup 'sa-xwa  
 3-be.so-res. angels and people sky sit (pl.)-Abs  
 'because the angels and people present in Heaven'

guidemuejeghi kae ambi iba hi kaemenabahui iba  
 wi-t-mwe-xweg xi ke-ambi-'iba xi ke-menaba-wi iba  
 3-Cl.-some-Spec = 'all' and S-good-much and S-beauty-very greatly  
 'are all very good and beautiful.'

(19)

hikdo nogodonondo ami iba muguihi  
 ? n-0-godono-n-do ami-'iba m-wixi  
 ? pl.o.-3-lov (pl.)-?-? good-much ?-and  
 'they love (Mixco: each other) well and'

yaa bujuet ich ahi cgmenda ami uddaahi  
 ya: buxwet [g]ič 'xi kom-n-da ami ud:a:xi  
 Rel rather see and know-?-? well when/where  
 'when those see (thee sights of Heaven) and know (them) well'

kae uyi baja nagaal -la iba luju  
 ke-'uyi-baxa naga:l iba luxu  
 S-joy-much purpose/so much more.than  
 'they rejoice even more;'

(20)

guimuet yaa ba adetemba duujua kgacgomenda kgambim  
 wi-mbwe-t ya: b-'-dete-mba du:-xwa k-kom-n-da k-ambi-m  
 3-some-? Rel 2-1-tell-suf. exist-Abs Imp-know-?-? Imp-well-Sub  
 'listen well t that which I tell you:'

angeles yhi santos hi taemma gamueg yaa ambayupano usajua  
 anxeles 'xi santos xi tam:a k-mweg ya: 'mbayup-no 'sa-xwa  
 angels and saints and people Cl.-all Rel sky-loc. sit (pl.)-Abs  
 'all of the angels and the assembly of saints and people who are in Heaven'

kae ambi iba hi kaemnabahui iba duuñip dmwejeg doomo  
 ke-'ambi-'iba xi ke-menaba-wi 'iba du:-ñi-p t-mwe-xweg do:mo  
 S-good-much and S-beauty-vry much exist-not-purp. Cl.-some-Spec though  
 'although certainly completely good and very beautiful'

(21)

Dios guaguapapa gui yibijojuo hui ambi ibanyi hi menaba hui kaenuyi omui  
 D. wawa-papa wi-yibixo-xwo wi ambi-'iba-ñi xi menaba-wi-ka-ñi omwi  
 G. lord-our 3-[beside]-holy very good-much-not and beauty-very-big-not Ver  
 '(set) beside our Lord God (they) are not very good or beautiful.'

(22)

tegyi yaa Dios la huededepita jua guide muejeghi kae ambi iba  
 de:gyi Dyos-la we-dede-pi[l]-xwa wi-t-mwe-xweg xi  
 truly Rel G.-Erg 3-coll.-make-Abs very-Cl.-some-Spec and  
 'although all of the what God made is truly very good,'

Dios guiyibijo juo kae ttenyi duunip omui  
 Dyos wi-yibixo-xwo ka-te-ñi du:-ñi-p omwi  
 G. 3-[beside]-? great-Perf-not [be.not-not-purp. Ver  
 'beside God all of it is not really great;'

(23) hui dehuena Diois mou guimma ped kaehui ami iba hi  
 wi-dewe-na Dyos-mo wim:a pet ke-wi-ami-'iba xi  
 3/very-(verb)-res. G.-Dat Mixco: only self/body S-very-good-much and  
 'because God Himself is very good and

menabahui ibal,  
menaba-wi-'ibal  
beauty-very-much  
'very beautiful'

kaendugua gunyil	degyi	duunip	omui	muguihi
ke-nduwa-ku-ñi-l	de:gyi	du:-ñi-p	omwi	m-wixi
S-extent-Adj-not-Erg	truly	[be.not]-not-purp.	Ver	?-and

'and truly the extent of His (greatness, person, etc.) is not bounded.'

## Appendix D: Cochimí Lexicon

This lexicon is based on the Northern, Central and Southern Cochimí materials described in Chapter 2, all of which have ergative-absolutive case marking. To this, I have added all of the lexical artifacts from Hervas Cochimí, which has nominative-accusative case marking and which also has, like Yuman languages, switch-reference -- lacking in the ergative-absolutive varieties of Cochimí.

Northern Cochimí vocabulary was collected by Gabb in 1867; it is cited as published in Gatschet (1877). Gabb collected these lexical artifacts from the vicinity of San Francisco de Borja Adac, which means it represents a variety of Northern Cochimí (Mixco 1977a:44). There is also Northern Cochimí data in the del Barco materials (Mixco 1978).

The Central Cochimí data is from the Pater Noster from San Ignacio Mission, as transcribed in Mixco (1978:53-56). This is the only source of Central Cochimí data.

Southern Cochimí data comes from Ducure (Mixco 1978:63-68), and presumably represents the speech of San Javier Mission, where Ducure was stationed. Other Southern Cochimí lexical artifacts are in del Barco's note (Mixco 1978:103-105) and texts from San Javier and San Jose Comendu (Mixco 1978:47-63).

The following abbreviations are used in this list. See notes on the sources at the beginning of Chapter 2.

Cl	Clavijero (1970; a variety of Southern Cochimí)
CC	Central Cochimí (San Ignacio Pater Noster)
del Barco	Southern Cochimí (del Barco 1973)
Duc	Ducure (Southern Cochimí)
Gabb	Gabb (Northern Cochimí)
Har.	Harrington (Northern Cochimí; Mixco 1977a)
Hervas	Hervas Cochimí (north of all of the rest)
N	del Barco's note (Southern Cochimí)
NC	Northern Cochimí (del Barco's texts)
NC-P	Northern Cochimí, Pater Noster
NC-A	Northern Cochimí, Ave Maria
NC-C	Northern Cochimí, Credo
SC	Southern Cochimí (del Barco texts)
SC-P	Southern Cochimí, Pater Noster
SC-D	Southern Cochimí, Doctrinal Statement

The following lexical artifacts from Gabb are clearly compounds. Their break down is not possible because we do not know the meaning of all of the morphemes involved. They are not listed below.

etadwatchitibawaha	coyote
watchetibatcha	deer
manichjpera	forehead
retaraye	forest
werumbatum-hutchitch	lightning
machikang-iuga	near
werumbatum-wechkang	thunder
konakhaqua	horn
kachpara	sea
pao-ou-uiak	village
o-ouiqua	wife
maryognawa	strong (Gabb)
tadistitatch	to work; [tadistitač], from Sp. <i>trabajar</i>

The following two words are supposed to be Cochimí. They do not look like Cochimí, so it seems better to list them here rather than put them in the main Cochimí lexical list.

<fehual>, 'god' (Cl.)  
 <psylli>, 'shaman' (del Barco)

Finally a number of roots not attested elsewhere were extracted by Mixco (1978) from the salvage work of John Peabody Harrington (Mixco 1977a). These have been included for their possible research potential, as transcribed in Mixco (1978). They are identified with "Har.", and come from San Fernando Velicata.

<b>-ak</b>	[from] (CC)
<b>-añ</b>	[for an amount of time] (Duc) amayben met-añ, for many years (Duc) [many year-amount]
<b>-ana</b>	[negative, opposite] (Gabb) taxip-ana, angry/bad [good-negative/opposite]
<b>-axa</b>	? wixi te:-gyi axa k-mwe-weg, and all things (NC-C)
<b>-bapa ~ -ba ~ -papa ~ pa</b>	my (enclitic) (Duc); our (SC); -bap:a, var. (CC); -apa, our (Hervas)
<b>-bya ~ -pyaŋ</b>	specifier for demonstratives; -kyeŋ, specifier for /le-/, all (Hervas) kwum-b[y]a, that (near) (Gabb) ya-bya, he/she/it/they (N) ya-pyaŋ, that (demonstrative) (Gabb)
<b>-ču</b>	[one that is of a particular quality] wan-ču, 1. young 2. boy (Gabb) [small/incipient-?]
<b>-daka ~ -da</b>	future marker (NC, SC) -taxa, future marker (Hervas)
<b>-deda- ~ -dede- ~ -dida- ~ -didu-</b>	collective (SC) deda-udugu, forgive whomever (SC-P) pwe-dede-pil, create [?-coll.-make/caus.] (SC) we-dede-pil, to make, create (NC, SC) [3-coll.-make] wi-dede-na, for that reason,/because [3-coll.-res.] (SC) dida-vai, [order, command] (NC-P) [coll.-(verb)] mi-didu-way, be good [good-coll.-order] (Hervas 15)
<b>-e ~ -i</b>	question marker (Hervas)
<b>-ga</b>	[imperfective, progressive] (Duc)
<b>-gyi</b>	[specifier] te:-gyi, 1. thing/what (NC, SC) 2. indeed (NC-A) 3. inanimate thing (NC, SC)
<b>-i ~ -a</b>	Mixco: adverbial suffix ibaxi ~ ibaxa, 'much' (del Barco)
<b>-k</b>	same subject marker (Hervas)
<b>-ki</b>	negative (Duc)
<b>-ku ~ -k</b>	Mixco: adjective [does not require -xwa on subject] (Duc); -k, stative predicate (Hervas);

	-ku, into (Hervas)
	bemal-ku, be sweet (Duc) man-ku, be hot (Duc) uyi-axal-ku, sorrow [happy-without-Adj.] (SC)
<b>-l</b>	[plural, collective, aggregate; from Proto-Hokan; differs in the quality of the vowel or epenthetic that appears with it]  iñim-el, whole/entire [whole-pl. marker] nagana texweg iñimel, five (Cl.), <naganna tejuég ignimel> [hand + one + whole/entire]  iñimb-al, entire/whole [whole/entire-pl. marker] nagana iñimb-al t-mwe-xweg, ten (Cl.), <naganna ignimbal demuejuég> [hand + entire/whole + both]
<b>-la</b>	ergative case marker (NC, SC); -l ~ -t, subject/nominative marker (Hervas)
<b>-lul</b>	third person marker (?) (Hervas)
<b>-m</b>	subordinate marker (NC, CC, SC);  -m, different subject marker (Hervas)
<b>-ma</b>	verb suffix (Duc)
<b>-maba</b>	your (enclitic) (Duc, SC)
<b>-mayeg</b>	plural marker (N)  buxu-mayeg, you (pl.) [you-pl.] (N)
<b>-me</b>	[become] (Duc)  waka-me, become pregnant <wakame-> [pregnant-become] (Duc)  waka-na, babies/infants <huacana> [pregnant-resultative] (Duc)
<b>-mo ~ -mu</b>	1. dative case marker 2. locative, especially 'to/into' (NC, CC, SC)
<b>-n</b>	verb suffix  ka-n-duwa, in: 'to a large degree' kom-n-da, [honor] kom-n-on, know wičip iye-wa k-n-kas-yuve-n, just as you take away/remmit our sin (NC-P) [remmit + Imp-1-tempt-forgive-suf.]
<b>-ñ ~ -ñV</b>	plurality marker  go-do-ño, love/believe (pl.) [Cl.-love-pl.] waxi-ñ, women [stem-pl.] amayben meta-ñ, for many years
<b>-na</b>	[resultative] (Duc)  waka-me, become pregnant <wakame-> [pregnant-become] (Duc) waka-na, babies/infants <huacana> [pregnant-res.] (Duc)  wi-dede-na, for that reason/because [3/very-coll.-res.] (SC)
<b>-no</b>	locative (SC)
<b>-ñi</b>	not (SC, Duc)  ambi-ñi, sin [good-not] (SC)
<b>-ŋa</b>	progressive or imperfective marker  wa-xwanu awia-ŋa, the baby is crying (Duc 12)
<b>-p</b>	[purposive; may have a sense of resultative]  ta-wa-p, food (CC) [Cl.-eat-purp.] te-va-p, food (NC) ta-xi-p, good (Duc, Gabb) [Cl.-be.certain.way-purp.] 'pe-p, finish/die completely (SC) [di-purp.]

	yagawa-xi-p, impregnate' [pregnant-caus.-purp.] (SC)
<b>-pa</b>	verb suffix (Duc)
<b>-t</b>	subjective case marker on nouns (Hervas Cochimí only); cf. Proto-Yuman *-c, subjective case
<b>-ta ~ -te</b>	perfective marker (N; Duc)
<b>-ti</b>	?
	maxa-ti, Indian/person (Gabb)
<b>-wa</b>	possessive suffix (?) (NC)
<b>-wam</b>	to wi-wam, to it (Gabb)
<b>-xa</b>	[conjunctive] (SC)
	bana-xa, [save, remove, etc.] (CC) [verb-suf.] wa-xa, sit [sit-and] (SC)
<b>-xi</b>	causative (NC, SC); -xe, casuative (Hervas)
<b>-xo</b>	[adverbial] (?) (SC)
	uyi-pun-xo, wholeheartedly [happy-heart-?] (SC)
<b>-xwa</b>	1. absolutive case marker (NC, N, SC, Duc) 2. nominalizer (NC, SC)
	yi-xwa, animate being [be-X]
<b>-xwe</b>	?
	kabaya-xwe, [forgive] (CC) [forgive-?]
<b>-xweg ~ -g</b>	specifier for quantifiers
	ka-mwe, other [animate classifier-some] ka-mwe-g, all (animate) [Cl.-some-Spec] t-mwe-xweg, all (inanimate) [Cl.-some-Spec]
<b>-y</b>	attributive suffix (NC, SC; Hervas)
<b>'-</b>	absolutive or inherent prefix (from Proto-Hokan #a- and #i-)
<b>'-</b>	first person marker
<b>a</b>	tuna (prickly pear cactus fruit) (Cl.); <a>; cf. Kiliwa 'a:q, prickly pear (Cochimí loses final *k)
<b>a, '-</b>	<h-a> = ['a], outh (Gabb)
	h-ačak = ['a-cak], throat (Gabb) <hyami> = 'a-mi, beard (Gabb) [mouth-hair]
<b>a, '-</b>	be (copula ?) (Hervas)
<b>ača-wan</b>	small (Gabb) [X-small]
<b>adá</b>	small wooden bowl (Cl.), <adda>; small basket (del Barco; Sp. <i>hortera</i> ), <adda>; Mixco has: ata
<b>ak, '-</b>	h-ak, knuckles (Gabb; more at 'bones') = ['ak]
<b>akena ~ ak</b>	father (SC); ak, father (Hervas)
<b>amayben</b>	many (Duc)
<b>ami ~ ambi ~ mi</b>	good (NC, SC); well (adv.; after verb) (SC); cf. bi ~ mbi, holy  ami ibaxa, most [good much] (after stative verb) (NC, SC)  wi ambi-ñi, sin [very good-not] (SC)  mi-didu-way, be good [good-coll.-order] (Hervas 15)
<b>amogokyó</b>	a black or white antelope (Sp. <i>gamuza</i> ) larger than a goat (Cl.); <amogoquio>; Mixco identifies this with mountain sheep, but Clavijero's description of the animal does not mention the large animal with obvious curved horns of the males
<b>anabá</b>	tree and its edible fruit which resemble a fig, which has thick roots (Cl.); <anabá>; Mixco has: wild fig

<b>anaxwa</b>	now (SC)
	anaxwa mo, now (NC) [to this moment ?]
<b>andom, '-</b>	h-andom, evening (Gabb) = ['andom]
	anděma-xwoŋ, night (Duc) [evening-?]
<b>aŋ ~ -ŋ</b>	locative (Hervas)
<b>asigandú</b>	bushy legume with with wheat-sized seeds in a pod (not mesquite) (Cl.)
<b>at</b>	[see; in del Barco's doctrine statement, this is in the place where it should mean 'see'; probably a mistranscription for /git/, 'see'] (SC)
<b>atay, k-</b>	my mother (Gabb)
<b>aw(i)-</b>	[cry]
	awi-aŋ, crying (Duc)
	aw-xčay, to cry (Gabb)
<b>awin-</b>	to know (Duc)
<b>axa</b>	yes (Hervas); cf. '-hay, yes; cf. Kiliwa '-ha, yes (vs. Proto-Yuman *xa:, yes)
<b>axa</b>	[take out, remove, save] (tv.) (NC)
<b>axal</b>	without (SC-D)
	uyi-axal-ku, sorrow [happy-without-Adj.] (SC-D)
<b>axkwi</b>	what (kind), which (Gabb)
<b>axt ~ axit</b>	to give (CC)
	k-axit-wiči-p, [Cl.-give-take.away] (NC)
<b>axwa</b>	? (SC)
	uyi-axal-ku n-axwa, we the blessed (SC-D) [joy-without-Adj. + 1- [not.have]
<b>ay-</b>	[become] (Mixco: purposive)
	temya ayi-mbyo, why (SC)
	ay-pi, to die (Gabb); <haypi> [become-dead]
<b>ay, '-</b>	father (NC)
	k-'ay, my father (Gabb), our father (NC)
	k-tay, my mother (Gabb)
<b>ayaxi</b>	? (SC)
<b>ayečáč</b>	run, to (Gabb)
<b>b-</b>	second person (absolute and dative case) (NC., SC))
<b>ba</b>	thou (Gabb)
<b>bana-xa</b>	[save, remove, turn away, etc.] (CC)
<b>baŋ ~ mbaŋ</b>	name; cf. mo, name
	mbaŋ, name (NC)
<b>barai witi</b>	alive (Gabb)
<b>bat ~ pet</b>	body (Gabb); , body < self (Hervas)
	mbat, body (NC, SC)
	n-mat, body (del Barco); <nembadh>
<b>bay, '- ~ 'mbey</b>	[sky]
	<e-mbay>, sky (Gabb) = ['-mbay]
	'mbey, sky (Cl.)
	tama 'mbey ukambi tevivichi, the Man who Came from the Sky (Cl.)
	<tama ambei ucamibi tevivichi>
<b>bel ~ ben</b>	[hunger, famine; the Cochimí year is named according to food availability]
	maxi-bél, winter (part of December, January, part of February) (Cl.)
	<maj ibel>[great-hunger]

	maxi-bén, late winter (some February, March, part of April) (Cl.); <majiben> [great-famine] maxi-ben-ma:yí, spring (some of April, May, early June); time of no food [great-famine-evil]
<b>bel, ma-</b>	tongue (Duc), = [m-bel], your tongue
<b>bemal-ku</b>	be sweet (of water) (Duc)
<b>bityay, '-</b>	ah-bityay, my daughter/son (Gabb); [<ah-> is /'-/, 'first person marker'; body-characteristic]
<b>bo ~ mo</b>	[name]; cf. baŋ, mbaŋ  mbo, name (SC) mo, name (n.) (NC, SC)
<b>bu</b>	that (dem.) (Hervas)  bu-tel, this (Duc)
<b>buxu</b>	thou, thy (NC, SC)  buxu-mayeg, you (pl.) (N)
<b>buxwet</b>	certainly, truly; Mixco: moreover, rather (SC-D)
<b>ča</b>	? (Gabb)  yupi-ča, eye [face-?] (Gabb)
<b>ča</b>	my brother/sister (Gabb); cf. Kiliwa ñ-p-ča, older sibling (vs. Kiliwa ñ-p-pan, younger sibling)
	k-'ay, my father (Gabb), our father (NC) k-ca, my brother/sister (Gabb) k-tay, my mother (Gabb)
<b>čak</b>	[throat]  <h-a-čak>, throat (Gabb) = ['a-cak] [mouth-?]
<b>čakwi</b>	one (Gabb)
<b>čay</b>	big (Gabb); cf. Proto-Yuman *tay, big
<b>či</b>	mother (NC, SC)  wi-či, her/his mother (SC)
<b>čimbika</b>	mountain lion (Cl.); <chimbica>
<b>čina</b>	[ignore] (SC-D)
<b>d-</b>	first person (dative) (NC)
<b>da</b>	[father]  k-n-da, my/our father (Duc) [Stat-1-father]
<b>daba, ta-</b>	[will, rule] (CC) [Cl.-will/rule]
<b>daka</b>	I (N); [is this a mistake for the future marker?]
<b>dakexe</b>	[forgive] (CC)
<b>dala-ma</b>	talk, speak (Duc)  dala-ma ~ dele-, say/speak (Hervas)
<b>daway</b>	extent, expanse (Hervas); cf. du-wa, extent
<b>det, '-</b>	thorn (del Barco), <adet>; cf. Proto-Yuman -ta(:)t, thorn
<b>dewa ~ dewe</b>	[be so ?]  wi-dewa OR dewe-na, for that reason/because (SC-D) [3/very-(verb)-res.]
<b>do:mo</b>	although (N)  xi do:mo, (al)though (Mixco) (SC)

<b>du</b>	[exist, be not]  du:-ñi-p, truly/certainly (SC-D) [be.not OR exist-not-purp.] du:ñip omwi, Mixco: emphatic; [Shaul: verative] (NC, SC)  du-wa, [extent; cf. Hervas /duway/, 'great'] (SC); duwe, purpose (Hervas) ka-n-duwa, to a large degree [great-?-extent] (SC)
<b>du, '-</b>	southerners (name of a tribe) (del Barco), <edu>
<b>e'é</b>	we (Gabb)
<b>ečayawi</b>	cold (Gabb)
<b>egeg ~ egweg</b>	to go (sg.)(SC); come/go (sg./) (NC)  egeg-xi, send [go-caus.] (SC)
<b>ej</b>	[flow]  we eg, river (Gabb) [water + flow]
<b>gade</b>	to see (Duc)
<b>gakil</b>	garambuyo cactus (Cl.), <gkakil>; del Barco has: <gakil>
<b>gala-ma</b>	to rain (Duc)  'madá ăp:i-galá, [late autumn] (part of October, December, part of November; time of drying out) (Cl.) [season + die-rain]
<b>gane'maxen</b>	moon (Duc)
<b>gaye</b>	[for a long time]  gaye-ni, soon (N) [long.time-not]
<b>gewa</b>	hard (ex. rock) (Duc)  kota-xwa ka-manġ gewa, the rock is strong and hard (Duc 26)
<b>gina</b>	alive, living  (a)gina, alive/living (<aguina>, 'live' (Duc), <ghinna>, <guinna>, 'vivo' (del Barco)
<b>git</b>	1. to see (NC). xil, var. (SC-D) 2. to look at/judge (NC-C) 3. look at or upon, behold (with dative) (SC)
<b>giyó</b>	there (locative) (NC, SC), from there (NC)
<b>gododo, m-</b>	[bury] (NC-C); SC has: mā-gadado, bury
<b>godoño</b>	love/believe (pl.) (SC)
<b>gokyó</b>	palo blanco, a medium-sized tree with white bark, the mature trees having a blackish and strong, hard core wood (Cl.); <gkokio>
<b>gombyo</b>	three (SC); Cl. has: kombyo. <combió>
<b>gos:o</b>	1. love (sg.) (NC, SC) 2. believe (sg.) (NC, SC); cf. ŋ-kasaŋ, to love
<b>gowak</b>	two (Duc)
<b>gowo</b>	two (Cl.), <goguo>
<b>guxki</b>	come, to (Gabb)
<b>hasta'a</b>	teeth (Gabb; probably a loan from Seri)
<b>hay, '-</b>	yes (Gabb), <ehai>; cf. axa, yes; cf. Kiliwa '-ha, yes (vs. Proto-Yuman *xa:, yes)
<b>hyet</b>	? (SC)
<b>I-xwo</b>	the Living one (nc-c, sc) [yi, live —xwo, holy]
<b>i, '-</b>	say/say that (NC); ask (SC)  udugu k-'i, ask to forgive [forgive-Imp-ask] (SC)
<b>i, t'-</b>	head (del Barco); <dehi>; cf. '-pok
<b>i'ixú</b>	skunk (Cl.), <ijjú>; del Darco has: <yiju>
<b>ibal</b>	much (SC)
<b>ibaŋ</b>	day/today (NC); ibag, day (Hervas)  ibaŋ ~ ibaŋa, today (CC)
<b>ibaxa</b>	much, very much, greatly (NC, SC)

<b>ibi</b>	die (sg.) (N, Duc, NC, SC); ibi, die (sg.) (Hervas)
<b>ibo ~ ibuṅa</b>	sun, day (NC, SC); ibuga, var. (Duc)  ibo te-xweg, today [day one/certain] (SC)  mex-ibo, year/summer (June, July, part of August) (Cl.); <mejibo> [great-day/hot]
<b>ičera</b>	[cold] (Gabb)
<b>ičihi</b>	meat (Gabb); <itschihi>; cf. Kiliwa '-si, meat
<b>iñim-</b>	whole, entire (Cl.)  iñim-ěl, whole/entire [whole-pl. marker] naganá texweg iñiměl, five (Cl.), <naganná tejueg ignimel> [hand + one + whole/entire]  iñim-āl, entire/whole [whole/entir-pl.] naganá iñim-āl -t-mw-xweg, ten (Cl.) <naganná iginimal demuejueg> [hand + entire/whole + both]
<b>iṅaṅ</b>	where, where to (Hervas)
<b>iriwar, ta-</b>	to steal (Gabb)
<b>it</b>	[lead ?] (tv.) (NC, CC)  kas-ta xwaṅ-mwe k-n-it, lead us from all temptation (CC) [tempt-Peerf + rd (?)-some + Imp-1-(verb)]
<b>iteg</b>	go (pl.) (SC); egeg (sg.)  iteg-xi, send (NC-C, SC) [go-caus.]
<b>iwimil</b>	but, however (Duc); <iguimil>; cf. wimib
<b>ixa-</b>	[bird] (Gabb)  ixa-ṅanyač, bird [avian-?] (Gabb) ixa-wan 1. egg 2. feather (Gabb) [avian-small/incipeint] <sup>21</sup>
<b>ixa</b>	rattlesnake (Gabb)
<b>ixara</b>	black (Gabb)
<b>ixkwamba</b>	there (Gabb)
<b>iye</b>	?  wičip iye-wa k-n-kas-yuve-n, just take away our sin (NC-P) [remit + -suf. + Imp-1-tempt-forgive-suf.]
<b>k-</b>	imperative marker (NC, CC, SC)
<b>k- ~ ke-</b>	stative marker (NC, SC); it may occur with possessives  k-'ay, my father (Gabb) / our father (NC) k-čay, my bortheer/sister (Gabb) k-tay, my mother (Gabb)  ke-'met, big place or time period (SC) ke-'met t-kwi-ñi, eternal [big-placee/time + Cl.-cease-not] ke-'uy-ibaxa, rejoice (SC) [big-happy-much]
<b>ka</b>	nail (Gabb)  xiñak-ka, finger nail (Gabb) [hand/arm-nail]
<b>ka</b>	great (SC), big (Duc)  ka-n-duwa, to a large degree [great?-extent] (SC) ke-k:a, greatly [big-X] (SC) ka-xi, [order, command, desire, wish] [big-caus.] (SC)  <b>ka-l</b> , total / complete ka-l wi-ami ibaxa, most [big-coll. + -very-good-much] ka-l wi-ami ibaxal n-duwa wi-ñi, "most-est" [big-coll. + very-good + much + pl.o-extent + be-not]
<b>kabaya-xwe</b>	[forgive] (CC) [forgive-?]
<b>kabuxa</b>	boulder (Cl.; Sp. peñasco(s)); <cabuja>
<b>kabyak</b>	three (Gabb); cf. kamywek
<b>kada</b>	1. reed (Duc) 2. arrow (del Barco);

<sup>21</sup>Troike (1976:161) parses /ixa/-wan/ as 'bird/leaf'.

	Mixco has: kata
	kata-ibi, wild grapes (del Barco) <kadeibi> kata-se, reed juice/manna (congealed sap of a particular plant used for for sweetening; del Barco) [reed-juice] kada-wa, fish [reed-dwell] (Duc)
<b>kalpen</b>	womb (NC-C, SC)
<b>kamag</b>	arroyo (del Barco); <caaman, caamang, kaaman, gomo, gomong>; are the recorded forms dialect variants?
<b>kambyo</b>	three (NC-C)
<b>kamywek</b>	three (Duc)
<b>kanak</b>	snow (Gabb)
<b>kano-pa</b>	to sing (Duc); Gabb has: kano-pay
<b>kapay</b>	lake (Gabb)
<b>karay</b>	pipe (Gabb)
	mač-karay, enemy (Gabb; Mixco has: warrior) [enemy-pipe]
<b>karey</b>	sea turtle (Cl.); <carey>
<b>kas</b>	[temptation, badness] (NC, CC)
	kas-ta, sin [badness-Perf] (NC, CC)
<b>kasəŋ, ya-ŋ-</b>	to love (Gabb) [dem.-Cl.-love]; cf. n-goso
	ŋ-[k]as:əŋ, to love (Duc) [Cl.-love]
<b>kata</b>	arrow (Gabb)
<b>kava-tere</b>	horse (Gabb); [Sp. caballo + /tere/, ?]
<b>kawaba</b>	[hang ?, tie ?] (tv.) (NC-C); cf. wawaba (SC)
<b>kawi</b>	[take out, remove, save, etc.] (tv.) (NC-P)
	waŋ t-visé k-n-kawi k-n-xa, and save us from evil (NC-P)
<b>kawit</b>	go up, ascend (NC, SC)
<b>kaxal</b>	water (Duc)
	kaxal ka, river [water big] (Duc)
<b>kaxi</b>	[command] (SC-D)
<b>kaye</b>	[long time] (N)
	kaye-ñi, soon [long.time-not] (N)
<b>kayixit</b>	badger (del Barco); <kayiiit>
<b>ki</b>	egg (Gabb)
<b>kom-</b>	[know] (SC); cf. kem:u, [will, rule]
	komě-n-da, know, [honor, esteem] [know-?-?] (SC)
	kom-n-on, know [know-?-?] (SC)
<b>konata ~ kon- ~ kota</b>	rock (Duc); konata, var. (Gabb)
	kon-xakwa, axe [stone-knife] (Gabb)
<b>koŋa</b>	moon (Gabb)
<b>kowak</b>	two (Gabb)
<b>koyan</b>	? (Gabb)
	mañak koyan, foot [hand-?] (Gabb)
<b>ku</b>	[turn away, remove, save from,. etc.] (NC, CC)
	k-n-it pa-ku-m, lead us and remove us (CC) [Imp-1-lead + Imp-1-(verb)-Sub]
<b>ku</b>	this one <k'hu> (Gabb); cf. kum-b[y]a, that (near)
<b>kudesé</b>	the sweet sap of a cane, used as a sweetener, sugar (Cl.); <cudesé>
<b>kumbye</b>	three (Hervas)
<b>kuvuk</b>	again (Hervas)
<b>kwa, s-</b>	? (Gabb)
	mate-s-kwa, spring [season-?] (Gabb)
<b>kwan</b>	[little]; cf. wan, little
	ma-kwan, [little, small] (Gabb) [Stat-little]

	wanu-ču makwan, infant [child + little] (Gabb)
<b>kwaŋ</b>	here (Gabb)
<b>kwe ~ kwi</b>	1. hear (NC) 2. obey (NC, CC); kwi, var. (Duc)
<b>kwi</b>	[cease] (SC)
	ke-'met t-kwi-ni, eternal [big-place/time pref.-cease-not] (SC)
<b>kwi, '-</b>	who, what (Hervas)
<b>kwumba</b>	that (near) (Gabb)
<b>l-</b>	indefinite object (inanimate) (Duc, NC, CC, SC); Shaul: classifier
	l-si, to drink (Gabb) l-vixi, be done/cause to be (NC-P) [Cl.-be-caus.] l-waxi, be done (CC)
<b>le-byeŋ ~ le-kyeŋ</b>	all; [Mixco has: yebyeŋ, thinking <llebieng> ?] (Duc)
	lekyeŋ, all of (Hervas)
<b>leyo</b>	prophesy (NC, SC)
	leyo-xi, to foretell [prophecy-caus.] (NC, SC)
<b>lut</b>	[assembly, crowd ?] (NC, SC)
	ke-lu:t, church (SC) [S-assembly/collective]
<b>luxu</b>	more, even more (Duc, NC, SC); more than (in comparing) (SC)
<b>m-</b>	second person (ergative, possessor) (CC, SC); mi, second person (Hervas)
<b>m-</b>	verb classifier, refers to non-singular or collective animate objects or referents (NC, SC)
	mō-dono, 'they love others' [others-3-love (pl.) m-gododo, to bury (NC, SC) b-m-gwolo, 'abide in you' (NC-A) [2-Cl.-abide.in] m-wo, abide in (tv.) (NC, SC)
<b>ma-</b>	stative prefix (Proto-Hokan #ma-)
	ma-kwan, [little, small] (Gabb) [Stat-little] wan-ču makwan, infant [child + little] (Gabb) ma-naxuy, light green (Gabb) [Stat-green] ma-x:waŋ, red (Gabb) [Stat-red]
<b>ma-</b>	[hand?, or ma-, characteristic ?]; cf. nak, nagana
	ma-ñak, hand (Gabb) ma-ñak koyan, foot [hand-?] (Gabb) ma-ñak-yukwi, finger [hand-extension] (Gabb)
<b>ma, wi-</b>	to sleep (Duc) [3-sleep]
<b>ma'ah-ra</b>	fire (Gabb) [burn-Perf ?]
<b>mači</b>	[enemy] (CC)
	mač-karay, enemy (Gabb) [enemy-pipe]
<b>mada</b>	[eat]
	ta-mada, food (SC) [Cl.-eat]
<b>magakubuwa</b>	four (Cl.), <magacubuguá>
<b>maka</b>	stomach (Duc)
<b>mamayak</b>	to dance (Gabb)
<b>man-ku</b>	be hot (Duc)
<b>maŋ</b>	Mixco: emphatic; Shaul: verative, vs. negative -ni (Duc); myeŋ, var. (NC)
<b>maŋa</b>	name (n.) (CC)
<b>maŋe</b>	leaf (Gabb)
<b>maŋi</b>	ear (Gabb)
<b>mapay</b>	shoes (Gabb)
<b>mat- ~ matě- ~ 'mada-</b>	[season] (Gabb); ['met, earth/place used as 'time']
	mat-ič:era, winter [season-cold] (Gabb) mate-paŋ, summer [season-hot] (Gabb)

	mate-s-kwa, spring [season-?] (Gabb)
	mate-s-pa, autumn [season-?] (Gabb)
	'mada, [season]
	'madá āp:í, autumn (pitahaya harvest; part of August, September, and part of October (Cl.); <amada appi>m [season-die/cease]
	'madá āp:i-galá, [late autumn] (part of October, December, part of November; time of drying out) (Cl.) [season + die-rain]
<b>mat, '-</b>	<e-mat>, earth (Gabb. NC, CC, SC); cf. '-met, earth
<b>matapxi</b>	grass (Gabb)
<b>mati, ta-</b>	snake (Gabb); cf. Esselen tsetsel-ka-mati, rattlesnake [rattling-Stat-snake]
<b>max(i)- ~ mex(i)-</b>	[great, huge]
	makwi-m huge/great (Hervas)
	max-a, greatly (SC) ke-wi-maxa ibaxi, most/extreme [big-very-X-much] (SC)
	maxel, great, huge (NC, SC) usi maxel, hell [fire great] (SC) (SC)
	max-ka'-é, far (Gabb) [huge-big-?]
	mex-ibo 1. year 2. summer (June, July, part of August) (Cl.); <mejibo>; del Barco has: <meyibo>; [great-hot]
	maxi-bél, winter (part of December, January, part of February) (Cl.) <majibél> [great-hunger]
	maxi-bén, late winter (some February, March, part of April) (Cl.); <majiben> [great-famine]
	maxi-bén-ma:yí, spring (some of April, May, early June; time of no food) (Cl.) [great-famine-evil]
<b>maxa</b>	people (Gabb, NC, CC); [could be related to /max-/, big, referring to people as a collective]
	maxa-ti, Indian/person [person/people-?] (Gabb)
<b>may</b>	evil (Duc, SC)
	maxi-bén-ma:yí, spring (some of April, May, early June; time of no food) (Cl.) [great-famine-evil]
<b>mba, '- 'mbey</b>	sky/heaven (NC); 'mba, var. (CC); 'mey ~ 'mbey, sky (Hervas)
	'mba-yuxup, sky/heaven (NC) [sky-?]
<b>mba, t-</b>	to speak (Gabb), <timba>; del Barco has: <(a)detembna> = '-t-mba, I speak [1-Cl.-speak]
<b>mbay</b>	[sleep]
	xi-mbay, to sleep (Gabb) [indef. ?-sleep]
<b>mbyo</b>	[be a certain way]
	ayi-mbyo, Mixco: purpose temya ayi-mbyo, why (SC)
<b>medesá</b>	paloverde (Cl.)
<b>menaba</b>	beautiful (SC)
<b>met,-' ~ 'metě</b>	1. earth/place (NC, SC) 2. [time period] 3. year (Duc); 'met, earth (Hervas); cf. '-mat, earth
	amayben met-añ, for many years (Duc)
<b>mi</b>	[facial hair]
	'-a-mi, beard (Gabb); <hyami> [mouth-hair]
<b>mi</b>	wa-mi, 1. male (Duc) 2. husband (Duc); cf. Proto-Yuman *mi:(y), man/male
	turwa-mí, bull (Har.) [bull-male; turwa from Sp. <i>toro</i> ]
<b>mi</b>	to cry (Har.); cf. Proto-Yuman, *mi, to cry mato-mi, Tierra del Lloro/Land of Crying (Har.; a mountain) [land-cry]
<b>mi ~ mbi</b>	[blessed, holy]; cf. ami ~ ambi, good; mi, good (Hervas)

	mi ~ mbi, [blessed, holy, important] (NC-A)
<b>mia</b>	locative (NC, CC)
<b>miči, '-</b>	star (Gabb), <amichi>
<b>midabet</b>	to fetch, bring, get (Hervas 19)
<b>milapá</b>	boojum tree (Cl.)
<b>miḡa</b>	tobacco (Gabb)
<b>miḡra</b>	island (Gabb)
<b>mistáḡ</b>	many (Gabb)
<b>mu-</b>	[conjunctive]
	mu-wet, just now (SC) <muhuet>; cf. mwe-, some ibi muwet-te, just died (N) [die (sg.) + just-Perf]
	mu-wixi, and [conjunctive-and] (SC)
<b>mumak</b>	in order to (Hervas 15)
<b>muwi</b>	? (SC-D)
<b>mwe-</b>	[some, a certain amount]; cf. muwet, just now
	kas-ta-xwa-ḡa mwe-k-n-it, lead us away from sin (NC-P) [tempt-Perf-Abs-loc. some-Imp-1-lead.away]
	k-mwe, other (Duc) [Cl.-some] k-mwe-g, all (of) (NC, SC); gambwexu, var. (SC); gamweg, var. (NC) t-mwe-xweg, all (of)/together (NC, SC); completely (NC, SC)
<b>mya</b>	? (SC)
	ayi-mbyo, Mixco: purpose; te-mya ayi-mbyo, why (SC) [what/thing-? + caus.-certainb.way]
<b>mye, t-</b>	[need ?] (NC-P)
	teváḡ yikwé t-mye t-wá, food needed to eat (NC-P)
<b>myeḡ</b>	verative (NC-P); cf. maḡ, verative; myeḡ ~ myen, verative (Hervas)
	xem:u-xwa 'mba-ḡ vixi myéḡ, Thy Will in Heaven truly (NC-P)
<b>n-</b>	first person marker (absolute, possessor) (NC, SC)
<b>n- ~ ḡ-</b>	plural object marker
	ya-ḡ-kasaḡ, to love (Gabb) [dem.-pl.o-love; n > g/_/k/ ]
<b>na-</b>	Mixco: object (Duc)
<b>nagal</b>	Mixco: reason, purpose (SC)
<b>nagana</b>	hand (Cl.); <naganna>; cf. ma, nak
<b>nal</b>	west (Har.); cf. Proto-Yuman *nal, to fall
<b>nami, '-</b>	o-nami, husband (Gabb) [is this actually /wami/?]
<b>naḡ ~ ḡa</b>	locative (NC)
	ḡa, locative, [into] (var. of nag ?) (NC)
<b>naxuy</b>	[green]
	ma-naxuy, light green (Gabb) [Stat-green]
<b>naxwa</b>	it cannot be (del Barco: "no puede haber")
<b>ne'é</b>	you (pl.) (Gabb)
<b>net, '-</b>	<anneet>, yesterday (Duc)
<b>no ~ noḡ</b>	locative (SC)
<b>nombó</b>	a bush with large, flexible stalks that leafs out after a rain with wide leaves (Cl.); Mixco suggests: limberbush, <i>Jatropha</i> spp (Sp. <i>sangre de drago</i> )
<b>nut</b>	be mute (Duc)
<b>ña</b>	to state, confess (Hervas)
<b>ñak</b>	hand (Gabb); cf. ma, nagana, hand
	ma-ñak, hand (Gabb) ma-ñak koyan, foot [hand-?] (Gabb) ma-ñak-yukwi, finger [hand-extension] (Gabb)
	xi-ñak, hand (Gabb) [indef. ?-hand]

	xi-ñak ka, nail (finger) [hand-nail] (Gabb)
	xi-ñak yukwi, finger [hand-extension] (Gabb)
	xi-ñak-pak, arm [hand-leg ?] (Gabb)
<b>ñañ-a-wa</b>	to love (Hervas)
<b>ñeč</b>	[fall, percipitate]
	we-ñeč, rain (Gabb) [water-fall]
<b>ñeŋ</b>	into (Hervas)
<b>ñi</b>	to want (Har.)
<b>ñumay</b>	[man ?, adult ?] wa-numay, man (Gabb) [male-?]
<b>ñanac</b>	[bird] (Gabb)
	ixa-ñanac, bird [bird-?] (Gabb)
	ixa-wan 1. egg 2. feather [bird-small] (Gabb)
<b>ñapa</b>	jackrabbit (Gabb)
<b>ñeme</b>	bow (Gabb)
<b>omwi</b>	Mixco: emphatic marker; [Shaul: verative] (SC)
<b>oti, '-</b>	?
	hoti-pun, heart (Gabb) [?-heart]
<b>oyčpyuk</b>	nose (Gabb)
<b>pa-</b>	plural object marker (NC, CC, SC)
<b>pa, s-</b>	? (Gabb)
	matč-s-pa, autumn [season-Stat (?)-?] (Gabb)
<b>pah</b>	belly (Gabb)
<b>pak</b>	[leg ?] (Gabb)
	xi-ñak-pak, arm [hand-leg ?] (Gabb)
<b>paŋ, '-</b>	e-paŋ, sun/day (Gabb) = ['-pag]
	paŋ, [hot] (Gabb)
<b>para, '-</b>	<hapara>, tongue (Gabb) = ['ă-para], my tongue
<b>pawoñak</b>	to get up (Gabb)
<b>pen:ayu</b>	we, our (NC, SC)
<b>pexkaray</b>	corn (Gabb)
<b>pi ~ pe, '-</b>	'-pi, dead (Gabb)
	'pe-p, finish/die completely (NC-C, SC) [die-purp.]
	<haypi> = ['ay]-pi, to die (Gabb)
	ăp:i, [cease, stop, quit] (Cl.)
	'madá ăp:i, autumn (pitahaya harvest; part of August, September, and part of October (Cl.); <amada appi>m [season-die/cease]
	'madá ăp:i-galá, [late autumn] (part of October, December, part of November; time of drying out) (Cl.) [season + die-rain]
<b>pi, '-</b>	e-pi, conifer (Ger. Fichte = spruce/fir) (Gabb)
<b>pi, n-</b>	chest (body) (Duc); <nupi>
<b>pil</b>	make, causative (SC)
	pwe-dede-pil, create [diffuse-coll.-make] (SC)
	uy-pil, make happy [happy-caus.] (SC)
	we-dede-pil, to make, create (NC, SC) [3-coll.-make]
<b>pogow</b>	? (v.) (SC)
<b>pok, '-</b>	e-pok, head, hair (head) (Gabb); cf. t-'i
<b>pun</b>	[heart]
	'oti-pun, heart (Gabb) [?-heart]
	pun-ya'an, to lie (untruth) (Gabb) [heart-false]
	uyi-pun-xo, wholeheartedly [happy-heart-adverbial] (SC)
<b>put, '-</b>	a-put, wood (Gabb)
<b>puxuy</b>	to do (SC-P)
<b>puxweg</b>	[to lead to] (?) (SC-P)
<b>pwe-</b>	[be distributed, be here and there; diffuse]
	pwe-dede-pil, create [distributed-coll.-make] (SC)
	pwe-xi-n, [bring, distribute] (SC) [distributed-caus.-pl.]

<b>pye</b>	fly (horse fly) (Gabb)
<b>ramaray</b>	yellow (Gabb)
<b>s-</b>	stative prefix ?]
	matě-s-kwa, spring [season-Stat (?)-?] (Gabb) matě-s-pa, autumn [season-Stat (?)-?]
<b>sa</b>	[sister]; cf. Kiliwa ñ-p-ča, older sibling (vs. Kiliwa n-p-pan, younger sibling)
	kě-nā-s:á, sister (Duc) [Stat-1-older.sibling]
<b>sa, '-</b>	be, sit (pl.) (NC, SC)
<b>si ~ se</b>	to drink; juice, sap <desi> = t-si, to drink (Gabb) <lizi> = l-si, to drink (Duc)
	kata-se, reed juice/manna (congealed sap of a particular plant used for for (del Barco) [reed-juice] ta-si, drinking water (Gabb) [Cl.-drink]
<b>t-</b>	verb classifier (Duc, SC); t-, specifier (Hervas)
<b>ta-</b>	classifier indicating a general amount or an indefinite object; variant of t-
	ta-daba, [will/rule] (CC) ta iriwar, to steal (Gabb) [Cl.-(verb) ta-si, drinking water (Gabb) [Cl.-drink] ta-wa-p, food (CC) [Cl.-eat-purp.] ta-mati, snake (Gabb); cf. Esselen tsetsel-ka-mati, rattlesnake [ rattling-Stat-X]
<b>tačxwa</b>	fish; [probably has /-xwa/, absolutive suffix] (Gabb)
<b>tama</b>	1. human, person (Duc, NC, SC) 2. man, male (Duc, NC, SC)
<b>tamaka</b>	side (Hervas 24)
<b>tamyá</b>	sweet-fruited pitahaya cactus, an important food resource (Cl.); <tammia>, <dammia>
<b>taŋčwaŋ</b>	today (Gabb)
<b>tata, '-</b>	e-tata, dog (Gabb)
<b>tatačwiwi</b>	friend (Gabb)
<b>taxé</b>	antelope (Cl.; 'ibex') <taje>
<b>taxip</b>	1. good (Duc, Gabb) 2. well (positive adverb) (Duc)
	taxip-ana, angry/bad [good-negative/opposite] (Gabb)
<b>taxwá</b>	sour-fruited pitahaya cactus, an important food resource (Cl.); <tajua>; del Barco has: <fajua>, with <f> possibly a mistake for <t>
<b>tay</b>	mother
	k-'ay, my father (Gabb), our father (NC) k-ča, my brother/sister (Gabb) k-tay, my mother (Gabb)
<b>te-</b>	[what, thing, something]; te, thing(s)/what (Hervas) te, big (del Bacro); ,<tte>
	te:-gyi 1. thing/what (NC, SC) 2. indeed (NC-A) 3. inanimate thing (NC, SC)
	te-mya ayi-mbyo, why (SC) [what/thing-? + caus.-certainb.way]
	te-peg ~ te-xweg, one (Cl.), <tepeeg>, <tejueg>
	te-xunoy, small amount/little amount (Duc); <tejunoey> [thing- small.amount]
	te-xweg ~ te-xwe 1. one, sole/only (NC, SC) 2. time point, [hour] (NC, SC) 3. entirely (SC); te-xwe, var. (Duc); [what/thing-Spec.]
<b>tedá</b>	a plant that sprouts stalks about a foot high after an abundant rain, having

	edible seeds the size of anise (Cl.); <tedda>; del Barco: "una yerba"; Mixco suggests: '-t'-da, <i>Antigonon leptopus</i> , Queen's wreath
<b>tedewá</b>	a plant like nettles with an almond-like, edible seed (Cl.); <tedeguá >
<b>tere</b>	?
	kava-tere, horse (Gabb); [Sp. caballo + /tere/, ?]
<b>tevivici</b>	come down
	tamá 'mbey ukambi tevivichi, the Man who Came from the Sky (Cl.) <tama ambei ucamibi tevivichi>
<b>texem</b>	[honor] (CC)
<b>texunwey</b>	a little (amount) (Duc)
<b>tipyxe</b>	white (Gabb)
<b>tuxwe-n-di</b>	one (Hervas)
<b>twi, '-</b>	how many? (Hervas)
<b>u</b>	word/rule (SC)
	m-ú-xwa, your word/rule (abs.) (SC) kě-m-ú-xwa, your will/word (CC) [S-2-word-Abs]
<b>u</b>	get up, arise from sitting (N); <au> = '-u, I arise from sitting; cf. wayip, get up from lying down; Mixco adds: Kiliwa 'uw, 'be erect'
<b>učaŋ, '-</b>	o-učaŋ, to laugh (Gabb); učan, to do/make (Hervas)
<b>uda:xi</b>	when/where (postp.) (NC, SC)
<b>ude:mi ~ ud:emi</b>	if (SC)
<b>udip</b>	[womb] (Hervas)
<b>udugu</b>	[set aside/forgive] (tv.) (NC, SC)
<b>ukambi</b>	from (Cl.)
	tamá 'mbey ukambi tevivichi, the Man who Came from the Sky (Cl.) <tama ambei ucamibi tevivichi>
<b>uŋa ~ waŋa</b>	be born (NC, SC); <wanga> (Duc)
<b>upxi, '-</b>	o-upxi, wind (Gabb)
<b>urap</b>	to eat (Duc)
<b>uscewin, '-</b>	h-usčewin, to stand (Gabb)
<b>usi</b>	fire (SC), us.i, var. (Duc, wt)
	usi maxel, hell [fire great/huge] (SC)
<b>usiŋ</b>	old (Gabb)
<b>usu ~ uxu</b>	one who, usu (Hervas), uxu, (SC)
<b>uxi</b>	[enemy] (NC)
<b>uxwi</b>	sweet yucca, with an edible root, camote (Cl.) <ufui> presumably for <ujui>; onion (del Barco), <ujui>, cf. Kiliwa 'i-hi', to smell
<b>uy(i)</b>	happy (NC, SC)
	uy-pil, make happy [happy-caus.] (SC) uyi-pun-xo, wholeheartedly [happy-heart-adverbial] (SC)
	ke-uy-ibaxa, rejoice (NC-A, SC) [S-happy-much] (NC-A, SC)
<b>uyaxi, '-</b>	o-uyaxi, cooking pot (Gabb)
<b>uybetel</b>	be sick (Duc)
<b>wa</b>	father (CC)
<b>wa</b>	to eat (NC), (Gabb)
	ta-wa-p, food (CC) [Cl.-eat-purp.]
<b>wa</b>	1. sit (sg.) (SC), dwell (Duc) 2. to be, exist wa, to sit (Hervas), 'sa (pl.)
	kada-wa, fish [reed-dwell] (Duc) wa-xa, sit [sit-conjunctive] (SC) wa-xi ~ va-xi, be done (CC) [sit/be-caus.]
<b>wa</b>	to hurt (iv.) (Duc), del Barco has. <-gua>
<b>wa ~ va</b>	demonstrative (Hervas), wa, demonstrative (?) (SC-D)

	wa-xwanu awia-ŋa, the baby is crying (Duc 12)
<b>wa-</b>	[male]
	wa-mi, 1. male (Duc) 2. husband (Duc); cf. Proto-Yuman *mi.y, man/mal wa-ñumay, man (Gabb) [male-?]
<b>wa, '-</b>	house (Gabb)
<b>wa, t-</b>	what (Hervas 26)
<b>wá'ki</b>	woman (Gabb)
<b>wadag ~ wadeg</b>	1. arise (pl.) (N) 2. revive (pl.) (N), wayip (sg.)
<b>wagambi</b>	descend, go down (NC-C)
<b>wagya</b>	die (pl.) (N), ibi (sg.); cf. wigya, die (pl.)
<b>wak</b>	feces, dung (Dunne 1952.11, <wac>), cf. Kiliwa waq, 'dung' but Proto-Yuman *cerk
<b>waka-</b>	[pregnant] (Duc)
	waka-me, become pregnant <wakame-> [pregnant-become] (Duc) waka-na, babies/infants <huacana> [pregnant-res.] (Duc)
<b>wakayñ</b>	basket (del Barco), <vacaiñ>
<b>wakwe</b>	woman (Duc), Har. has. waki, female
<b>wal ~ val</b>	all (CC, NC), wa ~ val, all / everywhere (Hervas)
<b>wama</b>	shaman (Cl.), <guama>
<b>wan</b>	[small, little, incipient], cf. kwan, little
	ača-wan, small (Gabb) [?-small] ixa-wan 1. egg 2. feather [bird-incipient] (Gabb) wan-ču, 1. young 2. boy (Gabb) wan-ču [w]a[']ki, girl [child-female] (Gabb) wan-ču ma-kwan, infant [child-small] (Gabb)
<b>wan</b>	question marker (SC)
<b>wanda</b>	fox (Gabb)
<b>wani</b>	no (Gabb)
<b>wañi</b>	basket (del Barco). <uani>
<b>waŋ</b>	and [perhaps postp. 'also/with' used for 'and'] (CC, Duc); waŋ. locative (Hervas)
<b>waŋ, '-</b>	o-waŋ, warm (Gabb)
<b>wapa</b>	prairie (Gabb)
<b>waribo</b>	the largest tree in Baja California which is very similar to a cottonwood (Cl.), <guaribo>
<b>waťá</b>	mesquite (Cl.), <guatrá>, del Barco has. waha, <huaha>; cf. Kiliwa ha, mesquite
<b>wawa(y)</b>	chief, lord (NC, SC), waway, var. (Gabb); waway, lord (Hervas); cf. way, to command
<b>wawaba</b>	[tie?, hang ?] (SC), kawaba (NC)
<b>wawana</b>	turtle/tortoise (Gabb)
<b>waxe</b>	tree (Gabb)
<b>waxi ~ vaxi</b>	[be done] (CC)
	l-waxi, be done (CC)
<b>waxiñ</b>	women (NC, SC)
<b>way</b>	[order/command; obedient]; cf. wawa(y), chief/lord
	dida-vai, [order, command] (NC-P) [coll.-(verb)] mi-didu-way, be good [good-coll.-(verb)] (Hervas 15)
<b>wayeg</b>	[others?, enemies?] (CC)
<b>wayi</b>	evil (NC, CC)
<b>wayib</b>	1. arise (sg.) (N, NC, Hervas) 2. revive (sg.) (N, NC, Hervas); cf. u-, get up from sitting cf. wayp, healthy (Duc)

<b>wayley</b>	full (food) (Duc)
<b>wayp</b>	well (healthy) (Duc);' cf, wayib, arise (sg.)
<b>we</b>	salt (Gabb); cf. Kiliwa kw'iy, salt (vs. Yuman *s'iR, salt)
<b>we</b>	[water]  we eŋ, river (Gabb) [water + flow] we-ñeč, rain (Gabb) [water-fall]
<b>we ~ wi</b>	to go (Hervas); 'wi, to go (Gabb) <o-wi>  we-yambi, [go down, descend] (NC) [go-down]
<b>we-xka</b>	village/settlement (Gabb) [house-big, -xka = ka, big with frication OR water-locative, cf. -axa]
<b>wi</b>	very (NC, SC)  wi-ambi-ñi, sin [very-good-not] (NC)
<b>wi</b>	to become, be (NC, CC), vi, var. (CC); wi, be/do/become (Hervas)  l-wi, be (CC, SC) wi-xi, be done [be-caus.] (NC-P)
<b>wi- ~ we-</b>	third person (ergative, possessor) (NC, SC, Duc); wi-, third person (Hervas)  wi-dede-na, for that reason,/because [3-coll.-res.] (SC) we-dede-pil, to make, create (NC, SC) [3-coll.-make] wi-l.a we-dede-pil t-mwe-xweg-ta, He made all things (NC-C) [3-Erg 3-coll.-make Cl.-some-Spec.-Perf] wi-wam, to it (Gabb)
<b>wi, '-</b>	nephew (Har.), <awi>, cf. Kiliwa 'wi, nephew (-pi in other Yuman)
<b>wi, '-</b>	o-wi, to go (Gabb)
<b>wič ~ wi'ič</b>	give (Gabb)  wičip ~ vičip, [bring, remit, distribute] (NC) [give-suf.]  k-axit-wiči-p, [Cl.-give-bring/carry/distribute] (NC) baŋ-naŋ k-n-axit-vičip, give us today [day-loc. Imp-1-give-X] vičip iyewa k-n-kas-yuve-n, just as you forgive our temptations [carry just.as Imp-1-tempt-forgive-suf.] tama wičip-xwa 'mey-t-yan, (His) sending of men to Heaven (Hervas) [man bring/carry-Nm sky-?-loc.]
<b>wigil</b>	the fruit produced by a bush similar to a cherry, but smaller, appearing in March and April, eaten despite its bad taste because of lack of other foods at this time (Cl.), <guigil>, Mixco has. gixil
<b>wigya</b>	to die (pl.) (NC, SC), ibi (sg.); cf. wagya, die (pl.)
<b>wikwa, '-</b>	o-wikwa, wife (Gabb)
<b>wima</b>	Mixco. only (NC, SC-D)
<b>wimib</b>	but, however (Duc), <guimib>,' cf. iwimil
<b>wimugwixi</b>	? (SC)
<b>winey</b>	be not (Har.)
<b>wiŋ</b>	[need, want] (CC)  tawap ibaŋ wal wiŋ-vi-ta-xwa, the food needed today (CC)
<b>wisa</b>	son/child (NC, SC); wisay, son (Hervas)
<b>wise vise, t-</b>	[evil ?]  waŋ t-visé k-n-kavi k-n-xa, and save us from evil (NC-P)
<b>wit</b>	all (NC, CC)
<b>witamu</b>	same (Hervas)
<b>witi</b>	night (Gabb)
<b>wiwam</b>	to it (Gabb)
<b>wiwi, l-</b>	[need ?, want ?] (SC)
<b>wixi ~ xi</b>	1. and (NC, SC) 2. under, by (the orders of); wixi, and (Hervas)

	Ponsyo Piltato wawa wixi, under the orders of Pontius Pilate (NC-C)
<b>wixixi</b>	powerful
	wixixi-yay, governor (Hervas) [powerful-one]
<b>wo, m-</b>	abide in (tv.) (NC, SC) [Cl.-abide.in]
<b>wučok</b>	morning (Gabb)
<b>wuktu</b>	wife (Duc)
<b>wuxčak</b>	tomorrow (Gabb)
<b>xa</b>	[save, take away from]
	waŋ t-visé k-n-kavi k-n-xa, and save us from evil (NC-P)
<b>xa'vilaw</b>	to urinate (Har.)
<b>xakwa</b>	knife (Gabb)
	kon-xakwa, axe [stone-knife] (Gabb)
<b>xaŋmaŋxuy'a'i</b>	blue (light) (Gabb)
<b>xay</b>	big (Gabb), cf. ka, big
<b>xemu</b>	var. of kemu, will (n.)
<b>xi</b>	1. [being that way, be so] (SC)I ought to be (SC-P) 2. [be holy]; [probably related to -xi, causative]
	xi do.mo, (al)though (Mixco) (SC) ta-xi-p, good [Cl.-be.certain.way-result] xu-xi, send them [go (pl.)-caus.] (SC)
<b>xi-</b>	[possibly an indefinite marker]
	xi-mbay, to sleep (Gabb) xi-ñak, hand (Gabb)
<b>xil ~ xir</b>	xir, to see (Gabb); xil, [obey, observe] (SC)
<b>xkay, '-</b>	<e-xkay>, 1. mountain/hill (Gabb) 2. iron (Gabb)
<b>xu</b>	perfective marker (Hervas)
<b>xu, '-</b>	come (pl.) (NC, SC)
	xu-xi, send them [go (pl.)-caus.] (SC)
<b>xunoy</b>	[small amount, few]
	te-xunoy, small amount/little amount (Duc), <tejunoe> [thing-small.amount]
<b>xwanu ~ waxwanu</b>	infant [is wa- a prefix?] (Duc); cf. wan-ču, child [small-ohne.who]
	xwanu wami, baby boy (Duc)
<b>xwaŋ</b>	[red]
	ma-xwaŋ, red (Gabb) [Stat-red]
<b>xwat ~ xwet</b>	blood (Gabb), <hwat>, <juet> (Duc)
<b>xwo</b>	holy, respected (NC), [is added at the end of a noun phrase]
	I-xwo, the Living One (NC, SC) [yi-, live + holy] Yesu Këristo m-gododo-wi-ta xwo, Jesus Christ who was buried Dios Espiritu Santo-xwo, God the Holy Spirit
<b>xwoŋ</b>	[late, later ?]
	andem-ă-xwoŋ, night (Duc) [evening-?]
<b>ya</b>	relative marker (NC, SC); cf. ya, demonstrative
<b>ya</b>	I (Gabb)
<b>ya</b>	to lie down (Hervas)
<b>ya ~ yo</b>	that (demonstrative) (SC), yo, var. (SC); cf. ya., relative marker
	ya-bya, he/she/it/they (N) [demonstrative-?] ya-pyaŋ, that (demonstrative) (Gabb)
<b>ya'an</b>	[false]
	pun-ya'an, to lie (untruth) (Gabb) [heart-false]

<b>yač</b>	yesterday (Gabb)
<b>yagawa-</b>	? (NC, SC)
	yagawa-xi-p, begat/engender [X-caus.-?] (NC, SC)
<b>yamay</b>	breast (woman's) (Gabb)
<b>yambi</b>	[downward]
	we-yambi, [go down, descend] (NC) [go-down]
<b>yami</b>	bark (tree) (Gabb)
<b>yan</b>	locative (Hervas)
<b>yax</b>	? (NC-C)
	yax-mo, to/at (?) (NC-C)
<b>yay</b>	[certain way]; cf. wixixi-yay, governor (Hervas) [powerful-X]
	t-yay, be that way (Hervas)
	-yay, one that is a certain way (Hervas)
<b>yi</b>	to be (NC); yi, to be (Hervas)
	yi-xwa, [animate being] (NC-C, SC)
	I-xwo, the Living One (NC-C, SC) [yi, live + -xwo, holy]
<b>yi</b>	to bring (Har.)
<b>yibixo</b>	beside, used in comparison ('compared to') (SC)
	wi-yibixo, compared to her/him (SC)
<b>yikwe</b>	?
	tevap yikwe t-mye t-wa, food needed to eat (NC-P)
	[food + ? + Cl.-need + Cl.-eat]
<b>yixwal</b>	Mixco. must (SC)
<b>yo</b>	[into, below, etc.] (postp.) (NC)
<b>yukwi</b>	[extension] (Gabb)
	xi-ñak yukwi, finger [hand-extension] (Gabb)
<b>yumaŋ</b>	breast (Gabb)
<b>yuñe</b>	gather, assemble (tv.) (Hervas)
<b>yupi</b>	face (Gabb)
	yupi-ča, eye [face-?] (Gabb)
<b>yut, '-</b>	evil (?) (Hervas)
<b>yuve</b>	[take away, forgive, etc.] (NC-P)
	wičip iye-wa k-n-kas-yuve-n, just as you take away/remit our sin (NC-P)
	[remit + Imp-1-tempt-forgive-suf.]
<b>yuxup</b>	[bent ?, arched ?, contains -p, purposive ?]
	'mba-yuxup, sky/heaven (NC) [sky-?]

## Appendix E. English-Cochimí Index

This index is not a reverse dictionary. The English main entry indexes a Cochimí form that may or may not be a direct translation of the English term.

<b>abide in</b>	gwolo, m-; wo, m-
<b>absolute case</b>	-xwa
<b>absolute marker</b>	'-
<b>adverbial</b>	-i ~ -a; -xo
<b>again</b>	kuvuk
<b>alive</b>	barai witi; gina
<b>all</b>	le-byeŋ ~ le-kyeŋ; wal ~ val; wit
<b>although</b>	do:mo, xi
<b>and</b>	waŋ; wixi ~ xi
<b>antelope</b>	taxé
<b>arched</b>	yuxup
<b>arise</b>	pawoñak, u
<b>arise (pl.)</b>	wadag ~ wadeg
<b>arise (sg.)</b>	wayib
<b>arm</b>	ñak
<b>arrow</b>	kada, kata, kamags
<b>attributive</b>	-y
<b>autumn</b>	gala-ma; mat- ~ mate- ~ 'mada-
<b>baby</b>	waka-; wan; xwanu ~ waxwanu
<b>bad</b>	taxip
<b>badger</b>	kayixit
<b>bark (tree)</b>	yami
<b>basket</b>	wakayñ, wañi
<b>basket (small)</b>	adá
<b>be</b>	a, '-; wi; yi
<b>be not</b>	du
<b>be so</b>	dewa ~ dewe
<b>be, cannot</b>	naxwa
<b>beard</b>	a, '-
<b>beautiful</b>	menaba
<b>become</b>	a7-, -me, wi
<b>believe</b>	godoño, gos:o
<b>below</b>	yo
<b>bent</b>	yuxup
<b>beside</b>	yibixo
<b>big</b>	čay, ka, xay
<b>big (huge)</b>	max(i)- mex(i)-
<b>bird</b>	ixa-, ŋanač
<b>black</b>	ixara
<b>blood</b>	xwat ~ xwet
<b>blue (light)</b>	xanmanxuy'a'i
<b>body</b>	bat ~ pet
<b>boojum</b>	milapá
<b>born</b>	uŋa ~ waŋa
<b>boulder</b>	kabuxa
<b>bow</b>	ŋeme
<b>boy</b>	wan
<b>breast</b>	yumaŋ
<b>breast (female)</b>	yamay
<b>bring</b>	pwe-, yi
<b>bury</b>	gododo, m-
<b>bush (legume)</b>	asigandú

<b>bush sp.</b>	nombó
<b>cannot be</b>	naxwa
<b>causative</b>	pil, -xi
<b>cease</b>	kwi; pi ~ pe, '-
<b>certainly</b>	buxwen, buxwet
<b>certain way, be</b>	mbyo, xi, yay
<b>cherry-like fruit</b>	wigil
<b>chest</b>	pi, n-
<b>chief</b>	wawa(y)
<b>child</b>	bityay, '-; wisa
<b>classifier (verb)</b>	k-, l-, m-, t-, ta-, te-
<b>cold</b>	ečayawi, ičera
<b>collective</b>	-dede-, -l
<b>come</b>	egeg ~ egweg
<b>come</b>	guxki
<b>come (pl.)</b>	xu, '-
<b>come down</b>	tevivici
<b>command</b>	kaxi, way
<b>compared to</b>	yibixo
<b>confess</b>	ña
<b>conifer</b>	pi, '-
<b>conjunctive</b>	mu-,. -xa
<b>corn</b>	pexkaray
<b>create</b>	pwe-
<b>crowd (n.)</b>	lut
<b>cry</b>	aw(i)-, mi
<b>dance (v.)</b>	mamayak
<b>dative</b>	-mo ~ -mu
<b>day</b>	ibaŋ; ibo ~ ibuŋa
<b>dead</b>	pi ~ pe, '-
<b>demonstrative</b>	wa ~ va
<b>die (pl.)</b>	wagya ~ wigya
<b>die (sg.)</b>	ibi
<b>distributed</b>	pwe-
<b>do</b>	puxuy
<b>dog</b>	tata, '-
<b>done, be</b>	waxi ~ vaxi
<b>downward</b>	yambi
<b>drink (v.)</b>	si ~ se
<b>ear</b>	maŋi
<b>earth</b>	mat, '-; met,-' ~ 'metě
<b>eat</b>	mada, wa
<b>eat</b>	urap
<b>egg</b>	ixa-, ki
<b>enemies</b>	wayeg
<b>enemy</b>	mači, uxi
<b>entire</b>	iñim-
<b>entirely</b>	te-
<b>ergative</b>	-la
<b>evening</b>	andom, '-
<b>everywhere</b>	wal ~ val
<b>evil</b>	may; wayi; wise vise, t-; yut, '-
<b>exist</b>	du
<b>extension</b>	yukwi
<b>extent</b>	daway, du
<b>eye</b>	ča
<b>face</b>	yupi

<b>fall</b>	ñeč
<b>false</b>	ya'an
<b>father</b>	akena ~ ak; ay, '-; da; wa
<b>feather</b>	ixa-
<b>feces</b>	wak
<b>fetch</b>	midabet
<b>few</b>	xunoy
<b>finger</b>	ma-
<b>fire</b>	ma'ah-ra, usi
<b>first person (absolute)</b>	n-
<b>first person (dative)</b>	d-
<b>first person (ergative)</b>	'-
<b>fish</b>	kada, tačxwa
<b>five</b>	iñim-
<b>flow</b>	eŋ
<b>fly (horse)</b>	pye
<b>food</b>	mada
<b>foot</b>	ma-
<b>for (duration)</b>	-añ
<b>forgive</b>	dakexe, kabaya-xwe, udugu, yuve
<b>four</b>	magakubuwá
<b>fox</b>	wanda
<b>friend</b>	tatačwiwi
<b>from</b>	-ak, ukambi
<b>full (food)</b>	wayley
<b>future</b>	-daka ~ -da
<b>garambuyo cactus</b>	gakil
<b>gather</b>	yuñe
<b>get</b>	midabet
<b>girl</b>	wan
<b>give</b>	axt ~ axit; wič ~ wi'ič
<b>go</b>	we ~ wi; wi, '-
<b>go (pl.)</b>	iteg
<b>go (sg.)</b>	egeg ~ egweg
<b>go down</b>	wagambi
<b>go up</b>	kawit
<b>good</b>	ami ~ ambi; taxip; xi
<b>grapes</b>	kada
<b>grass</b>	matapxi
<b>green</b>	naxuy
<b>hair (facial)</b>	mi
<b>hair (head)</b>	pok, '-
<b>hand</b>	ma-, nagana, ñak
<b>hang</b>	kawaba, wawaba
<b>happy</b>	uy(i)
<b>hard</b>	gewa
<b>head</b>	i, t-'; pok, '-
<b>hear</b>	kwe ~ kwi
<b>heart</b>	pun
<b>here</b>	kwaj
<b>here and there</b>	pwe-
<b>holy</b>	mi ~ mbi; xi; xwo
<b>honor</b>	texem
<b>hot</b>	ibo ~ ibuŋa; man-ku; paŋ, '-
<b>hour</b>	te-
<b>house</b>	wa, '-
<b>how many</b>	twi, '-

<b>however</b>	iwimil, wimib
<b>human</b>	tama
<b>hunger</b>	bel ~ ben
<b>hurt (iv.)</b>	wa
<b>husband</b>	nami, '-; wa-
<b>I</b>	ya
<b>if</b>	ude:mi ~ ud:emi
<b>ignore</b>	čina
<b>imperative</b>	k-
<b>imperfective</b>	-ga
<b>in order to</b>	mumak
<b>indeed</b>	te-
<b>indefinite (inanimate)</b>	l-
<b>indefinite marker</b>	xi-
<b>inherent marker</b>	'-
<b>into</b>	-mo ~ -mu; ñeŋ; yo
<b>iron</b>	xkay, '-
<b>island</b>	miŋra
<b>jackrabbit</b>	ŋapa
<b>judge</b>	git
<b>juice</b>	si ~ se
<b>knife</b>	xakwa
<b>know</b>	awin-; kom-
<b>knuckles</b>	ak, '-
<b>lake</b>	kapay
<b>late(r)</b>	xwoŋ
<b>laugh</b>	učaŋ, '-
<b>lead</b>	it
<b>lead to</b>	puxweg
<b>leaf</b>	maŋe
<b>leg</b>	pak
<b>lie (untruth)</b>	pun
<b>lie down</b>	ya
<b>little</b>	ača-wan, kwan, wan
<b>little (amount)</b>	texunwey
<b>live / living</b>	yi
<b>locative</b>	aŋ ~ -ŋ; mia; -mo ~ -mu; naŋ ~ ŋa; -no; no ~ noŋ; yan
<b>look</b>	git
<b>love</b>	godoño; gos:o; kasaŋ, ya-ŋ-; ñaŋa-wa
<b>make</b>	pil
<b>male</b>	mi, wa-
<b>man</b>	mi, ñumay
<b>many</b>	amayben, mistaŋ
<b>meat</b>	ičihi
<b>mesquite</b>	watá
<b>moon</b>	koŋa, gane'maxen
<b>more</b>	luxu
<b>morning</b>	wučok
<b>mother</b>	atay, či, tay
<b>mountain</b>	xkay, '-
<b>mountain lion</b>	čimbika
<b>mountain sheep</b>	amogokyó
<b>mouth</b>	a, '-
<b>much</b>	ibal, ibaxa
<b>must</b>	yixwal
<b>mute</b>	nut
<b>my</b>	-axa

<b>nail</b>	ka
<b>name</b>	baŋ ~ mbaŋ; bo ~ mo; maŋa
<b>need</b>	mye, t-; wiŋ; wiwi, l-
<b>negative</b>	-ana, -ki
<b>nephew</b>	wi, '-
<b>nettle-like plant</b>	tedewá
<b>night</b>	andom, '-; witi
<b>no</b>	wani
<b>nominalizer</b>	-xwa
<b>nose</b>	oyčpyuk
<b>not</b>	-ni
<b>not, be</b>	du, winey
<b>now</b>	anaxwa
<b>now, just</b>	mwe-
<b>obedient</b>	way
<b>object</b>	na-
<b>old</b>	usiŋ
<b>one</b>	čakwi, te-, tuxwe-n-di
<b>one who</b>	usu ~ uxu
<b>only</b>	te-, wima
<b>opposite</b>	-ana
<b>order to, in</b>	mumak
<b>others</b>	wayeg
<b>ought to</b>	xi
<b>our</b>	-bapa ~ -ba ~ -papa ~ pa; pen:ayu
<b>palo blanco</b>	gokyó
<b>paloverde</b>	medesá
<b>people</b>	maxa
<b>perfective</b>	-ta ~ -te; xu
<b>pipe</b>	karay
<b>pitahaya (sour)</b>	taxwá
<b>pitahaya (sweet)</b>	tamyá
<b>place</b>	met,-' ~ 'metě
<b>plant sp.</b>	tedá
<b>plural</b>	-mayeg; -ñ ~ -ñV
<b>plural object (absolute)</b>	pa-
<b>plural object (dative)</b>	n- ~ ŋ-
<b>possessive</b>	-wa
<b>pot</b>	uyaxi, '-
<b>powerful</b>	wixixi
<b>prairie</b>	wapa
<b>pregnant</b>	waka-
<b>progressive</b>	-ka, -ŋa
<b>prophesy</b>	leyo
<b>purpose</b>	du, nagal
<b>purposive</b>	-p
<b>quality, particular</b>	-ču
<b>question marker</b>	-e ~ -i; wan
<b>rain</b>	gala-ma
<b>rattlesnake</b>	ixa
<b>red</b>	xwaŋ
<b>reed</b>	kada
<b>relative marker</b>	ya
<b>remove</b>	axa, bana-xa, kawí, ku
<b>resultative</b>	-na
<b>revive (pl.)</b>	wadag ~ wadeg
<b>revive (sg.)</b>	wayib

<b>rock</b>	konata ~ kon- ~ kota
<b>rule</b>	daba, ta-; u
<b>run</b>	ayečáč
<b>sad</b>	axal
<b>salt</b>	we
<b>same</b>	witamu
<b>sap</b>	si ~ se
<b>sap, cane</b>	kudesé
<b>save</b>	axa, bana-xa, xa
<b>say</b>	i, '-
<b>season</b>	mat- ~ mate- 'mada-
<b>second person (abs./dative)</b>	b-
<b>second person (ergative)</b>	m-
<b>see</b>	at, gade, git; xil ~ xir
<b>send</b>	egeg ~ egweg, xi
<b>shaman</b>	wama
<b>shoes</b>	mapay
<b>sibling</b>	ča
<b>sick</b>	uybetel
<b>side</b>	tamaka
<b>sin</b>	kas
<b>sing</b>	kano-pa
<b>sister</b>	sa
<b>sit (pl.)</b>	sa, '-
<b>sit (sg.)</b>	wa
<b>skunk</b>	i'ixú
<b>sky</b>	bay, '- ~ 'mbey; mba, '- 'mbey
<b>sleep</b>	ma, mbay, wi-
<b>snake</b>	mati, ta-
<b>snow</b>	kanak
<b>sole</b>	te-
<b>some</b>	mwe-
<b>son</b>	wisa
<b>southerners</b>	du, '-
<b>speak</b>	dala-ma; mba, t-
<b>specifier</b>	-gyi
<b>specifier (demonstratives)</b>	-bya ~ -pyaŋ
<b>specifier (quantifiers)</b>	-xweg ~ -g
<b>spring (season)</b>	mat- ~ mate- 'mada-
<b>stand</b>	uscewin, '-
<b>star</b>	miči, '-
<b>state</b>	ña
<b>stative marker</b>	k- ~ ke-; ma-; -ku ~ -k; s-
<b>steal</b>	iriwar, ta-
<b>stomach</b>	maka
<b>stomach (belly)</b>	pah
<b>subject (different)</b>	-m
<b>subject (same)</b>	-k
<b>subjective case</b>	-t
<b>subordinate</b>	-m
<b>summer</b>	ibo ~ ibuŋa; mat- ~ mate- 'mada-
<b>sun</b>	ibo ~ ibuŋa
<b>sweet</b>	kudesé
<b>sweet (water)</b>	bemal-ku
<b>talk</b>	dala-ma
<b>teeth</b>	hasta'a
<b>ten</b>	iñim-

<b>that</b>	bu; ya ~ yo
<b>that (near)</b>	kwumba
<b>there</b>	giyó, ixkwamba
<b>thing</b>	te-
<b>third person</b>	-lul
<b>third person (abs., dative)</b>	(zero)
<b>third person (ergative)</b>	wi- ~ ' we-
<b>this</b>	ku
<b>thorn</b>	det, '-
<b>thou</b>	ba, buxu
<b>three</b>	gombyo, kabyak, kambyo, kamywek, kumbye
<b>throat</b>	a, '-; čak
<b>tie</b>	kawaba, wawaba
<b>time</b>	met,-' ~ 'metě
<b>time, long</b>	gaye, kaye
<b>to</b>	-wam; -mo ~ -mu
<b>tobacco</b>	miṇa
<b>today</b>	ibaṇ; ibo ~ ibuṇa; taṇčwaṇ
<b>tomorrow</b>	wuxčak
<b>tongue</b>	bel, ma-; para, '-
<b>tortoise</b>	wawana
<b>tree (generic)</b>	waxe
<b>tree sp.</b>	anabá, waribo
<b>truly</b>	buxwen, buxwet, du
<b>tuna (cactus fruit)</b>	a
<b>turtle</b>	wawana
<b>turtle (sea)</b>	karey
<b>two</b>	gowo, gowak, kowak
<b>under (order of)</b>	wixi ~ xi
<b>urinate</b>	xa'vilaw
<b>verative</b>	maṇ, myeṇ, omwi
<b>verb prefix</b>	m-
<b>verb suffix</b>	-ma, -n, -pa
<b>very</b>	wi
<b>village</b>	we-xka
<b>want</b>	ñi
<b>warm</b>	waṇ, '-
<b>water</b>	kaxal, we
<b>we</b>	e'é, pen:ayu
<b>well (healthy)</b>	wayp
<b>west</b>	nal
<b>what</b>	kwi, '-; te-
<b>what kind</b>	axkwi
<b>when</b>	uda:xi
<b>where</b>	iṇaṇ, uda:xi
<b>which</b>	axkwi
<b>white</b>	tipyxe
<b>who</b>	kwi, '-
<b>whole</b>	iñim-
<b>why</b>	te-
<b>wife</b>	wikwa, '-; wuktu
<b>will (n.)</b>	daba, ta-; xemu
<b>wind</b>	upxi, '-
<b>winter</b>	mat- ~ mate- 'mada-
<b>without</b>	axal
<b>woman</b>	wá'ki, wakwe
<b>womb</b>	kalpen

<b>womb</b>	udip
<b>women</b>	waxiñ
<b>wood</b>	put, '-
<b>year</b>	met,-' ~ 'metě; ibo ~ ibuḡa
<b>yellow</b>	ramaray
<b>yes</b>	axa; hay, '-
<b>yesterday</b>	net, '-; yač
<b>you (pl.)</b>	ne'é
<b>young</b>	wan
<b>your</b>	-maba
<b>yucca (sweet)</b>	uxwi

Appendix F. Hervas Cochimi Text and Glossary

**Text**

There are 27 items in this short catechism, as numbered in Mixco (1979). The text follows a brief catechism text used in Sonora and Alta California.

(1) Kistiano vahet miie? Aha  
 Kistyano vaxe-t m-yi-e? axa  
 C. dem.-Subj 2-be-Q yes  
 'Are you a Christian?' 'Yes.'

(2) Kistiano vajua acui e?  
 kistyano va-xwa 'kwi-e  
 C. dem.-Nom what/who-Q  
 'What is being a Christian?'

(3) tama lekieng Iesu Kisto dalama-y awiñe uihiujua kuimurek  
 tama lekyeg Yesu Kisto dalama-y awiñe wi-yu-xwa kwi-m-rek  
 man all.of J. C. say-Atr know be/do-?-Nom hear/obey-DS-?  
 '[All men who knowing the word(s) of Jesus Christ obey it,']

nangawak ñak midiaipea, kistiano vajua gui  
 ñañawa-k ña-k ? kistyano va-xwa wi  
 love/believe-SS [confess]-SS > C. dem.-Nom be  
 'believe it, [confess it]; that is what a Christian is.'

(4) Diosi iduuie? Djuenidi.  
 dyosi 'twi-e tuxwenidi  
 god(s) how.many-Q one  
 'How many gods are there?' 'One.'

(5) Djuenidi, buhet acui e?  
 duxwenidi bu-'t kwi-e  
 one that-Subj who/what-Q  
 'The One, who is that?'

(6) uauai midauai muac pet iyak  
 waway mi-daway-m wa-k pet ya-k  
 lord good-expanse/very-DS sit-SS self lie-SS  
 'Of very good chiefs/lords, who existing by Himself

te ual uchan uju Diosi-wa gui  
 te wal učan uxu Diyos-wa wi  
 things all make ne.who G.-dem. be  
 'the one who made all things; that is God.'

(7) uauai midauai muac pet iyak mijuet acui e  
 waway mi-daway-m wa-k pet 'ya-k mi-xwa-t 'kwi-e  
 lord good-very-DS sit-SS self lie-SS good-Nom-Subj who-Q  
 'Who is the very good lord existing alone?'

(8) Guitamu Santissima Tinida; Dios aciham, uisa-ham, Esplitu Santo.  
 witamu S.T. Dyos asi-'a-m wisay-'a-m E.S.  
 same S.T. G. fathr-be-with son-be-with E.S.  
 'The Holy Trinity: God Father and, Son and, Holy Spirit.'

(9) Diosi combiec e? Teguinay.  
 dyosi kombye-k e t-wi-na-y  
 god(s) three-Stat Q Cl. (?) -be-not (?) -Atr  
 'Are there three gds?' 'Certainly not.'

(10) Pesonasi combiec uimuwui;  
 pesonasi kombye-k wi-m wi  
 person(s) three-Stat be-DS be  
 'There are three persons;'

Dios uxu gui djuenidi-mieng.  
 Dyos uxu wi tuxwenidi-myeñ  
 G. one.who be one-Ver  
 'God is one.'

- (11) Diosuauai-apa dujuenidi.  
 Dyos-waway-apa tuwxenidi  
 G.-lord-our one  
 'Our Lord God is one.'
- (12) Diosi uauaiapa ingangiya?  
 Dyosi waway-apa ijaŋ ya  
 G. lord-our where lie  
 'Where is God?'
- (13) ambey-ng iyac, ametang val iya.  
 'mbey-ŋ ya-k 'met-aŋ val ya  
 sky-loc. lie-SS earth-loc. all > everywhere lie  
 'He is in Heaven, He is everywhere.'
- (14) Diosi-l tama uehenac, idduuiduwec ucham, hu  
 Dyosi-l[a] tama-(zero) wexena-k 't-wi-duwe-k ucčan xu  
 G.-Subj man-Obj create-SS Cl.-be-purpose-SS = 'why' do + Perf  
 'Creating humanity, why did God do it?'
- (15) tamal ameteguang Dios udipucchec  
 tama-l 'metē-waŋ Dyos-(zero) udip-wiče-k  
 man-Subj earth-loc. G.-Obj [love/adore]-diffuse-SS  
 '(so that) mankind on earth would love God,'  
 guil mididuuai uihi  
 wi-l mi-didu-way wixi  
 3-Subj good-coll.-[order] = do good and  
 'be/do very good and'  
 mumac ambeing uhe duwec uchang hu  
 mumak'mbye-ŋ we-duwe-k učan xu  
 [in.order.to] sky-loc. go-purp.-SS do Perf  
 'in order to go to Heaven.'
- (16) Pesona combiec ac acui tama=gui hu?<sup>22</sup> Dios uisai.  
 pesona kombye-k k-'kwi tama=wi xu Dyos wisay.  
 p. three-Stat ?-who human=become Perf God-Son.  
 'Which of the three persons became human?' 'God's Son.'
- (17) Ingang tama gui hu?  
 ijaŋ tama wi xu  
 where human become Perf  
 'Where did He become human?'
- Santa Malia ca udipang tama gui hu  
 S.M.-ka udip-aŋ tama wi xu  
 S./M.-Poss [womb]-l;oc. human become Perf  
 'in the womb of Saint Mary.'
- (18) Diosi uisay tama guiec  
 dyosi wi-sa-y tama wi-k  
 G. 3-son-Atr human become-SS  
 'God became human;'  
 Idduiduvec tama gu hu?  
 't-wi-duve-k tama=wi xu  
 Spec-do-purpose-SS human+become Perf?  
 'Why did (He) become human?'
- (19) Uiña ambeing midabet ujua  
 wiñ 'mbey-ŋ midabet-xwa  
 know sky-loc. [fetch, etc.]-Nom  
 'For getting (humankind) to know Heaven,'  
 tama auñe uihec guang  
 tama wiñ=wi-xe-k xwa-ŋ [< xwa, Nom + waŋ, and]  
 humankind know=be/be-caus.-SS Nom-and  
 'and for humankind to learn'  
 tama hu yibi he  
 tama-xu ibi-xe

<sup>22</sup>This looks like a noun incorporation.

human-[for] die-caus.  
 'and to make (Himself) die for humankind --'

duuec tama gui hu.  
 duwe-ktama=wi xu  
 purpose-SS human-become Perf  
 'for these reasons (He) became human.'

(20) Iesu Kisto yibi hu? Aha.  
 Yesu Kisto ibi xu 'xa  
 J. C. die Perf yes  
 'Did Jesus Christ die?' 'Yes.'

(21) Ponsio Pilato uihiliaiham Santa Cus-ang delelissetang yibi hu.  
 P.P. wixixiyay-m Santa Kus-aṅ dele-lisset-aṅ ibi xu  
 P.P. governor-DS (?) S.C-loc. say-?-loc. die Per  
 'He died on the Holy Cross under the say of Governor Pontius Pilate.'

(22) Ibang combiec ang, pet auadipehu.  
 ibaṅ kombye-k aṅ pet 'wadipē-xu  
 day three-Stat loc. self arise/revive-Perf  
 'When it was three days, He revived Himself.'

(23) Auadipehulul iñang uie?  
 'wadipe-xu-lul iṅaṅ wi-e  
 arise-Perf-3 where go-Q  
 'Having arisen where did He go?'

(24) ameinkuue Dios-ac uihihijue hu mien tama caguag ya  
 'mey-ṅku-we Dyos-ak wixixi-xwa xu myen tamaka-wa-k ya  
 sky-[to]-go G-father omnipotent-Nom=Perf Ver [side]-be-SS lie/exist  
 'Went to Heaven to exist being at the side of God-Father being all powerful.'

(25) cubucuec tajas? [Aha].  
 kuvuk-we-k<sup>23</sup> taxa-e<sup>24</sup> axa  
 again-come/go-SS Fut-Q yes  
 'Will He return?' 'Yes.'

(26) cubucuec tugua, uitajai?  
 kuvuk-we-k t-wa wi-taxa-i  
 again-come/go-SS Spec-[what] do-Fut-Q  
 '(When He) returns, (what) will (He) do while being/sitting here?'

(27) tama ual iyunyec tama uichipejua ameta yan  
 tama-(zero) wal 'yuñe-k tama-(zero) wičipē=xwa 'met-a[ɲ] yan  
 people-Obj all gather-SS people-Obj [bring]-Nom sky-loc. ?  
 '(He will) gather all of the people being good and send (them) to Heaven,'

ussi macuinieng ayute tayai oyute.<sup>25</sup>  
 us:i makwi-ñeṅ 'yutē t-ya-y-[x]w[a] [yan  
 fire great-[into] [evil] (?) Spec-lie-Nom [send]  
 'into the Great Fire (He will) send the ones that are evil.'

<sup>23</sup>Mixco (1979:47) transcribes this as: <k-v-k>.

<sup>24</sup>Mistranscription for /e/, 'question marker'.

<sup>25</sup>I am assuming that the verb in the second clause is the same or equivalent to 'send' in the first.

## Moprheme List

In this list, each Hervas Cochimí is a morpheme from the brief catechism text spelled in the transcription used here.

<b>-didu-</b>	collective
	mi-didu-way, be good [good-coll.-order] (Hervas 15)
<b>-e ~ -i</b>	question marker
<b>-k</b>	stative predicate
<b>-k</b>	same subject marker
<b>-ku</b>	into, to
<b>-l ~ -t</b>	subject marker
<b>-lul</b>	third person marker (cf. Esselen -lal, third person)
<b>-m</b>	different subject marker
<b>-m</b>	with/and
<b>-nak ~ -ñi</b>	not
<b>-taxa</b>	future marker
<b>-xe</b>	causative
<b>-xwa</b>	-ing (nominalizer)
<b>-y</b>	attributive suffix
<b>a, '-</b>	be (copula) (?)
<b>ak</b>	father
<b>aŋ ~ -ŋ</b>	locative
<b>awiñ-</b>	to know
<b>axa</b>	yes
<b>bu</b>	that (dem.)
<b>dala-ma ~ dele-</b>	say, speak
<b>daway</b>	extent, expanse
<b>duwe</b>	purpose
<b>ibaŋ</b>	day
<b>ibi</b>	die (sg.)
<b>iŋaŋ ~ iñaŋ</b>	where, to where
<b>k-</b>	stative marker
	k-'kwi, which (Hervas 16)
<b>kumbye</b>	three
<b>kuvuk</b>	again, back
<b>kwi, '-</b>	who/what
	k-'kwi, which (Hervas 16)
<b>lekyeŋ</b>	all of
<b>m-</b>	second person marker
<b>makwi</b>	huge, great
<b>met, '-</b>	earth
<b>mey, '- ~ 'mbey</b>	sky > heaven
<b>mi</b>	good
<b>midabet</b>	fetch, bring, get (Hervas 19)
<b>mumak</b>	in order to (Hervas 15)
<b>myeŋ ~ myen</b>	verative marker
<b>ña</b>	state, confess
<b>ñaga-wa</b>	love, believe
<b>ñeŋ</b>	into
<b>pet</b>	body > self
<b>sa-y, wi-</b>	son [3-son/child-Atr]
<b>t-</b>	specifier
<b>tama</b>	man, human, person
<b>tamaka</b>	side (Her 26)
<b>te</b>	thing(s), what
<b>tu-xwen-idi</b>	one

<b>twi, '-</b>	how many?
<b>učan</b>	do, make
<b>udip</b>	womb
<b>usu</b>	one who, agentive
<b>va ~ wa</b>	demonstrative
<b>wa</b>	sit
<b>wa, t-</b>	what (Her 26)
<b>wadip</b>	arise, revive (sg.)
<b>wal ~ val</b>	all
<b>waŋ</b>	locative
<b>waway</b>	chief, headman, lord
<b>we</b>	to go
<b>wi</b>	be, do
<b>wi-</b>	third person marker
<b>wičip</b>	bring (Her 27)
<b>witamu</b>	same
<b>wixi</b>	and
<b>wixixi</b>	powerful
	wixixi-yay-, governor [powerful-certain.way]
<b>xu</b>	perfective marker
<b>ya</b>	be lying
<b>yan</b>	to send
<b>yay</b>	be a certain way
	t-yay, be that way
	wixixi-yay, governor [powerful-certain.way]
<b>yi</b>	be
<b>yuñe</b>	gather, assemble
<b>yut, '-</b>	evil (?)

### Index to Hervas Cochimi

<b>again</b>	kuvuk
<b>all</b>	wal ~ val
<b>all of</b>	lekyeŋ
<b>and</b>	wixi
<b>arise/revive</b>	wadip
<b>attributive</b>	-y
<b>be</b>	yi
<b>be (copula)</b>	a, '-
<b>be/do</b>	wi
<b>causative</b>	-xe
<b>certain way</b>	yay
<b>chief</b>	waway
<b>collective</b>	-didu-
<b>day</b>	ibaŋ
<b>demonstrative</b>	va ~ wa
<b>die (sg.)</b>	ibi
<b>different subject marker</b>	-m
<b>earth</b>	met, '-
<b>evil (?)</b>	yut, '-
<b>extent</b>	daway
<b>father</b>	ak
<b>future marker</b>	-taxa
<b>gather (tv.)</b>	yuñe
<b>get</b>	midabet
<b>go</b>	we
<b>good</b>	mi

<b>how many</b>	twi, '-
<b>huge</b>	makwi
<b>into</b>	ñeŋ
<b>into</b>	-ku
<b>know</b>	awiñ-
<b>locative</b>	waŋ
<b>locative</b>	aŋ ~ -ŋ
<b>love/believe</b>	ñaga-wa
<b>lying, be</b>	ya
<b>make</b>	učan
<b>nominalizer</b>	-xwa
<b>not</b>	-nak ~ -ñi
<b>one</b>	tu-xwen-idi
<b>one who</b>	usu
<b>order to, in</b>	mumak
<b>perfective marker</b>	xu
<b>person</b>	tama
<b>powerful</b>	wixixi
<b>purpose</b>	duwe
<b>question marker</b>	-e ~ -i
<b>same</b>	witamu
<b>same subject marker</b>	-k
<b>second person</b>	m-
<b>self</b>	pet
<b>send</b>	yan
<b>side</b>	tamaka
<b>sitting, be</b>	wa
<b>sky</b>	mey, '- ~ 'mbey
<b>son/child</b>	sa-y, wi-
<b>speak</b>	dala-ma ~ dele-
<b>specifier</b>	t-
<b>stative marker</b>	k-
<b>stative predicate</b>	-k
<b>subjective case</b>	-l ~ -t
<b>that (dem.)</b>	bu
<b>thing(s)</b>	te
<b>third persn</b>	wi-
<b>third person</b>	-lul
<b>three</b>	kumbye
<b>to state</b>	ña
<b>verative</b>	myeŋ ~ myen
<b>what</b>	wa, t-
<b>where</b>	iŋaŋ ~ iñaŋ
<b>who/what</b>	kwi, '-
<b>with</b>	-m
<b>womb</b>	udip
<b>yes</b>	axa

### Comparison of Cochimí Varieties

Lexical artifacts from three varieties of Cochimí are compared, north to south. "Wanting" in the Gabb data means that a lexical artifact was not recorded. "Lacking" in Cochimí means that the particular linguistic artifact is definitely not present in the variety.

Hervas Cochimí looks lexically very much like Cochimí. It has an /e/ to /a/ vowel variation ('body', 'earth', 'sky'). Hervas Cochimí often resembles the Cochimí reported by Gabb, reflecting the extreme northern location of both in Cochimi territory. Six of the comparisons below ('all', 'father', 'good', 'one', 'son', 'three') are substantially different in all three, well within an expected range of dialect lexical variation.

Gloss	Hervas Cochimí	Gabb Cochimí	Cochimí
-ing (nominalizer)	-xwa	(wanting)	-xwa, absolutive
all	wal ~ val	(wanting)	wal ~ val
all of	lekyeŋ	(wanting)	k-mwe-[xwe]g, t-mwe-xweg le-byaŋ
and	wixi	(wanting)	wixi
arise, revive (sg.)	wadip	(wanting)	wayip
attributive suffix	-y	(wanting)	-y
be, do, become	wi	(wanting)	wi
body > self	pet	bat	'mat ~ 'mbat
causative	-xe	(wanting)	-xi
chief, headman, lord	waway	waway	waway
day	ibaŋ	'paŋ	ibaŋ, ibo, ibuŋa
demonstrative	va ~ wa	(wanting)	-wa, possessive (?)
die (sg.)	ibi	'pi	ibi
different subject marker	-m	-m, subordinate	-m, subordinate
earth	met, '-	'mat	'met
father	ak	a'ay	a'ay, 'da, akena
good	mi	ta-xi-p [Cl.-good-purp.]	ami ~ ambi
huge, great	makwi	max- (in 'far')	maxa-
locative	-aŋ ~ -ŋ	(wanting)	- aŋ
love, believe (sg.)	ñaŋa-wa	ŋ-kasa	n-gos:o
man, human, person	tama	wañmay	tama
not	-na ~ -ni	wani, 'no'	-ñi
one	tuxwen-idi	čakwi	te-xweg
our	-apa	(wanting)	-bapa ~ -papa
question marker	-e ~ -i	(wanting)	-wan
say, speak	dala-ma ~ dele-	t-mba	dala- ~ dele-
second person marker	m-	(wanting)	m-
sit	wa	wa	wa
sky > heaven	mey, '- ~ 'mbey	'mbay	'ma 'mba
son	wi-sa-y	'bityay	wi-s:a
stative predicate	-k	-k (in 'three')	-ku, adjective
subject marker	-l ~ -t, subjective case	(wanting)	-la, ergative
that (dem.)	bu		bu-tel
thing(s), what	te	(wanting)	te-xwe[g]
third person marker	wi	wi-	wi-
three	kumbye	kabyak	gombya ~ kombya
to know	awiñ-	(wanting)	kom-n-
verative marker	myeŋ ~ myen	(wanting)	maŋ, omwi
very	dawa-y	(wanting)	duwa, [extent]

## Appendix G: Gabb Cochimí Data

Here is the Cochimí vocabulary collected by Gabb in 1867 as published in Gatschet (1877). William Gabb collected these lexical artifacts from the vicinity of San Francisco de Borja Adac, which means it represents a variety of Northern Cochimí (Mixco 1977a:44).

### Sound Pattern

Gabb Cochimí consonant segments.

p	t	č	k	kw	'
b	d		g		
	s		x	xw	
	r				
m	n	ñ	ŋ		
w		y			

The syllable shapes are: V, CV, CVC. Most consonant segments may appear in all consonant positions. /r/ appears only between vowels or after another consonant. /g/ may appear initially. One token of the [m] ~ [mb] alternation ('sky').

All five vowels /i e u o a/ may appear in where there are vowels; it is reasonable to accept all five as phonemes, with some initial vowels obviously epenthetic. This is shown by the following minimal pairs.

ka,	'big'
ku,	'this'
pa',	'belly'
pi,	'die' ; 'conifer'
yač,	'yesterday'
yeč,	'run'
pak,	'leg'
pok,	'head'
wa,	'lie/sit'
we,	'salt'
wi,	'to go'

There is no indication of stress placement in the linguistic artifacts recorded for Gabb Cochimí.

### Morpheme List

A list of compound words that could not be further analyzed is at the beginning of the general Cochimí lexicon (Appendix D). The order of the following is: reconstitution, original spelling, gloss. The English gloss to Gabb Cochimí is in the Index to Appendix D (Appendix E).

The following are used in transcribing the Gabb data. <c> is [k]. Underscored <ch> -- and also <kh> -- denotes the German fricative. <tch> is [č]. <j> in Gabb has its English value. <sh> is [š]. <ng> is [ŋ]. <gu> and <hu> probably represent [w]. <qu> in Gabb is probably [kw].

-e	-e	[that which is ?]
-č <u>u</u>	-chu	max-ka-é, far (Gabb) [great-big-suf.] suffix, probably diminutive
-ra	-ra	wan-ču, young/boy (Gabb) [small/incipient-suf.] perfective marker (?) (Gabb)
-yay	-yay	[be that way; identified from Hervas Cochimí]
a, '-	ha	mouth (Gabb)
a'ay, k-	ka-ai	my father (Gabb)
ača, k-	catcha	my brother/sister (Gabb)
ačak, '-	hatchak	throat (Gabb)
ah-	ahbityai	my (Gabb)
ak, '-	hak	bones (Gabb)
amiči	amichi	star (Gabb)
andom, '-	handom	evening (Gabb)
apara, '-	hapara	tongue (Gabb)
ata	ata	?

		kon-ata, rock (Gabb) [rock-?] kon-xakwa, axe [stone-knife] (Gabb) my mother (Gabb) to cry (Gabb) what (kind) (Ger. welcher) (Gabb) small (Gabb) [?-small/incipient] [become]
<b>atay, k- awxčay axki axtawan ay</b>	katai auchtchai achqui achtawan hai-	
<b>ba bara witi bat bityay, ah-</b>	ba barao-uiti bat ahbityai	haipi = ['ay-pi], to die [become-dead] thou (Gabb) alive (Gabb) body (Gabb) my daughter/son (Gabb) [bit, body ? + -yay, be that way] ? (Gabb)
<b>ča</b>	cha	
<b>čakwi čay</b>	tchaqui chai	yupi-ča, eye [face-?] (Gabb) one (Gabb) yes (Gabb)
<b>e:čayawi e'é eŋ</b>	eetchai-ao-ui e-é eng	cold (Gabb) we (Gabb) [run, flow]
<b>guxki hasta'á husčewin hyami</b>	guchqui hasta-á hustchewin hyami	we-eng = [we'eŋ], river [water-flow/run] to come (Gabb) teeth (Gabb) to stand (Gabb) beard (Gabb) [hy-, my + a, mouth + mi, 'hair']
<b>ičh:era ičihi ip, ta-</b>	ichchera itschihi ta-ip	[cold] (Gabb) meat (Gabb) good (Gabb) [Cl.-good]
<b>iriwar, ta ix:ara ixa ixa-</b>	ta-iriwar <u>ich</u> chara <u>icha</u> <u>icha-</u>	ta'ipena = [ta-'ip-ana], angry/bad [Cl.-good-opposite] steal, to (Gabb) [Cl.-steal] black (Gabb) rattlesnake (Gabb) [bird] (Gabb)
<b>ixkwamba k-</b>	<u>ich</u> quamba k-	icha-ngani = [ixa-ŋanyač], bird [bird-?] icha-guan = [ixa-wan], 1. egg 2. feather [bird-incipient] there (Gabb) [my] (Gabb)
<b>ka</b>	ka	k-a'ay, my father (Gabb) k-ača, my brother/sister (Gabb) k-atay, my mother (Gabb) nail (Gabb)
<b>ka</b>	ka	xi-ñak ka, nail (finger) [hand-nail] (Gabb) big [identified from other Cochimí]
<b>kabyak kanak kano-pay kapay karay kata kaxpara kon-ata</b>	kabiak kanak kanopai kapat karai kata kachpara konata	max-ka-é, far (Gabb) [great-big-?] three (Gabb) snow (Gabb) to sing (Gabb) [(verb)-suf.] lake (Gabb) pipe (Gabb) arrow (Gabb) to see (Gabb) rock (Gabb)
<b>koŋa kowak koyan</b>	konga kuak koyan	kon-xakwa, axe [stone-knife] (Gabb) moon (Gabb) two (Gabb) ? (Gabb)
<b>ku kwa-, s-</b>	k'hu squa	mañak koyan, foot [hand + big] (Gabb) this one (Gabb) ? (Gabb)
<b>kwan, ma-</b>	maqwan	matě-s-kwa, spring [season-Stat (?)-?] (Gabb) matě-s-pa, autumn [season-Stat (?)-?] [little, small] (Gabb); cf. wan, small
<b>kwaŋ</b>	quang	wancu makwan, infant [child-little] (Gabb) here (Gabb)

<b>kwumba</b>	kwumba	each (Gabb)
<b>ma-</b>	ma-	stative prefix
		ma-kwan, small (Gabb) [Stat-small] ma-x:wag. red (Gabb) [Stat-red] ma-naxuy, light green (Gabb) [Stat-green]
<b>ma'ah-ra</b>	ma-ahra	fire (Gabb) [burn-Perf]
<b>mačkaray</b>	machkarai	enemy (Gabb)
<b>maha</b>	maha	people (Gabb)
		maha-ti, Indian/person [people-?] (Gabb)
<b>mamayak</b>	mamanyak	dance, to (Gabb)
<b>mañak</b>	manyak	hand (Gabb)
		mañak koyan, foot [hand + big] mañak yuki, finger [hand + extension]
<b>maŋ:e</b>	mang-nge	leaf (Gabb)
<b>maŋ:i</b>	mang-ngi	ear (Gabb)
<b>mapay</b>	mapai	shoes (Gabb)
<b>maryoŋnawa</b>	mariongnawa	strong (Gabb)
<b>mat- ~ matě-</b>	mat-, mate-	[season] (Gabb)
		mat-ichchera = [mat-ič:era], winter [season-cold] mate-pang = [mate-paŋ], summer [season-hot] mate-squa = [matě-s-kwa], spring [season-?] mate-spa = [matě-s-pa], autumn [season-?]
<b>mat, e-</b>	emat	earth (Gabb)
<b>matapxi</b>	matapchi	grass (Gabb)
<b>mati, ta-</b>	tamati	snake (Gabb) [Cl.-snake]; cf. Esselen tsetsel-ki-mati, rattlesnake [rattling-Stat-snake]
<b>max-</b>	maxh-	[great, huge' identified from other Cochimí]
		max-ka-é, far (Gabb) [great-big-?]
<b>mba, t-</b>	timba	speak (Gabb)
<b>mbay, '-</b>	embai	sky (Gabb)
<b>miŋ:a</b>	mingnga	tobacco (Gabb)
<b>miŋra</b>	mingara	island (Gabb)
<b>mistáŋ</b>	mistáng	many (Gabb)
<b>nami, o-</b>	o-nami	husband (Gabb)
<b>naxuy, ma-</b>	manachui	green (light) (Gabb)
<b>ne'é</b>	ne-é	you (pl.) (Gabb)
<b>ŋanyač</b>	nganiatch	[bird] (Gabb)
		ixa-ŋanyač, bird [bird-?] (Gabb) ixa-wan 1. egg 2. feather [bird-?] (Gabb)
<b>ŋapa</b>	ngapa	jackrabbit (Gabb)
<b>ŋeme</b>	ngeme	bow (Gabb)
<b>otip:un, '-</b>	hotippun	heart (Gabb)
<b>oyčpyuk</b>	oichpyuk	nose (Gabb)
<b>pa'</b>	pah	belly (Gabb)
<b>pa, s-</b>	spa	? (Gabb)
		matě-s-kwa, spring [season-Stat (?)-?] (Gabb) matě-s-pa, autumn [season-Stat (?)-?] [leg ?] (Gabb)
<b>pak</b>	pak	
		xiñak-pak, arm [hand-?] (Gabb)
<b>paŋ</b>	pang	[hot] (Gabb)
		mate-pang = [mate-paŋ], summer [season-hot] '-paŋ, sun/day (Gabb)
<b>pawoñak</b>	pao-uo-niak	get up (Gabb)
<b>pexkaray</b>	pechkarai	corn (Gabb)
<b>pi, '-</b>	epi	dead (Gabb)
		haiپی = ['ay-pi], to die [become-dead]
<b>pi, '-</b>	epi	conifer (Ger. <i>Fichte</i> = spruce/fir) (Gabb)
<b>pok, '-</b>	epok	head, hair (head) (Gabb)
<b>pun</b>	ppun	[heart]
		hotippun, heart (Gabb) [?-heart]
<b>punya'an</b>	punya-an	lie (untruth), to (Gabb)
<b>put, a-</b>	aput	wood (Gabb)
<b>pye</b>	kavetere-pye	fly [horse-fly] (Gabb)
<b>ramaray</b>	ramarai	yellow (Gabb)
<b>s-</b>		[stative prefix ?]
		matě-s-kwa, spring [season-Stat (?)-?] (Gabb) matě-s-pa, autumn [season-Stat (?)-?]

<b>si, t-</b>	desi	to drink (Gabb) [Cl.-drink]
<b>ta</b>	ta	ta-si, [drinking] water (*Gabb) [Cl.-drink] [classifier that indicates an indefinite quantity]
<b>tačxwa</b>	tach-chua	ta-'ip, good (Gabb) [Cl.-good]
<b>taŋčwaŋ</b>	tangchuang	ta iriwar, to steal (Gabb) [Cl.-(verb)]
<b>tata, '-</b>	ethata	ta-mati, snake [Cl.-snake]
<b>tatačwiwi</b>	tatachhuihui	fish (Gabb)
<b>tere</b>	tere	today (Gabb)
<b>tipyxe</b>	tipyche	dog (Gabb)
<b>u:siŋ</b>	using [macron on <u>]	friend (Gabb)
<b>učaŋ, o-</b>	o-utchang	in: kava-tere, horse (Gabb) [Sp. <i>caballo</i> + X]
<b>upxi, o-</b>	o-upchi	white (Gabb)
<b>uyaxi, o-</b>	o-uyachi	old (Gabb)
<b>wá</b>	guá	laugh, to (Gabb)
<b>wa, '-</b>	ewa	wind (Gabb)
<b>wa'ki</b>	wa'ki	cooking pot (Gabb)
<b>wam, wi-</b>	guiwam	eat, to (Gabb)
<b>wa, '-</b>	ewa	house (Gabb)
<b>wá'ki</b>	wá'ki	house (Gabb)
<b>wam, wi-</b>	guiwam	woman (Gabb)
<b>wan</b>	wan	to sit (Gabb) [probably: 3-sit-suf.]
		house (Gabb)
		woman (Gabb)
		to sit (Gabb) [probably: 3-sit-suf.]
		[small/incipient]; cf. kwan, small
		achtawan = [axta-wan], small [small-small]
		ixa-wan,m egg/feather [bird-small/incipient]
		wandshu / wándshu = [wán-ču], young/boy
		[small-one.who]
		wandshuaki [wan-ču [w]a[']ki], girl [child-female]
		wandshu-maquan = [wan-ču ma-kwan], infant
		[small-one.who = small + Stat-small]
<b>wanda</b>	wanda	fox (Gabb)
<b>wani</b>	wani	no (Gabb)
<b>wañumay</b>	wanyumai	man (Gabb)
<b>waŋ, o-</b>	o-uang	warm/hot (Gabb)
<b>wapa</b>	wapa	prairie (Gabb)
<b>wat</b>	huat	blood (Gabb)
<b>wawana</b>	wawana	turtle/tortoise (Gabb)
<b>waway</b>	wawai	chief (Gabb)
<b>waxe</b>	wache	tree (Gabb)
<b>we</b>	we	salt (Gabb)
<b>we</b>	we	[water]
		we-'eŋ, river [water-flow]
		<wenyetch> = [we-ñeč], rain [water-fall]
<b>wexka</b>	wexka	village/settlement (Gabb)
<b>wi, o-</b>	ou-oui	go (Gabb)
<b>wič ~ wi'ič</b>	o-ui-itč	give (Gabb)
<b>wikwa, o-</b>	o-uiqua	wife (Gabb)
<b>witi</b>	huiti	night (Gabb)
<b>wučok</b>	wustchok	morning (Gabb)
<b>wuxčak</b>	wuchtchak	tomorrow (Gabb)
<b>xakwa</b>	khaqua	knife (Gabb)
		kon-xakwa, axe [stone-?] (Gabb)
<b>xaŋmaŋxuy'a'i</b>	changmangchui-a-i	blue (light) (Gabb)
<b>xay</b>	chai	big (Gabb)
<b>ximbay</b>	gimbai	to sleep (Gabb)
<b>xiñak</b>	ginyak	hand (Gabb)
		xiñak ka, nail (finger) [hand-nail]
		xiñak yukwi, finger [hand + extension]
		xiñak-pak, arm [hand-?]
<b>xir</b>	gir	see, to (Gabb)
<b>xkay, '-</b>	echkai	1. mountain/hill (Gabb)
		2. iron (Gabb)
<b>xwaŋ, ma-</b>	machchuang	red (Gabb) [Stat-red]
<b>ya</b>	ya	I (Gabb)
<b>yač</b>	yatch	yesterday (Gabb)
<b>yamay</b>	yamai	breast (woman's) (Gabb)
<b>yami</b>	yami	bark (tree) (Gabb)
<b>yaŋkasaŋ</b>	yangkasang	to love (Gabb)
<b>yapyayŋ</b>	yapyang	that (demonstrative) (Gabb)
<b>yeč</b>	yetch	[fall, drop, percipitate]

<b>yeč-ač, a-yukwi</b>	aietchatch yuqui	we-ñeč, rain -water-fall] to run (Gabb) [extension] (Gabb)
<b>yumaŋ yupi</b>	yumang yupi	xiñak yukwi, finger [hand + extension] breast (Gabb) face (Gabb)
		<yupitcha> = [yupi-ča], eye [face-?]

### English-Gabb Cochimi Index

<b>alive</b>	bara witi
<b>arrow</b>	kata
<b>bark (tree)</b>	yami
<b>beard</b>	hyami
<b>become</b>	ay
<b>belly</b>	pa', xay
<b>big</b>	ka
<b>bird</b>	ixa-, ŋanyač
<b>black</b>	ix:ara
<b>blood</b>	wat
<b>blue</b>	xaŋmaŋxuy'a'i
<b>body</b>	bat
<b>bones</b>	ak, '-
<b>bow</b>	ŋeme
<b>breast</b>	yumaŋ
<b>breast (female)</b>	yamay
<b>brother</b>	ača, k-
<b>certain way</b>	-yay
<b>chief</b>	waway
<b>child</b>	bityay, ah-
<b>cold</b>	e:čayawi, ičh:era
<b>come</b>	guxki
<b>conifer</b>	pi, '-
<b>corn</b>	pexkaray
<b>cry (v.)</b>	awxčay
<b>dance (v.)</b>	mamayak
<b>dead</b>	pi, '-
<b>diminutive</b>	-ču
<b>dog</b>	tata, '-
<b>drink (v.)</b>	si, t-
<b>each</b>	kwumba
<b>ear</b>	maŋ:i
<b>earth</b>	mat, e-
<b>eat</b>	wá
<b>enemy</b>	mačkaray
<b>evening</b>	andom, '-
<b>extension</b>	yukwi
<b>face</b>	yupi
<b>fall</b>	yeč
<b>father</b>	a'ay, k-
<b>fire</b>	ma'ah-ra
<b>fish</b>	tačxwa
<b>fly (insect)</b>	pye
<b>fox</b>	wanda
<b>friend</b>	tatačwiwi
<b>get up</b>	pawoňak
<b>give</b>	wič ~ wi'ič
<b>go</b>	wi, o-
<b>good</b>	ip, ta-
<b>grass</b>	matapxi
<b>green</b>	naxuy, ma-
<b>hair (head)</b>	pok, '-
<b>hand</b>	maňak, xiňak
<b>head</b>	pok, '-
<b>heart</b>	otip:un, '-; pun
<b>here</b>	kwaŋ
<b>hot</b>	paŋ
<b>house</b>	wa, '-
<b>huge</b>	max-
<b>husband</b>	nami, o-
<b>I</b>	ya
<b>incipient</b>	wan
<b>indefinite quantity</b>	ta
<b>iron</b>	xkay, '-
<b>island</b>	miŋra
<b>jackrabbit</b>	ŋapa

<b>knife</b>	xakwa
<b>lake</b>	kapay
<b>laugh (v.)</b>	učaŋ, o-
<b>leaf</b>	maŋ:e
<b>leg</b>	pak
<b>lie (untruth)</b>	punya'an
<b>love (v.)</b>	yaŋkasaŋ
<b>man</b>	wañumay
<b>many</b>	mistaŋ
<b>meat</b>	ičihi
<b>moon</b>	koŋa
<b>morning</b>	wučok
<b>mother</b>	atay, k-
<b>mountain</b>	xkay, '-
<b>mouth</b>	a, '-
<b>my</b>	ah-, k-
<b>nail</b>	ka
<b>night</b>	witi
<b>no</b>	wani
<b>nose</b>	oyčpyuk
<b>old</b>	u:sij
<b>one</b>	čakwi
<b>people</b>	maha
<b>perfective</b>	-ra
<b>pipe</b>	karay
<b>pot</b>	uyaxi, o-
<b>prairie</b>	wapa
<b>rattlesnake</b>	ixa
<b>red</b>	xwaŋ, ma-
<b>rock</b>	kon-
<b>run</b>	yeč-ač, a-
<b>run/flow</b>	eŋ
<b>salt</b>	we
<b>season</b>	mat- ~ matě-
<b>see</b>	kaxpara, xir
<b>shoes</b>	mapay
<b>sing</b>	kano-pay
<b>sit</b>	wam, wi-
<b>sky</b>	mbay, '-
<b>sleep (v.)</b>	ximbay
<b>small</b>	axtawan; kwan, ma-; wan
<b>snake</b>	mati, ta-
<b>snow (n.)</b>	kanak
<b>speak</b>	mba, t-
<b>stand</b>	husčewin
<b>star</b>	amiči
<b>stative marker</b>	ma-, s-
<b>steal</b>	iriwar, ta
<b>strong</b>	maryoŋnawa
<b>teeth</b>	hasta'á
<b>that</b>	yapyaŋ
<b>there</b>	ixkwamba
<b>this</b>	ku
<b>thou</b>	ba
<b>three</b>	kabyak
<b>throat</b>	ačak, '-
<b>tobacco</b>	miŋ:a
<b>today</b>	taŋčwaŋ
<b>tomorrow</b>	wuxčak
<b>tongue</b>	apara, '-
<b>tree</b>	waxe
<b>turtle</b>	wawana
<b>two</b>	kowak
<b>village</b>	wexka
<b>warm/hot</b>	waŋ, o-
<b>water</b>	we
<b>we</b>	e'é
<b>what kind</b>	axki
<b>which, that</b>	-e
<b>white</b>	tipyxe
<b>wife</b>	wikwa, o-
<b>wind</b>	upxi, o-
<b>woman</b>	wa'ki
<b>wood</b>	put, a-
<b>yellow</b>	ramaray
<b>yes</b>	čay
<b>yesterday</b>	yač
<b>you (pl.)</b>	ne'é

**Appendix H:  
Robinia Lexicon and Comparison with Other Baja Languages**

The morpheme list excludes a number of long compounds where none of the parts can be identified. <c> is [k]. Underscored <ch> -- and also <kh> -- denotes the German fricative <ch>. <tch> is [č]. <j> in Barlett may denote Spanish <j>. <sh> is [s]. <ng> is [ŋ]. <gu> and <hu> probably represent [w]. <ll> in Barlett is [y]; Gatschet (1877:388) remarks that the Barlett vocabulary is in Spanish orthography.

An English-Robinia index follows, and then there is a contrastive list which contrasts Robinia with other Baja languages. Finally, there is an exploration of Robinia as a Hokan language.

**Morpheme List**

Entry	Source	Gloss and Comments
<b>b-</b>	b-	[verb prefix] <calbeguá> = [kal-bě-wa], fish [water-?-live]
<b>-baya</b>	-baya	[= demonstrative specifier in Cochimí] ké-l-baya, we [1-pl.-Spec]
<b>-gu-</b>	-gu-	absolute for pronouns mu, thou > mu-gu-ti, you (pl.) [2-abs.-pl.] u-gu-, third person marker [3-abs.-]
<b>-ka</b>	-ka	[verb suffix] <guaká> = [wa-ká], house [dwell-?]
<b>-l ~ -r</b>		[noun absolute suffix] ka-l, water <cañil> = [ka-ñi-l], small [perhaps: ka-, 'big' + -ñi, 'not', + -l] <co-unyil> = [ko'uñil], strong [weak-not-Abs] 'wi-l, salt wiči-l, nose [nose-Abs] anda-r, yesterday gupi-r, head [head-Abs]
<b>-lti~ -ti ~ -l</b>	-lti	plural marker u-gu-lti, they [3-abs.-pl.] mu-gu-ti, you (pl.) [2-abs.-pl.] ké-l-baya, we [1-pl.-Spec]
<b>-mo</b>		[stative suffix]; cf. mo-, stative prefix <nambolmó> = [na-mbol-mó], warm/hot [Spec-warm/hot-Stat]
<b>-ñi ~ -ni</b>	-nyi	not ami-ñi, angry/bad [good-not] <canil> = [ka-ni-l], small [perhaps: ka-, 'big' + -ni, 'not', + -l] <co-unyil> = [ko'uñil], strong [weak-not-Abs]
<b>-ta</b>	-ta	perfective ibi-ta, dead [die-Perf]
<b>-tá</b>	-tá	singular marker u-gu-ta, he/each [dem.-abs.-singular]
<b>ad-</b>	ad-	in: ad-oso, to run [?-run/flow]
<b>ah-</b>	ah-	my
<b>ámi</b>	ahámi	good <aminlli> = [ami-ñi], angry/bad [good-not]
<b>amigi</b>	amigi	to see; star
<b>andar</b>	andar	yesterday
<b>aswe- ~ aswi-</b>		[rain related, precipitation] aswe-dogió, thunder [rain.related-boom] aswe-tal, lightning [rain.related-flash] aswi-gulá, snow [rain-related-snow/ice/freeze]

<b>audem</b> <sup>26</sup>	audem	evening
<b>ay'ay</b>	hayhay	yes
<b>bá, a-</b>	abá	mountain, hill
<b>bán</b>	nabán	[sister] na-bán, my sister
<b>be- ~ bi-</b>	be-. bi	[probably a demonstrative or third person marker]
<b>bél ~ bén</b>	bél, bén	[hunger; identified after Cochimi] masi-bél, winter [season-hunger] masi-bén, spring [season-famine]
<b>bil-g, a-</b>	abilg	tongue
<b>bu</b>	bu	I
<b>bu</b>	bu	[bow] wilim-bu, bow [archery.related-bow] wilim-u, arrow [archery.related-arrow]
<b>čamis:</b>	tchamiss	deer
<b>česo, a-</b>	atcheso	bones
<b>či, a-</b>	atchi	meat
<b>čo</b>	cho	[dawn, morning] wi-čo, tomorrow [3-dawn]
<b>dá</b>	dá	[mother] na-da, my mother
<b>degmá</b>	degmá	name degma-moyhi, chief
<b>delmá</b>	delmá	ka-delma, to speak [say-speak]
<b>delmag</b>	delmag	light
<b>demansu</b>	demansu	Indian/[person]
<b>dogyó</b>	dogió	[boom, thunder] aswe-dogió, thunder [rain.related-boom] aswe-tal, lightning [rain.related-flash]
<b>dopi</b>	dopi	one
<b>doy</b>	doy	[male ?] wen-doy, by [small-male (?)]
<b>doyndo</b>	doindo	to dance
<b>dum, e-</b>	edum	to stand
<b>famani</b>	famani	mosquito
<b>foká</b>	focá	teeth
<b>fwolasa</b>	fuolasa	to sing
<b>gan:á</b>	-ganná	hand na-gan:á, my hand
<b>go'umó</b>	go-umó	feather
<b>gomó</b>	gomó	leaf
<b>gosó, no-</b>	nogozó	to love [indefinite.object-love]
<b>gowo</b>	goguo	two
<b>gulá</b>	gulá	[snow, ice, freeze] aswi-gulá, snow [rain-related-snow/ice/freeze]
<b>guliwa</b>	guligua	to go
<b>gunaliyi</b>	gunalilli	alive
<b>gupi-r</b>	gupir	head [head-absolute]
<b>ibi</b> <sup>27</sup>	ibi	today
<b>ibi</b>		[die] ibi-tá, dead [die-Perf]
<b>ibo ~ mbo-</b>	ibo	sun ibó, day

<sup>26</sup>This is probably a mistranscription; the Robinia form is most likely /andem/, comparable to Cochimi /'-andem/, 'evening'.

<sup>27</sup>This is a mistranscription for /ibo/, 'day/sun'; /ibi/ is 'die' or 'dead'.

		<nambolmó> = [na-mbol-mó], warm/hot [Spec-warm/hot-Stat]
<b>isi</b>	isi	[to drink] kal-isi, to drink [water-drink]
<b>ka</b>	ca	[big] <caoko-o> = [ka-oko'o], big [big-?] <canil> = [ka-ni-l], small [perhaps: ka-, 'big' + -ni, 'not', + -l]
<b>ka</b>	ka	[to speak] ka-delma, to speak [say-speak]
<b>ká</b>	cá	be lyng kal-ká, lake [water-lying]
<b>ka'apal</b>	ca-apal	to see
<b>kabto</b>	kabto	rattlesnake
<b>kal</b>	cal	water kal-bewá, fish [water-?] kal-isi, to drink [water-drink] kal-ká, lake [water-lying] kal-osó, river [water-flow/run]
<b>kal, a-</b>	akal	black
<b>kalá</b>	calá	white
<b>kalembág</b>	calembág	my father
<b>kalidá</b>	calidá	village/settlement
<b>kanayi</b>	canalli	night
<b>kanil</b>	canil	small [perhaps: ka-, 'big' + -ni, 'not', + -l]
<b>kanindi</b>	kanindi	near
<b>kas-</b>	kas-	[rock ?, obsidian?, to cut ?] kas-na, knife kas-oka, axe
<b>katí</b>	catí	iron
<b>kaw, mo-</b>	mocao	red
<b>kawakú</b>	caguacú	to come
<b>kayiki</b>	calliqui	dove
<b>ké-l-baya</b>	kéllballa	we [1-pl.-Spec]
<b>kiya</b>	quilla	to sit
<b>ko'o</b>		in: <caoko-o> = [ka-oko'o], big [big-?]
<b>ko'u</b>	co-u	[weak] <co-unyil> = [ko'uñil], strong [weak-not-Abs]
<b>kodú</b>	codú	fly (insect)
<b>koldá</b>	coldá	cold
<b>kombyó</b>	combió	three
<b>kug, a-</b>	akug	earth
<b>kumiñi</b>	cumignyi	rock
<b>kuñil</b>	cunyil	horse
<b>kusó, a-</b>	acusó	old
<b>ladesnu</b>	ladesnu (?)	shoes
<b>lagub</b>	lagub	hair (head)
<b>ligi</b>		[get up, arise] wi-ligi, get up [3-get.up]
<b>lim</b>		[shoot] wi-lim-, archery [3-shoot]
<b>madá, a-</b>	amadá	autumn
<b>magakubuwá</b>	magacubuguá	four
<b>masá</b>	masá	dog
<b>masi- ~ mes-</b>	masi- ~ mes-	[season, time period] masi-bel, winter [season-hunger]

		masi-ben, spring (season) [season-famine] mes:-bo, summer [season-hot]
<b>máy</b>	mâi	sky
<b>mbá, bi-</b>	bimbá	to sleep
<b>mbál, u-</b>	umbál	ice
<b>meltá</b>	meltá	hail
<b>mo-</b>	mo-	stative prefix; cf. -mo, stative suffix  mo-kaw, red mo-so'o, green
<b>moyhi</b>	degmamoyhi	in: degma-moyhi, chief [name-X]
<b>mu(gu)</b>	mu(gu)	thou  mu-gu-ti, you (pl.) [thou-Abs-pl.]
<b>muwakowi</b>	muguacogui	five
<b>muwil</b>	muguil	ear
<b>na</b>	casna	[knife]  kas-na, knife kas-oka, axe
<b>na-</b>	na-	my; [restricted to kin terms?]  na-bán, my sister na-dá, my mother na-gan:á, [my] hand na-nil, my friend na-zá, my brother
<b>na-</b>		[demonstrative or specifier]  <nambolmó> = [na-mbol-mó], warm/hot [Spec-warm/hot-Stat]
<b>nea, i-</b>	inea	blood [inherent-blood]
<b>nhambá</b>	nhambá	egg
<b>nil</b>	nanil	[friend]; Diegueno and Paipai /net/  na-nil, my friend
<b>nipil</b>	nipil	forehead
<b>nisá, ah-</b>	ahnisá	my daughter, my son
<b>no-</b>	no-	[indefinite object marker]  no-goso-m, to love [indefinite.object-love-suf.]
<b>nwa, i-</b>	ingua	grass
<b>oká</b>	casoká	[chop]  kas-na, knife kas-oká, axe
<b>osó</b>	calosó	to run, to flow  ad-oso, to run [?-run/flow] kal-osó, river [water-flow]
<b>ovoboki</b>	ovoboqui	throat
<b>oxol</b>	ojol	bark (tree)
<b>p:i, a-</b>	appi	autumn
<b>payvilu</b>	paivilu (?)	to die
<b>pú'u, suais</b>	suaispúu	heart
<b>sá</b>	nazá	[brother]  na-zá, my brother
<b>sin</b>	huisín	be a woman [3-woman]
<b>so'o, mo-</b>	moso-o	green (light)
<b>tá</b>	tá	[hair]  xa:-tá, beard [mouth-hair]
<b>tal</b>	tal	[flash]  aswe-tal, lightning [rain.related-flash]
<b>ú</b>	ú	[arrow]  wilim-bu, bow [archery.related-bow] wilim-ú, arrow [archery.related-arrow]
<b>u-gu-</b>	u-gu-	demonstrative stem  u-gu-tá, he/each [dem.-suf.] u-gu-lti, they [dem.-pl.]

<b>usi</b>	usi	fire
<b>val</b>	val	body
<b>wá, b-</b>	calbeguá	[live, dwell] <calbeguá> = [kal-bě-wa], fish [water-?-live] <guaká> = [wa-ká], house [dwel-?]
<b>wabá</b>	guabá	to eat
<b>wami</b>	guami	husband
<b>wen-doy</b>	huen-	[small; cognate with a Cochimi morpheme] <huendoy> = [wen-doy], boy [small-male]
<b>wenebi</b>	guenebi	arm
<b>wi</b>	hui	tobacco
<b>wi-</b>	wi-	[third person marker OR indefinite possessor]  wi-čo, tomorrow [3-dawn] wi-ligi, get up [3-get.up] wi-lim-, archery [3-shoot] wi-sin, woman [3-be.a.woman] wi-xil, pipe [3-smoke]
<b>wiči-l</b>	huitchil	nose [nose-Abs]
<b>wi-l, '-</b>	aguil	salt [salt-Abs]
<b>wilim-</b>	wilim-	[archery related; 3-shoot]  wilim-bu, bow [archery.related-bow] wilim-ú, arrow [archery.related-arrow]
<b>xa:</b>	jaa	mouth  <xae-tá>, beard [mouth-hair]
<b>xantu</b>	jantu	wind (n.)
<b>xelelepí</b>	gelelepí	thigh
<b>xeneká</b>	geneká	nail (finger)
<b>xil</b>	huigil	[to smoke tobacco]  <huigil> = [wi-xil], pipe [3-smoke]
<b>yamu</b>	yamu	this one
<b>yapi</b>	yapi	face
<b>yebaká</b>	yebaká	eye
<b>yembi</b>	yembi	yellow

### English-Robinia Index

<b>absolute (nouns)</b>	-l ~ -r
<b>absolute (pronouns)</b>	-gu-
<b>alive</b>	gunaliyi
<b>archery-related</b>	wilim-
<b>arm</b>	wenebi
<b>arrow</b>	ú
<b>autumn</b>	madá, a-; p:i, a-
<b>bark (tree)</b>	oxol
<b>big</b>	ka
<b>black</b>	kal, a-
<b>blood</b>	nea, i-
<b>body</b>	val
<b>bones</b>	česo, a-
<b>bow</b>	bu
<b>brother</b>	sá
<b>child</b>	nisá, ah-
<b>cold</b>	koldá
<b>come</b>	kawakú
<b>cut/chop</b>	oká
<b>dance (v.)</b>	doyndo
<b>deer</b>	čamis:
<b>demonstrative</b>	be- ~ bi-; na-; u-gu-
<b>die</b>	ibi, payvilu
<b>dog</b>	masá
<b>dove</b>	kayiki
<b>drink (v.)</b>	isi
<b>ear</b>	muwil

<b>earth</b>	kug, a-
<b>eat</b>	wabá
<b>egg</b>	nhambá
<b>eveninig</b>	andem
<b>eye</b>	yebaká
<b>face</b>	yapi
<b>father</b>	kalembág
<b>feather</b>	go'umó
<b>fire</b>	usi
<b>five</b>	muwakowi
<b>flash</b>	tal
<b>fly (insect)</b>	kodú
<b>forehead</b>	nipil
<b>four</b>	magakubuwa
<b>friend</b>	nil
<b>get up</b>	ligi
<b>go</b>	guliwa
<b>good</b>	ámi
<b>grass</b>	nwa, i-
<b>green</b>	so'o, mo-
<b>hail</b>	meltá
<b>hair</b>	tá
<b>hair (head)</b>	lagub
<b>hand</b>	gan:á
<b>head</b>	gupi-r
<b>heart</b>	pú'u, suais
<b>horse</b>	kuñil
<b>hunger</b>	bél ~ bén
<b>husband</b>	wami
<b>I</b>	bu
<b>ice</b>	mbál, u-
<b>indefinite object</b>	no-
<b>iron</b>	katí
<b>knife</b>	na
<b>leaf</b>	gomó
<b>light</b>	delmag
<b>live/dwell</b>	wá, b-
<b>love (v.)</b>	gosó, no-
<b>lying, be</b>	ká
<b>male</b>	doy
<b>meat</b>	či, a-
<b>morning</b>	čo
<b>mosquito</b>	famani
<b>mother</b>	dá
<b>mountain</b>	bá, a-
<b>mouth</b>	xa:
<b>my</b>	ah-, na-
<b>nail</b>	xeneká
<b>name</b>	degmá
<b>near</b>	kanindi
<b>night</b>	kanayi
<b>nose</b>	wiči-l
<b>not</b>	-ñi ~ -ni
<b>old</b>	kusó, a-
<b>one</b>	dopi
<b>perfective</b>	-ta
<b>person</b>	demansu
<b>plural</b>	-lti~ -ti ~ -l
<b>rain-related</b>	aswe- ~ aswi-
<b>rattlesnake</b>	kabto
<b>red</b>	kaw, mo-

rock	kas-, kumiñi
run/flow	osó
salt	wi-l, '-
season	masi- ~ mes-
see	amigi, ka'apal
shoes	ladesnu
shoot	lim
sing	fwolasa
singular	-tá
sister	bán
sit	kiya
sky	máy
sleep (v.)	mbá, bi-
small	kanil, wen-doy
smoke tobacco	xil
snow/ice	gulá
speak	delmá, ka
specifier (demonstratives)	-baya
stand	dum, e-
star	amigi
stative	mo-, -mo
sun	ibo ~ mbo-
teeth	foká
thigh	xelelepí
third person	wi-
this	yamu
thou	mu(gu)
three	kombyó
throat	ovoboki
thunder	dogyó
tobacco	wi
today	ibi
tongue	bil-g, a-
two	gowo
verb prefix	b-
verb suffix	-ka
village	kalidá
water	kal
we	ké-l-baya
weak	ko'u
white	kalá
wind	xantu
woman	sin
yellow	yembi
yes	ay'ay
yesterday	andar

### Contrastive List

Where there is a blank, this indicates that no comparable data is attested in the resources consulted.

Gloss	Kiliwa	Cochimí	Robinia	Seri	Waikura
alive	ipa(a)-y-(u)	(a)gina	gunaliyi	kkam	pe
arm	t-hak-tay		wenebi	inol	
arrow	'-pa'	k(a)ta	u	'aXa:ša	
autumn 1	kw-(')-par-	'mat- <b>api</b>	<b>ap:i</b>		
autumn 2		a- <b>mada</b> -api-, 'winter'	a- <b>mada</b> , 'autumn'		
axe	'-ipa'-x-'-qhaw-u	konakakwa	oka	e'e ipákotim	
bad	'lu:	<b>ami-ñi</b>	<b>ami-ñi</b>	kmi:pla	ataka-ra [good-not]; enbutuditú
bark (tree)	yal		oxol	ina:il	
big	-tay	<b>ka-</b> , te-	<b>ka</b> , kaoko'o	'eme, ka:o	apane

black	-ñir	ič:ara (Gabb)	akal	ko:pol	
blood	-(-)-khwat	xwat ~ xwet	inea	'a:it	
body	ma:t	n-mat	val	isox	
bones	haq	'ak (Gabb)	ačeso (?)	itak	
bow	h-tim	ņeme (Gabb)	bu	'a:kni	
boy	-nay	wan-šu, 'child/boy'	wen-doy	si:p	
brother	-tsa, -xma:n		sá	ama:k, a:kaš, anya:k, a Yi 'a aXi:'a, aškš, oyaks	
cold	'-hin-m ha:y	i-čera	koldá	ka:pl	
come, to	yi:	egeg ~ igeg	kawaku	moka	ku
dance, to		mamañak (Gabb)	doyndó	(i)ko:it	
daughter/son	p-tsiy, s'a:w-kw--ku:	p-čay	-nisa	e:k, i:ket	
dead	pi-y	ipi ~ epi	ibi	'ant kom kwknex	
deer	ñ-mi'-kw-x-'al	-ča	čamis:	'ap	
demonstrative		ya, butel, ku	u-gu-		kava-, yatu-
die, to	pi	wigya ~ wagya 'die (pl.)'	paivilu	ko:Xi, -kmi:ket	biki (pl.); pibi (sg.); ibi-, suffer
dog	'-that	'-t-(k)at, 'dog'; '-t-(x)at-, 'coyote'	masa	'aXš	
dove			kayiki	mosna:kt, 'aya: ki:p, no:si	
drink, to	či:	-si-	isi	ko:si, kisi, kim	
ear	smaql	mag (?)	muwil	isla	
earth	-mat	'mat ~ 'met	akug	'ant	atamba
eat, to	ma:, ča:w	ma ~ wa	waba	ko:'it ki'it	
egg		ki (Gabb)	nhamba	i:pX	
eye	yuw	yu-	yebaka	ito, i'i:xim	
face	yuw-ha'	yupiča (Gabb)	yapi	ye:n	
father	-s'u:	ka'ay	kalembag	ka:si	are (man sp.)
feather	waRu ~ walu	ič[a]-wan (?)	go'umo	ina	
fire	'-a:w		usi	'amak	
forehead	-mi'		nipil	i:pni	
friend	nel (Paipai)	tačwiwi (Gabb)	nil	'ami:go (Sp.)	
get up	p-tip, p-tsu':ik-y	u, wayip	-ligi	kotx	
go, to	ha: ~ pa:	l-wa ~ l-wi	guliwa	kataX, kontika, i:ki ko:it	
good	m-ra:y	ami, ta'ip	ami	ki:pe	atukya, ataka
grass	t-hip	matapči (Gabb)	inwa	kone:	
green	m-m-(u)'-wil	manawi (Gabb)	-so'o	ko:il	
hail	x-'wati		melta	xat	
hair	ha'n-mi, 'beard' [mouth-hair]	xa:-mi, 'beard' (Gabb)	ta	ina	
hair (head)	-mi'	epok (Gabb)	lagub	ilít	
hand	saR	xiñak (Gabb)	gan:a	inol	
head		'-i	gupir	ilít	
heart	kw-tip	-pun	suaispu'u	imoš	
hot/warm	-paR, m-ra:w	man-ku, ibag ~ wag, man-	nambolmo	kmatx, kkošim	
house	'-wa'	'wa	waka	'a:ko	a, house/dwell
husband	(expression)	wami	wami	a:l	
I	'-, ña'	'-, daxa, ya	bu	'e, 'ate:	be-
ice	xñaw-ha'		-mbal	'aX iXapš	
iron	'qha:y, 'cliff'	eškay (Gabb)	kati	e:nim	
knife	nay-ts-ru:w	khakwa (Gabb)	na	e:nim	
leaf	smaq		gomo	istx	
light	yaw-y		delmag	'amák kanox	
love, to	(expression)	n-go:soŋ (sg.); n-	no-goso	imoš kwka:x	

		godoño (pl.)			
lying, be	<b>yan-yan</b> yu:-t	<b>ya</b> (?)	ka	ko:m	
man	ipa:	wa-	delma	ktam	ete
meat		- <b>či</b>	<b>ači</b>	ipXasi	
mosquito	tswa:s, tsaw	kavaterē-pye	famani	košamlkama:kwl	
mother	h-ñu:	tay (Gabb)	da	ata	ča, kwe
mountain	'-wi:y	ečkai (Gabb)	aba	'ast	
mouth	<b>ha'</b>	ya-	<b>xa:</b>	k-ite:no, 'have a mouth'	
my	<b>ñ(a)</b> -'-ts'i:		<b>na-</b>	'i-, 'ati-	be- ~ m-
name	'-i-mil	<b>maŋ</b> , mo ~ mu ~ bo, mba ~ mbo	degma	ita:si	
near	p-ya:-m	mačikaŋ-iŋa	kanindi	'antaXl, i:kX	
night	ti:y, 'night/dark'	andemaxwoŋ, witi (Gabb)	kanayi	i'amok	
nose	<b>phi'</b>	yupi, yabi	wici-l	i:f	
old	-tay	usiŋ (Gabb)	akuso	ke:xim	
one	m-sir	texwe(g) ~ texwa	dopi	tašo	
person	ipa:		demansu	ši:X ki:saX	ti
pipe	(expression)	karai (Gabb)	wixil	Xapix am iko:pis	
plural marker		<b>-l</b>	<b>-liti ~ -ti ~ -l</b>		
pronoun absolutive		<b>-ku</b> , 'relativizer'	<b>-gu-</b>		
rain	-uha:	galama, weñče	aswe-	ipka	
rain related		<b>gala</b> -ma, rain	<b>gula</b>		
rattlesnake	'-wi-		kabto	kokasni; kta:mxix, 'sidewinder'	
red	-kwal	mač:waŋ	-kaw	kaktox, če:l, kki'xw	
rock	-uha'	kota, konata (Gabb)	kumiñi	'ast	
run, to	-hin	ayečač	oso, 'run /flow'	kpanšX	
salt	kw'iy	<b>we</b> (Gabb)	'-wi-l	'antip	
see	sa-w	git, gade(y)	ka'apal	ki'o, koko'o	
shoes			ladesnu		
sing, to	-ha'	kanopa(y)	fwolasa	ko:s	
sister	-ku: (older), <b>-pan</b> (younger)		<b>ban</b>	aša:k, atkš, apa:k, ako:me	
sit, to	<b>wa:</b>	<b>wa ~ wo</b>	kiya	ki:x	
sleep, to	<b>sma:</b>	<b>ma</b>	<b>bimba</b>	ki:m	
small	-phu:p	-kan, ačawan (Gabb)	ka-ñi-l	ko:l, e:ke, kisil, sa:k	
snow	k'mthiy	kanak (Gabb)	aswi		
speak 1	-ha', -tay	<b>dala</b> -ma	ka, <b>del</b> -ma	ka:itom, kšaXw	
spring	-mat-tspam [year-X]	<b>-paŋ</b> , 'summer'	<b>ben</b>	(expression)	
stand, to	'iw ~ yuw		edum	ka:p, kfit	
star	msi'	<b>amiči</b> (Gabb)	<b>amigi</b>	ašox, ' <b>amak</b>	
strong	-wil	maryoŋnawa	ko'u-ñi-l	a:pa, ka:iXax, kto:ši	
summer		'mat-paŋ	mes:-bo	ikosim	
sun/day	'-ña:y	<b>iboŋ ~ iban</b>	<b>ibo</b>	ša:'	
teeth	-ya:w	<b>foya</b> , hasta'a (Gabb)	<b>foka</b>	hata:st, 'tooth'	
this	mi	butel, k'hu	yamu	'ip-	-pe, proximal
three	xmi'q	kamyō ~ <b>komyo</b> , kabyak (Gabb)	<b>kombyo</b>	kapXa, yaitali	
thunder	(expressions)		dogyo	kanx (v.), i:nx (n.)	
tobacco	'-hip	miŋ:a (Gabb)	wi	islitX	
today	mi-'-na:y	taŋčwaŋ (Gabb)	ibi	sa:' 'ipkop	

	[this-day]				
tomorrow			wi-čo	'ant kfi:	
tongue	<b>-pal</b>	<b>-bel</b>	<b>-bil-</b>	<b>ipl</b>	
two	x-waq	<b>gowo,</b> <b>gowak</b> >kwak (Gabb)	<b>gowo</b>	ko:kx, kaxkom	
water	<b>'-xa'</b>	<b>kaxa-l,</b> <b>xa'</b> , (a)tasí	<b>ka-l</b>	<b>'aX</b>	
we	pa-, mi-'-ña'-p	e'e (Gabb), penayu	ke-l-baya	'a-, 'e	kate, kepe
white	-sap, -a:w	tipče (Gabb)	kala	ko:Xp	
wind	<b>hatu-k</b>	o'upči (Gabb)	<b>xantu</b>	'ai	
winter	-situ	'mat-spa, amada-ap:i-gala	bel	i'a:pl	
woman	-ku;; cf. Yuman <b>siñ-</b>	wasin ~ waxin, wa-ki	wi-sin	kma:m	anay
year	<b>'-mat</b>	<b>'met</b> ~ <b>'mat</b>	<b>masi-</b> ~ <b>mes-</b> , 'season'	'ant	ambia
yellow	-si:y	rimarai (Gabb)	yembi	kmasol	
yes	<b>'-ha</b>	<b>ehay</b> (Gabb)	<b>ay'ay</b>	yo'a:	
yesterday	xtsU:m, x'ču:m	anet, yač	anda-r	moXina	
you (sg.)	ma'	b(u)-, buxu	mu(gu)	m-, me	e- ~ ey-

### **Robinia as Hokan**

The lexical items in this list are all ideally morphemes, and are candidates for comparison with the Proto-Hokan core (Hokan Common Core, or HCC). HCC is a group of slightly more than 300 cognate sets the reconstruct for Proto-Hokan that could be found in a local Hokan language, since they are pan-Hokan in distribution. The Hokan material and reconstructions are from Kaufman (2015), which use the same Americanist transcription as used in this volume. Proto-Hokan reconstructions are preceded by #. The range of distribution is included in parentheses after the gloss. Cognate sets included have a "N/S" distribution; that is, they are found in both northern and southern Hokan languages. Sets that Kaufman considers weak have not been included, nor have sound-imitative terms for birds. Editorial comments by me are inserted in square brackets and labeled with "DLS."

A set may be made up of a single northern and a single southern reflection. For example, Salinan /t-ap/, 'deer' is a cognate of Seri /a:p/, 'deer'. As such, one must assume that this lexical artifact existed in Proto-Hokan in order for it to appear in two geographically separated languages. (This set also shows that the Salinan determiner is not a part of the root, and this has implications for cognate sets involving Salinan.)

The idea HCC is based on regular correspondences of Hokan reflections in a local (sampled) language. A score is calculated by dividing the number of lexical artifacts reflected by the total number possible. One hundred percent would be 1.0, indicating that all possible core cognates appear in the local language.

In applying HCC, the list is adjusted for terms not attested in the local (sampled) language. If an item on the list is not attested it is dropped are dropped from the sample used in calculating the HCC score. If a referent is attested in the local (sampled) language, but the local term is not a reflection, then the local column is left blank (and it is not counted either).

The following conventions are used by Kaufman, and are necessary in order to understand Proto-Hokan citations.

- # working reconstruction
- \* mature reconstruction
- () enclose a segment that may or may not appear in a given language
- separates affixes from a root
- + indicates a clitic
- a/b indicates either segment "a" or "b" is present in a single position

[l ~ n]	indicates [l] varying with [n]; follows reconstruction
<h>	aspiration (after a consonant in a reconstruction)
TKH	T. Kaufman, Hokan (Kaufman 2015)

Here are some sample Hokan reconstructions.

#a/i:-wa 'house' (TKH 96; N/S)	=	a-wa, i-wa, wa
#(a/i-)wa 'to sit' (TKH96; N/S)	=	akya, kya
#(a)kya 'to sit' (TKH 96; N)	=	a'-kya, a'-kyo, ah-kya, ah-kyo, a:-kya, a:-kyo
#aH-kya [a ~ o] 'house' (TKH 96; N/S)	=	
a-wá, i:-wá		

The last Kaufman reconstruction contains H, which may mean /h/, glottal stop, or vowel length. Other upper case symbols are list on Kaufman (2015:67).

Kaufman uses a <7> for glottal stop, and <x.> for back [x]. Kaufman discerns the following geographical distributions:

N/S	appearing in northern and southern varieities;
NC	in northern California languages;
N	in northern California languages plus Pomoan and/or Washo;
Coast	in Esselen and Salinan;
SW	in Yuman-Cochimí and/or Seri;
TM	in Texas and northern Mexico;
S	in southern languages.

NC languages include: Chimariko, Yanan, Karok, Shastan, and Achuan (Achomawi, Atsugewi). N languages are all of the NC plus Pomoan and/or Washo. Southern languages are SW and TM, as well as those in Mesoamerica (Chontal, Tol).

Here are regular corespondences for Proto-Hokan consonants to Robinia.

Hokan	Change to Robnia	Cognates
#p, #ph	> p/_i > mb/_a, o ~ u	bow, diee, forehead, one, tongue hot, ice, sun/day
#px	> x	wind
#t	> d ~ t	mother, person, singular
#ts	> s	flow
#č	> s	brother, dog, green, old, snow
#q [= k], #k', #ky, #kw	> k/_a > g/_i, u ~ o	big, cut/chop, nail, near, specifier get up, head hair, love
#θ	> č/_i > f/_a	bones, nose tooth
#š	> č	mountain
#s	> s/_i > f/_a, u ~ o	drink mosquito, to sing, tomorrow
#x.	> g	head

#xy, #xw	> k	black, cold, earth, iron, red, rock, three, water
#m	> m/ i, a, u > mb/ a, e Conditioning unknown.	dog, mosquito, person, sky, see, stative, you eat, sleep, hunger
#n, #ny	> n	hunger, my
#l, #ly	> l	absolute, forehead, tongue
#l ~ #n	(sound symbolism)	hunger, mosquito
#w	> w/ __initial > b/ __medial, final	go, house, husband, sit/live/dwell head hair, mountain
#y	> y/ __initial > zero/ __final	yellow one

Here are the vowel correspondences.

#a	> a > e	absolute, brother, cut/chop, mosquito, near person
#aw	> o	bark
#ay	> a	dog
#i	> i > e	forehead, get up, inherent hunger
#e	> e > i	snow one
#u	> u > o	demonstrative, head hair, old love
#o	> o	two

A good test of these correspondences is how well they predict undetected sets. The following additional cognates were found based on the correspondences given.

Gloss	Robinia	Possible Form	Hokan
bow	<b>bu</b>	wu, pu	#Pu'o, to shoot/hunt (TKH 103; N) = #pu'o OR #fu'o; #x.o-p'u, bow (TKH 103: N/S)
black	<b>a-kal</b>	x.al, xyal, xwal	#(x.)al-Vm, night/pitch black (TKH 122; N)
cold	<b>ko-l-da</b>	xyo, xwo	#xyats [a ~ o], cold (TKH 106; N/S)
earth	<b>a-kug</b>	xyu, xwu	#ši-qxo, earth (TKH 104; NC)
green	<b>so'o</b>	Co'o, so'o	#a-čhow, sugar pine (TKH 115; NC); #č'u, pine (TKH 115; N)
iron	<b>ka-tí</b>	xyati, xwati	#(i-/a-)xya', stone (TKH 100; N/S) + -ti, stative suffix
tomorrow	<b>čo</b>	θo, so	#ša, clear/star (TKH 105; N/S); [a ~ o; Shaul]

Another test of the Hokan:Robinia sound correspondences is predicting the Robinia shapes of Hokan lexical artifacts that contain #θ, a fairly rare sound in American languages, but securely reconstructed for Proto-Hokan.

Proto-Hokan	Robinia	Comments
θiw, eye/face	či-, nose	
θaw, tooth	<b>so-ka</b> , tooth	#θow > čow > so- > fo- + #qa, by biting (TKH 82; N)

Here are the Hokan:Robinia cognate sets. The sets that have been identified in testing the sound correspondences are in *italic*. The Hokan component of Robinia lexical artifacts is **bolded**.

Gloss	Robinia	Comments	Hokan, Yuman, Cochimí
absolute	<b>a-</b>		#a-, absolute (N/S)
absolute	<b>-l</b>		#ly, derivational noun suffix (TKH 76; N/S)
bark (tree)	<b>oxol</b>		#a-H-waly, skin/bark > a-H-oly; > a-x-oly (-H- to x); > o-xoly vowel harmony); > o-xol (ly to l)
big	<b>ka</b>	ka-ñi-l, small [big-not-?] ka-oko'o, big [big-?]	#qam, big/tall/far (N/S)
<i>black</i>	<b>kal, a-</b>		#(x.)al-Vm, night/pitch black (TKH 122; N)
bones	<b>česo, a-</b>		#i-H-θa
<i>bow</i>	<b>bu</b>		#Pu'o, to shoot/hunt (TKH 103; N), = #pu'o OR #fu'o; #x.o-p'u, bow (TKH 103; N/S)
brother	<b>sa</b>		#ča, brother (asp ?) (TKH 107; NC)
causative	<b>-da</b>		#ta
cold	<b>ko-l-da</b>	[cold-abs.- caus.]	#xyats [a ~ o], cold (TKH 106; N/S)
cut,/chop	<b>ka</b>	cut/chop	#qha(w), break/cut (TKH; N/S)
deer	<b>čamis:</b>		Esselen /ami-/
demonstrative	<b>ya-mu</b>	[dem.-Spec]	Cochimi ya ~ yo, demonstrative
demonstrative	<b>u-</b>		#(h)o OR #(h)u
demonstrative	<b>be- ~ bi-</b>		#wa ~ #wi, this 2
die	<b>ibi</b>		#Po, die/dead (THK; NC); = #po OR #fo #puy ~ #piy, die/dead (TLH 98; S)
die	<b>pay-vilu</b>		cf. #puy ~ #piy, die/dead (TLH 98; S)
dog	<b>masa</b>		cf. #mayC'V, coyote (TKH 112; N)
drink, to	<b>isi</b>		#i-/a-si
earth	<b>a-kug</b>		#si-qxo, earth (TKH 104; NC)
eat	<b>waba</b>		#ama
fire	<b>usi</b>		Cochimi usi
forehead	<b>ni-pil</b>		#pil, forehead (TKH 87; N/S)
get up	<b>-ligi</b>		cf. #Ki, arise = #ki R #kyi (TKH 107; NC)  cf. Cochimi wadeg, arise
go	<b>guli-wa</b>		#(a)wa, come/go/walk (TKH 95; N/S)
good	<b>a-hámi</b>		Proto-Yuman * -han/-xan;  cf. Co. ami ~ ambi, good
<i>green</i>	<b>mo-so'o</b>		#a-čhow, sugar pine (TKH 115, NC), #c'u, pine (TKH 115; N)
hail	<b>mel-ta</b>	[fall-Perf]	#man, to fall (TKH 09; N); recall #l ~ #n variation
hair	<b>lagub</b>		#quwow, hair (TKH 88; N/S)
hand	<b>gan:a</b>		Cochimi -ñak, hand
head	<b>gupir</b>		#x.u, head/head hair\

			+ #pil, forehead (TKH 87; N/S)
heart	<b>pu'u</b> , suais-		Cochimi pun, heart
hot/warm	<b>mbol</b>		#pily [i ~ a], hot/warm (TKH 104; N/S); #paly > poly > mbol
house	<b>waká</b>	house	#i-/a-wa
hunger	<b>ben ~ bel</b>		#mi'nya (a ~ i), tasty/sweet (TKH 133; N/S); recall #l ~ n ~ r variation;  Cochimi bel ~ ben, hunger/famine
husband	<b>wa-mi</b>		#awa, husband (TKH 10; NC); cf. Proto-Yuman *mi:(y), man/male
ice	<b>umba-l</b>		cf. #phaç, snow/rain (TKH 106; N/S)
indefinite object	<b>no-</b>		cf. #na, absolutive
inherent	<b>i-</b>		#i-
iron	<b>ka-tí</b>		#{i-/a-)xyá', stone (TKH 100; N/S) + -ti, stative suffix
love, to	<b>goso</b> , no-		#K'un, to want = k'un or ky'un, wth #l ~ n ~ r variation
meat	<b>a-či</b>		#{h)i:-ši, meat (TKH 86; N/S)
mosquito	<b>famani</b>		#sa'mUly, fly/mosquito (TKH 116; N/S)
mother	<b>dá</b>		ta, mother/woman/female (TKH 108; N/S)
mountain/hill	<b>aba</b>		#{h)awa, mountain
mouth	<b>xa:</b>		cf. #kya, talk cf. #kwa, talk/say (a ~ o)
my	<b>na-</b>		#nya ~ #nyi, first pl.
my	<b>ah-</b>		Proto-Yuman *'-, first person
nail (finger)	<b>xene-ka</b>		#x.eC', claw (TKH 101; N) + kw'a, to scratch (TKH 101; S);  Cochimi ka, nail
name	<b>degma</b>		cf. Proto-Yuman *mar, name
near	<b>kanindi</b>		#k'a (TKH 79; N/S)
negative	<b>-ñi ~ -ni</b>		Cochimi -ñi, not
nose	<b>wi-čil</b>		#θiw, eye/face
old	<b>a-ku-so</b>		#{a)KU, old (TKH 110; N/S); = #qu/o OR #kyu/o + #{i)čhu (l ~ n), long/far/deep (TKH 109; NC); = #ču OR #čo
one	<b>dopi</b>		#pey, one (TKH 81; N/S)
perfective	<b>-ta</b>		#aT, completive 9TKH 81; N/S/)
person	<b>demansu</b>		#tama, man/people (TKH 85; N/S)
plural	<b>-lti~ -ti ~ -l</b>		#l ~ #t (Langdon)
rain related	<b>gula</b>		Cochimi <b>gala</b> -ma, to rain
rain-related	<b>aswe- aswi-</b> ~		#a-sCe, cold (TKH 106; no distribution)
red	<b>m-kaw</b>		#{a-)xwa(t.), blood (TKH 121)
rock 1	<b>kumiñi</b>		Cochimi kon-
rock 2	<b>kas-</b>		#i-/a-xya'

run/flow	<b>oso</b>		#tsuw, flow/creek (TKH 126; NC and Esselen)
salt	<b>a-wi</b>		Cochimi we, salt
season	<b>masi- mes-</b>	~	Cochimi mat- ~ mate- ~ 'mada, season
see 1	<b>ka'a-pa-l</b>		cf. #aP, look for (TKH 89; NC) with metathesis
see 2	<b>a-migi</b>		#miC'i, to blink (TKH 89; NC)
sing	<b>fwo-lasa</b>		#-sow, to sing (TKH 124; S); shows metathesis
singular	<b>-ta</b>		#ta, absolute (Karak, Esselen)
sit/live/dwell	<b>wa</b>		#wa, to sit (i ~ a) (Shaul)
sky	may		#e-ma(y), sky/above (TKH 106; N/S)
sleep, to	<b>bi-mba</b>		#i-/a-sima (s ~ š)
speak 1	<b>ka-del-ma</b>		#kwa, talk/say (TKH 91) #kya, by speech (TKH 82)
speak 2	<b>del-ma</b>		Co. dala- ~ dele-, speak
specifier	<b>-baya</b>		Cochimi -bya ~ -pyag; Hervas Cochimi -kyeg
star	<b>amigi</b>		#(a)mu
stative	mo-		#ma
sun/day	ibo		#ipé, sun (TKH 106; N/S)
teeth	<b>fo-ka</b>		cf. #i-/a-θaw [a~ o], tooth (TKH 89: N/S); #θow > čow > so- > fo- + #qa, by biting (TKH 82; N)
third person	<b>o-</b>		#(h)U, yonder/third (TKH 72) = #(h) OR #(h)o
third person	<b>wi-</b>		Cochimi wi-, third person (ergative))
three	<b>ko-mbyo</b>		#Xo (TKH 84) = -xyo OR x.o
tomorrow	<b>wičo</b>		#ša, clear/star (TKH 105; N/S); [a ~ o; Shaul]
tongue	<b>a-bil-g</b>		#pely or #paly
two	<b>gowo</b>		#(q)-x.owa; Cochimi gowak ~ kowak, two
water	<b>kal</b>		#a:-xya
we	<b>ke-l-baya</b>	[1-pl.-Spec]	#KV, first person pl. (inclusive) (TKH 74; N/S); = #qV OR #kyV
wind	<b>xantu</b>		#pxu-, by blowing 9TKH 92; N/S); #pxuš, to blow 9TKH 82; N)
woman	<b>wi-sin</b>		Proto-Yuman *siñ'ak, woman
yellow	<b>yembi</b>	yellow	#ya, yellow (TKH 121; S)
you (sg.)	<b>mu(gu)</b>	thou	#mi OR #me

## Appendix I: Waikura Linguistic Data

Source material for Waikura is talked about in Chapter 7. In the texts, the following abbreviations are used: WP for "Waikura Pater Noster text" and WC or "Waikura Credo text."

### Lord's Prayer (Waikura)

(WP 1)

kepè-dáre	tekeraká	datambà	daï
kepè-d-are	tekeraká	d-atembà	day
1pl (Abs)-?-father	arched/bowed	Atr-earth	be (sg.)

'Our Father (who is) in Heaven.'

(WP 2)

eï-ri	akátuikè-pu-me	tschakárrake-pu-me	ti	tschie
ey-ri	akátuykè-pu-me	čakářake-pu-me	ti	če
2sg (Erg)-Opt	know-all-Fut	praise-all-Fut	person	and

'May all people know and praise you.'

(WP 3)

e-cùn	gracia-ri	atú-me	catè	tekereká	datembà	tschie
e-kùn	grasia-ri	atú-me	katè	tekereká	d-atembà	če
2sg (Abs)	grace-Opt	have-Fut	1pl (Erg)	arched/bowed	Atr-earth	and

'May we have your grace and heaven.'

(WP 4)

eï-ri	jebarraké-me	ti	pù	ja[t]úpe	datembà
ey-ri	yebařaké-me	ti p	pù	yatú-ped-atembà	
2sg (Erg)-Opt	obey-Fut	person	all	dem.-Prox	Atr-earth

'May all men obey you on this earth'

(WP 5)

páe	eï	jebarrakére	aëna	kéa.
páy	ey	yebařaké-re	ayna	kéa
just.as	2sg (Erg)	be.obeyed-Pres	above	be (pl.)

'just as you are obeyed above.'

(WP 6)

kepecùn	bue	kepe	kên	yatúpe	untâiri:
kepe-kùn	búy	kepe	kén	yatú-peuntáy-ri	
1pl (Ab)-Poss	food	1pl (Abs)	give	dem.Prox	dawn-completive

'May (you) give us our food this day.'

(WP 7)

cate	kuitscharrake	têi	tschie
kate	kwičarake	téy	če
1pl (Erg)	forgive	Imp	and

'and forgive us'

kepecùn	atacámara,
kepe-kùn	ataká-ma-ra
1pl (Abs)-Poss	be.good-pl.-not

'(that) we sin ['be bad', iv.];'

(WP 8)

pàe	kuitscharrakère	catè	tschie
pay	kwičarake-re	katè	če
just.as	forgive-Pres	1pl (Erg)	and

'and just as we forgive'

cávape	atukiàra	kepetuyakè:
kava-pe	atukyà-ra	kepe-tuyakè
dem.-Prox	good-not	1pl (Abs)-do

'(that) these do us bad.'

(WP 9)

catè	tikambà	têi	tschie
katè	tikambà	têi	če
1pl (Erg)	help	Imp	and

'and help us'

cuvumerà	catè	uë	atukiàra:
kuvu-me-ra	katè	we	atukyà-ra
wish-Fut-not	1pl (Erg)	something	do.good-not

'that we will not wish to do something bad;'

(WP 10)  
kepe kakunjà pe atacára tschie.  
kepe- kakuñà pe ataká-ra če  
1pl (Abs)- protect from be.good-not and  
'and protect us from evil.'

### **Credo (Waikura)**

(WC 1)  
irimánjure pè Tíare<sup>28</sup> ureti pu puduén  
irimáñu-re pè tí-are ureti pu pedwé  
believe-Pres Prep 3 (Abs)-father make all capable  
'(I) believe in the [lit. his] Father, (who is ) capable of making everything.'

(WC 2)  
taupe me buara ureti-rikiri tekereká + datemba atembà tschie  
taw-pe me wa-rà uretí-rikiri tere-ká + d-atemala atembà če  
3 (Erg)-Prox from something-not mak-Perf arched-Stat + Atr-earth earth and  
'He made from nothing Heaven and (the) earth.'

(WC 3)  
irimánjure tschie  
irimáñu-re če  
believe-Pres and  
'and (I) believe

pe Jesu Christo tischánu<sup>29</sup> íbe te tiáre  
pe Yesu Kisto ti-čanu íbe te ti-áre  
Prep J.C. 3sg (Abs)-son alone of 3sg (Abs)-father  
'Jesus Christ is the only sne of His Father.'

(WC 4)  
éte punjépepe Espiritu Santo  
éte puñére pe E.S.  
man become Prep E.S.  
'who became human by the Holy Spirit'

pedára tschie me santa Maria virgen  
pedá-rače me santa Malya virxen  
be.born-suf. and from S.M.V.  
'and was born of the Virgin Mary.'

(WC 5)  
irimánjure tschie  
irimáñu-re če  
believe-Pres and  
'and (I) believe'

tâuvépepe Jesu Christo híbitschrikíri (WC 6) tenembeú apánne  
tâw-vére-pe Yesu Kisto 'íbiče-rikíri t-enembé-w apán:e  
3sg (Erg)-same-Prox J.C. make.suffer-Perf 3sg (Abs)-pain great  
'He was made to suffer His great pain''

íebitschéne témme pe judea Pontio Pilato  
yebičéne tém:e pe Yudea Pontyo Pilato  
command while/as Prep Judea P.P.  
'while Pontius Pilate commanded in Judea.'

(WC 7)  
kutikürreriki tína cruz  
ku-tikuře-rikiri tí-na [kus]  
3pl (Erg)-stretch.out-Perf on cross  
'They stretched Him out on a cross;'

pibikíri  
pibi-kíri  
die-Perf  
'He died'

kejenjútarikiri tschie  
k-eyeñúta-rikiri če  
3pl (Erg)-bury-Perf and  
'and they buried Him.'

<sup>28</sup>There is some evidence that /ti-/ may be used as an indefinite, hence 'people's father'; see the glossary, below.

<sup>29</sup>The first /ti-/ marks Jesus as subject; the second marks Jesus as possessor.

(WC 8)

kerischéü	atembà	búnju
keričé-w	atembà	búñu
descent-suf.	earth	below

'He went below the earth.'

me	akunju untáiri	tipe	tschtschu	tipè-rikíri
me	akuñu untáyri	ti-pè	čeču	ti-pè-rikíri
in	three day	3sg (Abs)-be.alive	[again]	3sg (Abs)-alive-Perf

in three days He was alive, He lived again.'

(WC 9)

tschukíti	tekereká	datembà	(WC 10)	penekà	tchjie
ču-kíti	tekere-ká	d-atembà		pene-kà	če
ascend-Perf	arched-Stat	Atr-earth		sit-Stat	and

'(He) went up to Heaven and sits

me	tischuketà	te	Dios	tiáre
me	ti-čuketà	te	Dyos	ti-áre
at	3sg (Abs)-right	of	G.	3sg (Abs)-father

'at the right of God His Father'

ureti	pu	puđúene.
ureti	pu	puđwéne
create	all	capable

'(who) is able to make all (things).'

(WC 11)

aipúreve	tenkíe	uteüri	kuméje	atacámma	atacammar	ti	tschie
aypúreve	tenkyé	utewri	ku-méye	ataká-m:a	ataka-m:a-ra	ti	če
from.there	payment	hand.out	come-Fut	good-pl.	good-pl.-not	people	and

'(He) will come from there to hand out payment to the good people and the bad people.'

(WC 12)

irimánjure	pe	Espiritu Santo
irimáñu-re	pe	E. S.
believe-Pres	Prep	E. S.

'(I) believe in the Holy Ghost.'

(WC 13)

irimánjure	epi <sup>30</sup>	santa Iglesia catholica communion	te	kunjukaráü	ti	tschie
irimáñu-re	epi	[etc.]	te	ku-ñukará-w <sup>31</sup>	ti	če
believe-Pres	there.is	[etc.]	of	3pl (Erg)-wash-also	people	and

'(I) believe in the Holy Catholic Church, and the communion of the men who were washed.'

(WC 14)

irimánjure	kuitscharakè-me	Dios	kumbátedidire	kutévedidire
irimáñu-re	kwičarakè-me	Dyos	ku-mbáte-didi-re <sup>32</sup>	ku-téve-didi-re
believe-Pres	forgive-Fut	G.	3pl (Erg)-hate-coll.-Ger	3pl (Erg)-confess-coll.-Ger

'(I) believe God will forgive those who hate and completely state

(WC 15)

kicùn	atacámmara	pánne	pù
ki-kùn	ataká-m:a-ra	[a]pán:e	pù
3pl (Abs)-Poss	good-pl.-not	great	all

'(who) completely hate (and) completely confess all their great sins.'

(MC 16)

irimánjure	tschie
irimáñu-re	če
believe-Pres	and

'and (I) believe'

tipè	tschetschu	tipeme	tibikíu	ti	pù
ti-pè	čeču	ti-pé-me	[k]i-bikí-w	ti	pù
3sg (Abs)-be.alive	[again]	3sg (Abs)-alive-Fut	3pl (Abs)-die (pl.)-also	men	all

'all of the dead people will become alive again,'

(WC 17)

enjéme	típedeyméje	tucáva	tchie.
eñéme	tí-pe-dey-méye	tu-káva	če
then	3pl (Abs)-live-Dur-Fut	Distr-dem. (pl.)	and

'then they will live without end.'

<sup>30</sup>Is this actually a form of /pe/, the multivalent preposition?

<sup>31</sup>Baegert's glossing suggests that /-w/ means 'also'.

<sup>32</sup>In this word and the next word, /-re/, 'present' is used as a nominalizer.

## Waikura Glossary

<b>-če</b> <b>-ču ~ -tu</b>	causative [one that]  če-ču, again; Zamponi: iterative [and-one.that]  čipa-ke, to beat (tv.) čipi-ču-ře, one who has been beaten <ts[c]hipits[c]shuree> [beat-one.who-Perf]
<b>-da</b>	ti-á-pa-tu, north house one (missionary) [indef.-house-north-one] causative suffix  pe-da-ra, be born [alive-caus.-completive]
<b>-dey</b> <b>-didi-</b> <b>-ka</b>	continually, without ceasing completely, totally (verb suffix) stative verb marker; cf. -kya, adjective
<b>-ke</b>	ata-ka, be good (iv.) atu-kya, good (adj.) tekere-ka, be bowed or arched transitive verb marker; cf. řake
<b>-kun</b>	tuya-ke, to do čipa-ke, to beat possessor marker (added to absolutive case form); forms possessive pronouns with or without the attributive /ti/ ~ /d-/  be-kun, mine [1sg-Poss] be-ti-kun, mine [1sg-Atr-Poss] e-kun, thine [2sg-Poss] ey-ti-kun, thine [2sg-atr-Poss]
<b>-ma</b>	plural marker
<b>-me ~ -meye</b> <b>-na</b>	entuditú, bad/ugly > entudit-ám:a, pl. atáka-ma-ra, not good [good-pl.-not] future/[irrealis] marker on (adessive)
<b>-pe</b> <b>-ra</b> <b>-ra ~ -re ~ -ri</b>	ti-na, on [indefinite.object-on] proximal (with demonstratives) not (negative marker) perfective marker, completive marker; the perfective marker has several allomorphs ("Word Structure," Chapter 7)
<b>-řa-ke</b>	čipa-ke, to beat (tv.) čipi-ču-ře, one who has been beaten <ts[c]hipits[c]shuree> [beat-one.who-Perf]  untáy-ri, day [dawn-Perf/completive] utew-ri, to hand out, remit, be doled out [(verb)-completive]  pe-dá-ra, be born [alive-caus.-completive] ku-ñuka-rá-w, the washed/baptized [3pl (Erg)-wash-one.who] transitive verb marker; cf. -ke
<b>-re</b> <b>-ri</b> <b>-rikiri</b> <b>-vere</b> <b>-w</b>	čaka-řake, to praise kwiča-řake, to forgive yeba-řake, be obeyed (object in ergative case) 1. present tense 2. nominalizer (gerund) optative marker (requires ergative case, like imperative; follows first constituent in clause) perfective marker same agentive, one who/that
<b>-ya</b>	ti-píče-w, on account of (postp.) [indef.-to.credit.of-agentive]  enebe-w, pain (n.) [hurt-one.that] ti-bikí-w, the dead [3sg (Abs)-die (pl.)-one.who] ku-ñuka-rá-w, the washed/baptized [3pl (Erg)-wash-one.who] [attributive]  a-mbú-ya, 1. house, church ("where one lives") 2. week (referring to the required week's mission residency per month)

<b>a</b>	[live-loc.-Atr] [house ?, dwell/live ?]
	a-mbu-ya 1. house/church ("where one lives") 2. week (required week of mission residency per month) [live-loc.-Atr]
<b>agênari</b> <b>aka-tuyke</b> <b>akuñu</b> <b>amayka</b> <b>ambëra-didi-</b>	ti-á-pa-tu, north house one (missionary) [indef.-house-north-one] name of a dance; <g> may be [g] or unaspirated [k] know (tv.) [aka, knowledge + tuy[a]ke, do] three dance floor; <amaëka> (Letter 3) song; [more likely 'to sing' since /-didi-/, 'completely' follow and this is a verb suffix]; <ambëra didi>, <ambëera didi> (Letter 3)
<b>ambía</b>	1. pitahaya [cactus and fruit] 2. year [the staple crop in midsummer marked the new year]
<b>amukiri</b> <b>anay</b> <b>ania</b>	to play (tv.) woman; <ánai> word, speech
	be-t-anía, my word [1sg-Atr-word] e-t-anía, thy word [2sg-Atr-word] ti-č-anía, his word; <titschania>
<b>apane</b> <b>are</b>	great, big father (man speaking); cf. /kwe/, father (woman speaking)
	be-d-áre, my father [1sg-Atr-father] e-d-áre, they father [2sg-Atr-father] ti-áre, her/his father [3sg-father] kepe-d-áre, our father [1pl-Atr-father]
<b>ataka</b>	be good (iv.)
<b>atemba</b>	ataká-ma-ra, not good [good-pl.-not] earth
<b>atu</b> <b>atukya</b> <b>ayna</b>	<Atembavachi>, a place name (Massey 1949:287) [earth-?] to have (tv.) good <sup>33</sup> above, Heaven <aëna>; cf. /-na/, on
<b>aype</b>	<Aenata>, a place name (Massey 1949:285) who; <aipe>
<b>biki</b> <b>buñu</b>	aype këriri? who knows? to die (pl.); yibi (sg.) below (postp.)
<b>buy</b> <b>ča</b>	atemba buñu, below (the earth) food [mother]
<b>čaka-řake</b> <b>čanu ~ čenu</b>	ti-čenu-ča, mule ("son of a wise mother") [indef./3-son-mother] to praise (tv.) son
<b>če</b>	ti-čenu-ča, mule ("son of a wise mother") [indef./3-son-mother] and (joins noun phrases or verb phrases; may join clauses following the first clause)
<b>čipa- ~ čipi- ~ tipa-</b>	čeču, again (Zamponi: iterative) [and-?] [hit]  čipa-ke, to beat (tv.) čipi-ču-ře, one who has been beaten; <ts[c]ipits[c]hüre>
<b>ču</b> <b>čuketa</b> <b>čumige</b> <b>d- ~ de-</b>	ku-tipa-w, they beat; <kutipaû> [?-hit- to ascend right (not left) to kiss; <tschumige> (<ga> may be [g] or unaspirated [k]) attributive
	d-are, father <sup>34</sup> d-atemba, earth
	de-kwinočom, shaman (Clavijeo) [Atr-X]
	be-kún, mine [1sg-Poss]

<sup>33</sup>Surely, the second vowel of 'good' and 'be good' are the same; there must be a mistake in transcription.

<sup>34</sup>Compare /kepe-d-are/, 'our father (man speaking)' with /kepe-kwe/, 'our father (woman speaking)' (Raoul Zamponi, p.c.).

	be-ti-kún, mine [1sg-Atr-Poss] é-kun, thine [2sg-Poss] ey-ti-kún, thine [2sg-atr-Poss] be (sg.); kea (pl.) on account of bad, ugly
<b>day</b> <b>déve</b> <b>enbtuditú</b>	
<b>enembe-w</b>	entudit-ám:a, pl. pain (n.)
<b>eñeme</b> <b>ete</b> <b>eyeñuta</b> <b>ibe</b> <b>ibi-</b>	m-enembew, my pain e-nembew, thy pain t-enembew, her/his pain then man to bury (tv.) alone, only [suffer]; cf. pibi, to die (sg.)
<b>inamu</b>	ibi-če, be made to suffer [suffer-caus.] nose
<b>irimañu</b> <b>kakamba</b>	m-inamú, my nose e-inamú, thy nose t-inamú, her/his nose to believe [help, aid]
<b>kakuña</b> <b>kava-</b> <b>kea</b> <b>ken</b> <b>keñe ~ keney</b> <b>ker ~ kerí</b>	ti-kakamba, to help [indefinite.object-help] ti-na, on [indefinite.object-on] to protect (tv.) demonstrative stem (pl.); yatu- (sg.) be (pl.); day (sg.) to give (dv.) mescal; <kenjei>, <kennei> arm/hand
<b>keričew</b> <b>kériri</b>	[taw] ti-kére undiri, s/he touched her/his hand/arm > married her/him descend to know
<b>ku</b> <b>kunkari</b> <b>kutikuře</b> <b>kuvu</b> <b>kwe</b>	aype kéri? who knows? to come many; <cuncari> (Letter 1) stretch out (tv.) to want, desire mother (woman speaking) <cue>; cf. are, father (man speaking)
<b>kwiča-řake</b> <b>kwinočom, de-</b> <b>matanamu</b> <b>mbate</b> <b>mbu</b>	bé-kwe, my father é-kwe, thy father té-kwe, her/his father kepé-kwe, our father to forgive (dv.) shaman (Clavijero), <decuinocho>; [Atr-X] kind of red snake with black spots (Letter 2) to hate (tv.) [locative]
<b>me</b>	a-mbú-ya, 1. house, church ("where one lives") 2. week (referring to the required week's mission residency per month) [live-loc.-Atr]
<b>me</b>	1. from (ablative, partitive) 2. in (duration of time) 3. at (locative)
<b>ñuka</b>	to wash (tv.)
<b>pa</b>	ku-nuka-rá-w, the washed/baptized [3pl (Erg)-wash-one.who] forehead
<b>pa</b>	m-apá, my forehead e-t-apá, thy forehead t-apá, her/his forehead [north]
<b>pari</b> <b>pay</b> <b>pe</b>	ti-á-pa-tu, north house one (missionary) [indef.-house-north-one] many; <pari> (Letter 1) just as be alive (iv.)

<b>pe</b>	pe-da-ra, be born [alive-caus.-completive] 1. from 2. in (as 'believe in') 3. by (agentive) 4. in (locative) 5. at (beside)
<b>pene-ka piabake</b>	to sit [X-Stat] to fight (tv.)
<b>pibi</b>	ku-piábake, they fight to die (sg.); biki, (pl.); cf. ibi, to suffer
<b>pice-w</b>	[to the credit/fault of]
<b>pu pudwene puñure puy taniti</b>	ti-píče-w, on account of (postp.) [indef.-to.credit.of-suf.] all (may be suffixed to a verb) capable to become mescal <pui> shaman <taniti> (Letter 3); var. tanti-para, <tantipara> (Letter 2)
<b>te tekere-ka teme tenkye teve tey ti ti-</b>	of (possessive) arched, bowed [X-stative] while, as payment to confess, state imperative marker (sg.; requires object in ergative case); tu, pl. person, people 1. third person singular (absolute case) 2. attributive prefix 2. indefinite object or subject 3. possessive] (with possessor markers)
	ti-na, on [3-postp.] ti-píče-w, on account of (postp.) [3-postp.]
	ti-bikí-w, the dead [Atr-die (pl.)-one.who] ti-čénu-ča, mule, "son of a wise mother" [Atr-son-mother] ti-yeyča, ceremonial wand ("he can talk") (Hostell) <tiyeicha>
	ti-á-pa-tu, north house one (missionary) [indef.-live-north-one] ti-kakamba, to help [indef.-help]
<b>tu tu- tuya-ke umutu</b>	be-kún, mine [1sg-Poss] be-ti-kún, mine [1sg-Atr-Poss] é-kun, thine [2sg-Poss] ey-ti-kún, thine [2sg-atr-Poss] imperative marker (pl.); tey, (sg.) distal marker (with demonstratives) to do (tv.) [be.done, be.a.certain.way, etc.-transitive] to remember (tv.)
<b>undiri</b>	k-umutú, they remember to touch; to marry
<b>untay</b>	[taw] ti-kére undiri, s/he touched her/his hand/arm > married her/him [to dawn]
<b>ureta ~ ureti utew-ri wa-ra we wiči</b>	untay-ri, day [dawn-completive] to make, create to hand out, remit, be doled out [(verb)-completive] nothing <vara>, <buara> [something-not] something [perhaps: adjective/stative or locative]
<b>yake</b>	<Atembavichi>, a place name (Massey 1949:287) [earth-?] to chat (tv.)
<b>yata-k-ri-e yatu- yé yeba-řake yebi-čene yeyca</b>	ku-áke, they chat eagle ("deer catcher"); <jatacrie> (Letter 3) demonstrative stem (sg.); kava- (pl.) be ashamed; <ié> be obeyed (object in ergative case) [be.obedient-transitive] to command (tv.) to speak
	ti-yeyča, ceremonial wand ("he can talk") (Hostell) <tiyeicha>

<b>above</b>	ayna
<b>account of, on</b>	déve
<b>agentive</b>	-w
<b>alive, be</b>	pe
<b>all</b>	pu
<b>alone/only</b>	ibe
<b>and</b>	če
<b>arched</b>	tekere-ka
<b>arm/hand</b>	ker ~ keri
<b>ascend</b>	ču
<b>ashamed</b>	yé
<b>at</b>	me
<b>at (beside)</b>	pe
<b>attributive</b>	d- ~ de-l ti-; -ya
<b>bad/ugly</b>	enbtuditú
<b>be (pl.)</b>	kea
<b>be (sg.)</b>	day
<b>become</b>	puñure
<b>believe</b>	irimañu
<b>below</b>	buñu
<b>big</b>	apane
<b>bury (tv.)</b>	eyeñuta
<b>by (agentive)</b>	pe
<b>capable</b>	pudwene
<b>causative</b>	-če, -da
<b>chat (v.)</b>	yake
<b>come</b>	ku
<b>command (v.)</b>	yebi-čene
<b>completely</b>	-didi-
<b>continually</b>	-dey
<b>dance floor</b>	amayka
<b>dance, name of a</b>	agênari
<b>dawn (iv.)</b>	untay
<b>demonstrative</b>	kava-, yatu-
<b>descend</b>	keričew
<b>die (pl.)</b>	biki
<b>die (sg.)</b>	pibi
<b>distal</b>	tu-
<b>do</b>	piče-
<b>do (tv.)</b>	tuya-ke
<b>eagle</b>	yata-k-ri-e
<b>earth</b>	atempa
<b>father (man speaking)</b>	are
<b>fight (v.)</b>	piabake
<b>food</b>	buy
<b>forehead</b>	pa
<b>forgive (v.)</b>	kwiča-řake
<b>from</b>	me, pe
<b>future marker</b>	-me ~ -meye
<b>give</b>	ken
<b>good</b>	atukya
<b>good, be</b>	ataka
<b>hand out? remit</b>	utew-ri
<b>hate (tv.)</b>	mbate
<b>have</b>	atu
<b>help (v.)</b>	kakamba
<b>hit</b>	čipa- ~ čipi- ~ tipa-
<b>house/live</b>	a
<b>imperative marker (sg.)</b>	tey
<b>imperative marker (pl.)</b>	tu
<b>in</b>	pe
<b>in (believe in)</b>	pe
<b>in (time duration)</b>	me
<b>just as</b>	pay
<b>kiss (tv.)</b>	čumige
<b>know</b>	aka-tuyke, kériri
<b>locative</b>	mbu
<b>make/create</b>	ureta ~ ureti
<b>man</b>	ete
<b>many</b>	kunkari, pari
<b>mescal</b>	keñe ~ keney; puy
<b>mother</b>	ča
<b>mother (woman speaking)</b>	kwe
<b>nominalizer</b>	-ne
<b>north</b>	pa
<b>nose</b>	inamu
<b>not</b>	-ra

<b>nothing</b>	wa-ra
<b>obeyed, be</b>	yeba-řake
<b>of</b>	te
<b>on</b>	-na
<b>one that</b>	-ču ~ -tu
<b>optative</b>	-ri
<b>pain</b>	enembe-w
<b>payment</b>	tenkye
<b>perfective</b>	-ra ~ -re ~ -ri; -rikiri
<b>person</b>	ti
<b>pitahaya</b>	ambía
<b>play (tv.)</b>	amukiri
<b>plural</b>	-ma
<b>possessor marker</b>	-kun
<b>praise (tv.)</b>	čaka-řake
<b>present tense</b>	-re
<b>protect</b>	kakuña
<b>proximal</b>	-pe
<b>remember</b>	umutu
<b>right (not left)</b>	čuketa
<b>same</b>	-vere
<b>shaman</b>	kwinočom, de-; taniti
<b>sit</b>	pene-ka
<b>snake sp., red</b>	matanamu
<b>something</b>	we
<b>son</b>	čanu ~ čenu
<b>song</b>	ambera-didi-
<b>speak</b>	yeyča
<b>state (tv.)</b>	teve
<b>stative</b>	-ka
<b>stretch out</b>	kutikuře
<b>suffer</b>	ibi-
<b>then</b>	eñeme
<b>third person (sg.)</b>	ti-
<b>three</b>	akuñu
<b>touch/marry</b>	undiri
<b>transitive marker</b>	-ke, -řa-ke
<b>want (tv.)</b>	kuvu
<b>wash (tv.)</b>	ñuka
<b>while/as</b>	teme
<b>who</b>	aype
<b>woman</b>	anay
<b>word</b>	ania
<b>year</b>	ambía

**Appendix J:  
Hokan Affinity of Baja Languages**

Because of the lack of Proto-Yuman reconstructions available, this sampling of the Hokan Common Core (HCC) is limited. Originally outlined for Salinan and Esselen (Shaul 2019, 2020), HCC in this book is shortened in length. The Proto-Yuman linguistic artifacts are from Mixco (1978) and Langdon (1979). The Salinan data is from Shaul (2020). The Cochimí and Robinia linguistic artifacts are from this volume.

I have separated the grammatical artifacts from the content lexical artifacts. Data that compares to Proto-Hokan is in bold face.

Gloss	Proto-Hokan	Salinan	Proto-Yuman	Cochimí	Robinia
abs. (nouns)	#a-	<b>a-</b>	*'-	'-	<b>a-</b>
causative	#ta	- <b>ta</b> , passive; - <b>te</b> , causative	*x-	-xi	-da
demonstrative	#-ly	pe; na	*-ly		
demonstrative	#ha		*ya (?)		
dem. (yonder)	#hu; #(h)u/ #(h)o	<b>hu</b>			
diminutive	#ci				
first person	#lye	<b>lek ~ lak</b>	*'-	'-	ke-,
first person pl.	#nya ~ #nyi	<b>nek ~ nak</b>	*ñ(a)-	<b>n-</b>	'a-,
imp. > future	#-la	- <b>la</b>	*k-	k-	
inherent	#i-	<b>e-</b>	*i-	<b>i-</b>	<b>i-</b>
instrumental	#pa-	- <b>pa</b> , resultative			
interrogative	#kya ~ #kyi	o-		wan	
negative	#ma:	ko; kara; xomo	* <b>(m)a</b>	-ñi	-ñi
negative > bad	#mal, #maly				
plural	#-q OR #-ky			-iñ	
second person	#mi OR #me	mo	* <b>m-</b>	<b>m-</b>	<b>mu-</b>
specifier	#nya	na, demonstrative	* <b>ña-</b>	<b>n-</b> , 'classifier'	
stative	#-qV	k-; -wk		- <b>ku ~ -k</b>	
stative/adj.	#ma			<b>ma-</b>	<b>mo-</b>
subordinator	#nyi-	an	* <b>n-</b>		
this 1	#mi, #me	mi	*p-u		yamu
this 2	#wa ~ #wi	we ~ wi			
vocative	# <sup>0</sup> a				
with (instrumental, comitative)	#(i)ma	-mak, habitual	*- <b>ma</b>		

Here is a list of the content artifacts. Material compared with Proto-Hokan is in bold face.

Gloss	Proto-Hokan	Salinan	Proto-Yuman	Cochimí	Robinia
arise, to	#tam	<b>an ~ am-p</b>		wadag	wiligi
beads	#men(y)	xenis; papeye			
belly/stomach	#wily	kan		pah; maka	
bird	#č'iy	a-čax-	*č-sa	ix	
blood/red	#i-xwa(ʔ)	<b>a-kata</b>	*'- <b>xwat</b>	<b>wat</b>	i-nea; mo-kaw
boil, to	#pul	<b>opotot</b>			
bone	#i-(H)-θa	<b>a-xak</b>	* <b>ak</b>	<b>ak</b>	a-česo
burn, to	#ma	tu		<b>ma'ah-</b> , fire	
come, to	#iyú:	xwen; nay		egeg	kawaka
cry/weep/shout	#mi	xay	* <b>mi</b>	(a) <b>wi</b>	
dance, to	#ima	ata ~ aka	* <b>ma</b>	<b>ma</b>	doyndo
dig/hoe/plant, to	#pu OR #p'u	-tu- <b>p-k</b> , dig			

do/make	#hay (a ~ o)	ay-, do/caus.	*wi	pil; učoŋ	
drink, to	#i- ~ a-si	eše ~ iši	*(č)-si	l-si	isi
drink/sip	#lyu				
earth	#a-H-ma(t)	čxo; lak'; kw'el	*'-mat	'mat	a-kug
eat, to	#ama	l-am	*ma	ta-ma, food	waba
father	#ay (i ~ a)	ko	*n-'ay (w.sp.)	'ay	ka-lě-mbag, our father
fire	#a	ʔ-a'aw	*'-aw	usi	usi
fox/dog/wildcat	#qhuw/na	s-to', fox; xoč, dog; s-nam, wildcat	*(č)-xat		masá
go, to	#iya	iya:		egeg; iteg	
go/walk	#(i)ni	sene			
good	#yisi; #yasi (i ~ a)	ma'at; saš; ts'ip		am ~ amb; ta-xi-p	ami
grandfather	#i- ~ a-pa/fa	axalaw (and others)		matapxi	
grass	#xyaCa	k'aʔ		xiñak; mañak	i-nwa
hand/arm	#i- ~ a-taly	man; mawi; men	*i-□□□□	uyi	gan:á
happy	#xali OR #xyali	ts'enu; yowe			
hawk	#sikwily OR #sakwily	čik (and others)			
heart	#maš (a ~ o)	awa; exiway	*yay ~ *way	pun	pu'u
hole	#(i)-mu (u ~ o)	ʔe-lek			
house/dwell	#i- ~ a-wa	ʔ-am	*'-wa	'wa	s-ká
intestines/feces	#a-pxat	pxaʔ	*pxa		
kill/hunt, to	#i- ~ a-ma	k-ame-ʔe, hunt			
man/male	#tama	tama	*ma:y	tama	
mountain/above	#(h)awa	kiw; poy		xkay	a-bá <sup>35</sup>
nails/claws	#i- ~ a-(u)laxw (a ~ o)	s-alax, pin/nail; sile, nail/claw		ka	
near	#k'a	s-k'am			kanindi
one 1	#pey	tol		čakwi; te:gyi	
one 2	#si OR se				
person	#i- ~ a-pxa	ʔowaʔ	*i:-pa(y)	maxa	demonsu
rat	#máqily	makil			
sharp	θowp	k-le'tay			
shining/clear > white	#ma-sa	maša-la, ignite; maša-la-k, morning star		tipxe	kalá
sister	#i- ~ a-čik	pe; esxa		ača, sibling	ban
skin/bark	#a-H-waly	a-wul, bark		yami	oxol, bark
sleep 1	#i- ~ a-simá (s ~ š)	kaw	*□-ma	wi-ma	ki-mba
sleep 2	#po' OR #fo'				
small/baby	#qu	s-komo		wan; axta	wen
star	#(a-)mu	tsuwan; čuw		amikwuhi (?)	amigi
stone/rock	#a-xya'	š-xá	*'-wi(:)y	kon	kas
tail > arrow	#i-H-pwa	toyen, arrow			
take/get	#(h)u, #(h)o	na ~ ne <sup>36</sup>		xu, to come	
tongue	#pely OR #paly	pal	*i:-n-pal	ma-bel	a-bil-g
two	#(q)-x.owa	kakšo	*x-wak	gowak ~ kowak	gowo
want, to	#q'un(y) OR #ky'un(y)	alox		daba; u	
water	#a:-xyá'	k-sá; ča < t-sa	*'-xa(')	kaxal	kal
woman/female	#ta	si ~ tse	*ku ~ *ki; *siñ'ak	wa'ki	wisin
wood/tree	#i-'iy	a-k'ata	*'-í:	waxe	

<sup>35</sup>Proto-Hokan #w may alternate with #m; in Baja languages (including Baja Hokan languages), /m/ often varies with /b/ or appears as [mb].

<sup>36</sup>This lexical artifact also occurs in Uto-Aztecan.

**Appendix K**  
**Fragments of the Monqui Language**

The Jesuit Salvatierra composed a grammar of Monqui during the first Jesuit attempts to infiltrate Baja California (1683-1686) from San Bruno (Piccolo 1962). The Jesuit Compart composed a catechism in Nebe, which Massey (1949:290) identifies as Cochimí. Eusebio Kino identified the Nebe language as that of the Didius to the immediate north of Monqui and as the language of the Noys to the immediate west of Monqui and the Guimes to the southwest (Massey 1949:288). On the evidence of one name, this Nebe language was not the same as Monqui (Massey 1949:289). Neither Salvatierra's document or Compart's survives.

Venegas (1944) reported that the Didius were linguistically affiliated with the Monquis. del Barco, writing in 1784, noted he had never heard the term "Monqui" used during his time in Baja California (Massey 1949:189). If the eight Monqui rancherías together numbered only 400 people, it is not surprising that they had shifted to Spanish a century after contact. All of this shows the doubt that may arise from not having any actual language data.

Piccolo, writing in 1702, noted that the Jesuits knew of two languages in the vicinity of Loreto/Concho: Monqui and Laymon [Cochimí] (1972:51), with Monqui being local in Loreto/Concho. Ducrue (1765) noted that of the Loreto vicinity

los moradores parecian ser nacion distinta de las otras de las California por su mucha variacion en la idioma. El tereno tocante a esta nacion era corto y rodeado menos el lado del mar de la nacion Laimona o Cochimí (1765:68v).

the inhabitants [of the Loreto area] appear to be a nation distinct from the others of California because of the great difference in their language. The territory of this nation is short and surrounded except for the side bordering the sea by the Laymona or Cochimí.

This statement from an early witness fluent in Monqui is the reason that linguistic/ethnic maps of Baja have identified a narrow strip of land around Loreto as Monqui territory.

There are a handful of words -- and one single sentence -- in Piccolo's report of 1702 which Mixco (1978) did not use in his synthesis of the Cochimí language. These might then represent a scant sample of the actual Monqui language. These include the following datums, including deciphered partials from the sentence.

-ma	-ma	verb suffix
-ni	-ni	not
-t	-t	perfective marker
endetku	endetcu	boys
etuda	etuda	Sp. <i>bledo</i> = amaranth (1972:174)
ibo	ibo	sun
kamama:wa	camamaahua	cardon cactus (1972:175)
ko-	co-	verb auxiliary
makaba	macaba	a tree with an edible bean [mesquite?] (1972:175)
medese	medese	mescal (1972:175)
nam:a	Namma	father (1972:172)
taxa-ma	taxama	throw
wala	huala	demonstrative (?)
yexwi	yejui	cloud (1972:189)

Here is the single sentence provided by Piccolo.

Taxama	conit	mulas	huala	endetcu. (1972:173)
{ taxama, tasama }	ko-ni-t	mulas	wala	endetku
throw	?-not (?) -Perf (?)	mules	dem. (?)	boys

Los muchachos no havian tirado las mulas = 'the mules have not thrown the boys'

We can decode this message from the past by first observing that the subject of the statement, 'the mules', is in the center of the clause. This suggests that Monqui had VSO (verb-subject-object) as the basic word order. This would identify /endetku/ as 'boy's and the first two words as a verb phrase. /wala/ is perhaps an demonstrative, but it could go with either 'mules' or 'boys'; 'mules' is more likely from a typological perspective.

Looking at the verb phrase, we can identify the completive partial of the message as /-ta/, on the basis of the pan-Baja perfective marker /ta/. /-ni/ can be identified as 'not' on th basis of a morpheme of the same shape and meaning in Robinia and Cochimí. The partials are both shorter than the first word of the clause, and in VSO languages, verb modifiers typically follow the verb.

The following phonetic consonant array emerges from this data.

	t		k
b	d		
m	n	ñ	
		(š)	(x)
w	y		

Stress appears on the last syllable of the head word of a phrase, and the segment (consonant or vowel) which is to the left of stress lengthens. There is a five-vowel syste [i e u o a]. Syllable shapes include CV and CVC.

We may also compare the Monqui data with comparable Cochimí and Robinia data.

Monqui	Gloss	Cochimí	Robinia
-ma	verb suffix	-ma	-ma
-ni	not	-ni ~ -ni	-ni
-t	perfective	-ta ~ -te	-ta
endetku	boys	<b>wan-ču</b>	<b>wen-doy</b>
etudá	amanrath	tedá	
ibo	day	ibo ~ ibuḡ	ibó
makabá	mesquite (?)	watá	
medese	mescal	kene ~ keñey	
nam:á	father	ak, ay, da, wa	kalembág
wala	demonstrative (?)	wa ~ va	

As may be seen, the Monqui data is mostly distinct from Cochimí and Robinia. Because of the grammatical artifacts given at the beginning of the table, Monqui language could be related to Cochimí and Robinia (and therefore Hoka), and part of the ancient Hoka spread into Baja California. However, the negative marker and perfective marker could be diffusion from Cochimian varieties, the lexical distinctiveness would support this latter view. Monqui groups with Waikura in terms of word order (VSO) and not with Yuman and Cochimí (SOV). The phonetic array shows that Monqui fits into the phonological area that covers the entire of Baja.

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